

Crypto-Asset Pricing Models and Their Efficiency-Dependent Trading Strategies

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Abstract

Based on decentralization risk and the CAPM formulation, we introduce asset pricing models for crypto-tokens. The decentralization risk premium is the difference in returns between a crypto-token asset and the USD currency index. The risk-adjusted real-return equilibrium relationship leads to a market index that combines a decentralized index of cryptocurrencies and the USD fiat currency index. Therefore, the model captures a full spectrum of currencies and their fundamentals. For daily- and weekly-sampled data, they are mean-reverting. Together with its disequilibrium counterpart, which includes liquidity and credit risks, we show weekly market efficiency but daily and monthly inefficiency. Based on the in-sample and out-of-the-sample information, volume-weighted outperforms the value-weighted portfolio model. Hence, user acceptability affects crypto-valuation. Through the information, we determine the optimal trading strategies for different sampling intervals. Their estimated returns are substantially higher than those of equity.

Keywords: Decentralization Risk, User Acceptability, Liquidity and Credit Risks, Equilibrium and Disequilibrium Crypto-token Asset Pricing Models, Mean Reversion, Time-Dependent Market Efficiency, Crypto-Trading Strategies

JEL Classification: E4, G11, G12, G15, G17

1. Introduction

Due to the spectacular growth of cryptocurrency, there is widespread concern about its economic and technical fundamentals and value. A crypto-token derives its value from its functions as a currency, security, and utility asset (Giudici, Milne, and Vinogradove (2020)). For crypto-tokens to qualify as a medium of exchange and store of value, convertibility into fiat money and goods and services (Biais, Bisiere, Bouvard, and Casamatta (2018)) and investor expectations are essential. Bolt and Oordt (2020) adds the future consumer adoption and merchant acceptance. In Cong, Li, and Wang (2021), user adoption determines cryptocurrency valuation. Using ten baseline cryptocurrencies and weekly returns generated from daily data, Bhambhwani, Delikouras, and Korniotis (2021) demonstrate that Bitcoin, computing power, and network size are significant. In terms of the unique characteristics of cryptocurrencies, Sockin and Xiong (2020) suggest the trustless nature of the decentralized network, and Pagnotta and Buraschi (2018) the blockchain trustworthiness. Hayes (2017) prices them by the cost of electricity consumption (Cong, He, and Li (2021)) due to crypto-mining.

Liu and Tsyvinski (2018) find a lack of relationship between cryptocurrency and other financial assets. Despite the regulatory oversight, illicit use through its anonymity, and growth of cyber criminality, it can be a credible investment asset class (Corbet, Lucey, Urquhart, and Yarovaya (2019)) for asset diversification and market efficiency. Aslan and Sensoy (2020) discover a U-shaped market efficiency pattern upon intraday sampling frequencies on the cryptocurrency data. In Tran and Leirvik (2020), based on daily data, efficiency improves through time. It was inefficient before 2017, more efficient in the subsequent period 2017-2019. On the modeling by applying the Fama and French (1993, 2012) asset pricing models, Liu, Tsyvinski, and Wu (2019) use weekly excess cryptocurrency market return, size, and momentum.

Shen, Urquhart, and Wang (2020) use weekly market, size, and reversal. In Haryanto, Subroto, and Ulpah (2019), market behavior changes according to the bullish and bearish periods. Fantazzini and Zimin (2019) define credit risk in cryptocurrency and introduce Zero Price Probability models for testing it.

We introduce equilibrium and disequilibrium (Tse (2019)) asset pricing models for cryptocurrency valuation. It builds on the concept of the capital asset pricing model (CAPM) risk-return tradeoff (Sharpe (1964)). For that purpose, we put forward the decentralization risk for cryptocurrency valuation. The equity risk premium is a relative return measure between the risky equity return and the risk-free interest rate. Similarly, we define the decentralization risk premium as the difference in returns between a crypto-token asset and fiat money. In equilibrium, under CAPM assumptions, the risk-adjusted marginal benefits from any decentralized asset over a freely convertible and transactable fiat money are equal in the market. For testing its validity, we compare three equilibrium models. They are the cryptocurrency-capital asset pricing model (C-CAPM), the currency-multifactor model (FX-Factor), and the real-interest-rate-multifactor model (RR-Factor). In regression, the market premium of C-CAPM is between the returns of the crypto-index and risk-free interest. The market premium of the FX-Factor or the RR-Factor combines the decentralized index risk premium and the fiat USD index risk premium. For the RR-Factor, it adds proxies for real-interest rates for the crypto- and USD-indexes. The regression model of FX-Factor is similar to the international capital asset pricing model (ICAPM) (Ejara, Krapl, O'Brien, Vargas (2020)). From the difference between FX-Factor and C-CAPM, we find out how important fiat money returns to crypto-valuation. As crypto-tokens have utility and production costs, such as computing power, and electricity consumption, real-interest rates capture utility or production costs. Comparing RR-Factor and FX-Factor justifies real return

rather than nominal risk premium is more relevant for equilibrium cryptocurrency modeling. As the market premium of FX-Factor and RR-Factor cover both the decentralized and centralized indexes, their models presumably can value the whole spectrum of currencies. They can be currencies of decentralized versus legal tender, digital versus non-digital, and floating (e.g., Bitcoin) versus pegged (e.g., stablecoins). We implement the principal component analysis (PCA) on data from 99 cryptocurrencies to develop the decentralized index portfolio return. It explains at least 95% of the variability of the return data. We show that a model mix between PCA index and volume-weighted portfolios enhances model rigor and estimated returns. Therefore, acceptability (or user adoption) improves cryptocurrency valuation.

We extend the disequilibrium model (GLM) of Tse (2019) from equity to currency valuation. It adds liquidity and credit risk factors to RR-Factor. The nonlinear model behavior changes with the phases of the market. It captures serial correlation and detects non-normality. They arise from market imperfection. In other words, disequilibrium occurs in an inefficient market. The disequilibrium model is the best performing in-sample model. We resample the daily data for daily, weekly, and monthly returns. Among the equilibrium models, RR-Factor is a better model. It is mean-reverting for the daily and weekly return data. Out-of-the-sample findings suggest a nearly efficient market for weekly-sampled data, a less efficient market for daily-sampled data, and an inefficient market for the monthly-sampled data. Under the different sampling intervals, the out-of-the-sample results provide trading strategies and estimates of their returns.

We organize the paper as follows. Section 2 discusses the model structures of the four models for our study. It highlights the issues that are going to investigate. Section 3 provides the data sources. It shows how we construct proxy variables and the 25 (5×5) volume- and value-

weighted portfolios. It describes the data statistics and behaviors and demonstrates that crypto-tokens are more like a currency than equity. Section 4 investigates the in-sample behavior of the models. Not surprisingly, the beta (in C-CAPM) and the decentralized beta (in FX-Factor, RR-Factor, and GLM) are highly significant. In GLM, liquidity and credit risks significantly affect crypto-valuation. It outperforms the other models. The out-of-the-sample findings are in Section 5. They demonstrate that the disequilibrium and equilibrium models together have the power to distinguish market efficiency. In particular, the GLM is sensitive to the underlying serially-correlated and non-normal data. For establishing a theoretically better and well-performed model under different data sampling intervals, we need both the in-sample and out-of-the-sample information. Based on the performances of the four models, we identify trading strategies under the objectives of better predictive power, strong theoretical underpinnings, and higher and more stable returns. Section 6 concludes.

2. Cryptocurrency Modelling

2.1 The Equilibrium Models

Bitcoin: A Peer-to-Peer Electronic Cash System (2009) by Satoshi Nakamoto brought forward a new way for transactions by digital tokens and the disruption of the existing financial system by the new digital ecosystems. Currencies have value because we use them as a store of value and unit of exchange. Successful currencies are scarce, divisible, functional, transferable, durable, and not easy to be counterfeited. Regarding Bitcoin, it is limited in supply, up to 21 million Bitcoins. The smallest unit of the Bitcoin currency, recorded in the blockchain, is the

satoshi. It is one hundred millionth of a single Bitcoin (0.00000001 btc). Investopedia summarizes the characteristics of gold, fiat money, and Bitcoin in a table.

Traits of Money	Gold	Fiat (US Dollar)	Crypto (Bitcoin)
Fungible (Interchangeable)	High	High	High
Non-Consumable	High	High	High
Portability	Moderate	High	High
Durable	High	Moderate	High
Highly Divisible	Moderate	Moderate	High
Secure (Cannot be counterfeited)	Moderate	Moderate	High
Easy Transactable	Low	High	High
Scarce (Predictable Supply)	Moderate	Low	High
Sovereign (Government Issued)	Low	High	Low
Decentralized	Low	Low	High
Smart (Programmable)	Low	Low	High

We develop the cryptocurrency valuation models through a regrouping or generalization of the above characteristics. They are overarching models encompassing both fiat and decentralized currencies. The polar cases on the spectrum are the sovereign and decentralized currencies with scarce supply. Therefore, acceptability plays a crucial role in the valuation. The real interest rate of the legal tender index portfolio and the decentralized index portfolio captures the utility (says, in terms of being fungible, non-consumable, portable, durable, divisible, and programmable). When a portfolio is less transactable, it has more liquidity risk. There are credit (security) risks because of theft, runaway, hacking, losses, crackdown of crypto-mining and crypto-exchange, and the failure of the crypto-developers to hold up to their promises. In an equilibrium model, the representative individuals are making investment-saving decisions. They allocate assets across exchangeable currencies. They can be fiat money or decentralized digital tokens. The saving of the domestic fiat currencies earns a domestic risk-free interest rate, whereas the investment in the decentralized asset earns a risky rate of return. Petukhina, Trimborn, Härdle, and Elendner (2018) incorporate cryptocurrencies into the traditional assets according to weighted-liquidity-

constraints. The 55 daily return data is from the CRIX cryptocurrencies database from January 2015 to December 2017. Rather than for portfolio valuation, it demonstrates the incorporation of cryptocurrencies improves asset diversification. In a three-factor model of market excess returns, size, and reversal factors, Shen, Urquhart, and Wang (2020) suggest that the model outperforms the corresponding cryptocurrency-CAPM (C-CAPM) model. They use weekly data on 1700 cryptocurrencies over the sample period from April 2013 to March 2019. Their portfolios are equally weighted. They show that the three-factor model is always better than the C-CAPM regressions in terms of R^2 and average absolute and standard errors of the intercepts. In Pontoh and Rizkianto (2019), they show network-value-to-transaction (NVT) is a factor. They use data of 18 cryptocurrencies from coinmarketcap.io, and the market index cci30, which tracks the 30 largest cryptocurrencies. It is a market capitalization-weighted index. Rather than on diversified portfolios, the average R^2 on individual cryptocurrencies is higher than in Shen, Urquhart, and Wang (2020). It fails for the stablecoin Tether. Using 1707 cryptocurrencies with portfolios weighted by market capitalization, Liu, Tsyvinski, and Wu (2019) evaluate the weekly performance of 4 groups of factors: size, momentum, volume, and volatility. The choice is because financial and accounting data for the cross-section of coins is either not readily available or not applicable. They find that a three-factor pricing model including size and momentum is successful in the cryptocurrency market. In an overlapping generation model of Sockin and Xiong (2020), the marginal user's convenience yield determines the utility token prices. The prices change with the platform's user base.

The equilibrium real-interest-rate CAPM (RR-CAPM) model follows the assumptions of equilibrium CAPM. The identical investors have equal information and expectations. They have quadratic preferences, or the investment returns follow a normal distribution. They are price-

taker. Therefore, there is a unique equilibrium relation between individual and market risk-adjusted real-excess-returns

$$\frac{R_{Crypto} - R_{USD} - [i_{Crypto} - i_{USD} - (r_{Crypto} - r_{USD})]}{\beta_{Crypto}} = R_{index} - R_{USD} - [i_{index} - i_{USD} - (r_{index} - r_{USD})] \quad (1)$$

The risky USD-denominated cryptocurrency portfolio return is R_{Crypto} . The risky-fiat USD index return is R_{USD} . The nominal interest rates of the cryptocurrency and the USD are i_{Crypto} and i_{USD} , respectively. Their rates of real interest are r_{Crypto} and r_{USD} . The USD-denominated crypto-market index portfolio return is R_{index} . Its nominal and real interest rates are i_{index} and r_{index} , respectively. We compare the real return from investing in cryptocurrency to the real opportunity cost for investing in otherwise foreign currencies to USD. For simplicity, we assume that $i_{Crypto} = i_{USD} = i_{index} = i$, and $r_{Crypto} = \delta r_{index} = \delta r$, where δ is a constant. Henceforth, we denote β_{Crypto} by β_B . Equation (1) becomes

$$\frac{(R_{Crypto} + \delta r) - (R_{USD} + r_{USD})}{\beta_B} = (R_{index} + r) - (R_{USD} + r_{USD}). \quad (2)$$

Since $R_{index} - R_{USD}$ is the risk premium of the decentralized cryptocurrency market index portfolio, over the fiat USD index currency portfolio, β_B represents a decentralization risk. Alternatively,

$$R_j - i = ((1 - \beta_B)R_{USD} + \beta_B R_{index} - i) - [(\delta - \beta_B)r - (1 - \beta_B)r_{USD}]. \quad (3)$$

The market index portfolio consists of legal tender and decentralized index portfolios. As the market index portfolio is not limited to decentralized digital tokens, coin j can be any USD denominated currency returns, whether they are currencies of digital or non-digital, and centralized or decentralized. When $\beta_B = 1$, δ will be forced to 1 to make both sides of Equation

(3) equal. The individual portfolio return R_j is the decentralized cryptocurrency market portfolio return. When $\beta_B = 0$, it is the USD index portfolio return deducting a differential real interest rate $\delta r - r_{USD}$. It captures the utility (convenience) yield for coin j . In regression, Equation (3) becomes

$$R_j - i = \alpha_j + \beta_X(R_{USD} - i) + \beta_B(R_{index} - i) + \gamma_X r_{USD} + \gamma_r r + \varepsilon_j. \quad (4)$$

The α_j is the intercept. The coefficients to fiat and decentralized currency index risk premium are β_X, β_B . The coefficients to their real interest rates are γ_X, γ_r , and ε_j is the random error. Equation (4) is the real-interest-multifactor model (RR-Factor). It is the C-CAPM when we take out the terms $R_{USD} - i, r$, and r_{USD} . By getting rid of the real interest rates r and r_{USD} , it is the FX-Factor.

Using the daily data of US Dollar/USDX-Index from Yahoo Finance, we proxy R_{USD} . At present, the index is composed of the exchange rates of six major world currencies, which include the Euro (EUR), Japanese yen (JPY), Canadian dollar (CAD), British pound (GBP), Swedish krona (SEK), and Swiss franc (CHF). The EUR is, by far, the highest component of the index, making up 57.6% of the basket. The weights of the rest of the currencies in the index are JPY (13.6%), GBP (11.9%), CAD (9.1%), SEK (4.2%), and CHF (3.6%). Using principal component analysis (PCA), we calculate the decentralized market portfolio return R_{index} from 99 cryptocurrency returns. From coinmetrics.io, we download the daily data. The principal component eigenvectors explain at least 95% of the variability of the 99 cryptocurrencies. Any point on the PCA space is due to a linear combination of the principal components (PC). The PCA eigenvectors are analogous to portfolio weights. Therefore, the eigenvector along a basis forms a portfolio. For multiple projected PC eigenvectors, we reweight them by normalized

eigenvalues. Because they are densely populated (over 95%) by the data, we infer the clustering as the acceptability of the decentralized market index portfolio. It indicates high market activity over history. Many investors in cryptocurrencies are not actively trading in the market. They are dormant and hold on to their possession. Thus, the market capitalization may not reflect acceptability. Trading volume should be a better indicator for the active user's base. Whereas using PCA identifies historical acceptability, the trading volume may proxy cross-sectional acceptability. Nonetheless, we will compare the in-sample explaining power and the out-of-the-sample predictability of the value-weighted and the volume-weighted portfolio data.

2.2. The Disequilibrium Model

The three-factor models of Liu, Tsyvinski, and Wu (2019) and Shen, Urquhart, and Wang (2020) differ by a dynamic factor, either momentum or reversal. On the contrary, we suggest that liquidity and credit risks play important roles in currency valuation. We form a 5×5 portfolio matrix sorted by trading volume (market capitalization) and return volatility. From left to right along a row, trading volume (market capitalization) increases. From top to bottom, return volatility increases. They are proxies for liquidity and the likelihood of default. If liquidity and credit risks were to capture the model out-of-equilibrium idiosyncratic behavior, we pose Equation (4) in a nonlinear business-cycle currency-CAPM regression (GLM) model

$$4(R_{j|p} - i) = \alpha_{j|p} + \beta_{X|p}(R_{USD} - i) + \beta_{B|p}(R_{index} - i) + \sum_{k=1}^N \gamma_{L,k|p}(R_j - R_{index})_{k|p} + \sum_{k=1}^N \gamma_{C,k|p} \left(R_j - \bar{R}_{index} - (R_{USD} - \bar{R}_{USD}) \right)_{k|p} + \sum_{k=1}^4 \gamma_{r,k|p} r_{k|p} + \sum_{k=1}^4 \gamma_{USD,k|p} r_{USD,k|p} + \varepsilon_{j|p} \quad (5)$$

for $p = 1, \dots, 4$. The return R_j is conditional on a classified phase p , and hence $R_{j|p}$. In ascending order, the classified phase is trough, expansion, contraction, and peak. Under $(\cdot)_{k|p}$, the value

inside the basket is the k th class of the N clusters. We set $N = 5$. \bar{R}_{index} and \bar{R}_{USD} are lagged one-period moving average values of R_{index} and R_{USD} . We use k-means for the clustering. A more advanced Gaussian Mixture Model by EM algorithm is available. However, we only need one-dimensional cluster classification. It may reduce uncertainty for locating data membership. When they are in a regression model, we may regard the estimation errors due to clustering as the measurement errors of the regression. The GLM regression model applies to an inefficient economy with market imperfections. Price-setting often characterizes this imperfect market. In Tse (2019), $\frac{1}{4} \sum_{p=1}^4 \hat{R}_{j,p} = R_j$ where $\hat{R}_{j,p}$ is the predicted value based on investment strategy p . If only a single representative investment manager manages one of the investment strategies, their actions, together, form a monopoly to set the market price. He went on to show the parameters to liquidity risk ($\gamma_{L,k|p}$ in our model) are all positive. However, the parameters to credit risks ($\gamma_{C,k|p}$ in our model) change signs with different phases in the business cycles. They indicate dynamics in a cross-section regression model. Specifically, the trough and peak investment strategies are reversal strategies. The expansion and contraction investment strategies are momentum strategies. He also shows that consumption growth rates or historical (idiosyncratic) volatility are substitutes for the real interest rates. Because we can calculate historical return volatility on a daily, weekly, and monthly basis, we replace $r_{k|p}$ and $r_{USD,k|p}$ by their lagged one-period historical volatilities.

The collected data from coinmetrics.io are daily data. Using the Python built-in function, we resample data into weekly and monthly data. The four models, cryptocurrency CAPM (C-CAPM), currency-multifactor model (FX-Factor), real-interest-factor model (RR-Factor), and the business-cycle currency-CAPM (GLM), provide a basis to investigate the following.

- (a) Which one of the models does it have the highest in-sample explaining power? Are variables statistically significant with sensible signs?
- (b) Do the models lead to out-of-the-sample predictability?
- (c) Which of the models predict the future returns better than the others? Does the out-of-sample ranking order change with the data sampling intervals?
- (d) What is their implication on the market efficiency of the cryptocurrency market?
- (e) How will the results from (a) to (d) change between using volume-weighted and value-weighted portfolio returns?

3. Data

We collect the cryptocurrency data from <https://coinmetrics.io/community-network-data/>. We download the zip file. It contains 113 individual cryptocurrency files since the inception date of Bitcoin (btc) from January 3, 2009, to June 3, 2021. We retain only datasets with at least 180 days of the trading data. Hence, there are 99 datasets available for investigation. In Table 1 of the Appendix, we list the names and symbols of the 99 cryptocurrencies. For our analysis, we select variables: the trading date, closing price in USD, rolling volatility of 30days rates of returns, market capitalization (current supply) in USD, and the ratio of the network to transaction value (date, PriceUSD, VtyDayRet30d, CapMrktCurUSD, and NVTAdj). Another reason for the variable selection is because they are not missing data in any of the datasets. We calculate trading volume by multiplying CapMrktCurUSD and NVTAdj. Hence, we can evaluate models with value- and volume-weighted portfolios. Applying the principal component analysis of log-returns of PriceUSD on the 99 datasets, we generate the decentralized market-index portfolio returns capturing at least 95% variability of the data. For the risk-free interest rate, we use the 3-

Month US Treasury Constant Maturity Rate (DGS3MO). We multiply $(1/252)$, $(1/52)$, and $(1/12)$ to the logarithm of $(1 + \text{last-period DGS3MO}/100)$, respectively, to form the daily, weekly, and monthly rate of risk-free interest. In Figure 1, a regression plot between Bitcoin (btc) and the PCA index risk premium suggests that they are highly correlated. Therefore, $\beta_X \rightarrow 0$ and $\beta_B \rightarrow 1$ in Equation (4) when R_j is the Bitcoin return.

We collect daily data from Yahoo Finance for the fiat USD index returns, USD Dollar/USDX-Index-Cash (DX-Y.NYB). The data is available since January 4, 1971. We plot the daily fluctuations of Tether (usdt) against the USD index returns in Figure 2. They move in tandem. Therefore, when R_j is the Tether return, $\beta_X \rightarrow 1$ and $\beta_B \rightarrow 0$ in Equation (4). The altcoins, which are not scarce in supply but are volatile, may lie between these polar cases of floating-coin and stable-coin indexes, floating and pegged to USD exchange rate regimes, or decentralized and legal tender monetary systems. For comparison, we download the S&P 100 index data (^OEX). The descriptive statistics for the returns of Bitcoin, the USD index, and the S&P 100 index are in Table 2 of the Appendix. The Bitcoin positively skews to the right for the daily, weekly, and monthly data. They suggest a likelihood of the windfall gain. Although the kurtosis of the USD and the Bitcoin returns substantially exceed 3 in the daily data, their median and mean rates are similar. Hence, their return distributions are close to symmetric. Their daily data plots look like Laplace distribution (Kou and Wang (2004)). The mean and standard deviation are similar between Bitcoin (or crypto-index) and USD returns but dissimilar between Bitcoin (or crypto-index) and S&P 100 returns. Hence, Bitcoin (crypto-index) is more a currency than equity.

For the weekly return data, the kurtosis of the Bitcoin suggests that it is closer to normal than S&P 100. Because skewness is close to 0 and kurtosis is close to 3, the crypto-market index

approaches a normal distribution. The skewness and kurtosis of the monthly return data suggest that none of the return data is close to a normal distribution. The results have implications for model selection and market efficiency. The cryptocurrency market is more efficient than the equity market. Thus, CAPM could outstrip the performance of the other more sophisticated models, at least based on daily and weekly rebalancing. When we resample Bitcoin return data to monthly return data, it deviates from normality. Hence, the daily data leads to a quasi-efficient market. More efficient under weekly data. In the daily return data, given the rapid adjustment rate of the cryptocurrency market back to normal, deep downward and upward return jumps rapidly dissipate. The adjustment rate in the S&P 100 equity market is slower (and the data distribution forms bimodal clusters). It leads to a less than efficient market. For the monthly data, it is a small sample. The adjustment rates and serial correlation between downward and upward adjustments of the Bitcoin and crypto-index are not even. Hence, their sampling distributions become skewed. As in the equity market, the dynamic factor valuation and trading strategies become effective in an asymmetrically distributed market.

We divide the 99 cryptocurrencies into 5×5 (25) portfolios. They are sorted to the right of the row by a 20% percentile increase in either volume ($\text{CapMrktCurUSD} \times \text{NVTAdj}$) or market capitalization (CapMrktCurUSD). They are sorted down the column by a 20% percentile increase in volatility. The volatility is VtyDayRet30d . Accordingly, the sorted cryptocurrencies are volume (value) weighted in its portfolio. The weight is the volume (market capitalization) of the currency divided by the total volume (market capitalization) of all the currencies in the portfolio. We also consider equal weighting on the sorted currencies. However, the sorting dictates the findings, whether it is by volume or by value. Therefore, we only compare results with volume- and value-weighted portfolios. As the paper investigates cryptocurrencies as an

investment asset, we have not included fiat currency pairs during the portfolio construction. Nonetheless, Equation (4) should be flexible enough to permit investigation of other orientations, such as central bank digital currency (CBDC).

4. In-Sample Model Results

4.1 Cryptocurrency CAPM (C-CAPM)

The C-CAPM is the base model for comparison. We will show that the currency models together with the fiat currency index are the theoretically preferred models. Tables 3A and 3B show the daily, weekly, and monthly C-CAPM results of the volume and market capitalization-weighted portfolios. All the beta risks β_B are positive and significant at 1%. It indicates a risk-return tradeoff for cryptocurrencies. The beta values tend to increase down the columns. Hence, increasing rolling volatilities increases beta risks. They range from 0.1137 to 1.5549. Their mean and standard deviation are 0.7248 and 0.2639. The alphas can be significant at any sampling intervals both for the volume and value-weighted portfolios. Out of the 150 alphas, there are 10.67% daily, 16.67% weekly, and 18% monthly alphas (45.33% in total) significant at 5%. It is 20.67% for value-weighted and 24.67% for volume-weighted portfolios. Hence, as an equilibrium model, C-CAPM is misspecified for the crypto data. The adjusted R^2 for the daily, weekly, and monthly value-weighted portfolios are 0.0631-0.5910, 0.1227-0.6177, and 0.0522-0.7209. The adjusted R^2 for the daily, weekly, and monthly volume-weighted portfolios are 0.1414-0.5681, 0.0987-0.6260, and 0.0945-0.6850, respectively. Therefore, under the same market index portfolios, the in-sample performance of the value- and volume-weighted C-CAPM is similar.

4.2 Currency-Multifactor Model (FX-Factor)

The market index portfolio of the FX-Factor model includes centralized and decentralized market indexes. Under volume- and value-weighted portfolios in Table 4A and 4B, we show their daily, weekly, monthly results, respectively. All the decentralization risks β_B are positive. Most of them are significant at 1%. They range from 0.1312 to 1.5289. Their mean and standard deviation are 0.7701 and 0.2681. Although not as conspicuous as in the C-CAPM, they tend to increase down the columns. The fiat currency betas β_X are negative and mainly insignificant except for a few low market capitalization or volume portfolios. The alphas can be significant at any sampling intervals both for the value- and volume-weighted portfolios. They are of any signs. Out of the 150 alphas, there are 10.67% daily, 17.33% weekly, and 18.67% monthly alphas (46.67% in total) significant at 5%. It is 22% for value-weighted and 24.67% for volume-weighted portfolios. Hence, as an equilibrium model, the currency-multifactor model is misspecified for the crypto data. The adjusted R^2 for the daily, weekly, and monthly value-weighted portfolios are 0.0772-0.6707, 0.1212-0.6172, and 0.0614-0.7182. The adjusted R^2 for the daily, weekly, and monthly volume-weighted portfolios are 0.1559-0.6385, 0.0995-0.6252, and 0.0912-0.6814, respectively. Therefore, the in-sample performance of the value- and volume-weighted FX-Factor model is similar.

4.3 Real-Interest-Rate-Multifactor Model (RR-Factor)

Table 5 provides the daily, weekly, and monthly results for the RR-Factor model. Table 5A is for the results of the value-weighted portfolios and Table 5B for the volume-weighted portfolios. The market index portfolio of the real-interest-rate-multifactor model includes

centralized and decentralized market indexes and real interest rates. All the decentralized beta risks β_B are significant at 1%. They are negative for daily and weekly data (from -0.5729 to -0.0546) but positive for monthly data (from 0.0616 to 0.6605). The negative decentralized beta values assess the mean-reverting rate by the common factor of market index risk premium. It overrides the assessment of the risk-return tradeoff. Hence, there is a tendency for the portfolio returns to return to normal for the daily and weekly data. For the fiat currency risks β_X , they are essentially insignificant at 5%. The coefficient to the real interest rate γ_r is insignificant. When it becomes significant, it is negative. The coefficient γ_X is also insignificant except for the daily and weekly (daily) data for the mid-market capitalization (volume) and mid-volatility portfolio. It can be positive or negative. The alphas are insignificant at any sampling intervals both for the volume- and value-weighted portfolios. They are of any signs. Out of the 150 alphas, there are 3.33% daily, 4% weekly, and 2.67% monthly alphas (10% in total) significant at 5%. It is 5.33% for value-weighted and 4.67% for volume-weighted portfolios. Hence, the real-interest-rate-multifactor model is a sensible model for crypto data. The adjusted R^2 for the daily, weekly, and monthly value-weighted portfolios are 0.0917-0.6270, 0.1835-0.7298, and 0.1237-0.7672. The adjusted R^2 for the daily, weekly, and monthly volume-weighted portfolios are 0.1263-0.6498, 0.1936-0.7027, and 0.0859-0.7455, respectively. Therefore, the in-sample performance of the value- and volume-weighted returns is better than the C-CAPM under the same market index portfolios.

4.4 Business-Cycle Currency-CAPM (GLM)

Table 6 shows the daily, weekly, and monthly in-sample GLM regression results for value- and volume-weighted portfolios. Table 6A is for the value-weighted portfolios and Table 6B for the volume-weighted portfolios. The model includes variables and proxies for centralized and decentralized market index risk premium, liquidity risks, credit risks, and real-interest rates for fiat and decentralized currency indexes. The decentralized betas β_B predominantly significant at 1% are positive. For daily return data, they are 0.2177-2.0796 and 0.1845-2.124, for value- and volume-weighted portfolios, respectively. For weekly data, they are 0.2433-2.4968 and 0-2.4717. For monthly data, they are -1.1824-4.2333 and 0.5193-3.0461. Because of the negative β_B , we cast doubt on the theoretical compatibility between using the PCA index proxies and value-weighted portfolios. The average and the standard deviation of the significant betas are 1.2594 and 0.6465. The centralized currency risks β_X are mainly insignificant. Equation (3) suggests $\beta_X = 1 - \beta_B$ in equilibrium. Hence, their significant values can be positive or negative. Except for a few negative values at contraction, expansion, and peak for the monthly data, the liquidity risk parameters $\gamma_{L,i}$, for $i = 1, \dots, 5$, are positive when they are significant.

The credit risk parameters $\gamma_{C,i}$, for $i = 1, \dots, 5$, vary with the economic phases regardless of the sampling intervals. It is a serial correlation measure for the risk of returns. For trough, the parameters $\gamma_{C,1}$ are significant and positive. The other parameters $\gamma_{C,i}$ for $i = 2, \dots, 5$ are most likely negative. It indicates a reversal tendency for the portfolios from their bottom phase. For expansion, the significant parameters of $\gamma_{C,2}$ and $\gamma_{C,3}$ are likely positive. Also, for contraction, the parameters $\gamma_{C,3}$ and $\gamma_{C,4}$ are significantly positive. Therefore, during expansion and contraction, positive returns continue. The situation is similar to momentum. For peak, the parameters $\gamma_{C,5}$ are significant and positive. The rest of the other credit risk parameters are

significantly negative. When the market fails to continue to give positive returns, a reversal sets in. Although the daily and weekly distributions of the cryptocurrency data appear like an asymmetric-Laplace and a normal, the significance of the credit risk parameters at different economic phases suggests occurrence of underlying serial correlation.

For the real-interest rate parameters on the fiat currency $\gamma_{X,i}$, for $i = 1, \dots, 4$, they are more likely to be insignificant at 5%. However, they can be positive or negative when they become significant. For the real-interest rate parameters on the decentralized currency $\gamma_{r,i}$, for $i = 1, \dots, 4$, they are likely to be insignificant at 5%. However, the signs and the statistical significance change with the economic phases for the daily and weekly data. During trough, $\gamma_{r,1}$ is less likely to be significant while $\gamma_{r,i}$ for $i = 2, \dots, 4$ can be significantly positive. When the last period volatility is high during a down jump, the positive parameters raise portfolio returns. They enhance the rebound of the portfolio rates. It supports the daily and weekly findings of the overriding mean-reversion in the RR-Factor. For the other economic phases, there is a more significant negative than positive $\gamma_{r,i}$. The convenience yield may reduce the cost of capital. For the monthly data, the parameters $\gamma_{r,i}$, for $i = 1, \dots, 4$ are less significant and have mixed signs, as suggested by Equation (3).

Out of the 600 α_j , 8.5% (6.33% for value-weighted and 10.67% for volume-weighted portfolios) is significantly different from 0 at 5%. Therefore, GLM models are sensible for valuing cryptocurrencies. In particular, out of the 200 α_j of the asymmetrically distributed monthly data, only 5.5% of them are significantly different from 0. As discussed in Tse (2019), the business-cycle CAPM is relevant for disequilibrium and inefficient markets. Based on the portfolio [2,2] of the sorted volume versus volatility portfolios, we plot the daily, weekly, and

monthly frequency distributions of the risk premium against their associated normal distributions in Figure 3. The leftmost figure is similar to a double-exponential distribution, the middle normal, and the rightmost skewed non-symmetric distribution. The adjusted R^2 for the daily models are 0.4010-0.8237 and 0.4894-0.8196, respectively, for the value- and volume-weighted portfolios. For the weekly models, they are 0.3437-0.7462 and 0.3515-0.8256. For the monthly models, they are 0.1120-0.8735 and 0.3515-0.8256.

5. Out-of-the-Sample-Results

5.1 The Evaluation Procedure

Based on the out-of-the-sample results of the daily, weekly, and monthly data, we compare the predictive power of the four models. We include the results of the probabilities of correct prediction of next-period return directions, the predicted average returns with short-selling, the predicted average returns forbidding short-selling, and the average returns for the buy-and-hold strategy. We update the PCA data for the decentralized market index, its means, and volatility with the rolling windows. Therefore, no future data beyond the rolling regressions are input into the regressions as training data. The models use the last predicted values of the rolling regressions. Assuming the current-predicted value of a model as the reference return that the future market return will return, the difference between the current market return and its model predicted return determines the buy-sell decision of the portfolio. We adopt the Tse (2019) win-loss and rewarding schemes. They are as follows.

1) Forbidding short-sale

- i. **To Buy** when the model predicted portfolio risk premium is higher than the spot

portfolio risk premium.

- ii. Mark-to-market on a sampling interval basis assuming no transaction costs. The total return is the sum of realized returns of all records based on a specific investment model.
- iii. The current realized portfolio rate of return is equal to the last period rate of return if last period no transaction occurred. We assume that the agents can hedge the return at the last-period return.
- iv. The current realized portfolio rate of return is equal to the current rate of portfolio return if the last period buy decision occurred.

2) Allowing for short-sell

- i. **To Buy** when the model predicted portfolio risk premium is higher than the spot portfolio risk premium.
- ii. **To Sell** when the model predicted portfolio risk premium is lower than the spot portfolio risk premium.
- iii. Mark-to-market on a sampling interval basis assuming no transaction costs.
- iv. The current realized individual portfolio rate of return is equal to the last period portfolio rate of return plus a short-sell gain $(R_{i,t-1} - R_{i,t})$ in portfolio rate of return if the last-period sell decision occurred.
- v. The current realized portfolio rate of return is equal to the current rate of individual portfolio return if the last period buy decision occurred.

3) Buy-and-Hold

- i. The current realized portfolio rate of return is equal to the current rate of portfolio return.

5.2 Proposed Trading Strategies

Based on the 25 value- and volume-weighted portfolios, Table 7 compares the out-of-the-sample performance of the four models with long rolling periods. Table 7A is for the value-weighted portfolios and Table 7B for the volume-weighted portfolios. For the daily, weekly, and monthly results, the rolling training regressions respectively use 675 days, 104 weeks, and 36 months for their rolling time window. The PCA means use 50 days, 12 weeks, and 12 months, whereas the volatilities use 30 days, 12 weeks, and 12 months. Table 8 is similar. However, the rolling time window is shorter. They are 500 days, 52 weeks, and 24 months for the daily, weekly, and monthly results, respectively. Table 8A is for the value-weighted portfolios and Table 8B for the volume-weighted portfolios.

When a portfolio return is missing in the current or future period, we skip that portfolio entry for our evaluation. Hence, there is a difference in the number of records between Table 7A (8A) and Table 7B (8B). Under the above decision rule, the success rate of all the models exceeds 50%. For the daily data in Table 7, the GLM-trough has the highest success rates. They are 70.54% for value-weighted and 70.45% for volume-weighted portfolios. For the weekly data, FX-Factor has the highest success rate for the value-weighted portfolios, and C-CAPM and FX-Factor end in a tie for the volume-weighted portfolios. For the monthly data, GLM-peak is the winner and closely followed by GLM-trough. The winners of the daily, weekly, and monthly success rates in Table 8 are the GLM-trough, C-CAPM, and GLM-trough, respectively. For the monthly data, GLM-trough in Table 8B is a clear winner, and GLM-contraction follows. Among C-CAPM, FX-Factor, and RR-Factor, their success rates are close. Hence, the out-of-the-sample results are useful to distinguish whether a market is efficient or not. They do not have the power to justify an accurate equilibrium model. In a nearly efficient market, under our weekly data, an

equilibrium model outruns a disequilibrium model. The out-of-the-sample winner's equilibrium model need not be the correct model. For instance, C-CAPM is theoretically insufficient to capture all its constituents and is misspecified in the sample. In an inefficient market, out-of-the-sample results from a disequilibrium model outrun those of the equilibrium models. However, the in-sample results can determine a better model concerning the theory. They fail to identify if the data give us an efficient market. For instance, the in-sample results suggest RR-Factor is theoretically better than C-CAPM as an equilibrium pricing model for cryptocurrencies. However, GLM has the best performance due to adjusted R^2 and insignificant α_j over all the sampling-interval data. We may conclude all the markets are inefficient. Having considered the underlying data distributions, it is absurd. Therefore, in-sample results are not indicative for market efficiency.

The success rates in Tables 7 and 8 help identify consistent trading strategies under different sampling interval. It is GLM-trough for daily and monthly cryptocurrency data, but RR-Factor (or C-CAPM) for the weekly data. In the daily data, although the data distributions look symmetric, they are skewed and not normal. The GLM takes advantage of the characteristics. The returns allowing and forbidding short-selling for GLM-trough and GLM-contraction are significantly higher than their counterparts. For the weekly data, the GLM success rates go below their counterparts. However, the GLM-expansion has the highest returns with and forbidding short-sell. Although the cross-section frequency distributions look normal, the underlying serial correlation is functioning. For the monthly data, GLM short-sell or no-short-sell returns are, in general, higher than their counterparts. The GLM-peak strategy varies from the highest in Table 7 to the lowest GLM returns in Table 8. It is more sensitive to the rolling regressions conditions. Hence, GLM-trough should be the preferred strategy. The choice for RR-Factor is because it is

theoretically better as an equilibrium model with competitive rewards and success. The alternative choice is because C-CAPM is the winner equilibrium model under weekly data. It is probably because the decentralized cryptocurrencies play a more dominant than the stablecoins in the 25 value- or volume-weighted portfolios. Even though it is misspecified, it becomes an efficient predictive tool in an efficient market. We specify the short-sell returns / no short-sell returns as (GLM-trough daily, RR-Factor (C-CAPM) weekly, GLM-trough monthly). Under the value-weighted portfolios, Table 7A gives (3.64% / 2.00%, 4.20% / 2.32% (4.28% / 2.36%), 14.68% / 10.07%) for the sort-sell / non-short-sell average returns of the chosen strategies. Table 8A gives (3.34% / 1.84%, 5.52% / 3.03% (5.58% / 3.06%), 10.30% / 6.30%). Under the volume-weighted portfolios, Table 7B gives their returns (3.67% / 2.04%, 4.54% / 2.46% (4.66% / 2.52%), 17.52% / 11.04%) and Table 8B gives returns (3.39% / 1.88%, 5.64% / 3.10% (6.14% / 3.35%), 13.65% / 7.41%). Their success rate differences between Tables 7B and 7A are (-0.09%, -0.98% (-1.33%), 3.62%). Between Tables 8B and 8A, they are (-0.17%, -1.53% (-0.64%), 4.32%). Therefore, the volume-weighted portfolios combined with the PCA input variable proxies outperform their value-weighted counterparts.

6. Conclusions

Cryptocurrencies are rapidly growing in value and as a medium of exchange. Nowadays, mega-companies, such as Microsoft, Starbucks, Tesla, Amazon, Visa, PayPal, Coca-Cola, Expedia, and Lush, accept crypto-tokens as payment. China and Facebook are launching their digital currencies. Therefore, academicians and practitioners alike have genuine interests in the valuation model. Recent theoretical and empirical contributions have narrowed down the fundamentals. They highlight factors such as the medium of exchange, store of value, user

adoption, computing power, electricity consumption, decentralized network, limiting supply, blockchain trustworthiness, and anonymity. At the same time, momentum, reversal, credit risks, and cyclical changes in market behavior may impact the valuation.

In this paper, following the risk-return tradeoff structure of CAPM, we introduce the decentralization risk measure. It is a difference between the decentralized crypto-token portfolio returns and the USD index return. It measures the marginal contribution of the decentralized currencies over fiat money, which is freely convertible and transactable. We introduce three equilibrium models. They are the cryptocurrency-CAPM (C-CAPM), the currency-multifactor model (FX-Factor), and the real-interest-rate multifactor model (RR-Factor). The RR-Factor is the most relevant and significant equilibrium model capturing the decentralization risk and real-interest rates for utility and production costs. The disequilibrium model with liquidity and credit risks (GLM) is to model imperfect and inefficient markets. The risk premium looks like an asymmetric Laplace, a normal, and a non-symmetric fat-tailed distribution with daily, weekly, and monthly data sampling of the daily data, respectively. GLM outperforms others in predictive power for the daily and monthly data. Therefore, their markets are inefficient. The weekly data are nearly efficient. The equilibrium models outrun the disequilibrium model in predictive power, but they are not for returns. Using the PCA market index, the out-of-the-sample performance of trading-volume-weighted portfolios is better than value-weighted portfolios. Thus, trading volume is a better proxy for user adoption (acceptability). The in-sample and out-of-the-sample information justify the trading strategies at different sampling intervals. Based on sound theoretical outcomes, higher and more stable returns, and consistently strong predictive power, we choose GLM-trough for the daily and monthly trading (rebalancing) strategy and RR-Factor

(or C-CAPM) for the weekly trading strategy. By multiple times, their estimated returns are significantly higher than the corresponding equity.

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Appendix

Table 1 lists the names of the cryptocurrencies for our study. The data and therefore the symbols are from coinmetrics.io.

Table 1: Cryptocurrencies for our Study -- Names and Labels (coinmetrics.io)									
Symbol	Name	Symbol	Name	Symbol	Name	Symbol	Name	Symbol	Name
bat	<i>Basic Attention Token</i>	elf	<i>aelf</i>	leo_eth	<i>LEO ETH</i>	ren	<i>Ren</i>	wbtc	<i>Wrapped Bitcoin</i>
bch	<i>Bitcoin Cash</i>	eng	<i>Enigma</i>	link	<i>Chainlink</i>	renbtc	<i>renBTC</i>	weth	<i>Wrapped Ether</i>
bnb	<i>Binance</i>	eos_eth	<i>EOS ETH</i>	loom	<i>Loom Network</i>	rep	<i>Augur</i>	wnxb	<i>Wrapped NXM</i>
bnb_mainnet	<i>Binance Chain</i>	etc	<i>Ethereum Classic</i>	lsk	<i>Lisk</i>	sai	<i>Sideshift AI</i>	wtc	<i>Waltonchain</i>
bsv	<i>Bitcoin SV</i>	eth	<i>Ethereum</i>	ltc	<i>Litecoin</i>	snt	<i>Status</i>	xaug	<i>Tether Gold</i>
btc	<i>Bitcoin</i>	ethos	<i>Ethos</i>	maid	<i>MaidSafeCoin</i>	snx	<i>Synthetic</i>	xem	<i>NEM</i>
btg	<i>Bitcoin Gold</i>	ftt	<i>FTX Token</i>	mana	<i>Decentraland</i>	srn	<i>Serum</i>	xlm	<i>Stellar</i>
busd	<i>Binance USD</i>	fun	<i>FUNToken</i>	mco	<i>MCO Token</i>	sushi	<i>SushiSwap</i>	xrp	<i>Ripple</i>
comp	<i>Compound</i>	fxs	<i>Flexacoin</i>	mkr	<i>Maker</i>	swrv	<i>Swerve</i>	xtz	<i>Tezos</i>
cro	<i>Crypto.com</i>	gas	<i>Ethereum gas</i>	neo	<i>Neo</i>	trx_eth	<i>TronETH</i>	xvg	<i>Verge</i>
crv	<i>Curve DAO Token</i>	gno	<i>Gnosis</i>	nxm	<i>Nexus Mutual</i>	tusd	<i>TrueUSD</i>	yfi	<i>yearn.finance</i>
cvc	<i>Civic</i>	gnt	<i>Golem</i>	omg	<i>OMG Network</i>	uma	<i>UMA</i>	zec	<i>Zcash</i>
dai	<i>Dai</i>	gusd	<i>Gemini Dollar</i>	pax	<i>Paxos Standard</i>	uni	<i>Uniswap</i>	zrx	<i>0x</i>
dash	<i>Dash</i>	hbtc	<i>Huobi Bitcoin</i>	paxg	<i>PAX Gold</i>	usdc	<i>USD Coin</i>	1inch	<i>1inch</i>
dcr	<i>Decred</i>	hedg	<i>Hedgecoin</i>	pay	<i>TenX</i>	usdk	<i>USDK</i>	aave	<i>Aave</i>
dgb	<i>DigiByte</i>	ht	<i>Huobi Token</i>	pivx	<i>PIVX</i>	usdt	<i>Tether</i>	ada	<i>Cardano</i>
dgx	<i>Digix Gold Token</i>	husd	<i>HUSD</i>	poly	<i>Polymath</i>	usdt_eth	<i>TetherETH</i>	alpha	<i>Alpha Finance Lab</i>
doge	<i>Dogecoin</i>	knc	<i>Kyber Network</i>	powr	<i>Power Ledger</i>	usdt_trx	<i>TetherTRON</i>	ant	<i>Aragon</i>
dot	<i>Polkadot</i>	lend	<i>Lend</i>	ppt	<i>Populous</i>	vtc	<i>Vertcoin</i>	bal	<i>Balancer</i>
drgn	<i>Dragonchain</i>	leo_eos	<i>LEO EOS</i>	qash	<i>QASH</i>	waves	<i>Waves</i>		

Table 2 contains the descriptive statistics for crypto-index, Bitcoin, USD index, and S&P 100 index. The statistics applies to daily, weekly, and monthly data.

Table 2: Descriptive Statistics

Daily	Crypto-Index	Bitcoin	USD	S&P100	Weekly	Crypto-Index	Bitcoin	USD	S&P100	Monthly	Crypto-Index	Bitcoin	USD	S&P100
count	627	627	627	627	count	133	133	133	133	count	31	31	31	31
mean	-0.00004	-0.00004	-0.00004	-0.00004	mean	-0.00013	-0.00003	-0.00011	-0.00022	mean	0.00095	0.00366	0.00295	-0.00105
std	0.00039	0.00038	0.00031	0.00004	std	0.00407	0.00368	0.00366	0.00026	std	0.03213	0.03172	0.02252	0.00138
min	-0.00233	-0.00221	-0.00224	-0.00013	min	-0.01576	-0.01323	-0.01288	-0.00086	min	-0.05534	-0.04224	-0.03069	-0.00348
25%	-0.00017	-0.00019	-0.00015	-0.00008	25%	-0.00153	-0.00213	-0.00156	-0.00041	25%	-0.01582	-0.01849	-0.01529	-0.00185
50%	-0.00005	-0.00004	-0.00004	-0.00005	50%	-0.00027	0.00004	0.00005	-0.00023	50%	-0.00772	0.00263	0.00131	-0.00116
75%	0.00008	0.00012	0.00009	-0.00001	75%	0.00116	0.00158	0.00148	-0.00005	75%	0.00840	0.01433	0.01517	-0.00012
max	0.00348	0.00361	0.00156	0.00006	max	0.01278	0.01451	0.01637	0.00072	max	0.10643	0.09716	0.05058	0.00206
Skewness	1.75787	1.73136	-0.42067	-0.01215	Skewness	-0.21235	0.79575	0.14306	0.47560	Skewness	1.65729	0.93353	0.47759	0.17303
Kurtosis	26.70956	19.52203	8.80290	-1.30055	Kurtosis	3.99147	4.19934	4.89275	0.63624	Kurtosis	3.98589	1.32332	-0.40319	-0.33644

Table 3 shows the In-Sample Regression Results of C-CAPM for the Daily, Weekly, and Monthly Data. Table 3A is for the value-weighted portfolios and Table 3B for the volume-weighted portfolios

TABLE 3A: C-CAPM (Daily)						
Parameters	Volatility	Market Capitalization				
		1 Low	2	3	4	5 High
$\alpha_j =$	1 Low	0.0002	-0.0016*	0.0003	-0.0014**	-0.0006
$\beta_B =$		0.1137***	0.2213***	0.2007***	0.2769***	0.6137***
$R^2 =$		0.0631	0.1386	0.1209	0.1951	0.5910
$\alpha_j =$	2	-0.0019	-0.0019	-0.0010	-0.0014	-0.0013
$\beta_B =$		0.7378***	0.7078***	0.6731***	0.6125***	0.7015***
$R^2 =$		0.3864	0.3555	0.3984	0.3423	0.4301
$\alpha_j =$	3	-0.0026*	-0.0039***	0.0010	-0.0004	0.0018
$\beta_B =$		0.6665***	0.6896***	0.7409***	0.7930***	0.7201***
$R^2 =$		0.2665	0.2948	0.3303	0.3576	0.2996
$\alpha_j =$	4	-0.0037**	0.0021	0.0015	0.0016	0.0066***
$\beta_B =$		0.7083***	0.7979***	0.8718***	0.7979***	0.8854***
$R^2 =$		0.2225	0.2804	0.3280	0.2841	0.2992
$\alpha_j =$	5	0.0014	0.0034	0.0077***	0.0053**	0.0059***
$\beta_B =$		0.9440***	0.8792***	0.9224***	0.9137***	0.9080***
$R^2 =$		0.1884	0.1523	0.2253	0.2000	0.3523
TABLE 3A: C-CAPM (Weekly)						
Parameters	Volatility	Market Capitalization				
		1 Low	2	3	4	5 High
$\alpha_j =$	1 Low	-0.0039	-0.0091*	-0.0036	-0.0137***	-0.0066**
$\beta_B =$		0.1623***	0.2595***	0.3096***	0.3149***	0.6755***
$R^2 =$		0.1314	0.1512	0.2089	0.2173	0.6177
$\alpha_j =$	2	-0.0219***	-0.0292***	-0.0203***	-0.0177***	-0.0051
$\beta_B =$		0.8383***	0.7762***	0.6412***	0.7571***	0.7989***
$R^2 =$		0.4521	0.4034	0.3383	0.4108	0.3875
$\alpha_j =$	3	-0.0306***	-0.0276***	-0.0045	-0.0033	0.0111
$\beta_B =$		0.6141***	0.7624***	0.7985***	0.7800***	0.7231***
$R^2 =$		0.2040	0.3549	0.3259	0.3050	0.2768
$\alpha_j =$	4	-0.0328***	-0.0022	0.0006	0.0029	0.0057
$\beta_B =$		0.8048***	0.7571***	0.7398***	0.7799***	1.0027***
$R^2 =$		0.2336	0.2293	0.2120	0.2273	0.4309
$\alpha_j =$	5	-0.0080	0.0212	0.0363**	0.0370***	0.0409***
$\beta_B =$		1.0366***	0.9086***	0.9301***	0.9149***	0.8782***
$R^2 =$		0.2989	0.1227	0.1784	0.2058	0.2597

TABLE 3A: C-CAPM (Monthly)						
Parameters	Volatility	Market Capitalization				
		1 Low	2	3	4	5 High
$\alpha_j =$	1 Low	-0.0116	-0.0512**	-0.0350	-0.0818***	-0.0548***
$\beta_B =$		0.1395***	0.3976***	0.4274***	0.3370***	0.7987***
$R^2 =$		0.0749	0.2191	0.2500	0.1978	0.7209
$\alpha_j =$	2	-0.1420***	-0.0821**	-0.1094***	-0.0785**	-0.0391
$\beta_B =$		0.6955***	0.7238***	0.8346***	0.6256***	0.9291***
$R^2 =$		0.3196	0.2882	0.3523	0.2104	0.4485
$\alpha_j =$	3	-0.1635***	-0.1426***	-0.0513	-0.0625	-0.0095
$\beta_B =$		0.7004***	0.6389***	0.8395***	0.9330***	0.8634***
$R^2 =$		0.1882	0.1895	0.2200	0.3583	0.2604
$\alpha_j =$	4	-0.0914*	-0.0768	-0.0659	0.0098	0.1091**
$\beta_B =$		0.6722***	0.8941***	1.1241***	1.1704***	0.9089***
$R^2 =$		0.1346	0.2489	0.4090	0.2965	0.2189
$\alpha_j =$	5	-0.0597	0.1404	0.2385**	0.1636*	0.1634***
$\beta_B =$		1.3905***	1.0114**	1.2376***	1.4358***	1.0154***
$R^2 =$		0.3594	0.0522	0.1266	0.2361	0.3775

TABLE 3B: C-CAPM (Daily)						
	Volatility	Volume				
Parameters		1 Low	2	3	4	5 High
$\alpha_j =$	1 Low	0.0006	-0.0009	-0.0006	-0.0005	-0.0005
$\beta_B =$		0.2678***	0.2517***	0.2493***	0.2078***	0.5794***
$R^2 =$		0.1436	0.1689	0.1414	0.1503	0.5681
$\alpha_j =$	2	-0.0035***	-0.0007	-0.0011	-0.0016	-0.0004
$\beta_B =$		0.6381***	0.6345***	0.6311***	0.6459***	0.7381***
$R^2 =$		0.3530	0.3417	0.3419	0.3497	0.4301
$\alpha_j =$	3	-0.0035**	-0.0034**	-0.0011	0.0021	0.0037**
$\beta_B =$		0.6507***	0.6738***	0.7785***	0.7673***	0.9023***
$R^2 =$		0.2818	0.2651	0.3435	0.3522	0.3700
$\alpha_j =$	4	-0.0031**	-0.0023	0.0023	0.0082***	0.0082***
$\beta_B =$		0.7193***	0.7790***	0.8501***	0.7435***	0.9329***
$R^2 =$		0.2456	0.2989	0.3151	0.1948	0.2838
$\alpha_j =$	5	-0.0027	-0.0004	0.0049*	0.0143***	0.0097***
$\beta_B =$		0.9116***	0.8221***	0.9692***	0.9318***	0.9453***
$R^2 =$		0.2383	0.1493	0.1825	0.1552	0.3131
TABLE 3B: C-CAPM (Weekly)						
	Volatility	Volume				
Parameters		1 Low	2	3	4	5 High
$\alpha_j =$	1 Low	-0.0036	0.0005	-0.0210***	-0.0110***	-0.0034
$\beta_B =$		0.2853***	0.1726***	0.3599***	0.2644***	0.6459***
$R^2 =$		0.1655	0.0987	0.2436	0.1918	0.6260
$\alpha_j =$	2	-0.0254***	-0.0200**	-0.0264***	-0.0194***	-0.0027
$\beta_B =$		0.6697***	0.6150***	0.8005***	0.7292***	0.8507***
$R^2 =$		0.3232	0.2751	0.4614	0.3544	0.4250
$\alpha_j =$	3	-0.0299***	-0.0263***	-0.0112	-0.0003	0.0178*
$\beta_B =$		0.7111***	0.6695***	0.8468***	0.7326***	0.6952***
$R^2 =$		0.3221	0.2569	0.3556	0.2922	0.2279
$\alpha_j =$	4	-0.0379***	-0.0170	0.0011	0.0203	0.0131
$\beta_B =$		0.7040***	0.7585***	0.8788***	0.8395***	0.9543***
$R^2 =$		0.2399	0.2125	0.2852	0.2360	0.3510
$\alpha_j =$	5	-0.0268***	0.0036	0.0471***	0.0596***	0.0546***
$\beta_B =$		0.9015***	0.8014***	1.0314***	0.9825***	0.9801***
$R^2 =$		0.2689	0.1586	0.1623	0.1325	0.2784
TABLE 3B: C-CAPM (Monthly)						
	Volatility	Volume				
Parameters		1 Low	2	3	4	5 High
$\alpha_j =$	1 Low	-0.0230	-0.0532**	-0.0659***	-0.0571***	-0.0351**
$\beta_B =$		0.4266***	0.2883***	0.2886***	0.3893***	0.7483***
$R^2 =$		0.2065	0.1307	0.1292	0.2712	0.6850
$\alpha_j =$	2	-0.1394***	-0.1089***	-0.1009***	-0.0710**	-0.0558*
$\beta_B =$		0.7838***	0.6933***	0.8757***	0.6171***	1.0052***
$R^2 =$		0.3660	0.3387	0.4163	0.2313	0.5062

$\alpha_j =$	3	-0.0990**	-0.1458***	-0.0928*	-0.0939**	0.0122
$\beta_B =$		0.5247***	0.7497***	0.7845***	1.0797***	0.7796***
$R^2 =$		0.0945	0.2527	0.1662	0.4506	0.2122
$\alpha_j =$	4	-0.0839*	-0.0713	-0.0918**	0.0365	0.0806
$\beta_B =$		0.7328***	0.8173***	1.0545***	0.9910***	0.7444***
$R^2 =$		0.1577	0.2151	0.3957	0.1990	0.1124
$\alpha_j =$	5	-0.1184**	0.1230*	0.2346**	0.1497	0.1645***
$\beta_B =$		1.4391***	0.8889***	1.1755***	1.5549***	1.0749***
$R^2 =$		0.3974	0.1020	0.1004	0.1366	0.3921

Table 4 shows the In-Sample Regression Results of FX-Factor for the Daily, Weekly, and Monthly Data. Table 4A is for the value-weighted portfolios and Table 4B for the volume-weighted portfolios.

TABLE 4A: FX-Factor (Daily)						
	Volatility	Market Capitalization				
Parameters		1 Low	2	3	4	5 High
$\alpha_j =$	1 Low	-0.0001	-0.0021**	0.0004	-0.0016*	-0.0007
$\beta_X =$		-0.1755	-0.0650	-0.2153	0.2008	0.0819
$\beta_B =$		0.1312***	0.2453***	0.2181***	0.3225***	0.6771***
$R^2 =$		0.0772	0.1501	0.1262	0.2298	0.6707
$\alpha_j =$	2	-0.0031*	-0.0034**	-0.0013	-0.0008	-0.0013
$\beta_X =$		-0.0790	-0.8657**	-0.4899*	-0.0705	-0.0928
$\beta_B =$		0.7439***	0.7047***	0.7981***	0.7101***	0.8401***
$R^2 =$		0.4121	0.3624	0.5131	0.4111	0.5506
$\alpha_j =$	3	-0.0032*	-0.0058***	0.0005	-0.0006	0.0016
$\beta_X =$		-1.1210***	-0.3956	-0.2023	0.1247	-0.5728
$\beta_B =$		0.8162***	0.8239***	0.8564***	0.9109***	0.8799***
$R^2 =$		0.3568	0.3740	0.4030	0.4436	0.4036
$\alpha_j =$	4	-0.0044**	0.0012	0.0013	0.0015	0.0061***
$\beta_X =$		-0.9451**	-0.2979	0.1256	-1.0437**	-0.5445
$\beta_B =$		0.8314***	0.9499***	1.0342***	0.9754***	0.9037***
$R^2 =$		0.2833	0.3557	0.4159	0.3777	0.3306
$\alpha_j =$	5	0.0025	0.0042	0.0066***	0.0054*	0.0060***
$\beta_X =$		-1.1411*	-0.7360	-0.0356	0.4665	-0.4113
$\beta_B =$		1.0907***	1.0682***	1.0616***	1.0856***	0.9578***
$R^2 =$		0.2347	0.2082	0.2943	0.2412	0.3760
TABLE 4A: FX-Factor (Weekly)						
	Volatility	Market Capitalization				
Parameters		1 Low	2	3	4	5 High
$\alpha_j =$	1 Low	-0.0039	-0.0094**	-0.0035	-0.0138***	-0.0067**
$\beta_X =$		-0.1728	-0.4176	0.3004	-0.2126	-0.2274
$\beta_B =$		0.1621***	0.2576***	0.3103***	0.3136***	0.6744***
$R^2 =$		0.1294	0.1501	0.2065	0.2151	0.6172
$\alpha_j =$	2	-0.0221***	-0.0293***	-0.0207***	-0.0177***	-0.0056
$\beta_X =$		-1.2954	-1.3014	-1.4937**	-0.1845	-1.4984**
$\beta_B =$		0.8234***	0.7700***	0.6300***	0.7564***	0.7979***
$R^2 =$		0.4556	0.4077	0.3487	0.4088	0.3951
$\alpha_j =$	3	-0.0305***	-0.0275***	-0.0046	-0.0035	0.0110
$\beta_X =$		-0.6405	0.4578	-0.4261	-0.4839	-2.0098**
$\beta_B =$		0.6122***	0.7641***	0.7958***	0.7772***	0.7134***
$R^2 =$		0.2022	0.3531	0.3241	0.3031	0.2872
$\alpha_j =$	4	-0.0337***	-0.0021	0.0009	0.0026	0.0056
$\beta_X =$		-2.2079**	-2.2296**	0.6103	-0.8646	-0.2691
$\beta_B =$		0.7907***	0.7445***	0.7422***	0.7774***	1.0016***
$R^2 =$		0.2419	0.2387	0.2101	0.2260	0.4284

$\alpha_j =$	5	-0.0080	0.0208	0.0363**	0.0374***	0.0411***
$\beta_X =$		-0.0860	-1.1560	-0.1086	-1.3871	-0.7240
$\beta_B =$		1.0363***	0.9057***	0.9294***	0.9079***	0.8736***
$R^2 =$		0.2969	0.1212	0.1753	0.2054	0.2584
TABLE 4A: FX-Factor (Monthly)						
	Volatility	Market Capitalization				
Parameters		1 Low	2	3	4	5 High
$\alpha_j =$	1 Low	-0.0111	-0.0510**	-0.0339	-0.0820***	-0.0547***
$\beta_X =$		-0.2346	0.1076	0.6618	-0.7859	-0.3439
$\beta_B =$		0.1352**	0.3988***	0.4359***	0.3276***	0.7963***
$R^2 =$		0.0614	0.2039	0.2381	0.1921	0.7182
$\alpha_j =$	2	-0.1403***	-0.0801**	-0.1095***	-0.0815**	-0.0396
$\beta_X =$		-0.8023	1.0930	0.2015	-3.5529*	-0.6582
$\beta_B =$		0.6798***	0.7357***	0.8395***	0.5891***	0.9238***
$R^2 =$		0.3049	0.2773	0.3405	0.2370	0.4412
$\alpha_j =$	3	-0.1639***	-0.1465***	-0.0477	-0.0627	-0.0100
$\beta_X =$		-0.3038	1.7681	-2.7023	-0.5600	1.2453
$\beta_B =$		0.6963***	0.6817***	0.7950***	0.9274***	0.8824***
$R^2 =$		0.1731	0.1830	0.2243	0.3483	0.2500
$\alpha_j =$	4	-0.0926*	-0.0763	-0.0685	0.0125	0.1096**
$\beta_X =$		-1.7583	-0.6337	-1.0408	-5.1195	-2.1133
$\beta_B =$		0.6575***	0.8852***	1.1096***	1.0879***	0.8618***
$R^2 =$		0.1278	0.2358	0.4010	0.3184	0.2102
$\alpha_j =$	5	-0.0550	0.1336	0.2312**	0.1689**	0.1636***
$\beta_X =$		-5.0647	-10.8182**	4.7597	-4.9568	-3.3008
$\beta_B =$		1.3524***	0.9305**	1.3281***	1.3630***	0.9767***
$R^2 =$		0.3704	0.0952	0.1232	0.2390	0.3855

TABLE 4B: FX-Factor (Daily)						
Parameters	Volatility	Volume				
		1 Low	2	3	4	5 High
$\alpha_j =$	1 Low	0.0002	-0.0018*	-0.0010	-0.0006	-0.0005
$\beta_X =$		0.0283	-0.3930	-0.1969	-0.0774	0.1772
$\beta_B =$		0.3223***	0.2828***	0.2735***	0.2385***	0.6335***
$R^2 =$		0.1770	0.1967	0.1559	0.1710	0.6385
$\alpha_j =$	2	-0.0053***	-0.0015	-0.0011	-0.0015	-0.0004
$\beta_X =$		-0.2063	-0.2306	-0.5008	-0.3702	-0.2344
$\beta_B =$		0.7418***	0.7780***	0.7373***	0.7718***	0.8780***
$R^2 =$		0.4314	0.4482	0.4337	0.4493	0.5506
$\alpha_j =$	3	-0.0040***	-0.0046***	-0.0019	0.0024	0.0028
$\beta_X =$		-0.6756*	-0.5402	-0.0494	-0.1123	-0.8432*
$\beta_B =$		0.7818***	0.8042***	0.9215***	0.9115***	0.8711***
$R^2 =$		0.3663	0.3313	0.4318	0.4640	0.3702
$\alpha_j =$	4	-0.0039**	-0.0034**	0.0021	0.0090***	0.0079***
$\beta_X =$		-0.6902*	-0.2675	-0.5076	-0.5732	-0.9579
$\beta_B =$		0.8403***	0.9541***	1.0093***	0.9218***	0.9561***
$R^2 =$		0.3018	0.4082	0.3905	0.2729	0.3100
$\alpha_j =$	5	-0.0013	-0.0005	0.0045	0.0142***	0.0096***
$\beta_X =$		-0.4691	-0.0469	-0.7273	-0.4749	-0.6912
$\beta_B =$		1.0366***	1.0076***	1.1500***	1.0728***	0.9868***
$R^2 =$		0.2934	0.2093	0.2296	0.2081	0.3276
TABLE 4B: FX-Factor (Weekly)						
Parameters	Volatility	Volume				
		1 Low	2	3	4	5 High
$\alpha_j =$	1 Low	-0.0036	0.0003	-0.0210***	-0.0112***	-0.0034
$\beta_X =$		-0.4867	-0.5003	0.5149	-0.5142	-0.1072
$\beta_B =$		0.2859***	0.1708***	0.3620***	0.2619***	0.6453***
$R^2 =$		0.1654	0.0995	0.2428	0.1935	0.6252
$\alpha_j =$	2	-0.0263***	-0.0208**	-0.0263***	-0.0199***	-0.0026
$\beta_X =$		-1.3498	-1.3297	-1.0341	-1.1089	-0.8178
$\beta_B =$		0.6626***	0.6063***	0.7938***	0.7288***	0.8481***
$R^2 =$		0.3277	0.2793	0.4640	0.3576	0.4258
$\alpha_j =$	3	-0.0300***	-0.0264***	-0.0112	-0.0003	0.0174*
$\beta_X =$		-0.7795	-0.1995	-0.1814	-0.6536	-2.6480**
$\beta_B =$		0.7086***	0.6684***	0.8461***	0.7285***	0.6846***
$R^2 =$		0.3220	0.2541	0.3534	0.2907	0.2444
$\alpha_j =$	4	-0.0382***	-0.0175*	0.0009	0.0209*	0.0131
$\beta_X =$		-1.1811	-2.2579**	-0.4853	-2.1364	0.0658
$\beta_B =$		0.6951***	0.7431***	0.8772***	0.8279***	0.9542***
$R^2 =$		0.2419	0.2217	0.2829	0.2419	0.3477
$\alpha_j =$	5	-0.0268***	0.0028	0.0465***	0.0600***	0.0547***
$\beta_X =$		-0.2353	-2.7475**	3.2152*	-2.7721	-1.7211
$\beta_B =$		0.9005***	0.7988***	1.0567***	0.9603***	0.9697***
$R^2 =$		0.2668	0.1692	0.1686	0.1362	0.2795

TABLE 4B: FX-Factor (Monthly)						
Parameters	Volatility	Volume				
		1 Low	2	3	4	5 High
$\alpha_j =$	1 Low	-0.0236	-0.0530**	-0.0660***	-0.0566***	-0.0350**
$\beta_X =$		0.2358	-0.1454	0.4426	-0.6610	0.1560
$\beta_B =$		0.4327***	0.2865***	0.2919***	0.3802***	0.7490***
$R^2 =$		0.1907	0.1086	0.1134	0.2649	0.6814
$\alpha_j =$	2	-0.1394***	-0.1102***	-0.1010***	-0.0717**	-0.0563*
$\beta_X =$		0.1596	-1.7905	0.4622	-2.3553	-2.3028
$\beta_B =$		0.7867***	0.6666***	0.8837***	0.5948***	0.9880***
$R^2 =$		0.3537	0.3347	0.4070	0.2411	0.5159
$\alpha_j =$	3	-0.1030**	-0.1453***	-0.0956*	-0.0973**	0.0151
$\beta_X =$		-2.6948	-0.3254	1.9934	-1.6748	-1.7178
$\beta_B =$		0.4969***	0.7460***	0.8314***	1.0570***	0.7513***
$R^2 =$		0.1008	0.2392	0.1593	0.4441	0.2053
$\alpha_j =$	4	-0.0847*	-0.0751	-0.0891**	0.0441	0.0818
$\beta_X =$		-2.0349	-3.6260	1.2774	-5.9845*	-5.6798
$\beta_B =$		0.7149***	0.7615***	1.0661***	0.8975***	0.6436**
$R^2 =$		0.1543	0.2304	0.3875	0.2315	0.1417
$\alpha_j =$	5	-0.1157**	0.1260*	0.2326**	0.1498	0.1678***
$\beta_X =$		-4.0177	-4.4508	-3.4617	-1.8882	-3.9580
$\beta_B =$		1.4119***	0.8205***	1.1475***	1.5289***	1.0171***
$R^2 =$		0.4025	0.1092	0.0912	0.1219	0.4046

Table 5 shows the In-Sample Regression Results of RR-Factor for the Daily, Weekly, and Monthly Data. Table 5A is for the value-weighted portfolios and Table 5B for the volume-weighted portfolios.

TABLE 5A: RR-Factor Model (Daily)						
Parameters	Volatility	Market Capitalization				
		1 Low	2	3	4	5 High
$\alpha_j =$	1 Low	-0.0003	0.0034	0.0009	-0.0036	0.0020
$\beta_X =$		-0.1312	0.1428	-0.0912	0.2811	0.1595
$\beta_B =$		-0.0546***	-0.1031***	-0.0854***	-0.1202***	-0.1657***
$\gamma_X =$		0.2301	-0.2949	0.6011	0.6594	-0.1008
$\gamma_r =$		-0.0090	-0.0433***	-0.0272*	-0.0047	-0.0254
$R^2 =$		0.0917	0.1980	0.1385	0.2194	0.1817
$\alpha_j =$	2	-0.0065	0.0072	-0.0013	-0.0001	0.0033
$\beta_X =$		0.4606	-0.3289	-0.1962	0.3697	0.2377
$\beta_B =$		-0.3175***	-0.3351***	-0.3326***	-0.3131***	-0.3415***
$\gamma_X =$		0.7932	-1.7461	0.4791	-0.0405	-0.9941
$\gamma_r =$		0.0146	-0.0310	-0.0208	-0.0008	0.0008
$R^2 =$		0.5555	0.5976	0.6270	0.5381	0.5993
$\alpha_j =$	3	-0.0007	-0.0092**	-0.0054	0.0026	0.0041
$\beta_X =$		-0.4417	0.2589	0.3947	0.6923**	-0.1514
$\beta_B =$		-0.3975***	-0.3942***	-0.3907***	-0.4020***	-0.3946***
$\gamma_X =$		0.3433	0.3405	2.0397**	0.2029	0.7028
$\gamma_r =$		-0.0358	0.0285	-0.0208	-0.0264	-0.0445*
$R^2 =$		0.5880	0.6088	0.5575	0.5437	0.5830
$\alpha_j =$	4	-0.0085	0.0072	-0.0015	0.0054	0.0101
$\beta_X =$		-0.3692	0.3791	0.6075	-0.3916	0.1133
$\beta_B =$		-0.4162***	-0.4369***	-0.4459***	-0.4344***	-0.4360***
$\gamma_X =$		0.9161	-0.9406	0.6576	0.1353	0.5180
$\gamma_r =$		0.0149	-0.0112	0.0076	-0.0379	-0.0527*
$R^2 =$		0.4676	0.5191	0.5255	0.5366	0.5443
$\alpha_j =$	5	0.0041	0.0065	0.0186**	0.0130	0.0203**
$\beta_X =$		-0.5559	-0.1365	0.7605	1.2492*	-0.3509
$\beta_B =$		-0.4928***	-0.5307***	-0.5048***	-0.5111***	-0.5249***
$\gamma_X =$		0.6308	-0.2045	-0.5173	-3.1982	-2.0549
$\gamma_r =$		-0.0457	-0.0182	-0.0983***	0.0576	-0.0273
$R^2 =$		0.2375	0.3273	0.4498	0.4036	0.2486

TABLE 5A: RR-Factor Model (Weekly)						
Parameters	Volatility	Market Capitalization				
		1 Low	2	3	4	5 High
$\alpha_j =$	1 Low	-0.0011	0.0057	0.0329*	0.0008	0.0174
$\beta_X =$		-0.0239	-0.2473	0.4820	-0.0706	-0.2654
$\beta_B =$		-0.0601***	-0.0996***	-0.1027***	-0.1280***	-0.1708***
$\gamma_X =$		0.5570	-0.5329	-0.4708	-0.4876	-0.6701
$\gamma_r =$		-0.0217	-0.0281	-0.0921***	-0.0256	-0.0396*
$R^2 =$		0.1835	0.2327	0.2605	0.3648	0.2699
$\alpha_j =$	2	-0.0232	0.0074	-0.0147	-0.0191	0.0342
$\beta_X =$		-0.9460	-0.8062	-1.0789**	0.3495	-0.8200
$\beta_B =$		-0.3031***	-0.3006***	-0.2766***	-0.2959***	-0.3041***
$\gamma_X =$		0.2338	-1.8238	1.4294	0.5330	-2.7679
$\gamma_r =$		0.0202	-0.0510	-0.0321	0.0218	-0.0279
$R^2 =$		0.6549	0.6509	0.6718	0.5982	0.5400
$\alpha_j =$	3	-0.0282	-0.0472**	-0.0391*	0.0171	0.0380
$\beta_X =$		0.1599	0.9188*	0.2252	0.2512	-1.3287*
$\beta_B =$		-0.3134***	-0.3508***	-0.3448***	-0.3441***	-0.3246***
$\gamma_X =$		2.2617	1.6264	4.8605**	1.9983	-0.6242
$\gamma_r =$		-0.0482	0.0476*	-0.0047	-0.0861**	-0.0420
$R^2 =$		0.5470	0.7298	0.6155	0.6037	0.5693
$\alpha_j =$	4	-0.0459	0.0254	-0.0294	0.0469	0.0175
$\beta_X =$		-1.4306*	-1.4572*	1.3378	0.0445	0.2044
$\beta_B =$		-0.3950***	-0.3746***	-0.3491***	-0.3638***	-0.3735***
$\gamma_X =$		0.2933	1.0861	3.5975	-2.9949	1.5260
$\gamma_r =$		0.0670	-0.0836*	0.0161	-0.0362	-0.0383
$R^2 =$		0.5425	0.5690	0.4933	0.5123	0.6260
$\alpha_j =$	5	0.0027	0.0548	0.0523	0.0720	0.1560***
$\beta_X =$		0.2853	-0.0734	0.5753	-0.0633	-1.3576
$\beta_B =$		-0.4081***	-0.4438***	-0.4499***	-0.4052***	-0.4836***
$\gamma_X =$		2.0023	0.2025	3.0811	-2.2801	-9.6305**
$\gamma_r =$		-0.0486	-0.1071	-0.1020	-0.0225	-0.0745
$R^2 =$		0.3195	0.2946	0.3986	0.4269	0.2891

TABLE 5A: RR-Factor Model (Monthly)						
Parameters	Volatility	Market Capitalization				
		1 Low	2	3	4	5 High
$\alpha_j =$	1 Low	0.0069	0.0968	0.0682	0.0190	0.0646
$\beta_X =$		-0.1959	0.4043	0.4812	-0.9464	-1.1752
$\beta_B =$		0.0616***	0.0980***	0.1034***	0.1127***	0.1384***
$\gamma_X =$		-0.7054	-1.8898	-1.4218	-2.9567	-2.1283
$\gamma_r =$		0.0014	-0.1266**	-0.0760	-0.0577	-0.0743
$R^2 =$		0.2320	0.2775	0.2288	0.3889	0.1237
$\alpha_j =$	2	-0.1946*	-0.0047	-0.1000	-0.0026	0.1284
$\beta_X =$		-1.6053	0.9944	-1.8284	-3.2928*	-0.1921
$\beta_B =$		0.2303***	0.2569***	0.2732***	0.2063***	0.2506***
$\gamma_X =$		5.6548	0.4129	2.5501	-0.5930	-1.2384
$\gamma_r =$		-0.0315	-0.0835	-0.0145	-0.0788	-0.1410**
$R^2 =$		0.6022	0.6504	0.6462	0.3938	0.5257
$\alpha_j =$	3	-0.0339	-0.2327***	-0.0158	0.0628	-0.0701
$\beta_X =$		0.9631	0.9530	-2.5212	0.2375	0.7694
$\beta_B =$		0.2855***	0.3238***	0.2932***	0.3133***	0.3151***
$\gamma_X =$		3.0979	4.5620	5.5156	1.0813	4.0124
$\gamma_r =$		-0.2149***	0.0413	-0.1742**	-0.1267*	0.0502
$R^2 =$		0.6270	0.7672	0.5541	0.7078	0.5260
$\alpha_j =$	4	0.0267	0.0479	-0.2154	0.0437	0.2102
$\beta_X =$		-0.5033	-0.3207	-1.9788	-5.1803**	-2.8270
$\beta_B =$		0.3567***	0.3414***	0.3271***	0.3582***	0.3255***
$\gamma_X =$		-3.5998	0.1711	8.1131	4.0938	-2.1917
$\gamma_r =$		-0.0497	-0.0958	0.0661	-0.0881	-0.0743
$R^2 =$		0.6260	0.6447	0.4601	0.5746	0.5301
$\alpha_j =$	5	-0.0066	-0.1615	0.8301***	0.3770	0.6247***
$\beta_X =$		-5.2281	-7.9094*	3.5099	-5.1900	-5.3996**
$\beta_B =$		0.5270***	0.5118***	0.6574***	0.5492***	0.4965***
$\gamma_X =$		0.5436	20.1523	-21.6939*	-7.6231	-16.2049**
$\gamma_r =$		0.0258	-0.0831	-0.2371	-0.0046	-0.1796
$R^2 =$		0.3773	0.3303	0.5313	0.5904	0.4567

TABLE 5B: RR-Factor Model (Daily)						
Parameters	Volatility	Volume				
		1 Low	2	3	4	5 High
$\alpha_j =$	1 Low	0.0029	0.0012	0.0051	-0.0016	0.0009
$\beta_X =$		0.1831	-0.2559	-0.0043	0.0792	0.1774
$\beta_B =$		-0.1188***	-0.1051***	-0.1263***	-0.1075***	-0.1328***
$\gamma_X =$		-0.0505	-0.4920	-0.6964	0.5367	0.0873
$\gamma_r =$		-0.0245	-0.0108	-0.0352**	-0.0114	-0.0167
$R^2 =$		0.1711	0.1852	0.2410	0.2358	0.1263
$\alpha_j =$	2	-0.0001	-0.0026	-0.0003	-0.0022	0.0057
$\beta_X =$		0.2510	0.1989	-0.0889	0.1504	0.2289
$\beta_B =$		-0.3242***	-0.3426***	-0.3335***	-0.3413***	-0.3517***
$\gamma_X =$		0.1045	-0.0716	0.0055	0.4081	-0.9704
$\gamma_r =$		-0.0476**	0.0209	-0.0089	-0.0041	-0.0190
$R^2 =$		0.5821	0.6498	0.6020	0.6191	0.5900
$\alpha_j =$	3	-0.0066	-0.0091*	-0.0101**	0.0037	0.0104*
$\beta_X =$		-0.2763	0.0648	0.3796	0.5948*	-0.3538
$\beta_B =$		-0.3489***	-0.3982***	-0.4102***	-0.4090***	-0.3973***
$\gamma_X =$		0.9853	1.7495	3.0134***	0.0188	-0.2606
$\gamma_r =$		-0.0160	-0.0076	-0.0378*	-0.0097	-0.0602**
$R^2 =$		0.4848	0.5822	0.5819	0.5986	0.5389
$\alpha_j =$	4	-0.0073	-0.0009	0.0025	0.0119*	0.0118
$\beta_X =$		-0.2783	0.2066	0.5088	-0.0178	0.0358
$\beta_B =$		-0.3963***	-0.4326***	-0.4607***	-0.4459***	-0.4610***
$\gamma_X =$		1.2582	-0.6078	-0.0638	0.0602	1.8750
$\gamma_r =$		-0.0129	0.0097	0.0112	-0.0254	-0.1089***
$R^2 =$		0.4402	0.5679	0.5557	0.4738	0.4939
$\alpha_j =$	5	0.0082	-0.0018	0.0190*	0.0291***	0.0174*
$\beta_X =$		0.1420	0.5998	0.0333	0.1908	-0.4528
$\beta_B =$		-0.4954***	-0.4913***	-0.5435***	-0.5461***	-0.5729***
$\gamma_X =$		-0.6544	1.5663	-2.6453	-4.9057**	-1.5448
$\gamma_r =$		-0.0879**	-0.0607	-0.0340	0.0411	0.0634
$R^2 =$		0.3253	0.3093	0.3611	0.4014	0.2435

TABLE 5B: RR-Factor Model (Weekly)						
Parameters	Volatility	Volume				
		1 Low	2	3	4	5 High
$\alpha_j =$	1 Low	0.0092	0.0129	-0.0203	0.0129	0.0189
$\beta_X =$		-0.3059	-0.2401	0.7381	-0.2984	-0.2730
$\beta_B =$		-0.1223***	-0.0886***	-0.1196***	-0.1101***	-0.1373***
$\gamma_X =$		0.2774	-0.1951	1.3102	-1.3848	-0.6105
$\gamma_r =$		-0.0471**	-0.0336	-0.0198	-0.0289	-0.0376
$R^2 =$		0.3227	0.2370	0.2522	0.3226	0.1936
$\alpha_j =$	2	-0.0231	-0.0030	0.0130	-0.0287	0.0284
$\beta_X =$		-0.7798	-0.8363	-0.5791	-0.1325	-0.2712
$\beta_B =$		-0.2793***	-0.2838***	-0.3174***	-0.3264***	-0.3032***
$\gamma_X =$		1.2988	-1.4537	-1.9530	1.5267	-1.5937
$\gamma_r =$		-0.0234	0.0004	-0.0347	0.0126	-0.0308
$R^2 =$		0.5777	0.6579	0.7027	0.6766	0.5235
$\alpha_j =$	3	-0.0469**	-0.0237	-0.0315	-0.0060	0.0316
$\beta_X =$		-0.2160	0.5827	0.5704	-0.0327	-1.7129**
$\beta_B =$		-0.3092***	-0.3527***	-0.3775***	-0.3316***	-0.3260***
$\gamma_X =$		2.4868	0.4884	2.6286	3.1342	2.4178
$\gamma_r =$		0.0167	0.0053	0.0142	-0.0419	-0.0848**
$R^2 =$		0.5742	0.6986	0.6590	0.6056	0.5415
$\alpha_j =$	4	-0.0689***	0.0275	-0.0024	0.0166	0.0411
$\beta_X =$		-0.4777	-1.5471*	0.4635	-1.3918	1.0927
$\beta_B =$		-0.3405***	-0.3770***	-0.3984***	-0.3691***	-0.3680***
$\gamma_X =$		2.3642	-2.0416	1.7682	2.9327	2.4510
$\gamma_r =$		0.0711**	-0.0644	-0.0026	-0.0413	-0.1322**
$R^2 =$		0.5283	0.5420	0.6082	0.5195	0.5518
$\alpha_j =$	5	-0.0166	0.0333	0.0618	0.1430**	0.1540***
$\beta_X =$		0.2540	-1.5960	3.4132**	-1.9183	-2.2967*
$\beta_B =$		-0.3888***	-0.4124***	-0.4338***	-0.4721***	-0.5553***
$\gamma_X =$		1.5637	-0.6886	7.2452	-7.2223	-8.9448*
$\gamma_r =$		-0.0371	-0.0719	-0.2126**	-0.0550	0.0192
$R^2 =$		0.3365	0.3999	0.2951	0.3489	0.3457

TABLE 5B: RR-Factor Model (Monthly)						
Parameters	Volatility	Volume				
		1 Low	2	3	4	5 High
$\alpha_j =$	1 Low	0.0723	-0.0314	0.0290	0.0065	0.0847
$\beta_X =$		-1.0041	0.2450	0.5989	-0.7315	-0.2243
$\beta_B =$		0.1170***	0.0925***	0.0942***	0.1115***	0.1185***
$\gamma_X =$		-1.4592	0.7041	-2.0010	-2.8699	-2.0471
$\gamma_r =$		-0.0687	-0.0250	-0.0644	0.0205	-0.0744
$R^2 =$		0.2369	0.1858	0.2682	0.3061	0.0859
$\alpha_j =$	2	-0.1249	-0.0560	-0.0074	-0.0425	0.0927
$\beta_X =$		-0.8310	-1.0280	-0.5336	-1.9902	-1.6799
$\beta_B =$		0.2418***	0.2596***	0.2843***	0.2067***	0.2551***
$\gamma_X =$		3.3295	0.3480	-0.7564	2.4008	-0.2409
$\gamma_r =$		-0.0530	-0.0509	-0.0547	-0.0785	-0.1269*
$R^2 =$		0.5846	0.7455	0.6589	0.4527	0.5419
$\alpha_j =$	3	-0.1286	-0.1685	-0.1257	0.1071	0.0067
$\beta_X =$		-1.1251	0.6390	0.9194	-0.4749	-1.9559
$\beta_B =$		0.2943***	0.2809***	0.3446***	0.3095***	0.2944***
$\gamma_X =$		4.7167	6.4910	6.5740	-1.1147	2.9631
$\gamma_r =$		-0.0617	-0.0659	-0.1010	-0.1706*	-0.0078
$R^2 =$		0.6323	0.6319	0.5698	0.6394	0.4690
$\alpha_j =$	4	0.0146	0.0263	-0.1509	-0.0638	0.3436*
$\beta_X =$		-0.9467	-3.1108*	1.9209	-5.0561**	-4.9398*
$\beta_B =$		0.3215***	0.3350***	0.3608***	0.3776***	0.2839***
$\gamma_X =$		-0.2026	-4.5950	5.8096	6.8668	-2.1194
$\gamma_r =$		-0.1037	0.0363	0.0285	0.0244	-0.2838**
$R^2 =$		0.5035	0.5936	0.6623	0.5961	0.4655
$\alpha_j =$	5	-0.0777	0.0486	0.4766	0.4543	0.5892***
$\beta_X =$		-3.2109	-3.7313	-1.6873	-2.1663	-5.6938***
$\beta_B =$		0.4785***	0.4143***	0.4813***	0.6605***	0.5258***
$\gamma_X =$		1.7233	12.0891	5.9821	-13.6637	-13.8781*
$\gamma_r =$		0.0518	-0.2120*	-0.4304**	-0.0021	-0.1407
$R^2 =$		0.2889	0.4473	0.3877	0.4177	0.5191

Table 6 shows the In-Sample Regression Results of Business-Cycle Currency-CAPM (GLM) for the Daily, Weekly, and Monthly Data. Table 6A is for the value-weighted portfolios and Table 6B for the volume-weighted portfolios.

Table 6A: Business-Cycle Currency-CAPM (Daily)						
Trough	Volatility	Market Capitalization				
Parameters		1 Low	2	3	4	5 High
$\alpha_j =$	1 Low	-0.0079	-0.0308**	-0.0131	-0.0078	-0.0071
$\beta_X =$		0.2498	-0.2572	-0.4395	-0.1952	0.3709
$\beta_B =$		1.4008***	1.1978***	0.7816***	1.3543***	1.4667***
$\gamma_{L1} =$		1.3880***	1.2758***	0.7864***	1.3772***	1.5093***
$\gamma_{L2} =$		1.4535***	1.3838***	0.9148***	1.5038***	1.6178***
$\gamma_{L3} =$		1.3606***	1.0472***	0.7214***	1.2991***	1.5282***
$\gamma_{L4} =$		1.2588***	1.1057***	0.6893***	1.1130***	1.0941***
$\gamma_{L5} =$		1.3443***	1.1162***	0.7405***	1.2121***	1.2928***
$\gamma_{C1} =$		1.1328***	1.3777***	1.8558***	1.5659***	2.2120***
$\gamma_{C2} =$		0.0684	-0.0881	-0.2205*	0.0728	0.9466***
$\gamma_{C3} =$		-0.5544**	-0.6500***	-0.3000	-0.4121	-0.7736***
$\gamma_{C4} =$		-0.5851***	-0.4669***	-0.3889***	-0.6955***	-0.8186***
$\gamma_{C5} =$		-0.8820***	-0.8328***	-0.6263***	-0.9009***	-1.1621***
$\gamma_{X1} =$		2.8296	7.1828*	4.0879	3.5035	2.1698
$\gamma_{X2} =$		2.3288	7.0095**	3.2642	2.2564	1.2325
$\gamma_{X3} =$		1.4563	4.8346*	2.2818	1.2079	2.0655
$\gamma_{X4} =$		-0.0484	0.1343	0.3987	-0.8117	0.0581
$\gamma_{r1} =$		-0.0871	0.1347	-0.1918	0.1785	0.1405
$\gamma_{r2} =$		0.0497	0.1876**	0.0561	0.1017*	0.2119***
$\gamma_{r3} =$		0.0595*	0.1236***	0.0907**	0.1557***	0.2163***
$\gamma_{r4} =$		0.0973***	0.1306***	0.0192	0.0909**	0.1379***
$R^2 =$		0.4010	0.5261	0.5334	0.5160	0.6527
$\alpha_j =$	2	-0.0320	-0.0010	-0.0084	-0.0105	-0.0093
$\beta_X =$		0.1980	-0.5699	-0.6939*	-0.2686	0.0419
$\beta_B =$		1.2274***	1.2365***	1.1214***	0.7610***	0.9735***
$\gamma_{L1} =$		1.5367***	1.4498***	1.2872***	0.8428***	1.1288***
$\gamma_{L2} =$		1.5785***	1.6112***	1.3794***	0.9313***	1.0532***
$\gamma_{L3} =$		1.0978***	1.1183***	1.0543***	0.6633***	0.9094***
$\gamma_{L4} =$		1.0157***	0.9964***	0.7672***	0.5834***	0.7781***
$\gamma_{L5} =$		1.0915***	1.0725***	0.9084***	0.6453***	0.8264***
$\gamma_{C1} =$		1.4986***	1.6944***	2.2211***	2.7704***	2.4012***
$\gamma_{C2} =$		-0.2771*	-0.3442***	0.4999***	-0.0919	-0.3780***
$\gamma_{C3} =$		-0.6246**	-0.5630***	-0.4687**	-0.4044***	-0.4028**
$\gamma_{C4} =$		-0.8227***	-0.6901***	-0.5279***	-0.3823***	-0.5714***
$\gamma_{C5} =$		-0.8704***	-0.8111***	-0.6889***	-0.4871***	-0.6444***
$\gamma_{X1} =$		5.2754	-1.6403	2.6188	2.2643	0.5473
$\gamma_{X2} =$		4.8350	-0.9878	1.9804	2.2138	0.1983
$\gamma_{X3} =$		3.7167	0.4673	2.5610	1.6025	-0.1950
$\gamma_{X4} =$		0.4384	-2.0970	-1.6315	0.1800	-1.4110
$\gamma_{r1} =$		0.8767**	0.2821	-0.0655	0.0458	0.4130
$\gamma_{r2} =$		0.3226***	0.1984**	0.1596**	0.1167**	0.2107***
$\gamma_{r3} =$		0.2219***	0.1112**	0.1946***	0.0933***	0.1739***
$\gamma_{r4} =$		0.0559	0.0764*	0.1188***	0.0314	0.0502

$R^2 =$		0.6245	0.6782	0.6450	0.6959	0.6819
$\alpha_j =$	3	-0.0028	-0.0032	0.0031	0.0045	-0.0029
$\beta_X =$		0.3976	-0.0132	0.1439	-0.0217	-0.1994
$\beta_B =$		0.9000***	1.1475***	1.0268***	0.6758***	1.7771***
$\gamma_{L1} =$		1.0029***	1.3312***	1.2544***	0.8392***	2.0365***
$\gamma_{L2} =$		1.0572***	1.2372***	1.2656***	0.8682***	2.1420***
$\gamma_{L3} =$		0.7206***	0.9972***	0.8897***	0.6041***	2.1646***
$\gamma_{L4} =$		0.6593***	0.8866***	0.8006***	0.5468***	1.4107***
$\gamma_{L5} =$		0.7586***	0.9762***	0.8657***	0.5730***	1.5230***
$\gamma_{C1} =$		2.7107***	2.1943***	2.0238***	2.6732***	1.2514***
$\gamma_{C2} =$		0.1865	-0.5032***	-0.4669***	-0.3028**	0.8392***
$\gamma_{C3} =$		-0.3181	-0.5025**	-0.5710***	-0.3349**	-0.8687***
$\gamma_{C4} =$		-0.5767***	-0.6120***	-0.6471***	-0.4069***	-1.0527***
$\gamma_{C5} =$		-0.5959***	-0.7097***	-0.7036***	-0.4931***	-1.2807***
$\gamma_{X1} =$		2.7838	1.6998	-1.1869	-2.4444	-3.0370
$\gamma_{X2} =$		1.7642	2.2616	-0.7960	-0.4094	-3.5581
$\gamma_{X3} =$		0.5907	1.6349	-0.6046	-1.6158	-2.0813
$\gamma_{X4} =$		-0.7073	-2.1214	-2.8635	-3.2261	-3.8226*
$\gamma_{r1} =$		-0.0416	-0.3695	-0.1748	-0.0536	0.6953**
$\gamma_{r2} =$		0.1108	0.1125	0.1410*	0.0918	0.3513***
$\gamma_{r3} =$		0.0475	0.0239	0.1205**	0.0570	0.2530***
$\gamma_{r4} =$		0.0512	0.0750	0.0690	0.0900**	0.1235***
$R^2 =$		0.6794	0.6676	0.6831	0.6984	0.6336
$\alpha_j =$	4	-0.0019	-0.0134	-0.0171	-0.0165	0.0077
$\beta_X =$		0.0886	-0.0714	-0.1654	-0.3722	-0.3614
$\beta_B =$		1.7441***	1.7146***	1.6729***	1.6026***	1.6862***
$\gamma_{L1} =$		1.9462***	1.9491***	1.8199***	1.7764***	1.9112***
$\gamma_{L2} =$		2.0769***	2.0694***	1.8943***	1.8502***	2.0188***
$\gamma_{L3} =$		2.0892***	1.8845***	1.9637***	1.7307***	1.8187***
$\gamma_{L4} =$		1.2256***	1.1952***	1.2242***	1.1465***	1.2052***
$\gamma_{L5} =$		1.4466***	1.4187***	1.3837***	1.3466***	1.4190***
$\gamma_{C1} =$		1.6023***	1.4912***	1.8619***	1.8109***	1.5456***
$\gamma_{C2} =$		1.1268***	1.4122***	1.1874***	1.7794***	1.2587***
$\gamma_{C3} =$		-1.1726***	-0.8079***	-1.0483***	-0.7998***	-0.8464***
$\gamma_{C4} =$		-1.1624***	-1.0657***	-1.0519***	-1.0118***	-1.1303***
$\gamma_{C5} =$		-1.2970***	-1.2624***	-1.1945***	-1.1743***	-1.2311***
$\gamma_{X1} =$		2.1420	2.2414	3.6692	4.8413	1.9532
$\gamma_{X2} =$		2.7442	0.4170	3.1011	2.1664	-1.2088
$\gamma_{X3} =$		2.6555	-1.5579	2.7663	3.2007	-0.6418
$\gamma_{X4} =$		-1.6126	-1.6673	-1.5905	1.3444	-0.7105
$\gamma_{r1} =$		-0.4762	0.5770*	0.1105	0.1019	-0.0111
$\gamma_{r2} =$		0.3083***	0.4212***	0.3252***	0.3092***	0.1730*
$\gamma_{r3} =$		0.1924***	0.2843***	0.2418***	0.1715***	0.0986
$\gamma_{r4} =$		0.1377***	0.1577***	0.1994***	0.1545***	0.1247**
$R^2 =$		0.7047	0.7099	0.7378	0.6863	0.7040
$\alpha_j =$	5	-0.0123	-0.0140	-0.0369**	-0.0106	0.0041
$\beta_X =$		-0.4751	-0.0754	-0.3847	0.0148	0.2151
$\beta_B =$		1.6449***	1.7875***	1.8090***	1.1664***	1.6579***
$\gamma_{L1} =$		1.8022***	1.8997***	2.0019***	1.2538***	1.8651***
$\gamma_{L2} =$		1.6699***	2.0445***	2.1046***	1.3889***	1.6055***
$\gamma_{L3} =$		0.6393***	1.7934***	2.0381***	0.9409***	0.4448***

$\gamma_{L4} =$		1.2455***	1.2423***	1.4148***	0.9857***	1.2831***
$\gamma_{L5} =$		1.3628***	1.4920***	1.5467***	1.0253***	1.3959***
$\gamma_{C1} =$		2.2299***	1.9170***	1.5895***	2.5934***	2.1494***
$\gamma_{C2} =$		1.0447***	1.5173***	1.4676***	2.2876***	1.6596***
$\gamma_{C3} =$		-0.9156***	-1.0309***	-1.1610***	-0.6317***	-0.6372***
$\gamma_{C4} =$		-1.2110***	-1.2878***	-1.2959***	-0.8990***	-1.2428***
$\gamma_{C5} =$		-1.3490***	-1.4848***	-1.4494***	-0.9776***	-1.3541***
$\gamma_{X1} =$		9.1093**	10.3926**	10.1479**	-0.0197	1.5689
$\gamma_{X2} =$		6.1388*	5.8258	7.1405**	-0.5952	1.4232
$\gamma_{X3} =$		4.0457*	3.1285	6.2401**	-0.9633	0.4234
$\gamma_{X4} =$		0.4400	1.1880	-0.3997	-2.6303	0.0993
$\gamma_{r1} =$		-0.3211	0.2019	0.2693	0.5841	0.1177
$\gamma_{r2} =$		0.3160***	0.1544	0.3717***	0.2873***	0.2583***
$\gamma_{r3} =$		0.1948***	0.1670***	0.1943***	0.1772***	0.2907***
$\gamma_{r4} =$		0.1415***	0.0754	0.2160***	0.1210***	0.1548***
$R^2 =$		0.8237	0.7913	0.6755	0.7631	0.8049
Table 6A: Business-Cycle Currency-CAPM (Daily)						
Expansion	Volatility	Market Capitalization				
Parameters		1 Low	2	3	4	5 High
$\alpha_j =$	1 Low	-0.0026	0.0212	0.0042	-0.0143	-0.0101
$\beta_X =$		0.0383	0.7920**	0.5954*	0.3065	0.0928
$\beta_B =$		0.6902***	0.5945***	0.8813***	0.5493***	0.3504***
$\gamma_{L1} =$		0.7281***	0.5709***	0.9006***	0.5640***	0.3419***
$\gamma_{L2} =$		0.7133***	0.5201***	0.8017***	0.5072***	0.3050***
$\gamma_{L3} =$		0.7746***	0.8038***	0.9803***	0.6875***	0.4320***
$\gamma_{L4} =$		0.7582***	0.6121***	0.8936***	0.6802***	0.7431***
$\gamma_{L5} =$		0.6682***	0.5672***	0.8459***	0.5392***	0.4067***
$\gamma_{C1} =$		0.1433	0.5672***	0.0665	0.1715*	-0.3573***
$\gamma_{C2} =$		0.6994***	0.8772***	1.1695***	1.1619***	0.7147***
$\gamma_{C3} =$		0.0866	0.2616	0.1487	0.2289	1.2434***
$\gamma_{C4} =$		-0.2107**	-0.2009*	-0.1628*	-0.1922*	-0.1810**
$\gamma_{C5} =$		-0.3724***	-0.4181***	-0.6366***	-0.3430***	-0.3270***
$\gamma_{X1} =$		-0.3644	-5.2938	-5.5509	-1.5825	-0.6547
$\gamma_{X2} =$		-0.9129	-5.8533*	-4.8823*	-0.1435	0.1574
$\gamma_{X3} =$		-1.1541	-3.7138	-4.2297**	0.7172	-0.3345
$\gamma_{X4} =$		0.2565	0.2280	0.1664	1.1564	1.8868
$\gamma_{r1} =$		-0.0863	-0.0400	0.1450	-0.0629	0.0320
$\gamma_{r2} =$		0.0257	-0.0181	0.1763**	0.1971***	0.0279
$\gamma_{r3} =$		0.0232	0.0072	0.0632	0.1119***	-0.0180
$\gamma_{r4} =$		-0.0762***	-0.0253	0.0683**	0.0482	-0.0113
$R^2 =$		0.4010	0.5261	0.5334	0.5160	0.6527
$\alpha_j =$	2	-0.0127	-0.0191	-0.0214	-0.0179	-0.0070
$\beta_X =$		-0.2761	0.4283	0.5814	-0.1873	-0.4805
$\beta_B =$		0.7227***	0.6442***	0.6731***	1.1287***	0.7120***
$\gamma_{L1} =$		0.5606***	0.5967***	0.7157***	1.1659***	0.7408***
$\gamma_{L2} =$		0.5807***	0.5414***	0.6721***	1.2095***	0.8781***
$\gamma_{L3} =$		1.0271***	1.0766***	1.0618***	1.5214***	1.0627***
$\gamma_{L4} =$		0.7280***	0.6852***	0.8218***	1.0247***	0.6782***
$\gamma_{L5} =$		0.6376***	0.5844***	0.6531***	0.9867***	0.6197***
$\gamma_{C1} =$		-0.0498	-0.3854***	-0.8873***	-1.3123***	-0.8421***
$\gamma_{C2} =$		1.6789***	1.5633***	0.6271***	1.1946***	1.7888***
$\gamma_{C3} =$		0.3350	0.3351	0.0495	-0.1943	-0.0539

$\gamma_{C4} =$		-0.2142	-0.2636**	-0.2216*	-0.4722***	-0.3219***
$\gamma_{C5} =$		-0.3423**	-0.3875***	-0.4101***	-0.6831***	-0.4265***
$\gamma_{X1} =$		4.1627	2.2521	2.1586	2.4447	-1.5335
$\gamma_{X2} =$		2.6323	2.2294	0.7318	1.3518	-1.0801
$\gamma_{X3} =$		2.9147	-0.8811	-0.5683	1.7156	0.6941
$\gamma_{X4} =$		2.2197	1.3436	2.8434	1.1117	-0.4685
$\gamma_{r1} =$		-1.2404***	-0.3726	-0.1203	-0.1767	-0.0703
$\gamma_{r2} =$		-0.0684	0.0236	0.0433	0.1159*	0.1157
$\gamma_{r3} =$		-0.0451	0.0802	-0.0258	0.0947**	0.0710
$\gamma_{r4} =$		-0.0167	0.0338	-0.0662	0.0310	0.0949**
$R^2 =$		0.6245	0.6782	0.6450	0.6959	0.6819
$\alpha_j =$	3	-0.0161	-0.0253	-0.0310**	-0.0266	-0.0273*
$\beta_X =$		-0.5858	0.1601	-0.0733	-0.3214	0.0654
$\beta_B =$		1.0223***	0.7691***	0.8499***	0.9822***	0.1535
$\gamma_{L1} =$		1.0863***	0.7893***	0.8206***	0.9753***	0.1001
$\gamma_{L2} =$		1.1294***	0.9703***	0.8973***	1.0313***	0.0501
$\gamma_{L3} =$		1.5220***	1.2380***	1.3483***	1.3548***	0.0574
$\gamma_{L4} =$		0.9155***	0.6202***	0.8801***	0.9472***	0.7455***
$\gamma_{L5} =$		0.9015***	0.6438***	0.7842***	0.8878***	0.2092**
$\gamma_{C1} =$		-1.2887***	-0.8047***	-0.7483***	-0.9573***	0.0386
$\gamma_{C2} =$		1.0282***	1.7770***	1.5794***	1.7100***	0.3959***
$\gamma_{C3} =$		-0.2313	-0.1125	-0.0692	-0.1439	1.3856***
$\gamma_{C4} =$		-0.4696***	-0.3676**	-0.4595***	-0.5529***	-0.0059
$\gamma_{C5} =$		-0.6034***	-0.4471***	-0.5899***	-0.7196***	-0.1542*
$\gamma_{X1} =$		-0.7112	3.6353	3.4445	3.5635	6.1371
$\gamma_{X2} =$		-0.4509	0.9957	2.1396	1.8818	6.2160*
$\gamma_{X3} =$		0.9800	0.5617	1.8889	2.5448	5.8644**
$\gamma_{X4} =$		0.2743	3.2502	4.3546**	3.4149	4.7106**
$\gamma_{r1} =$		-0.1353	0.4698	0.2912	-0.0318	-0.6989**
$\gamma_{r2} =$		0.1312	0.2113**	0.1407*	0.1295	-0.0827
$\gamma_{r3} =$		0.1035*	0.2229***	0.0635	0.1047*	-0.0432
$\gamma_{r4} =$		0.0417	0.0310	-0.0028	-0.0404	-0.0626
$R^2 =$		0.6794	0.6676	0.6831	0.6984	0.6336
$\alpha_j =$	4	-0.0203	-0.0070	-0.0124	-0.0189	-0.0293
$\beta_X =$		0.0062	-0.0351	-0.0956	-0.1685	-0.3840
$\beta_B =$		0.2823**	0.1246	0.3029***	0.2518**	0.2133*
$\gamma_{L1} =$		0.2414**	0.0844	0.3017***	0.2629**	0.1770
$\gamma_{L2} =$		0.1531	0.0233	0.2725**	0.2251**	0.1193
$\gamma_{L3} =$		0.1620	0.2351**	0.2442**	0.3709***	0.3656***
$\gamma_{L4} =$		0.7609***	0.6930***	0.8589***	0.8210***	0.7365***
$\gamma_{L5} =$		0.3664***	0.1689	0.3441***	0.3248***	0.3032**
$\gamma_{C1} =$		-0.1951*	-0.0229	-0.3434***	-0.3262***	-0.1255
$\gamma_{C2} =$		0.3038**	0.0660	0.1773	-0.3187***	0.1304
$\gamma_{C3} =$		1.7656***	1.8814***	1.8202***	1.4665***	1.4538***
$\gamma_{C4} =$		-0.1394	0.0454	-0.1314	-0.1435	-0.1735
$\gamma_{C5} =$		-0.2403**	-0.0805	-0.2485**	-0.2531**	-0.2320*
$\gamma_{X1} =$		-0.9615	-2.4526	-0.5274	-0.3186	4.3729
$\gamma_{X2} =$		-0.9611	-1.3813	-1.1348	-0.0869	3.4891
$\gamma_{X3} =$		-1.4431	0.4455	-2.0443	-0.3363	1.5386
$\gamma_{X4} =$		2.7617	1.8406	1.8474	0.3109	2.4244
$\gamma_{r1} =$		0.0246	-0.3100	-0.1019	-0.0173	-0.2148
$\gamma_{r2} =$		-0.1126	-0.1463*	-0.0845	-0.0523	-0.1084

$\gamma_{r,3} =$		-0.0339	-0.0438	-0.0424	0.0182	-0.0309
$\gamma_{r,4} =$		-0.0694	-0.0553	-0.1026**	-0.0775*	-0.0834
$R^2 =$		0.7047	0.7099	0.7378	0.6863	0.7040
$\alpha_j =$	5	0.0021	-0.0275	-0.0030	-0.0171	-0.0227
$\beta_X =$		0.4303	0.3055	-0.1712	0.0403	0.0080
$\beta_B =$		0.4932***	0.1274	0.2413**	0.9726***	0.2708**
$\gamma_{L,1} =$		0.4656***	0.1287	0.1976*	0.9573***	0.2207*
$\gamma_{L,2} =$		0.6968***	0.0569	0.1471	0.9077***	0.5411***
$\gamma_{L,3} =$		1.9147***	0.3508**	0.2765**	1.3880***	1.7388***
$\gamma_{L,4} =$		0.7547***	0.7354***	0.5755***	0.9882***	0.5985***
$\gamma_{L,5} =$		0.5829***	0.2722*	0.3024***	0.9076***	0.4170***
$\gamma_{C,1} =$		-0.6375***	-0.1813	-0.1250	-0.9370***	-0.3466**
$\gamma_{C,2} =$		0.4062***	0.1040	-0.0345	-0.8237***	0.1033
$\gamma_{C,3} =$		1.3675***	2.0803***	2.0479***	1.6650***	1.6964***
$\gamma_{C,4} =$		-0.5279***	-0.1868	-0.1519	-0.7203***	-0.3460**
$\gamma_{C,5} =$		-0.5346***	-0.2134	-0.2588**	-0.8365***	-0.3898***
$\gamma_{X,1} =$		-6.9406	-0.9350	-3.1247	3.3703	2.7568
$\gamma_{X,2} =$		-4.8605	-1.0743	-2.4550	1.2255	1.8050
$\gamma_{X,3} =$		-2.8918	0.0184	-4.5515	0.9439	1.4639
$\gamma_{X,4} =$		1.0622	3.5543	3.1095	2.9988	0.2568
$\gamma_{r,1} =$		0.0403	-0.0306	0.1823	-0.0566	-0.2672
$\gamma_{r,2} =$		-0.1982**	0.1042	-0.0982	-0.0589	-0.1520**
$\gamma_{r,3} =$		-0.0559	0.0016	0.0031	0.0033	-0.1118**
$\gamma_{r,4} =$		-0.0694	0.0313	-0.0955*	-0.0103	-0.0987*
$R^2 =$		0.8237	0.7913	0.6755	0.7631	0.8049

Table 6A: Business-Cycle Currency-CAPM (Daily)

Contraction	Volatility	Market Capitalization				
Parameters		1 Low	2	3	4	5 High
$\alpha_j =$	1 Low	0.0040	0.0025	-0.0139	0.0054	0.0146*
$\beta_X =$		-0.1323	-0.2662	-0.2472	-0.0151	0.0148
$\beta_B =$		0.2849***	0.8036***	0.5108***	0.3102***	1.2906***
$\gamma_{L,1} =$		0.2807***	0.8190***	0.5016***	0.3028***	1.2746***
$\gamma_{L,2} =$		0.2837***	0.7423***	0.4943***	0.2910***	1.2454***
$\gamma_{L,3} =$		0.3069***	0.8263***	0.5351***	0.3286***	1.2466***
$\gamma_{L,4} =$		0.3530***	0.9426***	0.5734***	0.4794***	1.3582***
$\gamma_{L,5} =$		0.3057***	0.8261***	0.5419***	0.3675***	1.3341***
$\gamma_{C,1} =$		-0.1483**	-0.6629***	-0.3976***	-0.2702***	-1.1117***
$\gamma_{C,2} =$		0.0799	0.1171	-0.0209	-0.0233	-0.9821***
$\gamma_{C,3} =$		0.2279	0.3734**	0.4022**	0.8249***	-0.0620
$\gamma_{C,4} =$		0.1640***	0.1176	0.2008***	0.2098***	1.3534***
$\gamma_{C,5} =$		-0.1671***	-0.6141***	-0.4896***	-0.3476***	-0.9282***
$\gamma_{X,1} =$		-0.6859	0.4604	4.4636*	0.9446	-2.1100
$\gamma_{X,2} =$		-0.6173	-0.0650	2.9714	0.8324	-1.4071
$\gamma_{X,3} =$		-0.0021	0.3790	3.4271**	0.6090	-1.6183
$\gamma_{X,4} =$		0.1329	0.7812	1.7631	2.1569**	-0.8236
$\gamma_{r,1} =$		0.1051	-0.1854	0.1364	-0.2190	0.0627
$\gamma_{r,2} =$		0.0246	-0.0896*	0.0088	-0.1160***	-0.1287**
$\gamma_{r,3} =$		0.0145	-0.0019	0.0121	-0.0921***	-0.0967***
$\gamma_{r,4} =$		0.0061	-0.0490*	-0.0179	-0.0755***	-0.1217***
$R^2 =$		0.4010	0.5261	0.5334	0.5160	0.6527
$\alpha_j =$	2	-0.0088	0.0003	0.0195	0.0119	0.0032

$\beta_X =$		0.3760	-0.5164	0.1580	0.3177	0.2254
$\beta_B =$		0.1163	0.1759*	0.1259	0.2177**	0.2793***
$\gamma_{L,1} =$		0.1115	0.1527*	0.1116	0.2053**	0.2697***
$\gamma_{L,2} =$		0.1059	0.1455	0.1160	0.1824**	0.2656***
$\gamma_{L,3} =$		0.1567	0.1405	0.1377	0.1838**	0.3095***
$\gamma_{L,4} =$		0.3673***	0.6078***	0.5774***	0.6378***	0.6791***
$\gamma_{L,5} =$		0.1121	0.2250**	0.1431*	0.2464***	0.2732***
$\gamma_{C,1} =$		-0.0819	-0.0633	-0.0410	-0.1197	-0.2278**
$\gamma_{C,2} =$		-0.0211	0.0320	0.0741	0.0351	-0.1553
$\gamma_{C,3} =$		1.3286***	1.2029***	1.2404***	1.7431***	1.5263***
$\gamma_{C,4} =$		0.5322***	0.0710	0.2511***	0.1307	0.4087***
$\gamma_{C,5} =$		-0.1116	-0.2968***	-0.1946**	-0.2468***	-0.2343***
$\gamma_{X,1} =$		5.5816	2.4034	-1.6412	-1.2139	1.5305
$\gamma_{X,2} =$		3.7267	0.7035	-1.1467	-1.7172	0.8641
$\gamma_{X,3} =$		0.4352	1.5705	-1.2317	-1.4475	0.7292
$\gamma_{X,4} =$		5.1840**	2.0668	-0.4032	1.2366	2.1606
$\gamma_{r,1} =$		-0.2646	0.2500	-0.4113*	-0.2293	-0.0372
$\gamma_{r,2} =$		-0.0605	-0.0213	-0.0730	-0.0417	-0.0579
$\gamma_{r,3} =$		-0.0550	-0.0188	-0.0408	-0.0338	-0.0412
$\gamma_{r,4} =$		-0.0284	-0.0341	-0.0178	-0.0289	-0.0620*
$R^2 =$		0.6245	0.6782	0.6450	0.6959	0.6819

$\alpha_j =$	3	-0.0045	-0.0010	-0.0077	0.0242	0.0314
$\beta_X =$		-0.1990	0.1238	-0.0411	-0.6513	-0.0559
$\beta_B =$		0.1042	0.1827*	0.0738	0.3520***	0.6581***
$\gamma_{L,1} =$		0.0873	0.1522	0.0571	0.3313***	0.5828***
$\gamma_{L,2} =$		0.0819	0.1252	0.0671	0.3349***	0.5774***
$\gamma_{L,3} =$		0.1120	0.1601	0.0721	0.3432***	0.5711***
$\gamma_{L,4} =$		0.5578***	0.6212***	0.5621***	0.8817***	0.5039***
$\gamma_{L,5} =$		0.1420	0.1615*	0.0985	0.3986***	0.8484***
$\gamma_{C,1} =$		-0.0323	-0.0773	0.0391	-0.2616**	-0.3328*
$\gamma_{C,2} =$		0.0110	0.0581	0.1809	-0.1466	-0.1963
$\gamma_{C,3} =$		1.4687***	1.6785***	1.7675***	1.1940***	0.1533
$\gamma_{C,4} =$		0.1411	0.4838***	0.1154	0.0198	1.9408***
$\gamma_{C,5} =$		-0.1799**	-0.1154	-0.1980**	-0.4472***	-0.2612*
$\gamma_{X,1} =$		-0.2727	0.5399	5.1421	-4.3169	-4.5359
$\gamma_{X,2} =$		0.2593	0.1103	2.9995	-0.4040	-4.6775
$\gamma_{X,3} =$		-0.0771	0.9482	0.7809	-2.6573	-6.6061
$\gamma_{X,4} =$		1.6354	1.4261	1.0627	-0.4741	1.1379
$\gamma_{r,1} =$		0.2190	-0.1391	0.5210*	-0.0133	0.2458
$\gamma_{r,2} =$		0.0984	-0.0914	0.0219	0.0029	-0.1597
$\gamma_{r,3} =$		0.0524	-0.0254	0.0558	0.0094	0.0236
$\gamma_{r,4} =$		0.0291	0.0315	0.0541	-0.0379	-0.1033
$R^2 =$		0.6794	0.6676	0.6831	0.6984	0.6336

$\alpha_j =$	4	0.0275*	0.0350	0.0085	0.0272	0.0298
$\beta_X =$		0.6973	-0.1323	-0.1522	-0.2049	-0.2192
$\beta_B =$		1.0776***	1.0538***	1.3389***	1.1664***	1.0190***
$\gamma_{L,1} =$		0.9913***	0.9701***	1.2524***	1.0813***	0.9413***
$\gamma_{L,2} =$		0.9814***	0.9478***	1.2205***	1.0798***	0.9224***
$\gamma_{L,3} =$		0.9977***	0.9573***	1.2134***	1.0961***	0.9274***
$\gamma_{L,4} =$		1.2972***	1.1782***	1.2885***	1.2124***	1.1691***
$\gamma_{L,5} =$		1.2000***	1.3085***	1.4889***	1.2604***	1.1942***
$\gamma_{C,1} =$		-0.7457***	-0.7334***	-1.0173***	-0.8337***	-0.7411***

$\gamma_{C,2} =$		-0.7105***	-0.7316***	-0.8969***	-0.7805***	-0.7078***
$\gamma_{C,3} =$		-0.0474	-0.4891**	-0.2728	-0.0684	-0.1043
$\gamma_{C,4} =$		1.5748***	1.6784***	1.6589***	1.6415***	1.7072***
$\gamma_{C,5} =$		-1.1919***	-1.0471***	-1.3064***	-1.0302***	-1.0698***
$\gamma_{X,1} =$		-2.3494	-5.2847	4.2818	-2.8609	-6.8828
$\gamma_{X,2} =$		-3.7340	-2.5657	2.5452	-2.6746	-4.4209
$\gamma_{X,3} =$		-4.2827	-2.6653	2.3484	-4.0568	-2.4422
$\gamma_{X,4} =$		-0.7580	2.7962	9.7740***	0.8924	4.3110
$\gamma_{r,1} =$		0.5848	-0.7120	-0.2442	0.1857	-0.1614
$\gamma_{r,2} =$		-0.1165	-0.2459**	-0.1940*	-0.1437	-0.0302
$\gamma_{r,3} =$		-0.0631	-0.0923	-0.1004	0.0008	-0.0434
$\gamma_{r,4} =$		-0.0238	-0.2666***	-0.3926***	-0.0926	-0.2933***
$R^2 =$		0.7047	0.7099	0.7378	0.6863	0.7040
$\alpha_i =$	5	0.0127	0.0458**	0.0069	0.0434	-0.0038
$\beta_X =$		0.1031	0.2365	-0.0448	0.4759	-0.6004
$\beta_B =$		1.4319***	1.6324***	0.9603***	1.0484***	1.4132***
$\gamma_{L,1} =$		1.3366***	1.5425***	0.8984***	1.0351***	1.3064***
$\gamma_{L,2} =$		1.2708***	1.4886***	0.8822***	1.0040***	1.2584***
$\gamma_{L,3} =$		1.1794***	1.4707***	0.8878***	1.0380***	1.2903***
$\gamma_{L,4} =$		1.7650***	1.5532***	1.0278***	1.3426***	1.5881***
$\gamma_{L,5} =$		1.6752***	1.6276***	1.1301***	1.2312***	1.6111***
$\gamma_{C,1} =$		-1.2257***	-1.3373***	-0.7182***	-0.9976***	-1.2314***
$\gamma_{C,2} =$		-1.1196***	-1.2085***	-0.6360***	-0.8702***	-1.2044***
$\gamma_{C,3} =$		-0.4365**	-0.6428***	-0.2765	-0.6150***	-0.6859***
$\gamma_{C,4} =$		1.7593***	1.8123***	2.2036***	1.5204***	2.0182***
$\gamma_{C,5} =$		-1.6192***	-1.6389***	-0.5255***	-1.2927***	-1.4798***
$\gamma_{X,1} =$		-4.9261	-10.6925*	10.4498	-13.8856	3.6831
$\gamma_{X,2} =$		-3.0902	-5.6086	6.5182	-9.7392	1.4638
$\gamma_{X,3} =$		-1.4013	-3.5625	2.1104	-7.7865	2.1627
$\gamma_{X,4} =$		-2.9769	-3.9653	7.8779*	-4.0523	2.6919
$\gamma_{r,1} =$		0.5176	-0.0706	-0.8473	0.7980	-0.0229
$\gamma_{r,2} =$		-0.0447	-0.1925*	-0.3444**	0.1194	-0.1589**
$\gamma_{r,3} =$		-0.0445	-0.1038	-0.1497	0.0471	-0.1195***
$\gamma_{r,4} =$		-0.0157	-0.0888	-0.3241***	-0.1856**	-0.0299
$R^2 =$		0.8237	0.7913	0.6755	0.7631	0.8049

Table 6A: Business-Cycle Currency-CAPM (Daily)

Peak	Volatility	Market Capitalization				
Parameters		1 Low	2	3	4	5 High
$\alpha_i =$	1 Low	0.0064	0.0070	0.0227**	0.0167**	0.0026
$\beta_X =$		-0.1557	-0.2686	0.0914	-0.0962	-0.4786**
$\beta_B =$		1.6242***	1.4040***	1.8262***	1.7862***	0.8923***
$\gamma_{L,1} =$		1.6032***	1.3343***	1.8115***	1.7560***	0.8742***
$\gamma_{L,2} =$		1.5495***	1.3538***	1.7892***	1.6979***	0.8318***
$\gamma_{L,3} =$		1.5579***	1.3227***	1.7633***	1.6849***	0.7931***
$\gamma_{L,4} =$		1.6300***	1.3396***	1.8437***	1.7274***	0.8046***
$\gamma_{L,5} =$		1.6819***	1.4906***	1.8717***	1.8812***	0.9664***
$\gamma_{C,1} =$		-1.1278***	-1.2819***	-1.5246***	-1.4673***	-0.7430***
$\gamma_{C,2} =$		-0.8477***	-0.9062***	-0.9281***	-1.2114***	-0.6792***
$\gamma_{C,3} =$		0.2398	0.0149	-0.2509	-0.6418***	-0.4078***
$\gamma_{C,4} =$		0.6318***	0.5502***	0.3508***	0.6779***	-0.3538***
$\gamma_{C,5} =$		1.4215***	1.8649***	1.7525***	1.5915***	2.4174***
$\gamma_{X,1} =$		-1.7793	-2.3494	-3.0006	-2.8655	0.5949

$\gamma_{X,2} =$		-0.7986	-1.0912	-1.3533	-2.9453	0.0171
$\gamma_{X,3} =$		-0.3000	-1.4998	-1.4792	-2.5341*	-0.1128
$\gamma_{X,4} =$		-0.3409	-1.1435	-2.3282	-2.5016*	-1.1213
$\gamma_{r,1} =$		0.0683	0.0906	-0.0896	0.1033	-0.2352
$\gamma_{r,2} =$		-0.1001**	-0.0799	-0.2412***	-0.1829***	-0.1111***
$\gamma_{r,3} =$		-0.0972***	-0.1289***	-0.1660***	-0.1755***	-0.1016***
$\gamma_{r,4} =$		-0.0272	-0.0562**	-0.0697**	-0.0635**	-0.0050
$R^2 =$		0.4010	0.5261	0.5334	0.5160	0.6527
$\alpha_i =$	2	0.0534***	0.0199	0.0103	0.0165	0.0131
$\beta_X =$		-0.2980	0.6580*	-0.0454	0.1382	0.2132
$\beta_B =$		1.9336***	1.9434***	2.0796***	1.8926***	2.0352***
$\gamma_{L,1} =$		1.7912***	1.8007***	1.8855***	1.7861***	1.8608***
$\gamma_{L,2} =$		1.7348***	1.7020***	1.8326***	1.6768***	1.8031***
$\gamma_{L,3} =$		1.7183***	1.6645***	1.7462***	1.6315***	1.7183***
$\gamma_{L,4} =$		1.8890***	1.7106***	1.8336***	1.7541***	1.8646***
$\gamma_{L,5} =$		2.1588***	2.1180***	2.2954***	2.1216***	2.2808***
$\gamma_{C,1} =$		-1.3669***	-1.2457***	-1.2928***	-1.3384***	-1.3312***
$\gamma_{C,2} =$		-1.3807***	-1.2511***	-1.2011***	-1.1378***	-1.2554***
$\gamma_{C,3} =$		-1.0391***	-0.9750***	-0.8212***	-1.1444***	-1.0696***
$\gamma_{C,4} =$		0.5047***	0.8827***	0.4984***	0.7238***	0.4846***
$\gamma_{C,5} =$		1.3243***	1.4953***	1.2936***	1.4171***	1.3053***
$\gamma_{X,1} =$		-15.0197***	-3.0152	-3.1361	-3.4950	-0.5443
$\gamma_{X,2} =$		-11.1940***	-1.9451	-1.5655	-1.8484	0.0177
$\gamma_{X,3} =$		-7.0665***	-1.1567	-0.7609	-1.8706	-1.2284
$\gamma_{X,4} =$		-7.8421***	-1.3135	-0.8087	-2.5283	-0.2810
$\gamma_{r,1} =$		0.6283*	-0.1595	0.5971**	0.3602	-0.3055
$\gamma_{r,2} =$		-0.1937**	-0.2007**	-0.1299*	-0.1909***	-0.2685***
$\gamma_{r,3} =$		-0.1218**	-0.1726***	-0.1280***	-0.1541***	-0.2037***
$\gamma_{r,4} =$		-0.0108	-0.0761*	-0.0348	-0.0334	-0.0831**
$R^2 =$		0.6245	0.6782	0.6450	0.6959	0.6819
$\alpha_i =$	3	0.0235*	0.0295**	0.0356***	-0.0021	-0.0013
$\beta_X =$		0.3871	-0.2707	-0.0296	0.9945**	0.1898
$\beta_B =$		1.9734***	1.9007***	2.0495***	1.9900***	1.4113***
$\gamma_{L,1} =$		1.8235***	1.7273***	1.8678***	1.8542***	1.2806***
$\gamma_{L,2} =$		1.7315***	1.6674***	1.7700***	1.7656***	1.2305***
$\gamma_{L,3} =$		1.6454***	1.6047***	1.6899***	1.6980***	1.2069***
$\gamma_{L,4} =$		1.8674***	1.8720***	1.7572***	1.6243***	1.3399***
$\gamma_{L,5} =$		2.1979***	2.2186***	2.2516***	2.1407***	1.4193***
$\gamma_{C,1} =$		-1.3897***	-1.3123***	-1.3146***	-1.4544***	-0.9572***
$\gamma_{C,2} =$		-1.2257***	-1.3318***	-1.2935***	-1.2606***	-1.0388***
$\gamma_{C,3} =$		-0.9193***	-1.0635***	-1.1274***	-0.7152***	-0.6703***
$\gamma_{C,4} =$		0.9051***	0.4958***	0.9912***	0.9401***	-0.8822***
$\gamma_{C,5} =$		1.3792***	1.2722***	1.4916***	1.6599***	1.6961***
$\gamma_{X,1} =$		-1.7999	-5.8750	-7.3997*	3.1978	1.4358
$\gamma_{X,2} =$		-1.5726	-3.3676	-4.3431	2.5676	2.0197
$\gamma_{X,3} =$		-1.4936	-3.1449	-2.0653	1.7283	2.8231
$\gamma_{X,4} =$		-1.2025	-2.5549	-2.5538	0.2853	-2.0259
$\gamma_{r,1} =$		-0.0421	0.0388	-0.6374**	0.0987	-0.2421
$\gamma_{r,2} =$		-0.3404***	-0.2325***	-0.3036***	-0.2242**	-0.1088
$\gamma_{r,3} =$		-0.2034***	-0.2214***	-0.2397***	-0.1712***	-0.2335***
$\gamma_{r,4} =$		-0.1220***	-0.1375***	-0.1204***	-0.0117	0.0423
$R^2 =$		0.6794	0.6676	0.6831	0.6984	0.6336

$\alpha_j =$	4	-0.0053	-0.0145	0.0210	0.0082	-0.0081
$\beta_X =$		-0.7921*	0.2387	0.4132	0.7455	0.9646*
$\beta_B =$		0.8960***	1.1070***	0.6854***	0.9792***	1.0815***
$\gamma_{L,1} =$		0.8212***	0.9964***	0.6260***	0.8794***	0.9706***
$\gamma_{L,2} =$		0.7885***	0.9595***	0.6126***	0.8449***	0.9395***
$\gamma_{L,3} =$		0.7511***	0.9231***	0.5787***	0.8023***	0.8883***
$\gamma_{L,4} =$		0.7164***	0.9336***	0.6283***	0.8201***	0.8892***
$\gamma_{L,5} =$		0.9871***	1.1040***	0.7833***	1.0682***	1.0836***
$\gamma_{C,1} =$		-0.6615***	-0.7349***	-0.5012***	-0.6511***	-0.6790***
$\gamma_{C,2} =$		-0.7201***	-0.7466***	-0.4679***	-0.6802***	-0.6813***
$\gamma_{C,3} =$		-0.5455***	-0.5843***	-0.4991***	-0.5983***	-0.5032**
$\gamma_{C,4} =$		-0.2729**	-0.6582***	-0.4756***	-0.4862***	-0.4034***
$\gamma_{C,5} =$		2.7292***	2.3899***	2.7494***	2.4576***	2.5329***
$\gamma_{X,1} =$		1.1689	5.4958	-7.4236*	-1.6617	0.5567
$\gamma_{X,2} =$		1.9509	3.5300	-4.5114	0.5951	2.1406
$\gamma_{X,3} =$		3.0704	3.7777	-3.0705	1.1924	1.5455
$\gamma_{X,4} =$		-0.3911	-2.9696	-10.0309***	-2.5477	-6.0249**
$\gamma_{r,1} =$		-0.1332	0.4449	0.2357	-0.2702	0.3873
$\gamma_{r,2} =$		-0.0792	-0.0290	-0.0467	-0.1132	-0.0345
$\gamma_{r,3} =$		-0.0953*	-0.1483**	-0.0990*	-0.1905***	-0.0244
$\gamma_{r,4} =$		-0.0445	0.1642***	0.2958***	0.0156	0.2520***
$R^2 =$		0.7047	0.7099	0.7378	0.6863	0.7040
$\alpha_j =$	5	-0.0025	-0.0043	0.0330	-0.0157	0.0223
$\beta_X =$		-0.0583	-0.4665	0.6007	-0.5310	0.3773
$\beta_B =$		0.4299***	0.4527***	0.9895***	0.8125***	0.6580***
$\gamma_{L,1} =$		0.3955***	0.4291***	0.9022***	0.7538***	0.6078***
$\gamma_{L,2} =$		0.3625***	0.4100***	0.8661***	0.6994***	0.5950***
$\gamma_{L,3} =$		0.2666**	0.3852***	0.7976***	0.6331***	0.5261***
$\gamma_{L,4} =$		0.2348**	0.4692***	0.9819***	0.6835***	0.5303***
$\gamma_{L,5} =$		0.3792***	0.6082***	1.0209***	0.8359***	0.5759***
$\gamma_{C,1} =$		-0.3667***	-0.3984***	-0.7463***	-0.6588***	-0.5714***
$\gamma_{C,2} =$		-0.3313***	-0.4128***	-0.7970***	-0.5937***	-0.5585***
$\gamma_{C,3} =$		-0.0154	-0.4067***	-0.6105**	-0.4182**	-0.3733**
$\gamma_{C,4} =$		-0.0204	-0.3377***	-0.7558***	0.0989	-0.4295***
$\gamma_{C,5} =$		3.5028***	3.3370***	2.2337***	3.1068***	3.2237***
$\gamma_{X,1} =$		2.7575	1.2350	-17.4730**	10.5350	-8.0088**
$\gamma_{X,2} =$		1.8120	0.8571	-11.2037*	9.1089	-4.6919
$\gamma_{X,3} =$		0.2473	0.4155	-3.7991	7.8059*	-4.0500*
$\gamma_{X,4} =$		1.4748	-0.7770	-10.5877**	3.6839	-3.0480
$\gamma_{r,1} =$		-0.2368	-0.1007	0.3957	-1.3255**	0.1725
$\gamma_{r,2} =$		-0.0731	-0.0661	0.0709	-0.3479**	0.0525
$\gamma_{r,3} =$		-0.0944**	-0.0648	-0.0478	-0.2276**	-0.0594
$\gamma_{r,4} =$		-0.0563	-0.0179	0.2037**	0.0748	-0.0262
$R^2 =$		0.8237	0.7913	0.6755	0.7631	0.8049

Table 6A: Business-Cycle Currency-CAPM (Weekly)						
Trough	Volatility	Market Capitalization				
Parameters		1 Low	2	3	4	5 High
$\alpha_j =$	1 Low	-0.0457	-0.1144	-0.2096**	-0.0842	-0.0635
$\beta_X =$		1.1341**	0.7487	-1.2910*	0.1316	0.2341
$\beta_B =$		0.9128***	0.9627***	1.8625***	2.2672***	1.9188***
$\gamma_{L1} =$		1.0400***	0.9476***	1.9831***	2.4066***	2.1890***
$\gamma_{L2} =$		0.9117***	0.9093***	1.8307***	2.3358***	2.1066***
$\gamma_{L3} =$		0.8573***	0.8480***	1.6735***	1.9442***	1.3595***
$\gamma_{L4} =$		0.8731***	0.8330***	1.7916***	2.0646***	1.6581***
$\gamma_{L5} =$		0.8830***	0.9074***	1.7773***	2.0380***	1.7818***
$\gamma_{C1} =$		0.5277***	1.4116***	1.2923***	0.9543***	1.1666***
$\gamma_{C2} =$		0.0184	0.2581	0.2943	0.2194	1.0312***
$\gamma_{C3} =$		-0.2855	-0.4081	-1.1294***	-0.4714*	-0.8462***
$\gamma_{C4} =$		-0.2843	-0.4161**	-0.6968***	-0.3393**	-0.8896***
$\gamma_{C5} =$		-0.3017***	-0.5340***	-1.1484***	-1.4794***	-1.1567***
$\gamma_{X1} =$		-1.4723	7.0609	17.5701*	2.6297	-3.7234
$\gamma_{X2} =$		0.7538	5.4993	16.2245**	6.3680	-2.3850
$\gamma_{X3} =$		0.6727	4.8776	13.0615**	3.7962	0.5291
$\gamma_{X4} =$		-1.6077	0.5168	2.9724	0.2245	-2.5127
$\gamma_{r1} =$		0.7072	1.1826**	0.6176	0.3409	1.5828***
$\gamma_{r2} =$		0.2433*	0.3187**	0.5736***	0.4058***	0.6420***
$\gamma_{r3} =$		0.2117**	0.3390***	0.4447***	0.2855***	0.4891***
$\gamma_{r4} =$		0.1360**	0.3599***	0.0338	0.1563**	0.2951***
$R^2 =$		0.3437	0.4871	0.4923	0.6455	0.5579
$\alpha_j =$	2	-0.3219***	-0.0436	0.0184	-0.1711***	0.0469
$\beta_X =$		-0.9292	-0.4203	-0.4966	-0.3005	0.6835
$\beta_B =$		1.4436***	1.6319***	1.4972***	1.7981***	1.5634***
$\gamma_{L1} =$		1.8982***	2.0410***	1.9365***	2.1380***	1.9694***
$\gamma_{L2} =$		1.2166***	1.8436***	1.9690***	2.2070***	1.9795***
$\gamma_{L3} =$		1.2336***	0.8802***	1.8119***	1.7269***	1.3720***
$\gamma_{L4} =$		1.2341***	1.1726***	1.0122***	1.5235***	1.2658***
$\gamma_{L5} =$		1.2576***	1.3279***	1.1837***	1.5563***	1.3669***
$\gamma_{C1} =$		1.1866***	1.3159***	0.8125***	0.9465***	1.0396***
$\gamma_{C2} =$		0.0186	0.7374***	0.9761***	0.7428***	0.9344***
$\gamma_{C3} =$		-0.5333	-0.2033	-0.0585	-0.6057*	-0.6653**
$\gamma_{C4} =$		-0.6929***	-0.2997	-0.3624*	-0.9365***	-0.6392***
$\gamma_{C5} =$		-0.7764***	-0.6484***	-0.5271***	-0.8961***	-0.8770***
$\gamma_{X1} =$		30.0028***	-3.6157	-8.6894	6.0304	-7.5873
$\gamma_{X2} =$		22.5539***	-4.0051	-6.9854	12.5066**	-7.1765
$\gamma_{X3} =$		17.5121***	1.1253	-3.3423	6.5613	-2.4122
$\gamma_{X4} =$		8.8160*	-3.4302	-8.6510*	0.1055	-6.9390*
$\gamma_{r1} =$		1.2668*	0.9589	0.3850	1.2482*	-0.2777
$\gamma_{r2} =$		0.5925***	0.5874***	0.4006**	0.6219***	0.1254
$\gamma_{r3} =$		0.3882***	0.5213***	0.3870***	0.4569***	0.2453**
$\gamma_{r4} =$		0.2379**	0.3282***	0.2286**	0.3291***	0.1418*
$R^2 =$		0.6767	0.6340	0.5192	0.5739	0.6227
$\alpha_j =$	3	0.0709	-0.0806	-0.0829	-0.0405	-0.0857
$\beta_X =$		-1.4599	-0.8404	0.5776	-1.2488	1.4659
$\beta_B =$		1.2942***	1.5884***	1.0163***	1.0408***	1.1979***
$\gamma_{L1} =$		1.7035***	2.0420***	1.5722***	1.6282***	1.6795***
$\gamma_{L2} =$		1.1401***	2.1596***	1.1730***	1.7181***	1.4211***

$\gamma_{L3} =$		0.6646**	1.3955***	0.6478***	0.9752***	0.7152***
$\gamma_{L4} =$		0.9547***	1.3120***	0.7641***	0.8794***	0.8581***
$\gamma_{L5} =$		1.1583***	1.3380***	0.8655***	0.9308***	0.9595***
$\gamma_{C1} =$		1.0781***	0.7207***	1.0548***	0.7170***	1.2267***
$\gamma_{C2} =$		-0.0776	0.2618	-0.0315	0.4689**	0.9840***
$\gamma_{C3} =$		-0.0869	-0.5836	-0.3332	-0.2639	-0.3349
$\gamma_{C4} =$		-0.5438*	-0.7338***	-0.4283*	-0.5252***	-0.3816**
$\gamma_{C5} =$		-0.7042***	-0.7045***	-0.5358***	-0.6977***	-0.5115***
$\gamma_{X1} =$		-10.0720	-1.7189	-1.2419	-0.5090	1.3606
$\gamma_{X2} =$		-6.3929	1.3472	3.8490	-4.5819	2.9997
$\gamma_{X3} =$		-5.9855	5.2629	0.9818	-2.5077	1.8764
$\gamma_{X4} =$		-6.3358	-2.0187	-1.3088	-3.7103	-1.2609
$\gamma_{r1} =$		0.3428	1.2394*	1.2799	0.7046	0.8149
$\gamma_{r2} =$		0.2010	0.5356***	0.4500**	0.2497*	0.5018***
$\gamma_{r3} =$		0.2507	0.3164***	0.3596**	0.2445***	0.4409***
$\gamma_{r4} =$		0.1698	0.2800***	0.2609**	0.0887	0.1393
$R^2 =$		0.5461	0.6898	0.5655	0.6250	0.6040
$\alpha_j =$	4	-0.0387	-0.0887	-0.0674	-0.1379	0.0214
$\beta_X =$		1.6150	-0.5451	-1.7875	-0.1273	1.1084
$\beta_B =$		2.0266***	1.6516***	1.4057***	1.9254***	0.1673
$\gamma_{L1} =$		2.3989***	2.0900***	1.6962***	2.3216***	0.9977***
$\gamma_{L2} =$		2.0491***	2.1536***	1.5672***	2.3049***	0.1080
$\gamma_{L3} =$		1.1953***	1.9318***	0.9156**	1.8362***	0.1210
$\gamma_{L4} =$		1.5245***	1.1091***	1.0323***	1.6065***	0.1398
$\gamma_{L5} =$		1.6618***	1.3632***	1.2125***	1.7101***	0.1520
$\gamma_{C1} =$		1.3037***	1.0078***	1.8369***	0.6136***	1.1893***
$\gamma_{C2} =$		0.7432***	0.6276***	0.6524**	-0.4671	0.0935
$\gamma_{C3} =$		-0.5164	-0.4040	-0.4699	-0.5525***	-0.2556
$\gamma_{C4} =$		-0.8640***	-0.7357***	-0.6810***	-1.0511***	-0.1263
$\gamma_{C5} =$		-1.0600***	-0.9831***	-0.8417***	-1.3903***	-0.1101
$\gamma_{X1} =$		7.6842	5.8633	0.6288	-2.5159	-2.6592
$\gamma_{X2} =$		4.7005	3.4589	5.8075	-1.8569	-1.7315
$\gamma_{X3} =$		9.1730	-0.8185	2.0338	2.5923	-1.5350
$\gamma_{X4} =$		0.8322	-1.1376	-1.8146	-2.7811	-0.7108
$\gamma_{r1} =$		-0.1995	0.1137	0.8063	0.6537	0.1622
$\gamma_{r2} =$		0.4048**	0.4630**	0.4365**	0.3926**	0.0422
$\gamma_{r3} =$		0.3411**	0.3310***	0.3740***	0.4155***	0.0258
$\gamma_{r4} =$		0.2016*	0.2287**	0.0796	0.2661***	0.0040
$R^2 =$		0.6365	0.6728	0.5851	0.5441	0.6907
$\alpha_j =$	5	-0.0416	-0.1151	-0.1222	-0.1911*	-0.1745**
$\beta_X =$		0.0510	-0.9351	-0.2468	-0.9822	0.3984
$\beta_B =$		1.7714***	1.9084***	1.5295***	0.8713***	1.6114***
$\gamma_{L1} =$		2.1845***	2.3387***	1.8899***	1.4669***	1.8736***
$\gamma_{L2} =$		2.2255***	2.4275***	1.7308***	1.2251***	1.9517***
$\gamma_{L3} =$		1.0186***	1.3045***	0.8945***	0.8239***	1.6526***
$\gamma_{L4} =$		1.3279***	1.4913***	1.1742***	0.6722***	1.4550***
$\gamma_{L5} =$		1.5726***	1.7148***	1.3235***	0.7594***	1.5283***
$\gamma_{C1} =$		1.3640***	1.0077***	1.4914***	1.4494***	1.6441***
$\gamma_{C2} =$		1.1007***	-0.2815	-0.0663	1.9678***	-0.5204**
$\gamma_{C3} =$		-1.1749***	-0.9519***	-0.6269***	-0.5127**	-1.2278***
$\gamma_{C4} =$		-1.1246***	-1.3648***	-0.9888***	-0.5700***	-1.2736***
$\gamma_{C5} =$		-1.5088***	-1.6175***	-1.1121***	-0.7006***	-1.4147***

$\gamma_{X,1} =$		6.1387	7.3813	15.5362	5.3369	16.2564*
$\gamma_{X,2} =$		4.7893	5.2867	9.4169	4.4765	12.2956*
$\gamma_{X,3} =$		4.6592	3.3401	7.9882	-0.4115	9.9397*
$\gamma_{X,4} =$		-1.0987	-1.2739	2.5400	-1.2375	2.8289
$\gamma_{r,1} =$		-0.0312	-0.2345	-0.5443	2.2644**	0.2370
$\gamma_{r,2} =$		0.4215***	0.5199***	0.1395	0.7110***	0.2373**
$\gamma_{r,3} =$		0.3575***	0.3495***	0.2229*	0.5697***	0.2334***
$\gamma_{r,4} =$		0.2022**	0.2782***	0.0166	0.3488***	0.0811
$R^2 =$		0.6667	0.7273	0.6712	0.6957	0.7462
Table 6A: Business-Cycle Currency-CAPM (Weekly)						
Expansion	Volatility	Market Capitalization				
Parameters		1 Low	2	3	4	5 High
$\alpha_j =$	1 Low	-0.0272	0.0394	0.0610	0.0537	-0.0365
$\beta_X =$		-0.6629	0.4396	0.7379	0.4394	0.5181
$\beta_B =$		1.5994***	1.1736***	0.2713**	0.3677***	0.0487
$\gamma_{L,1} =$		1.5776***	1.3387***	0.2915**	0.3298***	0.0259
$\gamma_{L,2} =$		1.6882***	1.4026***	0.3602***	0.4000***	0.1736**
$\gamma_{L,3} =$		1.6820***	1.1193***	0.4041***	0.7067***	0.4195***
$\gamma_{L,4} =$		1.4991***	1.1154***	0.2919**	0.4887***	0.1772**
$\gamma_{L,5} =$		1.5618***	1.1139***	0.2216**	0.3659***	0.0832
$\gamma_{C,1} =$		-0.2650*	-0.0500	-0.1060	-0.2575**	-0.0925
$\gamma_{C,2} =$		0.4003*	0.0890	0.5382*	0.1846	0.1093
$\gamma_{C,3} =$		0.1054	0.3427	0.3551	0.4511**	1.0066***
$\gamma_{C,4} =$		-0.0074	0.0700	0.1481	0.0022	-0.0278
$\gamma_{C,5} =$		-0.1913	-0.5099***	0.0448	-0.2558	-0.0982
$\gamma_{X,1} =$		9.7953	-5.2820	-12.5424*	-9.9328*	1.9282
$\gamma_{X,2} =$		7.1310	-4.2342	-9.0997	-8.3731**	2.3744
$\gamma_{X,3} =$		4.8965	-2.9236	-6.0608	-5.7123*	0.3640
$\gamma_{X,4} =$		2.2812	-1.3198	-3.7428	-2.0840	-0.1155
$\gamma_{r,1} =$		-1.2007**	-0.1627	-0.4441	-0.1422	-0.2577
$\gamma_{r,2} =$		-0.0968	0.0198	0.0175	-0.1163	-0.0040
$\gamma_{r,3} =$		-0.1248	-0.0317	0.0217	-0.0492	0.0025
$\gamma_{r,4} =$		-0.1566**	-0.2401**	0.0625	-0.0462	-0.0404
$R^2 =$		0.3437	0.4871	0.4923	0.6455	0.5579
$\alpha_j =$	2	0.2145**	0.0238	-0.0855	0.0561	-0.0943
$\beta_X =$		-0.9838	0.3487	0.1303	-0.4010	-0.1031
$\beta_B =$		0.7659***	0.3433*	0.1553	0.3504**	0.4561***
$\gamma_{L,1} =$		0.6104***	0.2460	0.1417	0.2923**	0.3843***
$\gamma_{L,2} =$		1.3471***	0.5089***	0.0984	0.2906**	0.3697***
$\gamma_{L,3} =$		1.0315***	0.9438***	0.3278**	0.7873***	0.7867***
$\gamma_{L,4} =$		0.7294***	0.5365***	0.5444***	0.4769***	0.6094***
$\gamma_{L,5} =$		0.6689***	0.3944**	0.2363*	0.3342**	0.4887***
$\gamma_{C,1} =$		-0.4094**	-0.3572**	-0.2787**	-0.1591	-0.2397
$\gamma_{C,2} =$		0.4126	0.0679	-0.1705	0.0973	0.0691
$\gamma_{C,3} =$		0.4548	0.8617***	1.0531***	0.9524***	0.8528***
$\gamma_{C,4} =$		-0.0365	-0.0695	0.1621	-0.1046	-0.3968***
$\gamma_{C,5} =$		-0.2736	-0.2049	-0.0763	-0.2454*	-0.4454***
$\gamma_{X,1} =$		-24.2188**	-7.0453	4.9122	-2.7430	2.0157
$\gamma_{X,2} =$		-23.2609***	-2.8911	4.3749	-6.9154	3.2770
$\gamma_{X,3} =$		-10.4654	-8.7300	1.2833	-1.4737	1.1653
$\gamma_{X,4} =$		-7.7376	-0.9354	3.6815	-2.8881	2.8373
$\gamma_{r,1} =$		-1.3369**	-0.8065	0.0360	-0.9204	0.5910

$\gamma_{r,2} =$		-0.2538	-0.3024	-0.0265	-0.1462	0.2189*
$\gamma_{r,3} =$		-0.2143	-0.2369*	-0.0855	-0.0976	0.0959
$\gamma_{r,4} =$		-0.0913	-0.1331	-0.1100	-0.0582	0.0971
$R^2 =$		0.6767	0.6340	0.5192	0.5739	0.6227
$\alpha_j =$	3	-0.1801	-0.0698	-0.0755	0.0307	-0.0262
$\beta_X =$		0.6013	-0.1054	-0.6832	0.2361	-0.9229
$\beta_B =$		0.8079***	0.4650***	0.4920**	0.4581***	0.3277**
$\gamma_{L,1} =$		0.7540***	0.3633**	0.4063**	0.3442***	0.2337*
$\gamma_{L,2} =$		1.3946***	0.3191**	0.8208***	0.3160***	0.4322***
$\gamma_{L,3} =$		1.0463***	1.0137***	1.0484***	0.8842***	1.0281***
$\gamma_{L,4} =$		0.7621***	0.5701***	0.5701***	0.4947***	0.4163***
$\gamma_{L,5} =$		0.7935***	0.4672***	0.4787**	0.4546***	0.3469**
$\gamma_{C,1} =$		-0.2195	-0.2427*	-0.2918	-0.1310	-0.1457
$\gamma_{C,2} =$		0.9676***	0.0786	0.8279***	0.1209	0.1940
$\gamma_{C,3} =$		0.2357	0.6719**	0.1274	0.9683***	0.4980
$\gamma_{C,4} =$		-0.1853	-0.0371	-0.1845	-0.1127	-0.1878
$\gamma_{C,5} =$		-0.4464*	-0.2271	-0.2505	-0.3013**	-0.2278
$\gamma_{X,1} =$		4.6477	0.8738	7.6983	-7.1622	-4.8499
$\gamma_{X,2} =$		4.4060	-0.0341	2.5078	-4.4268	-1.8596
$\gamma_{X,3} =$		3.4996	-3.7051	1.9175	-2.7587	1.5637
$\gamma_{X,4} =$		3.6049	0.0765	1.6109	1.8948	0.8748
$\gamma_{r,1} =$		1.6328	-0.6100	-1.4005	-0.4586	-0.2621
$\gamma_{r,2} =$		0.5137**	-0.1021	-0.0749	-0.0756	-0.0575
$\gamma_{r,3} =$		0.2166	-0.0124	-0.0776	-0.0888	0.0370
$\gamma_{r,4} =$		0.1892	-0.0764	-0.0802	-0.0128	0.1209
$R^2 =$		0.5461	0.6898	0.5655	0.6250	0.6040
$\alpha_j =$	4	-0.0363	0.0486	-0.0765	0.0737	-0.1297
$\beta_X =$		-1.7913*	0.7331	0.2545	-1.4289	-0.0458
$\beta_B =$		0.3058*	0.1184	0.5034***	0.0586	1.5402***
$\gamma_{L,1} =$		0.1832	0.1192	0.4754***	-0.0170	1.1753***
$\gamma_{L,2} =$		0.5255***	0.0877	0.6086***	0.0188	1.9682***
$\gamma_{L,3} =$		0.9712***	0.4217***	1.1652***	0.3109**	1.3818***
$\gamma_{L,4} =$		0.5288***	0.4848***	0.5937***	0.0783	1.3330***
$\gamma_{L,5} =$		0.4050**	0.1550	0.5076***	0.0421	1.4079***
$\gamma_{C,1} =$		-0.3173**	-0.2519	-0.6942***	0.2803*	-0.2658
$\gamma_{C,2} =$		0.2190	0.1321	0.2088	0.6857**	1.0235***
$\gamma_{C,3} =$		0.9135**	0.9844***	0.4766	0.2494	-0.4414
$\gamma_{C,4} =$		-0.1095	-0.0087	-0.0558	-0.0721	-0.7896***
$\gamma_{C,5} =$		-0.3108*	-0.0964	-0.2484	-0.0487	-0.9233***
$\gamma_{X,1} =$		-10.3218	-11.2146	-7.3908	-3.0957	8.4325
$\gamma_{X,2} =$		-6.8441	-8.3967	-7.9482	-1.4505	2.3228
$\gamma_{X,3} =$		-9.5446*	-3.7107	-4.9154	-4.0275	-1.5565
$\gamma_{X,4} =$		-4.7385	-4.7618	-0.9967	2.0696	0.5127
$\gamma_{r,1} =$		0.1875	-0.1809	0.0554	-0.3988	0.7609
$\gamma_{r,2} =$		-0.0884	-0.1523	0.1387	-0.1883	0.3120
$\gamma_{r,3} =$		-0.0144	0.0020	0.0529	-0.0544	0.2118
$\gamma_{r,4} =$		-0.0528	-0.0196	0.0891	-0.1036	0.1404
$R^2 =$		0.6365	0.6728	0.5851	0.5441	0.6907
$\alpha_j =$	5	-0.1107	0.0430	0.0760	0.1591	0.1838*
$\beta_X =$		0.7550	0.2619	-0.0300	-0.8742	0.2609
$\beta_B =$		0.1051	-0.0855	0.0706	0.2438	-0.1740

$\gamma_{L1} =$		0.0891	-0.0875	0.0683	0.2017	-0.1551
$\gamma_{L2} =$		0.2508*	-0.0278	0.2342	0.2905	-0.0816
$\gamma_{L3} =$		1.1440***	1.1885***	1.1078***	0.7683***	0.6050***
$\gamma_{L4} =$		0.5049***	0.3287	0.4571**	0.4146**	-0.1921
$\gamma_{L5} =$		0.2274	0.1253	0.2244	0.2650	-0.2430
$\gamma_{C1} =$		-0.2793*	0.0674	-0.0919	-0.1713	0.1838
$\gamma_{C2} =$		0.1099	1.4976***	0.8541***	-0.1841	2.1095***
$\gamma_{C3} =$		0.1424	0.2125	-0.1273	1.1888***	0.8452***
$\gamma_{C4} =$		-0.3760**	-0.2914	-0.4414**	-0.1945	0.1318
$\gamma_{C5} =$		-0.2077	-0.1438	-0.2656	-0.2498	0.2246
$\gamma_{X1} =$		9.2829	-5.9990	-21.3697*	-10.4115	-16.6184
$\gamma_{X2} =$		6.3870	-3.4896	-9.1869	-9.7531	-11.6998
$\gamma_{X3} =$		3.3385	-1.6292	-5.7447	-3.2556	-11.8420
$\gamma_{X4} =$		8.0327	4.1120	-4.0857	3.2299	-6.8096
$\gamma_{r1} =$		-0.1307	-0.3477	0.2465	-1.7188	-0.1403
$\gamma_{r2} =$		-0.0371	-0.1506	0.1823	-0.3566	-0.1301
$\gamma_{r3} =$		-0.0276	0.0992	0.1014	-0.2154	-0.0120
$\gamma_{r4} =$		-0.1250	-0.0519	0.0921	0.0111	0.0833
$R^2 =$		0.6667	0.7273	0.6712	0.6957	0.7462
Table 6A: Business-Cycle Currency-CAPM (Weekly)						
Contraction	Volatility	Market Capitalization				
Parameters		1 Low	2	3	4	5 High
$\alpha_j =$	1 Low	0.0120	0.0785	0.0316	0.0305	0.0102
$\beta_X =$		0.0699	-0.9476*	0.2325	-0.5710	0.3926
$\beta_B =$		0.2433***	0.5483***	0.5197***	1.3651***	0.7323***
$\gamma_{L1} =$		0.2461***	0.5074***	0.5030***	1.2636***	0.6547***
$\gamma_{L2} =$		0.2430***	0.4956***	0.5063***	1.2642***	0.6783***
$\gamma_{L3} =$		0.2745***	0.7521***	0.6558***	1.3491***	1.3626***
$\gamma_{L4} =$		0.2821***	0.7119***	0.6054***	1.4467***	0.9335***
$\gamma_{L5} =$		0.2383***	0.5689***	0.5382***	1.5961***	0.7151***
$\gamma_{C1} =$		0.1558*	-0.3947***	-0.4102**	-0.6968***	-0.4504***
$\gamma_{C2} =$		-0.1246	0.1791	-0.0398	-0.4040**	-0.3938**
$\gamma_{C3} =$		0.5390**	-0.0442	0.4018	0.0203	-0.1970
$\gamma_{C4} =$		-0.0002	0.2540**	0.5340***	0.3370***	1.1633***
$\gamma_{C5} =$		-0.0677	-0.3787***	-0.3682**	-2.0527***	-0.1694
$\gamma_{X1} =$		-0.2542	-7.9125	-2.0671	7.3031	-4.9435
$\gamma_{X2} =$		-0.4695	-5.5475	-7.5563	2.0051	-1.5147
$\gamma_{X3} =$		-0.3731	-6.2324	-2.2350	1.9162	-1.7094
$\gamma_{X4} =$		-1.3951	-3.8283	-1.7479	1.8595	-3.1984
$\gamma_{r1} =$		-0.1898	-0.5263	1.5906***	-0.1988	1.1050***
$\gamma_{r2} =$		-0.0444	-0.1628	-0.1269	-0.2894***	-0.0236
$\gamma_{r3} =$		0.0132	-0.0456	-0.0607	-0.2362***	-0.0643
$\gamma_{r4} =$		-0.0217	-0.0644	0.0329	-0.1101**	0.0126
$R^2 =$		0.3437	0.4871	0.4923	0.6455	0.5579
$\alpha_j =$	2	-0.0035	0.1247	0.3188***	0.0930	0.2765***
$\beta_X =$		2.4363**	1.7484	0.9141	1.8942*	0.5151
$\beta_B =$		0.7556***	0.8244***	0.3034	0.8416***	0.4126**
$\gamma_{L1} =$		0.6452***	0.6997***	0.2572	0.7124***	0.3457**
$\gamma_{L2} =$		0.6782***	0.6978***	0.2845	0.6905***	0.3772**
$\gamma_{L3} =$		0.7309***	1.1382***	0.2755	0.6935***	0.5997***
$\gamma_{L4} =$		1.0472***	1.1829***	0.6847***	1.1807***	0.6706***
$\gamma_{L5} =$		0.7815***	1.0577***	0.5379***	0.6681***	0.4035**

$\gamma_{C1} =$		-0.3175	-0.3612**	-0.1401	-0.3881**	-0.3077
$\gamma_{C2} =$		-0.2087	-0.2320	-0.0468	-0.4175*	-0.4200*
$\gamma_{C3} =$		0.3481	-0.1934	-0.0458	-0.2857	0.3788
$\gamma_{C4} =$		1.2601***	0.7481***	1.0502***	1.4667***	1.7690***
$\gamma_{C5} =$		-0.4313**	-0.9328***	0.1343	0.8365***	0.0100
$\gamma_{X1} =$		6.5302	-18.0645	-21.1303*	-9.7916	-19.2782**
$\gamma_{X2} =$		5.7636	-13.7244	-21.2945**	-9.9104	-13.6989*
$\gamma_{X3} =$		2.0846	-3.4369	-13.8391*	-6.6078	-11.1345**
$\gamma_{X4} =$		4.5807	-8.2062	-9.2808	-0.0309	-4.0511
$\gamma_{r1} =$		-0.4567	0.4113	-1.6461**	0.3779	-2.1443***
$\gamma_{r2} =$		-0.1244	0.0197	-0.6339***	-0.1891	-0.5664***
$\gamma_{r3} =$		-0.0710	0.0592	-0.3236**	-0.1832	-0.4468***
$\gamma_{r4} =$		-0.0544	-0.0708	-0.2263*	-0.0327	-0.3198***
$R^2 =$		0.6767	0.6340	0.5192	0.5739	0.6227
$\alpha_j =$	3	0.0830	0.1009*	0.1238*	-0.1032	0.0907
$\beta_X =$		1.1835	0.5124	0.3844	1.8729	0.5532
$\beta_B =$		0.1736	0.5404***	0.2441*	1.4487***	1.0151***
$\gamma_{L1} =$		0.1392	0.4524***	0.2168*	1.1863***	0.8543***
$\gamma_{L2} =$		0.2073	0.4515***	0.2431**	1.1805***	0.8300***
$\gamma_{L3} =$		0.9578***	0.6129***	0.5473***	1.4851***	1.0452***
$\gamma_{L4} =$		0.4138***	0.9967***	0.4321***	1.6054***	1.4949***
$\gamma_{L5} =$		0.2551	0.4883***	0.2683**	1.5176***	1.0421***
$\gamma_{C1} =$		-0.1553	-0.0998	-0.0540	-0.2181	-0.3868
$\gamma_{C2} =$		-0.1025	0.0944	0.1069	-0.1091	-0.2471
$\gamma_{C3} =$		-0.1212	0.2191	0.2762	-0.8297*	0.1876
$\gamma_{C4} =$		0.4573**	0.6719***	-0.3935***	0.6210***	1.1604***
$\gamma_{C5} =$		-0.3236**	-0.4573***	-0.4350***	-1.2820***	-0.6922***
$\gamma_{X1} =$		-13.2270	-6.0307	-5.0492	14.0740	1.2011
$\gamma_{X2} =$		-6.6735	-4.9931	-6.8430	14.1214	-1.3104
$\gamma_{X3} =$		-3.0763	-1.7343	-1.0032	12.6753	-2.4772
$\gamma_{X4} =$		-3.3708	-1.8633	-0.1205	4.6446	-2.7504
$\gamma_{r1} =$		-0.4860	0.0496	-0.3512	0.6531	-0.6463
$\gamma_{r2} =$		-0.1037	-0.0939	-0.1179	0.2067	-0.2962
$\gamma_{r3} =$		-0.0635	-0.0214	-0.0941	0.1528	-0.2451
$\gamma_{r4} =$		-0.0210	-0.0029	-0.0527	0.1695	-0.1447
$R^2 =$		0.5461	0.6898	0.5655	0.6250	0.6040
$\alpha_j =$	4	0.1305	-0.0845	-0.0610	-0.0203	0.2100
$\beta_X =$		1.9686*	0.4584	1.7711*	0.1014	-0.2889
$\beta_B =$		0.1854	1.2740***	0.2024	1.1427***	0.4055*
$\gamma_{L1} =$		0.1707	0.9987***	0.2500	0.9796***	0.3148
$\gamma_{L2} =$		0.2431	0.9664***	0.2499*	1.0097***	0.3705*
$\gamma_{L3} =$		0.7823***	0.9094***	0.5479***	1.1135***	0.8866***
$\gamma_{L4} =$		0.6185***	1.8731***	0.5128***	1.4503***	0.5303**
$\gamma_{L5} =$		0.3519**	1.6392***	0.3242**	1.3224***	0.4545*
$\gamma_{C1} =$		-0.0534	-0.3468*	-0.0811	-0.4475	-0.0512
$\gamma_{C2} =$		0.0577	-0.3335	0.1906	0.3296	-0.0269
$\gamma_{C3} =$		0.1348	-0.4813	0.4661	0.6423**	1.1641**
$\gamma_{C4} =$		1.1546***	0.9451***	-0.2732*	0.2363	0.1175
$\gamma_{C5} =$		-0.3293*	-1.4550***	-0.6299***	-1.3537***	-0.5094**
$\gamma_{X1} =$		-5.4543	2.0916	12.9193	-0.1348	-27.2395*
$\gamma_{X2} =$		-3.4609	8.3145	6.8781	-2.8011	-18.6381
$\gamma_{X3} =$		-4.3023	9.3152	10.0459*	5.3524	-10.6010

$\gamma_{X,4} =$		-3.7922	5.9445	5.6109	-3.2752	-3.5439
$\gamma_{r,1} =$		-0.8418	1.0691	0.7927	0.7076	-0.0027
$\gamma_{r,2} =$		-0.2930	0.2337	0.3356**	0.4109	-0.0778
$\gamma_{r,3} =$		-0.1307	-0.0266	0.2531**	0.0949	0.0998
$\gamma_{r,4} =$		0.0070	-0.0071	0.0216	0.2121	-0.0260
$R^2 =$		0.6365	0.6728	0.5851	0.5441	0.6907
$\alpha_j =$	5	0.1297	0.0655	0.0577	0.1455	-0.0112
$\beta_X =$		0.1656	0.8285	-2.7841	1.7657	-0.5441
$\beta_B =$		1.2920***	1.4289***	1.6003***	2.4968***	1.9022***
$\gamma_{L,1} =$		1.0546***	1.1153***	1.3939***	2.0154***	1.7058***
$\gamma_{L,2} =$		0.9596***	0.9878***	1.4350***	2.1327***	1.5920***
$\gamma_{L,3} =$		1.4074***	1.2790***	1.2536***	2.1185***	1.1181***
$\gamma_{L,4} =$		1.5854***	1.9490***	1.8582***	2.6669***	2.0187***
$\gamma_{L,5} =$		1.4928***	1.5292***	1.9130***	2.7669***	1.9440***
$\gamma_{C,1} =$		-0.6184***	-0.7322**	-1.0488***	-1.1264***	-1.3583***
$\gamma_{C,2} =$		-0.5904**	-0.9828*	-0.5778	-1.5079***	-1.0175**
$\gamma_{C,3} =$		0.9531***	0.6504*	0.9108***	-0.6165	1.0462***
$\gamma_{C,4} =$		1.0447***	1.2955***	0.6009*	0.8230***	1.8274***
$\gamma_{C,5} =$		-1.5092***	-1.5739***	-2.0231***	-2.4560***	-1.4199***
$\gamma_{X,1} =$		-7.5754	-3.4252	-0.8244	-2.8555	1.9840
$\gamma_{X,2} =$		-3.2752	-9.6902	-13.4835	-2.1721	0.1580
$\gamma_{X,3} =$		-5.9997	-2.3647	-5.7075	-1.7266	2.6815
$\gamma_{X,4} =$		-6.4868	-7.9293	-2.9189	-6.8461	2.9583
$\gamma_{r,1} =$		-0.5706	0.9681	1.5319	-1.1594	-1.0087
$\gamma_{r,2} =$		-0.2859	-0.3402	-0.1307	-0.5947	-0.1232
$\gamma_{r,3} =$		-0.3107**	-0.4239*	-0.1572	-0.4473*	-0.0749
$\gamma_{r,4} =$		-0.0656	-0.2182	0.0661	-0.4644**	-0.1750
$R^2 =$		0.6667	0.7273	0.6712	0.6957	0.7462

Table 6A: Business-Cycle Currency-CAPM (Weekly)

Peak	Volatility	Market Capitalization				
Parameters		1 Low	2	3	4	5 High
$\alpha_j =$	1 Low	0.0609	-0.0035	0.1170	0.0000	0.0897*
$\beta_X =$		-0.5411	-0.2407	0.3206	-0.0000	-1.1448
$\beta_B =$		1.2445***	1.3154***	1.3465***	-0.0000	1.3002***
$\gamma_{L,1} =$		1.1362***	1.2062***	1.2224***	0.0000	1.1304***
$\gamma_{L,2} =$		1.1570***	1.1925***	1.3028***	-0.0000	1.0415***
$\gamma_{L,3} =$		1.1862***	1.2806***	1.2665***	0.0000	0.8584***
$\gamma_{L,4} =$		1.3457***	1.3396***	1.3112***	-0.0000	1.2312***
$\gamma_{L,5} =$		1.3168***	1.4098***	1.4628***	0.0000	1.4199***
$\gamma_{C,1} =$		-0.4185***	-0.9669***	-0.7762***	-0.0000	-0.6238***
$\gamma_{C,2} =$		-0.2941	-0.5262***	-0.7927**	-0.0000	-0.7467***
$\gamma_{C,3} =$		-0.3589	0.1095	0.3725	0.0000	0.0366
$\gamma_{C,4} =$		0.2919*	0.0921	0.0147	-0.0000	-0.2459
$\gamma_{C,5} =$		0.5607***	1.4226***	1.4718***	3.7879***	1.4242***
$\gamma_{X,1} =$		-8.0688	6.1336	-2.9606	-0.0000	6.7387
$\gamma_{X,2} =$		-7.4153	4.2823	0.4315	-0.0000	1.5253
$\gamma_{X,3} =$		-5.1960	4.2784	-4.7657	-0.0000	0.8163
$\gamma_{X,4} =$		0.7216	4.6312	2.5184	-0.0000	5.8266
$\gamma_{r,1} =$		0.6833	-0.4936	-1.7642***	-0.0000	-2.4301***
$\gamma_{r,2} =$		-0.1020	-0.1757	-0.4642**	-0.0000	-0.6144***
$\gamma_{r,3} =$		-0.1001	-0.2618***	-0.4057***	-0.0000	-0.4274***
$\gamma_{r,4} =$		0.0424	-0.0554	-0.1292	-0.0000	-0.2674***

$R^2 =$		0.3437	0.4871	0.4923	0.6455	0.5579
$\alpha_j =$	2	0.1109	-0.1049	-0.2516**	0.0219	-0.2291***
$\beta_X =$		-0.5233	-1.6768*	-0.5478	-1.1927	-1.0955
$\beta_B =$		1.0349***	1.2004***	2.0441***	1.0098***	1.5679***
$\gamma_{L,1} =$		0.8462***	1.0133***	1.6645***	0.8573***	1.3006***
$\gamma_{L,2} =$		0.7581***	0.9496***	1.6480***	0.8120***	1.2736***
$\gamma_{L,3} =$		1.0039***	1.0378***	1.5849***	0.7923***	1.2416***
$\gamma_{L,4} =$		0.9894***	1.1079***	1.7587***	0.8188***	1.4542***
$\gamma_{L,5} =$		1.2919***	1.2200***	2.0421***	1.4415***	1.7409***
$\gamma_{C,1} =$		-0.4597**	-0.5975***	-0.3937*	-0.3993**	-0.4923**
$\gamma_{C,2} =$		-0.2225	-0.5734***	-0.7589***	-0.4227*	-0.5834***
$\gamma_{C,3} =$		-0.2696	-0.4651	-0.9488*	-0.0609	-0.5663
$\gamma_{C,4} =$		-0.5307**	-0.3789**	-0.8500***	-0.4256**	-0.7330***
$\gamma_{C,5} =$		1.4814***	1.7861***	0.4691**	0.3050	1.3123***
$\gamma_{X,1} =$		-12.3142	28.7255**	24.9075**	6.5042	24.8497**
$\gamma_{X,2} =$		-5.0566	20.6206**	23.9050**	4.3192	17.5983**
$\gamma_{X,3} =$		-9.1313	11.0416	15.8982**	1.5203	12.3814**
$\gamma_{X,4} =$		-5.6591	12.5718**	14.2503**	2.8135	8.1528
$\gamma_{r,1} =$		0.5268	-0.5638	1.2250	-0.7058	1.8309**
$\gamma_{r,2} =$		-0.2142	-0.3047	0.2598	-0.2866	0.2221
$\gamma_{r,3} =$		-0.1029	-0.3436***	0.0221	-0.1761	0.1056
$\gamma_{r,4} =$		-0.0922	-0.1243	0.1078	-0.2382**	0.0809
$R^2 =$		0.6767	0.6340	0.5192	0.5739	0.6227
$\alpha_j =$	3	0.0262	0.0495	0.0346	0.1131	0.0212
$\beta_X =$		-0.3249	0.4335	-0.2789	-0.8602	-1.0962
$\beta_B =$		1.7243***	1.4063***	2.2476***	1.0524***	1.4593***
$\gamma_{L,1} =$		1.4033***	1.1424***	1.8048***	0.8414***	1.2325***
$\gamma_{L,2} =$		1.2580***	1.0698***	1.7631***	0.7854***	1.3166***
$\gamma_{L,3} =$		1.3313***	0.9779***	1.7565***	0.6555***	1.2115***
$\gamma_{L,4} =$		1.8693***	1.1212***	2.2338***	1.0205***	1.2306***
$\gamma_{L,5} =$		1.7930***	1.7065***	2.3875***	1.0970***	1.6515***
$\gamma_{C,1} =$		-0.7033***	-0.3783***	-0.7091***	-0.3679*	-0.6942***
$\gamma_{C,2} =$		-0.7874***	-0.4349**	-0.9034***	-0.4807*	-0.9309***
$\gamma_{C,3} =$		-0.0276	-0.3075	-0.0704	0.1253	-0.3508
$\gamma_{C,4} =$		0.2719	0.0990	1.0063***	0.0169	-0.5909**
$\gamma_{C,5} =$		1.4742***	1.3889***	1.2214***	2.2810***	1.4315***
$\gamma_{X,1} =$		18.6512*	6.8757	-1.4073	-6.4028	2.2882
$\gamma_{X,2} =$		8.6604	3.6800	0.4862	-5.1127	0.1703
$\gamma_{X,3} =$		5.5622	0.1765	-1.8960	-7.4089	-0.9629
$\gamma_{X,4} =$		6.1017	3.8056	-0.1816	-2.8290	3.1365
$\gamma_{r,1} =$		-1.4896**	-0.6790	0.4718	-0.8992	0.0935
$\gamma_{r,2} =$		-0.6110***	-0.3396**	-0.2572	-0.3808*	-0.1481
$\gamma_{r,3} =$		-0.4038***	-0.2825***	-0.1879*	-0.3084**	-0.2328
$\gamma_{r,4} =$		-0.3380***	-0.2007**	-0.1280	-0.2453**	-0.1155
$R^2 =$		0.5461	0.6898	0.5655	0.6250	0.6040
$\alpha_j =$	4	-0.0555	0.1246	0.2049**	0.0845	-0.1017
$\beta_X =$		-1.7922	-0.6464	-0.2382	1.4548	-0.7737
$\beta_B =$		1.4822***	0.9559***	1.8885***	0.8733***	1.8871***
$\gamma_{L,1} =$		1.2472***	0.7922***	1.5784***	0.7158***	1.5122***
$\gamma_{L,2} =$		1.1823***	0.7923***	1.5743***	0.6667***	1.5532***
$\gamma_{L,3} =$		1.0511***	0.7371***	1.3712***	0.7394***	1.6106***

$\gamma_{L4} =$		1.3283***	0.5330***	1.8612***	0.8649***	1.9969***
$\gamma_{L5} =$		1.5813***	0.8426***	1.9558***	0.9254***	1.9856***
$\gamma_{C1} =$		-0.9330***	-0.4091**	-1.0616***	-0.4464	-0.8723***
$\gamma_{C2} =$		-1.0200***	-0.4262*	-1.0518***	-0.5482	-1.0900***
$\gamma_{C3} =$		-0.5319	-0.0991	-0.4727	-0.3393	-0.4672
$\gamma_{C4} =$		-0.1811	-0.2007	1.0100***	0.8870***	0.7984***
$\gamma_{C5} =$		1.7001***	2.5345***	1.7201***	2.7928***	1.5428***
$\gamma_{X1} =$		8.0920	3.2597	-6.1573	5.7465	21.4663
$\gamma_{X2} =$		5.6045	-3.3767	-4.7374	6.1085	18.0469
$\gamma_{X3} =$		4.6739	-4.7860	-7.1642	-3.9171	13.6926
$\gamma_{X4} =$		7.6984	-0.0451	-2.7996	3.9867	3.7420
$\gamma_{r1} =$		0.8537	-1.0019	-1.6544**	-0.9624	-0.9205
$\gamma_{r2} =$		-0.0233	-0.5445**	-0.9107***	-0.6153**	-0.2764
$\gamma_{r3} =$		-0.1960	-0.3064**	-0.6800***	-0.4559**	-0.3373*
$\gamma_{r4} =$		-0.1557	-0.2019*	-0.1903*	-0.3746**	-0.1184
$R^2 =$		0.6365	0.6728	0.5851	0.5441	0.6907
$\alpha_j =$	5	0.0226	0.0066	-0.0116	-0.1135	0.0018
$\beta_X =$		-0.9716	-0.1553	3.0609*	0.0906	-0.1152
$\beta_B =$		0.8314***	0.7482***	0.7996***	0.3881**	0.6604***
$\gamma_{L1} =$		0.6718***	0.6335***	0.6479***	0.3159**	0.5757***
$\gamma_{L2} =$		0.5642***	0.6126**	0.6000**	0.3517**	0.5378***
$\gamma_{L3} =$		0.4300	0.2280	0.7442**	0.2894	0.6242***
$\gamma_{L4} =$		0.5819***	0.2310	0.5105*	0.2462	0.7185***
$\gamma_{L5} =$		0.7072***	0.6306**	0.5390**	0.2086	0.7707***
$\gamma_{C1} =$		-0.4663**	-0.3429	-0.3507	-0.1517	-0.4697**
$\gamma_{C2} =$		-0.6202**	-0.2333	-0.2100	-0.2757	-0.5716*
$\gamma_{C3} =$		0.0793	0.0891	-0.1566	-0.0601	-0.6636***
$\gamma_{C4} =$		0.4558**	0.3607	0.8293***	-0.0586	-0.6856***
$\gamma_{C5} =$		3.2257***	3.3352***	3.4008***	3.4064***	2.6099***
$\gamma_{X1} =$		-7.8463	2.0430	6.6579	7.9301	-1.6220
$\gamma_{X2} =$		-7.9012	7.8932	13.2535	7.4486	-0.7538
$\gamma_{X3} =$		-1.9981	0.6538	3.4640	5.3937	-0.7792
$\gamma_{X4} =$		-0.4472	5.0912	4.4646	4.8537	1.0224
$\gamma_{r1} =$		0.7325	-0.3859	-1.2341	0.6138	0.9120*
$\gamma_{r2} =$		-0.0985	-0.0290	-0.1911	0.2403	0.0160
$\gamma_{r3} =$		-0.0192	-0.0249	-0.1671	0.0930	-0.1465
$\gamma_{r4} =$		-0.0116	-0.0081	-0.1748	0.1045	0.0106
$R^2 =$		0.6667	0.7273	0.6712	0.6957	0.7462

Table 6A: Business-Cycle Currency-CAPM (Monthly)						
Trough	Volatility	Market Capitalization				
Parameters		1 Low	2	3	4	5 High
$\alpha_j =$	1 Low	0.3958*	0.1364	0.0000	-0.0035	0.1214
$\beta_X =$		0.0818	-0.5908	-0.0000	-0.7896	-2.3613
$\beta_B =$		1.1936***	1.1024**	0.0000	2.3600***	1.4108***
$\gamma_{L,1} =$		1.2884***	1.2380**	-0.0000	2.5665***	1.6381***
$\gamma_{L,2} =$		1.2565***	1.2031**	0.0000	2.5399***	1.6604***
$\gamma_{L,3} =$		1.2062***	1.2458**	0.0000*	2.3087***	2.4070***
$\gamma_{L,4} =$		1.1516***	0.8989	-0.0000	2.5183***	0.6934**
$\gamma_{L,5} =$		1.1926***	1.3000***	-0.0000	2.4372***	1.1086***
$\gamma_{C,1} =$		0.8894***	1.1077***	2.2996***	0.3036	1.1553***
$\gamma_{C,2} =$		0.9264***	0.2851	0.0000	-0.5819	0.9821***
$\gamma_{C,3} =$		0.7916	0.3321	-0.0000	-0.2145	-0.2597
$\gamma_{C,4} =$		-0.8986**	0.1304	-0.0000	-0.9564	-0.7847***
$\gamma_{C,5} =$		-0.3831*	-0.2960	0.0000	-0.0818	-1.0153***
$\gamma_{X,1} =$		-29.8363**	11.9338	-0.0000	29.3566	-28.8866*
$\gamma_{X,2} =$		-23.3592**	5.9678	0.0000	6.9266	-17.4030*
$\gamma_{X,3} =$		-15.4965**	5.7438	0.0000	11.3060	-7.7110
$\gamma_{X,4} =$		-8.0861	5.3958	0.0000	11.8901	-5.7667
$\gamma_{r,1} =$		0.6373	-2.3545	-0.0000	-1.0578	1.5605**
$\gamma_{r,2} =$		0.2036	-0.3780	-0.0000	-0.3279	0.7558***
$\gamma_{r,3} =$		0.3191*	-0.0879	-0.0000	-0.1613	0.8527***
$\gamma_{r,4} =$		0.0076	-0.2964	-0.0000	-0.2463	0.2456***
$R^2 =$		0.2949	0.1926	0.5344	0.2415	0.6276
$\alpha_j =$	2	-0.2771	0.3053	0.0520	0.1998	0.4419
$\beta_X =$		-2.4243	-2.3184	-0.5620	0.9309	-0.2075
$\beta_B =$		1.4183**	1.8150***	1.1013***	1.6019***	1.5662***
$\gamma_{L,1} =$		1.6652**	2.1822***	1.4437***	1.5936***	1.7778***
$\gamma_{L,2} =$		1.4915**	2.0400***	1.3171***	1.9574***	1.8687***
$\gamma_{L,3} =$		1.3831*	1.5119**	1.6993***	1.2620**	1.4995***
$\gamma_{L,4} =$		2.2425**	1.2138	0.7712*	1.1366**	1.1904***
$\gamma_{L,5} =$		1.8734***	1.6465***	0.8506***	1.9463***	1.5627***
$\gamma_{C,1} =$		1.5436***	1.5139***	1.5988***	1.3606***	1.2143***
$\gamma_{C,2} =$		1.1146*	1.3210***	1.6964***	1.3826***	1.0781*
$\gamma_{C,3} =$		2.9483	2.1164**	-0.8527	0.2474	-0.1514
$\gamma_{C,4} =$		-1.3092	-2.8492***	-1.0093**	-0.8264	-1.2240***
$\gamma_{C,5} =$		-0.6749	-1.8148***	-0.7768**	-1.2834***	-1.1389***
$\gamma_{X,1} =$		-0.4446	-4.5509	-31.4400	-22.8890	-44.7653*
$\gamma_{X,2} =$		9.4435	-0.2222	-17.9561	-7.8051	-29.6959
$\gamma_{X,3} =$		14.8346	-3.8863	-6.8941	-4.3122	-16.6320
$\gamma_{X,4} =$		-1.0809	12.3105	-5.8756	-4.4004	-11.8447
$\gamma_{r,1} =$		0.5160	-0.8766	2.1081	-0.4876	-0.1598
$\gamma_{r,2} =$		0.3761	-0.1215	0.7953*	0.4465	0.1685
$\gamma_{r,3} =$		0.4428	0.4444	0.8033***	0.4354	0.3655
$\gamma_{r,4} =$		-0.2509	0.0202	0.2163	0.0093	-0.0208
$R^2 =$		0.1120	0.3199	0.4460	0.3833	0.2164
$\alpha_j =$	3	0.2404	0.5169	0.3987	0.1874	-0.4317
$\beta_X =$		-1.8289	-4.9088	0.1154	2.2275	-0.5948
$\beta_B =$		0.8173*	1.3663***	1.8214***	1.8391***	0.7576***
$\gamma_{L,1} =$		1.0972**	1.8554***	2.3793***	2.3547***	0.8464**
$\gamma_{L,2} =$		0.9944*	1.9607***	2.1018***	2.2118***	1.1234**

$\gamma_{L,3} =$		1.3627*	2.1995***	1.9853***	2.0522***	0.6161
$\gamma_{L,4} =$		0.6097	-0.0944	1.7502**	1.7501***	0.9133**
$\gamma_{L,5} =$		0.4599	0.8059	1.6837***	1.8180***	0.6496*
$\gamma_{C,1} =$		2.0157***	1.3848***	1.2900***	1.2963***	1.2424***
$\gamma_{C,2} =$		1.8627***	1.5680***	1.4239***	1.0699***	1.9953***
$\gamma_{C,3} =$		1.0284	-0.2681	2.6202***	-0.2516	0.8630
$\gamma_{C,4} =$		-0.7590	-0.6950	-2.0588***	-1.2679***	-0.2209
$\gamma_{C,5} =$		-0.9538**	-0.6409	-1.4783***	-1.1955***	-0.6999**
$\gamma_{X,1} =$		-35.7297	-35.9212	-41.4029	-13.8572	14.8129
$\gamma_{X,2} =$		-15.1935	-14.6834	-19.8780	-15.1798	12.6927
$\gamma_{X,3} =$		-14.0190	-14.1222	-11.6069	-5.5538	8.9800
$\gamma_{X,4} =$		-9.5602	-4.8920	-5.9307	-1.4250	11.4680
$\gamma_{r,1} =$		2.1624	-0.2476	-0.7704	-1.2665	0.2321
$\gamma_{r,2} =$		0.6577	0.0394	0.5364	0.0713	0.2621
$\gamma_{r,3} =$		0.7252**	0.4734	0.5431*	0.3469	0.3537
$\gamma_{r,4} =$		-0.0654	0.0820	0.1180	-0.0403	0.0195
$R^2 =$		0.4904	0.3880	0.3881	0.4171	0.3464
$\alpha_j =$	4	0.2745	0.2230	0.5581	-0.1850	-0.6681
$\beta_X =$		-0.3157	-2.7054	-6.4955**	-0.9944	0.6606
$\beta_B =$		1.0728***	1.7181**	1.6660***	1.2958***	1.0520***
$\gamma_{L,1} =$		1.3913***	1.9982***	2.1732***	1.4874***	1.4122***
$\gamma_{L,2} =$		1.2928**	2.0598***	2.5627***	1.5502***	1.3272***
$\gamma_{L,3} =$		1.4110***	2.0957***	3.7856***	0.5273	1.8338***
$\gamma_{L,4} =$		0.2079	2.0879***	0.3850	1.0599***	0.0746
$\gamma_{L,5} =$		0.6206	1.1976**	1.1061***	1.1914***	0.8368***
$\gamma_{C,1} =$		1.6482***	0.9411***	0.9807***	1.1190***	1.0154***
$\gamma_{C,2} =$		1.5401***	0.2324	0.2980	1.5803***	0.7786
$\gamma_{C,3} =$		1.0264	0.3202	-2.9630***	0.4168	0.0878
$\gamma_{C,4} =$		-0.1090	-1.3768**	-0.4731	-0.6808**	-0.2887
$\gamma_{C,5} =$		-0.6090	-0.6136	-1.0981**	-1.1680***	-0.3247
$\gamma_{X,1} =$		-39.4477	21.9766	-81.2490***	-25.4819	22.3747
$\gamma_{X,2} =$		-9.0561	19.7780	-48.3584**	-11.7304	18.0429
$\gamma_{X,3} =$		-11.4168	13.1652	-29.1172*	-2.1689	15.0306
$\gamma_{X,4} =$		-3.6971	16.4940	-21.1043	-1.9987	14.3641
$\gamma_{r,1} =$		-1.9011	-7.2175**	1.8896	1.4109	-0.4184
$\gamma_{r,2} =$		-0.0736	-1.0892**	0.7634*	0.6208	0.3239
$\gamma_{r,3} =$		0.4008	-0.5420	0.8219***	0.5945*	0.4053
$\gamma_{r,4} =$		0.0037	-0.5470**	0.2972	0.1725	0.1431
$R^2 =$		0.3342	0.4104	0.6737	0.4253	0.2580
$\alpha_j =$	5	0.0422	-0.0000	0.1881	-0.7020	-0.0330
$\beta_X =$		-3.6331	-0.0000	-4.1376	3.4558	0.7821
$\beta_B =$		1.3498***	0.0000	0.6538***	1.1762***	0.8479***
$\gamma_{L,1} =$		1.8512***	0.0000	1.2025***	1.6789***	1.1905***
$\gamma_{L,2} =$		2.3865***	-0.0000	0.5871	1.3998**	1.5482***
$\gamma_{L,3} =$		0.9380*	0.0000	0.7139**	1.3307*	0.0204
$\gamma_{L,4} =$		1.1017***	-0.0000	0.5555**	1.1684***	0.6195**
$\gamma_{L,5} =$		1.4077***	0.0000	0.5518**	1.2792***	0.9909***
$\gamma_{C,1} =$		1.7244***	3.9275***	1.6818***	1.7112***	2.0939***
$\gamma_{C,2} =$		-0.2503	-0.0000	-0.2310	0.3281	1.3546***
$\gamma_{C,3} =$		-1.1009***	-0.0000	-0.2696	-0.3170	-0.4932
$\gamma_{C,4} =$		-1.2705***	0.0000	-0.5424**	-0.6872**	-0.6670***
$\gamma_{C,5} =$		-1.3651***	-0.0000	-0.6706***	-1.1660***	-0.8335***

$\gamma_{X,1} =$		-11.5835	0.0000	-22.9115	-2.3399	2.1484
$\gamma_{X,2} =$		-0.9480	0.0000	-16.1341	1.9267	-0.9259
$\gamma_{X,3} =$		2.2175	0.0000	-14.7927	3.1732	-1.5640
$\gamma_{X,4} =$		12.1913	0.0000	-12.2365	6.8432	7.1589
$\gamma_{r,1} =$		-0.2161	0.0000	-0.4746	1.8304	0.5980
$\gamma_{r,2} =$		0.2644	0.0000	0.0678	0.6777	-0.0905
$\gamma_{r,3} =$		0.5899***	0.0000	0.1660	0.8434***	0.2146
$\gamma_{r,4} =$		0.0377	0.0000**	-0.1034	0.2779	-0.2610**
$R^2 =$		0.6387	0.8735	0.5790	0.6458	0.8080
Table 6A: Business-Cycle Currency-CAPM (Monthly)						
Expansion	Volatility	Market Capitalization				
Parameters		1 Low	2	3	4	5 High
$\alpha_j =$	1 Low	0.0111	-0.1982	-0.0297	-0.1128	-0.1155
$\beta_X =$		-1.8313*	2.2888	2.3454	3.7041	1.3447
$\beta_B =$		0.4127**	0.2694	0.7087***	0.2548	0.2151
$\gamma_{L,1} =$		0.3836*	0.2874	0.7468***	0.2334	0.1840
$\gamma_{L,2} =$		0.4225*	0.3188	0.6824***	0.2071	0.1416
$\gamma_{L,3} =$		0.5182**	0.0357	0.8818***	0.5710	0.0566
$\gamma_{L,4} =$		0.5222**	0.6411	0.5609**	0.1145	0.5638**
$\gamma_{L,5} =$		0.3997*	0.1444	0.8189***	0.1040	0.2528
$\gamma_{C,1} =$		-0.1791	0.3377	-0.2465	0.4280	-0.0268
$\gamma_{C,2} =$		-0.1611	0.9083***	0.7300***	1.2826***	-0.0127
$\gamma_{C,3} =$		0.0770	0.1917	0.3979	1.7863*	1.0702**
$\gamma_{C,4} =$		0.0085	-1.8074	-0.4870	-0.0771	-0.0091
$\gamma_{C,5} =$		0.2184	-0.3794	-0.2063	-0.3073	-0.3229
$\gamma_{X,1} =$		8.4490	-9.8941	5.6705	-32.5707	18.1521
$\gamma_{X,2} =$		4.4723	-4.4986	4.0122	-12.1701	9.8519
$\gamma_{X,3} =$		3.0053	-1.9637	2.9186	-9.5728	6.1056
$\gamma_{X,4} =$		4.3768	-5.0940	2.4269	-8.8634	6.6071
$\gamma_{r,1} =$		-0.8594	1.3330	-0.8546	3.3951	-0.9588
$\gamma_{r,2} =$		-0.2177	0.4934	-0.0246	0.7687	-0.3721**
$\gamma_{r,3} =$		-0.2207	0.4555	0.0387	0.7069*	-0.1606
$\gamma_{r,4} =$		-0.1193	0.2731	-0.2932**	0.4496	-0.1287
$R^2 =$		0.2949	0.1926	0.5344	0.2415	0.6276
$\alpha_j =$	2	-0.1448	-0.2145	-0.6133	-0.3225	-0.2980
$\beta_X =$		-1.9573	0.4962	0.2453	0.0165	0.8007
$\beta_B =$		0.3585	-0.3318	0.2531	0.4203	0.1054
$\gamma_{L,1} =$		0.3145	-0.5289*	0.1481	0.5154*	-0.0022
$\gamma_{L,2} =$		0.2484	-0.6260*	0.0829	0.3576	0.0771
$\gamma_{L,3} =$		0.5615	-0.7797*	0.0543	0.3531	0.0386
$\gamma_{L,4} =$		-0.6091	-0.2425	0.1173	0.4270	-0.0775
$\gamma_{L,5} =$		-0.0390	-0.2281	0.3346	0.0183	0.0034
$\gamma_{C,1} =$		-0.7535**	-0.3763*	-0.2709	-0.4472*	-0.0660
$\gamma_{C,2} =$		-0.3385	-0.3807*	-0.1709	-0.6296**	-0.0634
$\gamma_{C,3} =$		-0.4141	-1.3585***	1.5955	0.2436	0.3101
$\gamma_{C,4} =$		0.4311	1.5789***	0.0305	0.6123	-0.0115
$\gamma_{C,5} =$		0.5748	0.7868***	-0.0283	0.1848	-0.0467
$\gamma_{X,1} =$		-13.8162	-18.3893	44.2611*	19.1171	31.0679
$\gamma_{X,2} =$		-10.9957	-9.1928	32.6143*	7.6399	21.5518
$\gamma_{X,3} =$		-9.7105	-9.3251	17.7304	13.0539	14.6669
$\gamma_{X,4} =$		-4.2523	-9.8156	16.1271	6.1192	8.6450
$\gamma_{r,1} =$		-0.0007	0.6515	-0.5620	-1.3540	-0.8869

$\gamma_{r,2} =$		0.1730	0.0077	-0.3484	-0.3278	-0.1914
$\gamma_{r,3} =$		-0.0121	-0.2132	-0.1778	-0.1422	-0.0789
$\gamma_{r,4} =$		0.2494	-0.1483	-0.0713	-0.0434	-0.0883
$R^2 =$		0.1120	0.3199	0.4460	0.3833	0.2164
$\alpha_j =$	3	-0.1085	-0.3868	-0.3957	-0.0477	0.3663
$\beta_X =$		2.8057	0.5084	-0.7385	-1.8251	0.1829
$\beta_B =$		0.7838**	0.5204	-0.2172	-0.1824	0.2303
$\gamma_{L,1} =$		0.8049	0.4643	-0.4186	-0.3343	0.3417
$\gamma_{L,2} =$		0.5665	0.1439	-0.5334	-0.4357	0.3978
$\gamma_{L,3} =$		0.2158	-0.1430	-0.6749**	-0.5402	0.6635
$\gamma_{L,4} =$		0.7223	1.6772***	-0.0655	-0.3869	-0.0224
$\gamma_{L,5} =$		0.9506**	0.8838**	-0.1477	-0.1906	0.2106
$\gamma_{C,1} =$		-0.6346**	-0.4734**	-0.1653	-0.1215	-0.0484
$\gamma_{C,2} =$		-0.6037*	-0.5559*	-0.1305	-0.1689	0.0598
$\gamma_{C,3} =$		0.6035	1.1508*	-0.6677	0.7632	1.9646***
$\gamma_{C,4} =$		0.5178	-0.1588	0.4635	0.0033	0.1791
$\gamma_{C,5} =$		-0.1333	0.0729	0.3053	0.2415	-0.2130
$\gamma_{X,1} =$		14.6923	5.1207	6.5740	0.4739	-3.6446
$\gamma_{X,2} =$		8.2002	0.4373	8.8502	5.0261	-7.8452
$\gamma_{X,3} =$		8.5406	4.3785	5.2947	9.4853	-3.7429
$\gamma_{X,4} =$		4.0161	2.9763	2.5103	2.4784	12.5738
$\gamma_{r,1} =$		-3.0843	0.1406	1.0020	-0.3528	-0.9661
$\gamma_{r,2} =$		-0.7507*	-0.0164	-0.1959	-0.3529	-0.3624
$\gamma_{r,3} =$		-0.4187	-0.2251	-0.0232	-0.2955*	-0.2475
$\gamma_{r,4} =$		-0.1512	-0.1472	-0.0599	-0.1692	-0.0005
$R^2 =$		0.4904	0.3880	0.3881	0.4171	0.3464
$\alpha_j =$	4	0.0463	-0.3715	-0.4999	-0.9169*	0.3535
$\beta_X =$		0.0406	2.8103	0.9802	4.4697	0.2274
$\beta_B =$		0.4571**	-0.2162	0.2610	0.3259	-0.5034*
$\gamma_{L,1} =$		0.3879	-0.2548	0.2170	0.3852	-0.4917
$\gamma_{L,2} =$		0.2492	-0.3927	0.1324	-0.0864	-0.7586*
$\gamma_{L,3} =$		0.1286	-0.9666*	-0.1357	-0.0260	-0.6403
$\gamma_{L,4} =$		1.5812***	-0.6333	0.6993	0.4763	-0.8915
$\gamma_{L,5} =$		0.6403***	-0.1816	0.4050	0.4712	-0.2831
$\gamma_{C,1} =$		-0.4776**	-0.0084	-0.3337	0.1123	0.6887*
$\gamma_{C,2} =$		-0.5875**	-0.1021	-0.3602	-0.1343	0.0760
$\gamma_{C,3} =$		-0.2724	0.3790	1.5109**	0.6346	1.4655
$\gamma_{C,4} =$		-0.2670	0.5967	0.3002	-0.0146	0.4663
$\gamma_{C,5} =$		-0.2306	-0.0917	-0.2123	-0.3904	0.6712**
$\gamma_{X,1} =$		-19.5847	-9.3719	30.3703	68.0308*	-47.0035
$\gamma_{X,2} =$		-18.6587	0.9456	20.3576	52.4552*	-30.9951
$\gamma_{X,3} =$		-8.6459	-12.7111	14.0600	37.1596**	-13.8327
$\gamma_{X,4} =$		-7.1551	-11.9799	9.0337	37.2839**	-16.4452
$\gamma_{r,1} =$		0.9732	4.4960**	-1.4837	-0.4196	0.9370
$\gamma_{r,2} =$		0.0718	0.5031	-0.2594	0.1971	0.3311
$\gamma_{r,3} =$		-0.1552	0.2581	-0.2855	0.0391	0.5193
$\gamma_{r,4} =$		-0.0929	0.1383	-0.1349	-0.0210	0.1803
$R^2 =$		0.3342	0.4104	0.6737	0.4253	0.2580
$\alpha_j =$	5	-0.6025	-0.8503	-0.2498	-1.0243	-0.1968
$\beta_X =$		-2.6793	2.8473	3.7020	-0.9173	0.9487
$\beta_B =$		0.4556	0.4447	-0.4783	0.3567	-1.1824***

$\gamma_{L1} =$		0.5346	0.8175	-1.1196	0.5181	-1.6710**
$\gamma_{L2} =$		0.3339	0.6767	0.8714	-1.1985	-1.4213**
$\gamma_{L3} =$		1.2319*	0.4270	-0.7691	2.0128	-1.1786
$\gamma_{L4} =$		0.2819	0.2786	-0.5714	1.4463*	-0.9798*
$\gamma_{L5} =$		0.4263	-0.1440	-0.8002*	0.8333	-1.2474***
$\gamma_{C1} =$		-0.6576**	-0.8351	0.2608	0.4717	1.2346**
$\gamma_{C2} =$		1.4770**	2.1142***	2.0317***	-0.0990	1.4303
$\gamma_{C3} =$		0.5489*	1.3013*	1.2234***	0.9671	4.2133***
$\gamma_{C4} =$		-0.3738	0.1477	0.8680*	-0.3970	1.2456***
$\gamma_{C5} =$		-0.4127	0.2596	0.6418	-0.4039	1.1442**
$\gamma_{X1} =$		43.4422	70.9150	17.7728	50.8107	26.0803
$\gamma_{X2} =$		34.4227	67.3243*	21.1763	30.4087	16.4696
$\gamma_{X3} =$		23.8304	34.1939	13.8144	20.7200	12.1955
$\gamma_{X4} =$		28.0247*	16.5878	-12.4344	50.2684**	2.0789
$\gamma_{r1} =$		-1.3267	-4.4570	-1.7819	2.2932	-0.0648
$\gamma_{r2} =$		0.1130	-0.2072	-0.0428	0.5897	-0.4160
$\gamma_{r3} =$		-0.3636	-0.2834	-0.1558	0.5448	0.2428
$\gamma_{r4} =$		-0.2136	-0.3985	-0.0721	0.2652	-0.1591
$R^2 =$		0.6387	0.8735	0.5790	0.6458	0.8080
Table 6A: Business-Cycle Currency-CAPM (Monthly)						
Contraction	Volatility	Market Capitalization				
Parameters		1 Low	2	3	4	5 High
$\alpha_j =$	1 Low	-0.1927	-0.1033	0.1681	-0.1089	-0.0059
$\beta_X =$		-0.4742	1.3726	-1.0546	-0.4297	1.0166
$\beta_B =$		0.6865***	0.2864	0.2918	0.0483	2.3741***
$\gamma_{L1} =$		0.5810***	0.3194	0.3116	0.0745	2.1779***
$\gamma_{L2} =$		0.7565***	0.1438	0.2761	-0.0261	2.1980***
$\gamma_{L3} =$		0.7869***	0.2096	0.4118	-0.1002	1.5363***
$\gamma_{L4} =$		0.6776***	0.1795	0.2990	-0.1276	2.7428***
$\gamma_{L5} =$		0.6313***	0.2651	0.2631	0.0216	2.6386***
$\gamma_{C1} =$		-0.1330	-0.2424	-0.0301	0.1045	-1.1285***
$\gamma_{C2} =$		-0.2510	-0.2353	0.0585	0.1669	-0.9694***
$\gamma_{C3} =$		-0.0355	-0.4194	0.0432	0.3362	-0.8105
$\gamma_{C4} =$		-0.6600*	0.3693	0.7518*	-0.0559	0.7938***
$\gamma_{C5} =$		-0.1094	0.1506	-0.1737	-0.2649	-2.7269***
$\gamma_{X1} =$		7.6585	7.9290	-9.6802	15.3915	10.7345
$\gamma_{X2} =$		4.3247	6.1662	-5.7678	10.5548	7.5511
$\gamma_{X3} =$		3.3480	5.2003	-3.1965	5.1581	1.6054
$\gamma_{X4} =$		3.8956	4.1269	-3.7241	3.1019	-0.8405
$\gamma_{r1} =$		1.1627*	-0.5644	-0.2900	-1.5059	-0.6016
$\gamma_{r2} =$		0.3358*	-0.0782	-0.1940	-0.0767	-0.3837*
$\gamma_{r3} =$		0.1777	-0.1024	0.1202	-0.0181	-0.6920***
$\gamma_{r4} =$		0.0884	-0.0316	-0.0456	0.0608	-0.1169
$R^2 =$		0.2949	0.1926	0.5344	0.2415	0.6276
$\alpha_j =$	2	-0.1036	0.2902	0.4133	-0.4255	0.3467
$\beta_X =$		-2.3365	4.0936	3.4685	2.9744	0.3251
$\beta_B =$		0.0667	-0.2398	1.5676***	1.2871***	1.0322*
$\gamma_{L1} =$		0.0997	-0.4022	1.7990***	1.1686***	1.3527*
$\gamma_{L2} =$		-0.0114	-0.5882	1.2335**	0.9386**	0.7933
$\gamma_{L3} =$		-0.2767	-0.2370	0.3453	0.5458	0.3764
$\gamma_{L4} =$		0.1480	-0.2343	2.0739***	1.4864***	1.3178*
$\gamma_{L5} =$		0.0939	-0.2835	1.7756***	1.2709***	1.1441**

$\gamma_{C1} =$		0.0318	0.1355	-0.4572	-0.4800	0.0186
$\gamma_{C2} =$		0.0177	0.0475	-0.2917	-0.1528	0.0554
$\gamma_{C3} =$		0.0094	-0.1467	-0.0832	-0.0359	0.2877
$\gamma_{C4} =$		0.1618	1.3956*	1.1606*	0.7440	0.0782
$\gamma_{C5} =$		0.4018	0.7197	-0.5636	-0.5921	-0.0074
$\gamma_{X1} =$		7.8421	-5.3801	-0.8218	51.4397*	3.4077
$\gamma_{X2} =$		8.7603	-19.8823	-10.2454	28.8229	5.9595
$\gamma_{X3} =$		8.2571	-10.9370	-8.8629	15.1025	-9.4427
$\gamma_{X4} =$		-7.2742	-3.6960	-5.7595	7.8306	10.5701
$\gamma_{r1} =$		-0.5898	0.6420	-1.0166	-0.3078	-1.3894
$\gamma_{r2} =$		0.0412	-0.4140	-0.5674	-0.0123	-0.5345
$\gamma_{r3} =$		-0.0075	0.0495	-0.2246	-0.0642	-0.1358
$\gamma_{r4} =$		-0.0294	-0.0991	-0.0648	0.0982	-0.1331
$R^2 =$		0.1120	0.3199	0.4460	0.3833	0.2164
$\alpha_j =$	3	0.1614	-0.1432	0.2943	-0.0966	-0.3759
$\beta_X =$		6.0013**	5.5804*	-0.7220	-1.4076	5.9597
$\beta_B =$		0.8278***	0.3083	0.6246	0.1048	1.5032***
$\gamma_{L1} =$		0.7914**	0.2008	0.4652	0.3173	1.2046**
$\gamma_{L2} =$		0.8156**	-0.1623	0.4049	-0.1866	-0.6998
$\gamma_{L3} =$		0.5082	-0.1561	-0.0371	-1.2150*	1.1715
$\gamma_{L4} =$		0.6342	0.6822	1.3128	1.5633**	1.8113***
$\gamma_{L5} =$		0.8936***	0.4254	1.0291**	0.2400	1.7886***
$\gamma_{C1} =$		0.0041	0.1785	0.2481	0.3315	-0.2044
$\gamma_{C2} =$		-0.0132	0.1673	0.6313	0.0135	-0.1333
$\gamma_{C3} =$		0.5860	0.9139	-0.0847	0.4301	-1.4055
$\gamma_{C4} =$		0.2654	1.1272	0.5942	0.6697	0.0600
$\gamma_{C5} =$		-0.8254***	-0.0397	-0.6423	0.4712	-1.1215**
$\gamma_{X1} =$		36.8206	10.8878	37.5534	4.6460	59.4320
$\gamma_{X2} =$		18.7760	-1.4394	17.4324	8.3630	31.2238
$\gamma_{X3} =$		14.9793	3.7553	3.9019	6.7499	-5.6706
$\gamma_{X4} =$		12.5630	1.2264	7.9984	3.5012	-25.6468
$\gamma_{r1} =$		-3.1015**	2.3911	-3.2088	-0.2729	-1.7007
$\gamma_{r2} =$		-0.6600**	0.2199	-1.1527**	-0.0800	-0.4678
$\gamma_{r3} =$		-0.0029	0.4399	-0.4048	0.1652	-0.3505
$\gamma_{r4} =$		-0.1237	0.0320	-0.4920**	-0.0710	-0.1355
$R^2 =$		0.4904	0.3880	0.3881	0.4171	0.3464
$\alpha_j =$	4	0.7878**	0.9169	-0.0582	1.1256	-0.6453
$\beta_X =$		1.0645	5.4708	5.5152**	0.7133	-9.7434
$\beta_B =$		0.1287	0.6298*	2.0729***	1.4945***	0.4678
$\gamma_{L1} =$		0.2759	0.8795*	1.6097***	1.7432**	0.8897
$\gamma_{L2} =$		0.0890	0.0664	1.3049***	1.9950**	0.1885
$\gamma_{L3} =$		-0.1587	0.9822	0.3501	1.2039	-0.2180
$\gamma_{L4} =$		0.7035	0.1240	2.9157***	1.5176***	0.5463
$\gamma_{L5} =$		0.0481	0.9458**	2.4889***	1.2196**	0.4850
$\gamma_{C1} =$		-0.0269	0.1748	-0.6471**	-0.6664	-0.4504
$\gamma_{C2} =$		0.0839	0.8941**	0.0622	-0.9062	-0.5247
$\gamma_{C3} =$		0.3778	0.4692	1.4522**	-0.5121	1.5461
$\gamma_{C4} =$		0.4146	-0.6306	0.1729	1.2690**	1.0201
$\gamma_{C5} =$		0.2423	0.7086*	-2.6642***	-1.2106**	0.3048
$\gamma_{X1} =$		-25.3445	-25.2319	50.8787**	-39.3869	49.7635
$\gamma_{X2} =$		-18.4357	-29.3215	28.0007	-21.1960	27.0950
$\gamma_{X3} =$		-11.6757	12.8868	15.0572	-24.7463	32.6570

$\gamma_{X,4} =$		-4.1372	25.8284	12.0705	-28.3457	23.8782
$\gamma_{r,1} =$		-2.5976	-5.6517*	-0.4059	-4.1522	-3.3750
$\gamma_{r,2} =$		-0.5531	-0.4150	-0.5040	-1.0325	0.2723
$\gamma_{r,3} =$		-0.2879	-0.0197	-0.5364**	-0.3504	-0.0909
$\gamma_{r,4} =$		-0.3175*	-0.2568	-0.1623	-0.3085	0.0186
$R^2 =$		0.3342	0.4104	0.6737	0.4253	0.2580
$\alpha_j =$	5	0.7461	0.9173	-1.6268	1.7551	0.2959
$\beta_X =$		-2.0263	-2.5156	-8.7134	-2.4800	-2.1112
$\beta_B =$		1.2468**	3.5363***	4.1546***	2.4566***	4.2333***
$\gamma_{L,1} =$		0.8952	3.1532***	4.1841***	1.7797**	4.4521***
$\gamma_{L,2} =$		-0.2148	3.2808***	3.5113**	3.7712***	3.6505***
$\gamma_{L,3} =$		0.0780	3.6008***	5.2087***	0.6581	5.1428***
$\gamma_{L,4} =$		2.7161***	3.7206***	4.5782***	1.3768	4.3677***
$\gamma_{L,5} =$		1.8626***	4.1891***	3.7370***	1.9102***	4.2807***
$\gamma_{C,1} =$		0.1447	-3.0676***	-2.0772**	-2.1474***	-3.1076***
$\gamma_{C,2} =$		0.1570	-2.0851***	-2.3948*	-0.1679	-2.6640**
$\gamma_{C,3} =$		1.0206*	-1.3048*	-0.8073	-0.6783	-3.7084***
$\gamma_{C,4} =$		0.1734	-0.1456	-2.6875***	1.0755*	-0.5412
$\gamma_{C,5} =$		-1.9507***	-4.3231***	-4.2571***	-2.8288***	-4.5270***
$\gamma_{X,1} =$		-36.2858	-72.8321	4.1215	-47.9823	-32.3990
$\gamma_{X,2} =$		-44.8345	-67.5710*	11.8270	-31.4577	-18.6777
$\gamma_{X,3} =$		-34.1858	-33.6828	0.2684	-23.9519	-13.2387
$\gamma_{X,4} =$		-45.2793*	-16.8399	21.3472	-57.0366*	-9.6402
$\gamma_{r,1} =$		3.9150	3.7821	16.3735***	-4.3697	-0.3636
$\gamma_{r,2} =$		-0.7973	0.1154	2.4272*	-1.3150	0.3996
$\gamma_{r,3} =$		-0.1072	0.2333	1.2961	-1.4229**	-0.4251
$\gamma_{r,4} =$		0.0994	0.3499	1.1386*	-0.5826	0.4206
$R^2 =$		0.6387	0.8735	0.5790	0.6458	0.8080

Table 6A: Business-Cycle Currency-CAPM (Monthly)

Peak	Volatility	Market Capitalization				
Parameters		1 Low	2	3	4	5 High
$\alpha_j =$	1 Low	-0.2141	0.1652	-0.1384	0.2252	-0.0000
$\beta_X =$		2.2237*	-3.0706	-1.2908	-2.4848	0.0000
$\beta_B =$		1.7072***	2.3418***	2.9995***	1.3369***	-0.0000
$\gamma_{L,1} =$		1.7471***	2.1552***	2.9417***	1.1255***	-0.0000
$\gamma_{L,2} =$		1.5645***	2.3343***	3.0416***	1.2791***	0.0000
$\gamma_{L,3} =$		1.4887***	2.5088***	2.7064***	1.2206***	0.0000**
$\gamma_{L,4} =$		1.6486***	2.2805***	3.1401***	1.4949***	-0.0000
$\gamma_{L,5} =$		1.7764***	2.2905***	2.9180***	1.4372***	-0.0000***
$\gamma_{C,1} =$		-0.5772***	-1.2029***	-2.0230***	-0.8361***	-0.0000
$\gamma_{C,2} =$		-0.5143**	-0.9581***	-0.7886***	-0.8677***	-0.0000***
$\gamma_{C,3} =$		-0.8331	-0.1044	-0.4411	-1.9079***	0.0000
$\gamma_{C,4} =$		1.5501***	1.3077	-0.2648	1.0894**	0.0000
$\gamma_{C,5} =$		0.2741	0.5249	0.3800	0.6540**	4.0650***
$\gamma_{X,1} =$		13.7287	-9.9688	4.0097	-12.1774	0.0000
$\gamma_{X,2} =$		14.5621	-7.6354	1.7556	-5.3113	0.0000
$\gamma_{X,3} =$		9.1431	-8.9803	0.2779	-6.8913	0.0000
$\gamma_{X,4} =$		-0.1864	-4.4287	1.2972	-6.1285	-0.0000
$\gamma_{r,1} =$		-0.9405	1.5859	1.1445	-0.8314	-0.0000
$\gamma_{r,2} =$		-0.3216	-0.0372	0.2186	-0.3642	0.0000**
$\gamma_{r,3} =$		-0.2761	-0.2652	-0.1589	-0.5275*	0.0000*
$\gamma_{r,4} =$		0.0232	0.0549	0.3387**	-0.2641	-0.0000

$R^2 =$		0.2949	0.1926	0.5344	0.2415	0.6276
$\alpha_j =$	2	0.5255	-0.3811	0.1481	0.5482	-0.4907
$\beta_X =$		6.7182*	-2.2714	-3.1519	-3.9218	-0.9183
$\beta_B =$		2.1564***	2.7566***	1.0780***	0.6907*	1.2962**
$\gamma_{L,1} =$		1.9206***	2.7488***	0.6092	0.7224*	0.8716
$\gamma_{L,2} =$		2.2715***	3.1743***	1.3665***	0.7465	1.2609
$\gamma_{L,3} =$		2.3321***	3.5049***	1.9011**	1.8391***	2.0855**
$\gamma_{L,4} =$		2.2187***	3.2630***	1.0377*	0.9500**	1.5693**
$\gamma_{L,5} =$		2.0717***	2.8652***	1.0391**	0.7644*	1.2898**
$\gamma_{C,1} =$		-0.8219**	-1.2731**	-0.8707**	-0.4333	-1.1669***
$\gamma_{C,2} =$		-0.7938	-0.9879*	-1.2337**	-0.6001	-1.0700
$\gamma_{C,3} =$		-2.5436	-0.6111	-0.6596	-0.4551	-0.4463
$\gamma_{C,4} =$		0.7163	-0.1254	-0.1818	-0.5299	1.1573
$\gamma_{C,5} =$		-0.3018	0.3083	1.3687***	1.6907***	1.1930*
$\gamma_{X,1} =$		6.4187	28.3203	-11.9994	-47.6677	10.2897
$\gamma_{X,2} =$		-7.2081	29.2974	-4.4129	-28.6577	2.1846
$\gamma_{X,3} =$		-13.3812	24.1484	-1.9734	-23.8442	11.4079
$\gamma_{X,4} =$		12.6075	1.2012	-4.4920	-9.5493	-7.3704
$\gamma_{r,1} =$		0.0745	-0.4170	-0.5296	2.1494	2.4361
$\gamma_{r,2} =$		-0.5904	0.5277	0.1205	-0.1064	0.5573
$\gamma_{r,3} =$		-0.4232	-0.2806	-0.4010	-0.2290	-0.1508
$\gamma_{r,4} =$		0.0309	0.2272	-0.0802	-0.0640	0.2422
$R^2 =$		0.1120	0.3199	0.4460	0.3833	0.2164
$\alpha_j =$	3	-0.2932	0.0131	-0.2974	-0.0431	0.4413
$\beta_X =$		-6.9781***	-1.1800	1.3450	1.0053	-5.5478
$\beta_B =$		1.5711***	1.8050***	1.7711***	2.2385***	1.5089***
$\gamma_{L,1} =$		1.3065***	1.4795**	1.5742**	1.6623**	1.6074***
$\gamma_{L,2} =$		1.6235***	2.0578***	2.0267**	2.4105***	3.1786***
$\gamma_{L,3} =$		1.9133***	2.0996***	2.7267***	3.7029***	1.5489
$\gamma_{L,4} =$		2.0337***	1.7350*	1.0024	1.0735	1.2978*
$\gamma_{L,5} =$		1.6960***	1.8848***	1.4349**	2.1326***	1.3513**
$\gamma_{C,1} =$		-1.3851***	-1.0899***	-1.3728***	-1.5064***	-0.9896*
$\gamma_{C,2} =$		-1.2458***	-1.1794***	-1.9247***	-0.9144**	-1.9218**
$\gamma_{C,3} =$		-2.2180***	-1.7965*	-1.8677	-0.9416	-1.4221
$\gamma_{C,4} =$		-0.0243	-0.2733	1.0011	0.5949	-0.0182
$\gamma_{C,5} =$		1.9125***	0.6077	1.8153***	0.4827	2.0344***
$\gamma_{X,1} =$		-15.7833	19.9128	-2.7245	8.7373	-70.6002
$\gamma_{X,2} =$		-11.7826	15.6856	-6.4046	1.7907	-36.0713
$\gamma_{X,3} =$		-9.5008	5.9884	2.4103	-10.6814	0.4334
$\gamma_{X,4} =$		-7.0188	0.6893	-4.5780	-4.5546	1.6049
$\gamma_{r,1} =$		4.0234***	-2.2841	2.9772	1.8922	2.4346
$\gamma_{r,2} =$		0.7530*	-0.2429	0.8122	0.3617	0.5681
$\gamma_{r,3} =$		-0.3036	-0.6882	-0.1151	-0.2166	0.2444
$\gamma_{r,4} =$		0.3403**	0.0332	0.4339	0.2804	0.1165
$R^2 =$		0.4904	0.3880	0.3881	0.4171	0.3464
$\alpha_j =$	4	-1.1086*	-0.7684	0.0000	-0.0236	0.9599
$\beta_X =$		-0.7894	-5.5756	-0.0000	-4.1886	8.8554
$\beta_B =$		2.3414***	1.8683***	-0.0000	0.8838**	2.9836***
$\gamma_{L,1} =$		1.9449***	1.3772**	-0.0000	0.3843	2.1898***
$\gamma_{L,2} =$		2.3690***	2.2665***	-0.0000	0.5413	3.2429***
$\gamma_{L,3} =$		2.6191***	1.8887	-0.0000	2.2947**	3.0245***

$\gamma_{L4} =$		1.5074	2.4215**	-0.0000	0.9462**	4.2706***
$\gamma_{L5} =$		2.6910***	2.0383***	0.0000	1.1178**	2.9613***
$\gamma_{C1} =$		-1.1437**	-1.1076**	0.0000	-0.5650	-1.2537*
$\gamma_{C2} =$		-1.0365**	-1.0243*	0.0000	-0.5399	-0.3299
$\gamma_{C3} =$		-1.1318	-1.1683	-0.0000	-0.5394	-3.0993*
$\gamma_{C4} =$		-0.0386	1.4107	0.0000	-0.5736	-1.1978
$\gamma_{C5} =$		0.5973	-0.0033	3.9746***	2.7690***	-0.6513
$\gamma_{X1} =$		84.3769**	12.6272	0.0000	-3.1621	-25.1347
$\gamma_{X2} =$		46.1505	8.5979	0.0000	-19.5288	-14.1427
$\gamma_{X3} =$		31.7385	-13.3409	0.0000	-10.2445	-33.8549
$\gamma_{X4} =$		14.9893	-30.3426	0.0000	-6.9395	-21.7972
$\gamma_{r1} =$		3.5255	8.3732*	-0.0000	3.1608	2.8564
$\gamma_{r2} =$		0.5549	1.0011	-0.0000	0.2146	-0.9272
$\gamma_{r3} =$		0.0423	0.3036	-0.0000	-0.2832	-0.8336
$\gamma_{r4} =$		0.4067	0.6655	-0.0000	0.1570	-0.3419
$R^2 =$		0.3342	0.4104	0.6737	0.4253	0.2580
$\alpha_j =$	5	-0.1858	-0.0669	1.6885**	-0.0288	-0.0661
$\beta_X =$		8.3386*	-0.3317	9.1490*	-0.0585	0.3804
$\beta_B =$		0.9478**	0.0190	-0.3300	0.0105	0.1012
$\gamma_{L1} =$		0.7190	0.0293	-0.2670	0.0234	0.0285
$\gamma_{L2} =$		1.4945**	0.0425	-0.9698	0.0274	0.2226
$\gamma_{L3} =$		1.7521*	-0.0278	-1.1536**	-0.0016	0.0154
$\gamma_{L4} =$		-0.0997	0.0008	-0.5623	0.0085	-0.0075
$\gamma_{L5} =$		0.3035	-0.0451	0.5114	-0.0227	-0.0242
$\gamma_{C1} =$		-1.2115**	-0.0248	0.1347	-0.0355	-0.2209**
$\gamma_{C2} =$		-1.3838	-0.0291	0.5941	-0.0613	-0.1208
$\gamma_{C3} =$		-0.4687	0.0036	-0.1466	0.0281	-0.0117
$\gamma_{C4} =$		1.4709***	-0.0021	2.3619***	0.0087	-0.0374
$\gamma_{C5} =$		3.7285***	4.0635***	4.2858***	4.3988***	4.2164***
$\gamma_{X1} =$		4.4271	1.9171	1.0172	-0.4885	4.1703
$\gamma_{X2} =$		11.3597	0.2467	-16.8692	-0.8776	3.1340
$\gamma_{X3} =$		8.1380	-0.5111	0.7099	0.0587	2.6071
$\gamma_{X4} =$		5.0632	0.2521	3.3236	-0.0750	0.4023
$\gamma_{r1} =$		-2.3722	0.6750***	-14.1170***	0.2461	-0.1696
$\gamma_{r2} =$		0.4199	0.0917**	-2.4521***	0.0477	0.1070*
$\gamma_{r3} =$		-0.1191	0.0501*	-1.3063**	0.0346	-0.0323
$\gamma_{r4} =$		0.0765	0.0486**	-0.9631**	0.0396*	-0.0004
$R^2 =$		0.6387	0.8735	0.5790	0.6458	0.8080

Table 6B: Business-Cycle Currency-CAPM (Daily)						
Trough	Volatility	Volume				
Parameters		1 Low	2	3	4	5 High
$\alpha_j =$	1 Low	-0.0236*	-0.0319**	-0.0175	-0.0152*	-0.0100
$\beta_X =$		0.4003	0.6933*	0.3038	-0.1676	-0.0117
$\beta_B =$		1.5177***	1.2507***	1.1755***	1.0828***	0.9721***
$\gamma_{L1} =$		1.5948***	1.2698***	1.2304***	1.1266***	1.0039***
$\gamma_{L2} =$		1.6115***	1.3817***	1.2551***	1.1839***	0.8439***
$\gamma_{L3} =$		1.4879***	1.2516***	1.1770***	1.0183***	0.7333***
$\gamma_{L4} =$		1.4482***	1.1146***	0.9735***	0.9260***	0.8871***
$\gamma_{L5} =$		1.4056***	1.1774***	1.0635***	0.9755***	0.8908***
$\gamma_{C1} =$		2.1613***	1.6726***	2.3401***	1.8229***	2.5694***
$\gamma_{C2} =$		0.8536***	-0.1703	0.0249	0.1101	-0.1407
$\gamma_{C3} =$		-0.7650***	-0.2968	-0.2693	-0.3207	-0.4743***
$\gamma_{C4} =$		-0.8419***	-0.5701***	-0.5575***	-0.4586***	-0.5718***
$\gamma_{C5} =$		-1.1229***	-0.8802***	-0.8154***	-0.6875***	-0.7891***
$\gamma_{X1} =$		6.0957*	6.3133	3.7705	3.0774	0.6008
$\gamma_{X2} =$		5.2359*	5.0057	2.1392	2.8625	1.9883
$\gamma_{X3} =$		3.5603*	4.5456*	2.0436	2.1358	1.5792
$\gamma_{X4} =$		1.7389	0.5442	-0.3138	0.3121	-0.3912
$\gamma_{r1} =$		-0.2017	0.5757*	0.5141*	0.3065*	0.1701
$\gamma_{r2} =$		0.1796**	0.2287***	0.1798***	0.1514***	0.1423***
$\gamma_{r3} =$		0.1252***	0.2081***	0.1761***	0.1297***	0.1334***
$\gamma_{r4} =$		0.0975***	0.0805*	0.0991**	0.0692**	0.0417
$R^2 =$		0.5124	0.4894	0.5625	0.5021	0.6240
$\alpha_j =$	2	-0.0274	-0.0056	-0.0030	0.0024	-0.0015
$\beta_X =$		-0.0082	-0.5566	-0.1479	0.0011	0.1669
$\beta_B =$		0.9356***	1.2685***	1.1238***	0.8956***	0.9074***
$\gamma_{L1} =$		1.2303***	1.5184***	1.3315***	1.0455***	1.1074***
$\gamma_{L2} =$		1.2505***	1.6157***	1.4659***	0.9655***	1.1144***
$\gamma_{L3} =$		0.7467***	1.1565***	1.0934***	0.7636***	0.8543***
$\gamma_{L4} =$		0.7353***	0.9660***	0.8249***	0.7075***	0.7298***
$\gamma_{L5} =$		0.8004***	1.0484***	0.9483***	0.7569***	0.7625***
$\gamma_{C1} =$		1.7945***	1.7087***	1.9325***	2.5084***	2.2743***
$\gamma_{C2} =$		-0.2992**	0.2965**	0.1455	-0.3280***	-0.3530***
$\gamma_{C3} =$		-0.3163	-0.5216**	-0.5410***	-0.4943***	-0.4742***
$\gamma_{C4} =$		-0.5511***	-0.6410***	-0.6707***	-0.4703***	-0.5403***
$\gamma_{C5} =$		-0.5983***	-0.7717***	-0.7476***	-0.5755***	-0.5827***
$\gamma_{X1} =$		4.4947	-0.1650	-0.3257	-1.4190	0.9052
$\gamma_{X2} =$		4.6226	-0.2333	0.7255	-0.9113	-0.3003
$\gamma_{X3} =$		3.3409	1.9832	0.2744	-0.2673	-0.7815
$\gamma_{X4} =$		0.2075	-1.7826	-1.0253	-1.6749	-2.3204
$\gamma_{r1} =$		0.4870	-0.0965	0.2629	-0.0485	0.0110
$\gamma_{r2} =$		0.2513***	0.2263**	0.2285**	0.0863	0.1099*
$\gamma_{r3} =$		0.1876***	0.2196***	0.1529***	0.1164***	0.1103***
$\gamma_{r4} =$		0.0850*	0.0652	0.0438	0.0148	0.0792**
$R^2 =$		0.6417	0.6284	0.6340	0.6886	0.6842
$\alpha_j =$	3	0.0006	-0.0018	-0.0109	-0.0091	-0.0191
$\beta_X =$		0.2870	0.2809	0.1638	0.1501	-0.1230
$\beta_B =$		1.1431***	1.0132***	0.9533***	0.5908***	1.6294***
$\gamma_{L1} =$		1.3101***	1.1446***	1.0942***	0.6877***	1.8293***
$\gamma_{L2} =$		1.2431***	1.1288***	1.1945***	0.7095***	1.9557***

$\gamma_{L3} =$		1.0083***	0.8933***	0.8300***	0.5727***	1.8886***
$\gamma_{L4} =$		0.9028***	0.7480***	0.6450***	0.4747***	1.1837***
$\gamma_{L5} =$		0.9828***	0.8522***	0.7953***	0.5026***	1.3611***
$\gamma_{C1} =$		2.0990***	2.5156***	2.5433***	3.0174***	1.6526***
$\gamma_{C2} =$		-0.4946***	-0.2511*	0.2794**	-0.2426**	0.8870***
$\gamma_{C3} =$		-0.6075***	-0.4330**	-0.4494**	-0.3131**	-0.8308***
$\gamma_{C4} =$		-0.7612***	-0.5699***	-0.5872***	-0.3638***	-1.0280***
$\gamma_{C5} =$		-0.8177***	-0.6900***	-0.6740***	-0.4216***	-1.2280***
$\gamma_{X1} =$		-1.7845	-1.6379	5.8875	3.0895	4.2393
$\gamma_{X2} =$		-0.5366	-0.4116	4.0298	2.3292	2.2019
$\gamma_{X3} =$		-0.2039	-0.7751	2.4259	1.2626	0.7757
$\gamma_{X4} =$		-2.7160	-2.0381	0.2204	-1.2061	-0.4529
$\gamma_{r1} =$		0.1309	0.0853	-0.0431	0.0219	0.6753**
$\gamma_{r2} =$		0.2195**	0.2261***	0.1036	0.0652	0.3327***
$\gamma_{r3} =$		0.1572***	0.1461***	0.0683	0.0269	0.2378***
$\gamma_{r4} =$		0.0450	0.0417	0.0504	0.0855**	0.1806***
$R^2 =$		0.6451	0.6871	0.6755	0.7238	0.6967
$\alpha_j =$	4	-0.0141	-0.0046	-0.0425***	-0.0080	-0.0171
$\beta_X =$		0.1387	0.2028	-0.7373	-0.1212	-0.1025
$\beta_B =$		1.7903***	0.9365***	1.6885***	1.6635***	1.4423***
$\gamma_{L1} =$		1.9062***	1.2234***	1.9143***	1.8596***	1.6930***
$\gamma_{L2} =$		1.9885***	1.1354***	2.0532***	1.9645***	1.7551***
$\gamma_{L3} =$		1.8846***	0.9140***	1.8813***	1.8907***	1.5646***
$\gamma_{L4} =$		1.3222***	0.7142***	1.2281***	1.2489***	1.0730***
$\gamma_{L5} =$		1.5360***	0.7798***	1.4145***	1.4235***	1.2168***
$\gamma_{C1} =$		1.8544***	2.0336***	1.5797***	1.7050***	1.6926***
$\gamma_{C2} =$		1.6857***	-0.6391***	0.9846***	1.4881***	1.8052***
$\gamma_{C3} =$		-0.9015***	-0.5352**	-0.9372***	-1.2114***	-0.6830***
$\gamma_{C4} =$		-1.1712***	-0.5820***	-1.1162***	-1.1909***	-0.9747***
$\gamma_{C5} =$		-1.3928***	-0.6424***	-1.2385***	-1.3120***	-1.1030***
$\gamma_{X1} =$		3.1756	-1.5747	10.1319**	2.1037	4.7227
$\gamma_{X2} =$		3.4944	-0.6594	8.2819**	0.2664	1.9311
$\gamma_{X3} =$		2.7327	-1.0147	6.7480***	2.3750	1.8262
$\gamma_{X4} =$		-0.5031	-3.5601	0.7144	-1.1647	1.5504
$\gamma_{r1} =$		-0.0298	0.3771	0.4061	0.1291	-0.1325
$\gamma_{r2} =$		0.2953***	0.2661***	0.4476***	0.3226***	0.2233***
$\gamma_{r3} =$		0.2080***	0.1721***	0.2636***	0.2386***	0.1556***
$\gamma_{r4} =$		0.1149***	0.1222**	0.1791***	0.1526***	0.1407***
$R^2 =$		0.7127	0.6965	0.7087	0.7367	0.8078
$\alpha_j =$	5	-0.0106	-0.0132	-0.0251*	0.0157	-0.0067
$\beta_X =$		-0.0664	-0.1411	-0.5787	-0.8068	0.2084
$\beta_B =$		1.9197***	1.6234***	1.6555***	1.5823***	1.4890***
$\gamma_{L1} =$		2.0682***	1.7349***	1.7658***	1.7376***	1.6872***
$\gamma_{L2} =$		2.2315***	1.8920***	1.8400***	1.8827***	1.4866***
$\gamma_{L3} =$		2.1176***	1.6650***	1.7289***	1.1959***	0.7308***
$\gamma_{L4} =$		1.2315***	1.1093***	1.2925***	1.3387***	1.2342***
$\gamma_{L5} =$		1.6144***	1.3683***	1.4191***	1.4108***	1.2789***
$\gamma_{C1} =$		1.6701***	2.0829***	2.0341***	1.9385***	2.3261***
$\gamma_{C2} =$		1.0931***	1.8360***	-0.3945***	1.5313***	2.1281***
$\gamma_{C3} =$		-1.1528***	-0.9310***	-1.0740***	-1.2592***	-0.7258***
$\gamma_{C4} =$		-1.4338***	-1.2666***	-1.2997***	-1.2912***	-1.2145***
$\gamma_{C5} =$		-1.5860***	-1.3614***	-1.3739***	-1.3616***	-1.2311***

$\gamma_{X,1} =$		6.8563	9.0018*	6.7504	-2.0568	5.1935
$\gamma_{X,2} =$		3.2688	4.8670	5.0974	-2.1479	3.0145
$\gamma_{X,3} =$		3.9655	2.9232	3.0660	-2.0709	1.6635
$\gamma_{X,4} =$		0.2734	-2.4470	0.5604	-1.0005	1.5259
$\gamma_{r,1} =$		-0.0147	-0.0017	-0.4011	0.2504	0.0719
$\gamma_{r,2} =$		0.3621***	0.2494***	0.1425	0.1882*	0.1706***
$\gamma_{r,3} =$		0.2345***	0.1911***	0.1362**	0.1777***	0.2083***
$\gamma_{r,4} =$		0.1234**	0.1257**	0.0732	0.0748	0.1957***
$R^2 =$		0.7987	0.8196	0.7060	0.7868	0.7768
Table 6B: Business-Cycle Currency-CAPM (Daily)						
Expansion	Volatility	Volume				
Parameters		1 Low	2	3	4	5 High
$\alpha_j =$	1 Low	-0.0203**	0.0063	-0.0040	0.0020	-0.0099
$\beta_X =$		-0.1943	-0.0633	0.4743	0.6991***	0.5081**
$\beta_B =$		0.2986***	0.7393***	0.7460***	0.7730***	0.6643***
$\gamma_{L,1} =$		0.2830***	0.7351***	0.7366***	0.7586***	0.6939***
$\gamma_{L,2} =$		0.2847***	0.6841***	0.8008***	0.7520***	0.8728***
$\gamma_{L,3} =$		0.3995***	0.8191***	0.8471***	0.9495***	0.8093***
$\gamma_{L,4} =$		0.3493***	0.8349***	0.8107***	0.8259***	0.6155***
$\gamma_{L,5} =$		0.3005***	0.7219***	0.7157***	0.7262***	0.6151***
$\gamma_{C,1} =$		-0.2760***	0.0312	-0.6144***	-0.0874	-0.4101***
$\gamma_{C,2} =$		0.4940***	1.1129***	1.2765***	0.9411***	1.9645***
$\gamma_{C,3} =$		0.5717***	0.1372	0.5712***	0.1897	-0.3029*
$\gamma_{C,4} =$		0.0629	-0.3026**	-0.1946*	-0.2034**	-0.4261***
$\gamma_{C,5} =$		-0.1914**	-0.4825***	-0.4745***	-0.4555***	-0.5552***
$\gamma_{X,1} =$		2.5515	-1.9559	-1.1988	-2.0583	2.4928
$\gamma_{X,2} =$		1.8993	-1.7286	-0.4809	-2.0995	0.1451
$\gamma_{X,3} =$		2.3173	-1.4165	-1.0919	-1.8427	1.0175
$\gamma_{X,4} =$		2.1455	-0.7822	-0.2013	0.8979	2.2679
$\gamma_{r,1} =$		0.1433	-0.7059**	-0.2845	-0.2848	0.1261
$\gamma_{r,2} =$		0.0527	-0.0317	0.0433	0.0770	0.1438***
$\gamma_{r,3} =$		0.0277	-0.0070	0.0466	0.0448	0.1031***
$\gamma_{r,4} =$		-0.0164	0.0190	0.0861**	0.0235	0.1107***
$R^2 =$		0.5124	0.4894	0.5625	0.5021	0.6240
$\alpha_j =$	2	-0.0077	-0.0235	-0.0213	-0.0227*	-0.0140
$\beta_X =$		-0.8118	0.0019	-0.3399	-0.2598	-0.5219
$\beta_B =$		0.9367***	0.5744***	0.7908***	1.0150***	0.7344***
$\gamma_{L,1} =$		0.7969***	0.5447***	0.7583***	1.0630***	0.7297***
$\gamma_{L,2} =$		0.8533***	0.5232***	0.7152***	1.2111***	0.7959***
$\gamma_{L,3} =$		1.3248***	0.9412***	1.1000***	1.4757***	1.1141***
$\gamma_{L,4} =$		0.9671***	0.6494***	0.8651***	0.8882***	0.7233***
$\gamma_{L,5} =$		0.8406***	0.5225***	0.7256***	0.8767***	0.6542***
$\gamma_{C,1} =$		-0.3561***	-0.4875***	-0.6806***	-1.2129***	-0.7236***
$\gamma_{C,2} =$		1.6427***	0.8767***	1.0164***	1.4001***	1.6663***
$\gamma_{C,3} =$		0.1925	0.4767**	0.1090	-0.0835	0.0172
$\gamma_{C,4} =$		-0.3639**	-0.0662	-0.3105**	-0.4393***	-0.3669***
$\gamma_{C,5} =$		-0.5126***	-0.2903**	-0.4648***	-0.6130***	-0.4493***
$\gamma_{X,1} =$		1.7705	5.4320	2.9382	2.7150	-0.2998
$\gamma_{X,2} =$		0.4408	3.2492	0.7601	1.0474	0.8517
$\gamma_{X,3} =$		0.4243	0.3678	0.7580	2.2720	1.3886
$\gamma_{X,4} =$		2.2239	1.9313	0.1224	0.8402	1.4129
$\gamma_{r,1} =$		-0.6707*	-0.2916	-0.2077	0.1203	-0.0530

$\gamma_{r,2} =$		-0.0481	-0.0556	0.0183	0.2060***	0.1220*
$\gamma_{r,3} =$		-0.0367	-0.0714	0.0073	0.1006**	0.0729*
$\gamma_{r,4} =$		0.0096	0.0376	0.0404	0.0807*	0.0452
$R^2 =$		0.6417	0.6284	0.6340	0.6886	0.6842
$\alpha_j =$	3	-0.0138	-0.0189	-0.0203	-0.0153	-0.0012
$\beta_X =$		-0.4502	-0.7231	-0.4931	-0.2121	0.0415
$\beta_B =$		0.9207***	0.8739***	0.9773***	1.0497***	0.2613**
$\gamma_{L,1} =$		0.8806***	0.9163***	1.0196***	1.1170***	0.2432**
$\gamma_{L,2} =$		1.0574***	1.0043***	0.9996***	1.1778***	0.1759
$\gamma_{L,3} =$		1.3796***	1.2957***	1.4137***	1.3356***	0.2772**
$\gamma_{L,4} =$		0.7714***	0.8417***	0.9895***	0.9821***	0.7927***
$\gamma_{L,5} =$		0.8014***	0.7919***	0.8832***	0.9343***	0.3037***
$\gamma_{C,1} =$		-0.7374***	-1.0538***	-1.1612***	-1.3154***	-0.2294*
$\gamma_{C,2} =$		1.6090***	1.5097***	0.9560***	1.7299***	0.3726***
$\gamma_{C,3} =$		0.0149	-0.1869	-0.1002	-0.2544	1.3553***
$\gamma_{C,4} =$		-0.4221***	-0.4375***	-0.4716***	-0.5707***	-0.0234
$\gamma_{C,5} =$		-0.6166***	-0.5979***	-0.6398***	-0.7120***	-0.2009*
$\gamma_{X,1} =$		2.2387	5.6589	-2.6199	-0.8356	-2.9515
$\gamma_{X,2} =$		-0.1751	2.7735	-1.9172	-1.1786	-0.7735
$\gamma_{X,3} =$		-0.4733	2.8196	-0.1914	-0.6671	0.9679
$\gamma_{X,4} =$		0.2629	1.8363	-0.4595	1.6108	0.1713
$\gamma_{r,1} =$		0.2772	-0.4950	0.2055	-0.0220	-0.8366**
$\gamma_{r,2} =$		0.0673	-0.0492	0.1678*	0.1578*	-0.1707*
$\gamma_{r,3} =$		0.0680	-0.0261	0.1362**	0.1344***	-0.0693
$\gamma_{r,4} =$		0.0820	0.0072	0.0723	-0.0394	-0.1292***
$R^2 =$		0.6451	0.6871	0.6755	0.7238	0.6967
$\alpha_j =$	4	-0.0061	-0.0172	0.0281*	-0.0159	-0.0231
$\beta_X =$		0.4790	-0.2011	0.8651*	-0.1736	-0.1964
$\beta_B =$		0.3740***	0.7408***	0.2240*	0.1148	0.4413***
$\gamma_{L,1} =$		0.3842***	0.6347***	0.1827	0.0951	0.4252***
$\gamma_{L,2} =$		0.3418***	0.7960***	0.0926	0.0401	0.4094***
$\gamma_{L,3} =$		0.4770***	1.0253***	0.2847**	0.1595	0.6652***
$\gamma_{L,4} =$		0.7993***	0.6676***	0.7476***	0.6291***	0.9837***
$\gamma_{L,5} =$		0.4138***	0.6419***	0.3197***	0.1718	0.4741***
$\gamma_{C,1} =$		-0.4456***	-0.3446**	-0.1331	-0.0912	-0.3878
$\gamma_{C,2} =$		-0.3472***	2.3718***	0.4154***	0.0518	-0.4510***
$\gamma_{C,3} =$		1.8230***	-0.0667	1.6252***	1.8980***	1.6008***
$\gamma_{C,4} =$		-0.1533	-0.3684**	-0.1241	-0.0145	-0.3247**
$\gamma_{C,5} =$		-0.2941***	-0.4773***	-0.2373**	-0.0988	-0.4323***
$\gamma_{X,1} =$		-2.4918	3.6078	-10.1578**	0.1044	3.0441
$\gamma_{X,2} =$		-1.9030	1.8384	-10.3515***	1.2570	4.8081
$\gamma_{X,3} =$		-2.4935	1.8067	-7.2619***	-1.0335	3.4993
$\gamma_{X,4} =$		-0.0968	1.6515	2.0010	2.4408	1.3967
$\gamma_{r,1} =$		-0.1927	-0.2929	-0.5449	-0.1676	-0.2406
$\gamma_{r,2} =$		-0.1005	0.0614	-0.2227**	-0.1202	0.0154
$\gamma_{r,3} =$		-0.0555	0.0713	-0.1185**	-0.0669	0.0244
$\gamma_{r,4} =$		-0.0123	0.0101	-0.1311***	-0.0574	-0.1020*
$R^2 =$		0.7127	0.6965	0.7087	0.7367	0.8078
$\alpha_j =$	5	0.0009	0.0013	0.0047	-0.0384*	-0.0319**
$\beta_X =$		-0.0289	0.0495	-0.0617	0.1233	-0.0984
$\beta_B =$		0.2209	0.3137**	0.3090**	0.4474***	0.4545***

$\gamma_{L1} =$		0.1634	0.2984**	0.3454***	0.4039***	0.3762***
$\gamma_{L2} =$		0.0508	0.2462*	0.3355**	0.3353**	0.6374***
$\gamma_{L3} =$		0.1997	0.5578***	0.5237***	1.0425***	1.3388***
$\gamma_{L4} =$		0.9736***	0.8723***	0.7920***	0.5584***	0.6461***
$\gamma_{L5} =$		0.3663***	0.3986***	0.3671***	0.4861***	0.5611***
$\gamma_{C1} =$		-0.0893	-0.3120**	-0.4164***	-0.3463**	-0.4258***
$\gamma_{C2} =$		0.4542***	-0.2760*	1.7390***	-0.0339	-0.4046***
$\gamma_{C3} =$		2.0403***	2.1885***	-0.2483*	2.0375***	1.7897***
$\gamma_{C4} =$		-0.2289*	-0.1825	-0.3711***	-0.3902***	-0.4372***
$\gamma_{C5} =$		-0.3233**	-0.3393**	-0.3618***	-0.4386***	-0.4960***
$\gamma_{X1} =$		-6.6154	-9.8080*	-2.0514	3.8021	5.5480
$\gamma_{X2} =$		-3.1743	-5.1027	-2.4696	3.6701	3.9996
$\gamma_{X3} =$		-4.9157*	-3.8278	-2.2590	2.3215	2.9122
$\gamma_{X4} =$		1.9490	0.8795	2.1534	2.2052	1.9357
$\gamma_{r1} =$		-0.0855	-0.2505	0.1007	0.2232	-0.4512*
$\gamma_{r2} =$		-0.2197**	-0.0388	0.0523	0.0421	-0.1523**
$\gamma_{r3} =$		-0.0866	-0.0080	0.0301	-0.0209	-0.1581***
$\gamma_{r4} =$		-0.0790	0.0030	-0.0569	-0.0088	-0.1676**
$R^2 =$		0.7987	0.8196	0.7060	0.7868	0.7768

Table 6B: Business-Cycle Currency-CAPM (Daily)

Contraction	Volatility	Volume				
Parameters		1 Low	2	3	4	5 High
$\alpha_j =$	1 Low	0.0296**	0.0096	-0.0034	-0.0051	0.0150**
$\beta_X =$		-0.2470	-0.2568	-0.2564	0.2487	-0.0413
$\beta_B =$		0.9585***	0.3594***	0.3565***	0.1845***	0.4979***
$\gamma_{L1} =$		0.9236***	0.3589***	0.3540***	0.1816***	0.4911***
$\gamma_{L2} =$		0.9371***	0.3624***	0.3357***	0.1895***	0.5414***
$\gamma_{L3} =$		1.0230***	0.3894***	0.3744***	0.1915***	0.9093***
$\gamma_{L4} =$		1.0017***	0.4402***	0.5512***	0.3056***	0.5814***
$\gamma_{L5} =$		0.9320***	0.4010***	0.4062***	0.2206***	0.5086***
$\gamma_{C1} =$		-0.7437***	-0.3527***	-0.2835***	-0.1891***	-0.4894***
$\gamma_{C2} =$		-0.4222***	0.0360	-0.1159	0.0837	-0.3586***
$\gamma_{C3} =$		0.3433	0.3435*	0.3911**	0.6759***	1.0880***
$\gamma_{C4} =$		0.7113***	0.2089**	0.4579***	0.1944***	0.0627
$\gamma_{C5} =$		-0.5374***	-0.2799***	-0.2447***	-0.1873***	-0.5153***
$\gamma_{X1} =$		-5.6190	-2.8718	0.2131	1.2319	-2.2833
$\gamma_{X2} =$		-5.5358*	-1.2898	0.9680	0.2965	-2.3447
$\gamma_{X3} =$		-3.5837	-0.7919	1.3625	1.2189	-1.7095
$\gamma_{X4} =$		-2.7530	1.7488	1.5394	0.7229	-1.6664
$\gamma_{r1} =$		0.1541	-0.0128	0.0967	0.2555**	-0.0535
$\gamma_{r2} =$		-0.0622	-0.0159	0.0529	0.0062	-0.0867**
$\gamma_{r3} =$		-0.0178	-0.0239	0.0193	0.0096	-0.0574***
$\gamma_{r4} =$		0.0091	-0.0652**	-0.0444	0.0069	-0.0416*
$R^2 =$		0.5124	0.4894	0.5625	0.5021	0.6240
$\alpha_j =$	2	0.0307**	0.0102	-0.0012	-0.0035	0.0097
$\beta_X =$		-0.0183	0.1895	-0.0255	0.3066	-0.2105
$\beta_B =$		0.2577***	0.2555**	0.0505	0.1225	0.3784***
$\gamma_{L1} =$		0.2373***	0.2281**	0.0470	0.1080	0.3493***
$\gamma_{L2} =$		0.2346***	0.2178**	0.0473	0.0994	0.3441***
$\gamma_{L3} =$		0.2562***	0.2673***	0.1021	0.1242	0.3623***
$\gamma_{L4} =$		0.5518***	0.7175***	0.4372***	0.6460***	0.7854***
$\gamma_{L5} =$		0.2633***	0.2847***	0.0489	0.1499*	0.3804***

$\gamma_{C1} =$		-0.1684*	-0.1195	-0.0196	-0.0462	-0.2517**
$\gamma_{C2} =$		-0.0725	-0.0444	0.0683	0.0597	-0.1360
$\gamma_{C3} =$		1.2847***	0.7947***	1.3311***	1.4290***	1.4340***
$\gamma_{C4} =$		0.1082	0.2715***	0.4929***	0.1754*	0.3345***
$\gamma_{C5} =$		-0.2549***	-0.2986***	-0.0904	-0.1968**	-0.3655***
$\gamma_{X1} =$		-6.7465*	-1.4489	3.8423	1.8100	0.0164
$\gamma_{X2} =$		-5.5031*	-1.2325	2.1118	1.7851	-0.7424
$\gamma_{X3} =$		-5.4102**	0.0999	0.6161	0.6738	-0.1054
$\gamma_{X4} =$		-1.7575	1.9202	3.8658**	1.4811	1.5098
$\gamma_{r1} =$		-0.1483	-0.0242	0.0439	-0.0760	-0.0605
$\gamma_{r2} =$		-0.0600	0.0074	-0.0223	0.0140	-0.0492
$\gamma_{r3} =$		-0.0403	0.0084	-0.0375	-0.0006	-0.0340
$\gamma_{r4} =$		-0.0485	-0.1183***	-0.0238	-0.0459	-0.0463
$R^2 =$		0.6417	0.6284	0.6340	0.6886	0.6842
$\alpha_j =$	3	-0.0136	-0.0026	-0.0044	0.0105	0.0319
$\beta_X =$		0.2463	-0.0560	0.1284	0.1669	-0.6138
$\beta_B =$		0.0528	0.2168**	0.0898	0.2355**	1.3112***
$\gamma_{L1} =$		0.0413	0.2014**	0.0777	0.2218**	1.2045***
$\gamma_{L2} =$		0.0174	0.1996**	0.0789	0.2192**	1.1815***
$\gamma_{L3} =$		-0.0256	0.2351**	0.1055	0.2417**	1.1824***
$\gamma_{L4} =$		0.4939***	0.7376***	0.5496***	0.6598***	1.3085***
$\gamma_{L5} =$		0.0984	0.2516***	0.1201	0.2915***	1.4866***
$\gamma_{C1} =$		-0.0101	-0.1478	-0.0170	-0.1710	-0.8990***
$\gamma_{C2} =$		0.1817*	-0.0714	0.0738	-0.1080	-0.7509***
$\gamma_{C3} =$		1.7910***	1.3199***	1.6997***	1.5111***	-0.1250
$\gamma_{C4} =$		0.1271	-0.0383	0.0248	0.0065	1.4396***
$\gamma_{C5} =$		-0.0819	-0.2862***	-0.2005**	-0.3568***	-1.2127***
$\gamma_{X1} =$		4.1923	-2.3691	4.4047	-4.4008	-5.6338
$\gamma_{X2} =$		3.5654	-2.0387	2.3089	-2.5210	-5.3600
$\gamma_{X3} =$		2.7994	-0.6231	0.8531	-0.3977	-4.7357
$\gamma_{X4} =$		2.2934	1.9996	3.7981**	0.3231	1.9025
$\gamma_{r1} =$		-0.4540	0.7450**	0.3307	0.2501	0.2101
$\gamma_{r2} =$		-0.0648	0.1379*	0.0078	0.1284	-0.0750
$\gamma_{r3} =$		-0.0634	0.1192***	0.0182	0.0360	-0.0345
$\gamma_{r4} =$		0.0132	0.0024	-0.0384	-0.0192	-0.1438**
$R^2 =$		0.6451	0.6871	0.6755	0.7238	0.6967
$\alpha_j =$	4	-0.0020	-0.0019	-0.0036	0.0095	0.0382*
$\beta_X =$		-0.6934	0.4751	-1.5509***	-0.5252	0.3646
$\beta_B =$		1.3239***	0.3184***	1.2147***	1.2745***	1.8147***
$\gamma_{L1} =$		1.2492***	0.3210***	1.1107***	1.1814***	1.6165***
$\gamma_{L2} =$		1.2305***	0.3179***	1.0928***	1.1615***	1.5753***
$\gamma_{L3} =$		1.2340***	0.3803***	1.0954***	1.1552***	1.5233***
$\gamma_{L4} =$		1.4168***	0.9744***	1.2593***	1.2844***	1.6474***
$\gamma_{L5} =$		1.4114***	0.3308***	1.3051***	1.4567***	1.9999***
$\gamma_{C1} =$		-1.0526***	-0.3105***	-0.8456***	-0.9431***	-1.1214***
$\gamma_{C2} =$		-0.9842***	-0.2970**	-0.7661***	-0.8691***	-1.1496***
$\gamma_{C3} =$		-0.5286***	1.7303***	-0.2635	-0.1040	-0.7176***
$\gamma_{C4} =$		1.5703***	0.1822*	1.8338***	1.7074***	1.5772***
$\gamma_{C5} =$		-1.2251***	-0.3410***	-1.0160***	-1.2967***	-1.8774***
$\gamma_{X1} =$		8.6996*	2.0523	6.5138	0.2129	-6.5613
$\gamma_{X2} =$		4.0109	1.3573	5.2736	-0.7887	-6.0249
$\gamma_{X3} =$		2.3386	0.0614	3.0001	0.7340	-4.3337

$\gamma_{X,4} =$		6.6043***	3.3512	3.5650	2.4672	-2.1337
$\gamma_{r,1} =$		0.0404	0.0512	0.2442	0.1353	0.0891
$\gamma_{r,2} =$		-0.1523*	-0.0481	-0.1762	-0.0431	-0.2576**
$\gamma_{r,3} =$		-0.1045**	-0.0099	-0.0386	-0.0087	-0.1547**
$\gamma_{r,4} =$		-0.2054***	-0.0049	-0.2002***	-0.1588**	-0.0347
$R^2 =$		0.7127	0.6965	0.7087	0.7367	0.8078
$\alpha_j =$	5	0.0118	0.0026	-0.0013	0.0024	0.0162
$\beta_X =$		-0.0890	0.0210	-0.1223	0.7603	0.5335
$\beta_B =$		1.6015***	2.0507***	1.1414***	1.0708***	0.2383
$\gamma_{L,1} =$		1.5196***	1.9595***	1.0589***	1.0002***	0.2137
$\gamma_{L,2} =$		1.4784***	1.8594***	1.0399***	0.9595***	0.2148
$\gamma_{L,3} =$		1.4610***	1.7857***	1.0211***	0.9835***	0.4124**
$\gamma_{L,4} =$		1.6552***	1.9635***	1.2426***	1.2711***	0.3894**
$\gamma_{L,5} =$		1.8071***	2.1499***	1.6503***	1.2649***	0.2301
$\gamma_{C,1} =$		-1.3486***	-1.7654***	-0.9023***	-0.8303***	-0.1855
$\gamma_{C,2} =$		-1.3256***	-1.5491***	-0.8208***	-0.7658***	-0.1009
$\gamma_{C,3} =$		-0.8265***	-1.2104***	1.4743***	-0.2447	0.2701
$\gamma_{C,4} =$		1.6076***	1.4801***	-0.2656	2.2611***	2.7044***
$\gamma_{C,5} =$		-1.8247***	-2.1944***	-1.6743***	-1.1172***	-0.2158
$\gamma_{X,1} =$		-4.6880	3.4663	3.9509	3.9509	-2.9139
$\gamma_{X,2} =$		-1.8060	1.6885	-2.0976	0.9381	-1.5332
$\gamma_{X,3} =$		0.2310	2.4213	-3.0200	2.5057	0.0989
$\gamma_{X,4} =$		-3.3965	4.1041*	0.1868	2.7536	1.7887
$\gamma_{r,1} =$		0.6032*	0.4312	1.8048**	-0.2241	0.1075
$\gamma_{r,2} =$		-0.0232	-0.1426*	0.1447	-0.0404	0.0484
$\gamma_{r,3} =$		-0.0574	-0.1326***	0.0646	-0.1117	-0.0665
$\gamma_{r,4} =$		-0.0086	-0.1923***	0.0015	-0.0910	0.1989*
$R^2 =$		0.7987	0.8196	0.7060	0.7868	0.7768

Table 6B: Business-Cycle Currency-CAPM (Daily)

Peak	Volatility	Volume				
Parameters		1 Low	2	3	4	5 High
$\alpha_j =$	1 Low	0.0143	0.0160	0.0249*	0.0183**	0.0049
$\beta_X =$		0.0410	-0.3732	-0.5217*	-0.7801***	-0.4550**
$\beta_B =$		1.2252***	1.6506***	1.7220***	1.9598***	1.8657***
$\gamma_{L,1} =$		1.1985***	1.6363***	1.6790***	1.9332***	1.8111***
$\gamma_{L,2} =$		1.1667***	1.5718***	1.6084***	1.8746***	1.7419***
$\gamma_{L,3} =$		1.0896***	1.5398***	1.6014***	1.8407***	1.5482***
$\gamma_{L,4} =$		1.2008***	1.6103***	1.6646***	1.9425***	1.9160***
$\gamma_{L,5} =$		1.3618***	1.6997***	1.8147***	2.0778***	1.9855***
$\gamma_{C,1} =$		-1.1416***	-1.3512***	-1.4421***	-1.5464***	-1.6698***
$\gamma_{C,2} =$		-0.9254***	-0.9786***	-1.1855***	-1.1349***	-1.4651***
$\gamma_{C,3} =$		-0.1500	-0.1838	-0.6931***	-0.5449***	-0.3107**
$\gamma_{C,4} =$		0.0676	0.6637***	0.2943***	0.4676***	0.9352***
$\gamma_{C,5} =$		1.8517***	1.6425***	1.5346***	1.3303***	1.8595***
$\gamma_{X,1} =$		-3.0282	-1.4856	-2.7848	-2.2510	-0.8103
$\gamma_{X,2} =$		-1.5994	-1.9873	-2.6263	-1.0596	0.2113
$\gamma_{X,3} =$		-2.2939	-2.3372	-2.3141	-1.5121	-0.8873
$\gamma_{X,4} =$		-1.1314	-1.5109	-1.0244	-1.9330	-0.2103
$\gamma_{r,1} =$		-0.0958	0.1430	-0.3263	-0.2772	-0.2427
$\gamma_{r,2} =$		-0.1702**	-0.1812***	-0.2760***	-0.2346***	-0.1994***
$\gamma_{r,3} =$		-0.1351***	-0.1771***	-0.2420***	-0.1841***	-0.1791***
$\gamma_{r,4} =$		-0.0902**	-0.0342	-0.1408***	-0.0996***	-0.1107***

$R^2 =$		0.5124	0.4894	0.5625	0.5021	0.6240
$\alpha_j =$	2	0.0045	0.0190	0.0255*	0.0239*	0.0058
$\beta_X =$		0.8383**	0.3653	0.5133	-0.0479	0.5654
$\beta_B =$		1.8700***	1.9017***	2.0349***	1.9669***	1.9798***
$\gamma_{L,1} =$		1.7355***	1.7088***	1.8631***	1.7835***	1.8136***
$\gamma_{L,2} =$		1.6615***	1.6433***	1.7715***	1.7239***	1.7457***
$\gamma_{L,3} =$		1.6723***	1.6349***	1.7044***	1.6365***	1.6694***
$\gamma_{L,4} =$		1.7458***	1.6671***	1.8728***	1.7582***	1.7615***
$\gamma_{L,5} =$		2.0957***	2.1444***	2.2773***	2.2166***	2.2030***
$\gamma_{C,1} =$		-1.2700***	-1.1017***	-1.2323***	-1.2493***	-1.2990***
$\gamma_{C,2} =$		-1.2710***	-1.1287***	-1.2302***	-1.1318***	-1.1772***
$\gamma_{C,3} =$		-1.1608***	-0.7499***	-0.8991***	-0.8512***	-0.9770***
$\gamma_{C,4} =$		0.8068***	0.4356***	0.4883***	0.7341***	0.5727***
$\gamma_{C,5} =$		1.3658***	1.3606***	1.3028***	1.3853***	1.3974***
$\gamma_{X,1} =$		0.4812	-3.8181	-6.4548	-3.1060	-0.6218
$\gamma_{X,2} =$		0.4397	-1.7834	-3.5974	-1.9213	0.1910
$\gamma_{X,3} =$		1.6449	-2.4510	-1.6485	-2.6785	-0.5017
$\gamma_{X,4} =$		-0.6738	-2.0690	-2.9629	-0.6464	-0.6023
$\gamma_{r,1} =$		0.3320	0.4122	-0.0991	0.0042	0.1025
$\gamma_{r,2} =$		-0.1432*	-0.1781**	-0.2245***	-0.3063***	-0.1826***
$\gamma_{r,3} =$		-0.1106**	-0.1566***	-0.1228***	-0.2163***	-0.1491***
$\gamma_{r,4} =$		-0.0461	0.0155	-0.0604	-0.0496	-0.0782**
$R^2 =$		0.6417	0.6284	0.6340	0.6886	0.6842
$\alpha_j =$	3	0.0268**	0.0233*	0.0355***	0.0139	-0.0116
$\beta_X =$		-0.0831	0.4981	0.2009	-0.1049	0.6953
$\beta_B =$		1.8834***	1.8961***	1.9796***	2.1240***	0.7981***
$\gamma_{L,1} =$		1.7680***	1.7378***	1.8085***	1.9735***	0.7231***
$\gamma_{L,2} =$		1.6821***	1.6673***	1.7271***	1.8936***	0.6870***
$\gamma_{L,3} =$		1.6377***	1.5759***	1.6509***	1.8499***	0.6518***
$\gamma_{L,4} =$		1.8318***	1.6728***	1.8158***	1.8835***	0.7151***
$\gamma_{L,5} =$		2.1174***	2.1043***	2.2014***	2.2716***	0.8486***
$\gamma_{C,1} =$		-1.3514***	-1.3140***	-1.3651***	-1.5310***	-0.5243***
$\gamma_{C,2} =$		-1.2961***	-1.1872***	-1.3093***	-1.3793***	-0.5087***
$\gamma_{C,3} =$		-1.1985***	-0.6999***	-1.1501***	-0.9435***	-0.3996*
$\gamma_{C,4} =$		1.0563***	1.0458***	1.0340***	0.9281***	-0.3882***
$\gamma_{C,5} =$		1.5162***	1.5742***	1.5143***	1.4903***	2.6416***
$\gamma_{X,1} =$		-4.6466	-1.6518	-7.6724**	2.1470	4.3460
$\gamma_{X,2} =$		-2.8537	-0.3232	-4.4215	1.3704	3.9316
$\gamma_{X,3} =$		-2.1222	-1.4214	-3.0876	-0.1978	2.9922
$\gamma_{X,4} =$		0.1598	-1.7978	-3.5591*	-0.7278	-1.6209
$\gamma_{r,1} =$		0.0459	-0.3353	-0.4932	-0.2499	-0.0487
$\gamma_{r,2} =$		-0.2220***	-0.3148***	-0.2792***	-0.3515***	-0.0870
$\gamma_{r,3} =$		-0.1618***	-0.2392***	-0.2227***	-0.1974***	-0.1340**
$\gamma_{r,4} =$		-0.1402***	-0.0513	-0.0844**	-0.0269	0.0924*
$R^2 =$		0.6451	0.6871	0.6755	0.7238	0.6967
$\alpha_j =$	4	0.0222*	0.0236	0.0181	0.0144	0.0019
$\beta_X =$		0.0757	-0.4768	1.4231***	0.8200	-0.0657
$\beta_B =$		0.5118***	2.0043***	0.8728***	0.9472***	0.3017***
$\gamma_{L,1} =$		0.4605***	1.8209***	0.7924***	0.8638***	0.2652***
$\gamma_{L,2} =$		0.4392***	1.7506***	0.7613***	0.8339***	0.2602***
$\gamma_{L,3} =$		0.4044***	1.6805***	0.7387***	0.7946***	0.2469***

$\gamma_{L4} =$		0.4616***	1.6438***	0.7651***	0.8375***	0.2959***
$\gamma_{L5} =$		0.6387***	2.2475***	0.9607***	0.9479***	0.3093***
$\gamma_{C1} =$		-0.3562***	-1.3785***	-0.6010***	-0.6706***	-0.1834
$\gamma_{C2} =$		-0.3543***	-1.4357***	-0.6339***	-0.6708***	-0.2046**
$\gamma_{C3} =$		-0.3930***	-1.1284***	-0.4245*	-0.5826***	-0.2002**
$\gamma_{C4} =$		-0.2458**	0.7681***	-0.5934***	-0.5020***	-0.2778***
$\gamma_{C5} =$		2.9120***	1.4607***	2.4917***	2.7076***	3.4127***
$\gamma_{X1} =$		-9.3834**	-4.0854	-6.4879	-2.4211	-1.2055
$\gamma_{X2} =$		-5.6023*	-2.5363	-3.2040	-0.7346	-0.7143
$\gamma_{X3} =$		-2.5777	-0.8533	-2.4862	-2.0755	-0.9918
$\gamma_{X4} =$		-6.0043***	-1.4425	-6.2804**	-3.7433	-0.8133
$\gamma_{r1} =$		0.1821	-0.1354	-0.1054	-0.0969	0.2840
$\gamma_{r2} =$		-0.0425	-0.2794***	-0.0487	-0.1593	0.0189
$\gamma_{r3} =$		-0.0480	-0.2335***	-0.1065	-0.1630**	-0.0253
$\gamma_{r4} =$		0.1028**	-0.1274***	0.1522***	0.0636	-0.0040
$R^2 =$		0.7127	0.6965	0.7087	0.7367	0.8078
$\alpha_j =$	5	-0.0021	0.0092	0.0217	0.0203	0.0223
$\beta_X =$		0.1843	0.0706	0.7627	-0.0768	-0.6436
$\beta_B =$		0.2579***	0.0122	0.8941***	0.8994***	1.8182***
$\gamma_{L1} =$		0.2489***	0.0072	0.8299***	0.8582***	1.7229***
$\gamma_{L2} =$		0.2392***	0.0024	0.7846***	0.8225***	1.6612***
$\gamma_{L3} =$		0.2217***	-0.0086	0.7263***	0.7781***	1.5180***
$\gamma_{L4} =$		0.1397	0.0549	0.6729***	0.8317***	1.7303***
$\gamma_{L5} =$		0.2122***	0.0831	0.5635**	0.8382***	1.9300***
$\gamma_{C1} =$		-0.2322***	-0.0055	-0.7154***	-0.7620***	-1.7148***
$\gamma_{C2} =$		-0.2217**	-0.0110	-0.5238*	-0.7317***	-1.6226***
$\gamma_{C3} =$		-0.0610	-0.0470	-0.1519	-0.5336***	-1.3340***
$\gamma_{C4} =$		0.0550	-0.0310	1.9364***	-0.5796***	-1.0526***
$\gamma_{C5} =$		3.7340***	3.8951***	3.4100***	2.9173***	1.9428***
$\gamma_{X1} =$		4.4471	-2.6601	-1.0350	-5.6963	-7.8276
$\gamma_{X2} =$		1.7115	-1.4527	-0.5302	-2.4604	-5.4809
$\gamma_{X3} =$		0.7192	-1.5168	2.2130	-2.7564	-4.6746
$\gamma_{X4} =$		1.1741	-2.5365**	-2.9006	-3.9583	-5.2504
$\gamma_{r1} =$		-0.5030**	-0.1790	-1.5044*	-0.2495	0.2717
$\gamma_{r2} =$		-0.1192**	-0.0679*	-0.3394*	-0.1900	-0.0668
$\gamma_{r3} =$		-0.0905***	-0.0505**	-0.2309*	-0.0451	0.0163
$\gamma_{r4} =$		-0.0358	0.0637***	-0.0178	0.0250	-0.2270**
$R^2 =$		0.7987	0.8196	0.7060	0.7868	0.7768

Table 6B: Business-Cycle Currency-CAPM (Weekly)						
Trough	Volatility	Volume				
Parameters		1 Low	2	3	4	5 High
$\alpha_j =$	1 Low	-0.0260	-0.1978***	-0.2744**	-0.0818	-0.0468
$\beta_X =$		-0.2762	0.1968	-0.7869	0.5111	-0.0254
$\beta_B =$		2.1366***	1.5866***	1.7460***	2.4717***	1.8579***
$\gamma_{L,1} =$		2.4113***	1.6436***	1.7339***	2.5691***	2.0064***
$\gamma_{L,2} =$		2.1932***	1.8407***	1.8142***	2.5025***	2.0268***
$\gamma_{L,3} =$		2.0830***	1.4900***	1.4519***	2.2777***	1.3315***
$\gamma_{L,4} =$		2.0439***	1.4844***	1.4000***	2.3364***	1.6641***
$\gamma_{L,5} =$		2.0864***	1.4026***	1.5899***	2.2572***	1.7468***
$\gamma_{C,1} =$		0.3190**	0.6655***	1.3148***	0.7612***	1.4525***
$\gamma_{C,2} =$		-0.2307	-0.2280	0.1773	0.6302***	1.1591***
$\gamma_{C,3} =$		-0.3668	0.1467	-1.0770	-1.0640**	-0.7845***
$\gamma_{C,4} =$		-0.4571***	-0.4171**	-0.6942*	-0.7634***	-0.7910***
$\gamma_{C,5} =$		-1.8927***	-0.5971***	-0.6995***	-0.9897***	-1.1904***
$\gamma_{X,1} =$		1.3239	19.6378**	21.8564	8.5129	-4.7025
$\gamma_{X,2} =$		5.3828	16.7709***	20.2987	6.1353	-2.9491
$\gamma_{X,3} =$		2.8928	13.7777***	16.3328*	4.2772	-0.7387
$\gamma_{X,4} =$		-0.8951	3.8411	4.8238	0.4300	-3.7834
$\gamma_{r,1} =$		-1.0221*	-0.0027	1.7352**	0.3582	1.3390***
$\gamma_{r,2} =$		0.1126	0.2995*	0.6733***	0.2946***	0.5568***
$\gamma_{r,3} =$		0.0462	0.2381**	0.4621***	0.2811***	0.4756***
$\gamma_{r,4} =$		-0.1411	0.1043	0.3067**	0.0384	0.2167***
$R^2 =$		0.6201	0.3515	0.3814	0.4311	0.5201
$\alpha_j =$	2	-0.1264	-0.0623	-0.1172	0.0645	-0.0302
$\beta_X =$		0.9613	-0.3723	-0.1454	1.4480	0.5932
$\beta_B =$		1.2882***	1.3328***	1.5562***	1.0411***	1.6247***
$\gamma_{L,1} =$		1.7024***	1.7573***	1.9461***	1.7022***	1.9761***
$\gamma_{L,2} =$		1.5107***	1.6034***	1.3005***	0.9063***	1.9895***
$\gamma_{L,3} =$		0.6191***	0.9719***	1.1929***	0.7188***	1.3476***
$\gamma_{L,4} =$		0.9010***	1.0478***	1.2417***	0.8066***	1.3114***
$\gamma_{L,5} =$		1.0489***	1.1400***	1.2844***	0.8689***	1.4223***
$\gamma_{C,1} =$		1.5903***	1.1290***	1.1077***	0.4834***	1.2231***
$\gamma_{C,2} =$		0.6697***	0.3786	-0.2259	-0.2277	0.6574***
$\gamma_{C,3} =$		-0.0119	-0.2238	-0.1229	-0.2072	-0.7506***
$\gamma_{C,4} =$		-0.1829	-0.4169*	-0.6486**	-0.3603*	-0.7068***
$\gamma_{C,5} =$		-0.5328***	-0.5204**	-0.6306***	-0.3332**	-0.9267***
$\gamma_{X,1} =$		2.3379	0.1290	11.1598	-16.1949*	-1.8300
$\gamma_{X,2} =$		3.1149	2.1135	9.5597	-9.2498	-1.2477
$\gamma_{X,3} =$		4.2129	3.6038	7.6591	-7.0042	1.1256
$\gamma_{X,4} =$		-0.8413	-1.9551	1.9307	-6.9667	-4.3975
$\gamma_{r,1} =$		1.7781***	0.7172	0.6227	0.8600	0.1188
$\gamma_{r,2} =$		0.7066***	0.4517	0.2374	0.1764	0.2614*
$\gamma_{r,3} =$		0.5612***	0.2866	0.2560*	0.2295**	0.3395***
$\gamma_{r,4} =$		0.2361**	0.1022	0.2805**	0.1639*	0.2376***
$R^2 =$		0.6164	0.5201	0.6619	0.6242	0.6094
$\alpha_j =$	3	-0.0678	-0.0726	-0.2173***	-0.1059	-0.0108
$\beta_X =$		0.9756	-0.0880	0.5924	0.7904	0.1334
$\beta_B =$		1.8988***	1.8571***	1.0703***	1.1919***	1.3871***
$\gamma_{L,1} =$		2.3284***	2.3188***	1.6134***	1.6898***	1.8720***
$\gamma_{L,2} =$		2.0943***	2.1096***	1.7457***	1.6869***	1.8326***

$\gamma_{L,3} =$		0.7458***	1.4198***	1.0449***	0.8153***	1.2685***
$\gamma_{L,4} =$		1.4712***	1.3722***	0.8565***	0.8463***	1.1220***
$\gamma_{L,5} =$		1.6696***	1.5132***	0.9328***	0.9479***	1.1705***
$\gamma_{C,1} =$		1.0219***	0.5777**	1.0767***	1.0519***	0.8057***
$\gamma_{C,2} =$		0.6234***	-0.0099	0.4677**	1.0239***	0.9420***
$\gamma_{C,3} =$		0.0626	-0.6111	-0.7071**	-0.6442	-0.2377
$\gamma_{C,4} =$		-0.5229***	-0.6370**	-0.6293***	-0.5614***	-0.5013***
$\gamma_{C,5} =$		-1.0308***	-0.8134***	-0.5988***	-0.5559***	-0.7001***
$\gamma_{X,1} =$		-3.6450	6.1254	12.1470	15.5193	-15.2282
$\gamma_{X,2} =$		1.1297	4.0557	13.0950**	10.6941	-11.9776
$\gamma_{X,3} =$		4.2462	5.3209	11.7001**	5.7914	-7.1519
$\gamma_{X,4} =$		-6.5938	1.0101	3.4794	2.9975	-8.9827*
$\gamma_{r,1} =$		0.9521	0.6305	1.6982**	-0.1357	0.4660
$\gamma_{r,2} =$		0.6737***	0.3158	0.6626***	0.2343	0.5099***
$\gamma_{r,3} =$		0.5416***	0.3131*	0.4342***	0.2819**	0.4075***
$\gamma_{r,4} =$		0.2383**	0.2915**	0.2756***	0.0560	0.1864**
$R^2 =$		0.6469	0.5067	0.6526	0.5908	0.5809
$\alpha_j =$	4	-0.0438	-0.0268	-0.1612*	-0.2246**	-0.1363
$\beta_X =$		0.1379	-1.6152	-0.3551	0.3428	0.9114
$\beta_B =$		1.6746***	1.5059***	1.4286***	1.5327***	1.3809***
$\gamma_{L,1} =$		2.1118***	1.8798***	1.8303***	1.8147***	1.9223***
$\gamma_{L,2} =$		2.0219***	1.4749***	1.8340***	1.2960***	1.9242***
$\gamma_{L,3} =$		1.4594***	0.8287***	1.5131***	1.2257***	1.6645***
$\gamma_{L,4} =$		1.0530***	1.1609***	1.1366***	1.2750***	0.9046***
$\gamma_{L,5} =$		1.4115***	1.3009***	1.2230***	1.3388***	1.1793***
$\gamma_{C,1} =$		0.9094***	1.5283***	1.3648***	1.7851***	1.0839***
$\gamma_{C,2} =$		-0.3916	0.7142***	0.7695***	-0.1698	1.4769***
$\gamma_{C,3} =$		-0.4758	-0.2523	-0.7670***	-1.3198***	-0.6674*
$\gamma_{C,4} =$		-0.7467***	-0.6517***	-0.6293***	-0.9575***	-0.7682***
$\gamma_{C,5} =$		-0.8087***	-0.9566***	-0.8584***	-0.9766***	-0.9035***
$\gamma_{X,1} =$		1.1299	-6.8335	9.8105	24.1254*	3.7512
$\gamma_{X,2} =$		9.3432	-6.7279	10.5220	23.3546**	-0.1074
$\gamma_{X,3} =$		6.0375	-0.7567	5.9176	15.2162*	1.4988
$\gamma_{X,4} =$		-0.4262	-4.7793	3.0679	7.0311	-1.8022
$\gamma_{r,1} =$		-0.0186	1.5767*	-0.0601	0.5214	1.5952**
$\gamma_{r,2} =$		0.2767	0.5869**	0.5038***	0.3763	0.6198***
$\gamma_{r,3} =$		0.2791*	0.4603***	0.3076**	0.3275*	0.5197***
$\gamma_{r,4} =$		0.1679	0.3594***	0.2276**	0.1448	0.3735***
$R^2 =$		0.5886	0.6507	0.6116	0.6583	0.5723
$\alpha_j =$	5	-0.0114	-0.1634**	-0.0562	-0.0126	0.0136
$\beta_X =$		-1.7233	1.3949	-1.1491	0.6299	0.0118
$\beta_B =$		1.6942***	1.9924***	1.4088***	1.4056***	1.6730***
$\gamma_{L,1} =$		2.0310***	2.3516***	1.8964***	1.6660***	2.0367***
$\gamma_{L,2} =$		2.1317***	2.3694***	1.9076***	1.5488***	2.3513***
$\gamma_{L,3} =$		1.3482***	1.4147***	0.8925***	1.1723***	1.1248***
$\gamma_{L,4} =$		1.5001***	1.6221***	1.0682***	1.2120***	1.3271***
$\gamma_{L,5} =$		1.5411***	1.7680***	1.2196***	1.3094***	1.4842***
$\gamma_{C,1} =$		1.4270***	1.2562***	1.2745***	1.9292***	1.2746***
$\gamma_{C,2} =$		1.2799***	0.9920***	-0.4931**	-0.4039	-0.3944**
$\gamma_{C,3} =$		-0.6232*	-0.9200**	-0.7459***	-0.7668***	-1.0082***
$\gamma_{C,4} =$		-1.1971***	-1.2835***	-0.9579***	-0.9686***	-1.1272***
$\gamma_{C,5} =$		-1.4230***	-1.4292***	-1.1346***	-1.2075***	-1.3587***

$\gamma_{X,1} =$		0.8824	15.5126	-1.7471	-7.8096	-9.7955
$\gamma_{X,2} =$		3.1344	12.6919*	-3.2224	-7.0264	-5.6622
$\gamma_{X,3} =$		5.9232	6.7572	-0.8788	-2.9358	-4.9023
$\gamma_{X,4} =$		-5.0752	2.6662	-3.5463	-5.8629	-3.9133
$\gamma_{r,1} =$		-0.5086	0.7262	0.0495	-0.2322	0.2412
$\gamma_{r,2} =$		0.1981	0.5522***	0.4293**	0.1510	0.2687***
$\gamma_{r,3} =$		0.2069**	0.4270***	0.3879***	0.1984	0.2202***
$\gamma_{r,4} =$		0.1796*	0.3343***	0.2407**	0.0705	0.1537**
$R^2 =$		0.7684	0.6592	0.6539	0.7705	0.8256
Table 6B: Business-Cycle Currency-CAPM (Weekly)						
Expansion	Volatility	Volume				
Parameters		1 Low	2	3	4	5 High
$\alpha_j =$	1 Low	0.0616	0.0281	0.1126	0.0486	-0.0372
$\beta_X =$		0.4154	-0.3710	0.4820	-0.3084	0.9179**
$\beta_B =$		0.3234**	0.1661	0.5613***	0.1464	0.0781
$\gamma_{L,1} =$		0.2657**	0.1970*	0.6033***	0.1505*	0.0961
$\gamma_{L,2} =$		0.3407***	0.1716	0.7221***	0.2460***	0.1416*
$\gamma_{L,3} =$		0.4049***	0.2845**	1.0612***	0.3150***	0.3975***
$\gamma_{L,4} =$		0.3107**	0.1658	0.6296**	0.1925**	0.1542**
$\gamma_{L,5} =$		0.2703*	0.1393	0.5400***	0.1420	0.0867
$\gamma_{C,1} =$		0.1872	0.0567	-0.2416	0.0752	-0.1335
$\gamma_{C,2} =$		0.3825	0.4054*	0.5075*	0.2432	0.1407
$\gamma_{C,3} =$		0.5027**	-0.5732*	1.1687	0.7817**	0.4705**
$\gamma_{C,4} =$		0.0668	0.0955	0.0311	0.1295	-0.0629
$\gamma_{C,5} =$		-0.1278	0.0039	-0.1789	-0.0758	-0.0708
$\gamma_{X,1} =$		-3.3933	-3.5879	-11.9410	-9.4582**	1.0675
$\gamma_{X,2} =$		-5.2590	-2.4947	-10.6102	-7.2031**	1.7568
$\gamma_{X,3} =$		-2.0586	-3.5963	-9.8466	-5.7160**	0.8415
$\gamma_{X,4} =$		-0.4707	1.4034	-7.8593	-4.7491**	-0.4796
$\gamma_{r,1} =$		-0.5850	0.0622	-0.9106	-0.0676	0.0204
$\gamma_{r,2} =$		-0.1717	-0.0442	-0.1552	0.0153	0.0800
$\gamma_{r,3} =$		-0.0481	-0.0220	-0.0437	0.0619	0.0512
$\gamma_{r,4} =$		-0.0386	-0.0041	-0.0614	0.0605	0.0141
$R^2 =$		0.6201	0.3515	0.3814	0.4311	0.5201
$\alpha_j =$	2	0.1546*	0.1568	0.1100	-0.2053**	-0.0558
$\beta_X =$		-1.8696**	-0.1324	0.0279	-1.7373*	-0.8276
$\beta_B =$		0.7228***	0.4423*	0.2681	0.8866***	0.3605**
$\gamma_{L,1} =$		0.5912***	0.3619*	0.2597	0.5549***	0.3064**
$\gamma_{L,2} =$		0.8118***	0.5294***	1.0108***	1.3677***	0.3075**
$\gamma_{L,3} =$		1.3389***	0.8133***	0.6634***	1.2345***	0.7762***
$\gamma_{L,4} =$		0.8597***	0.4668**	0.2682	0.8047***	0.4985***
$\gamma_{L,5} =$		0.7277***	0.4007*	0.2312	0.7770***	0.3884**
$\gamma_{C,1} =$		-0.6230***	-0.3462*	-0.2452	0.5357***	-0.2393
$\gamma_{C,2} =$		0.1772	0.3887*	0.8990***	1.1497***	0.3364*
$\gamma_{C,3} =$		0.4227	0.5007	-0.3792	-0.3314	1.1191***
$\gamma_{C,4} =$		-0.2861*	0.1290	-0.1380	-0.3987*	-0.2357
$\gamma_{C,5} =$		-0.4063***	0.0101	-0.0883	-0.3928**	-0.3624**
$\gamma_{X,1} =$		-21.1276**	-20.6392	-12.6745	14.4353	-2.4125
$\gamma_{X,2} =$		-20.4546**	-15.5540	-11.7230	13.1716*	0.4491
$\gamma_{X,3} =$		-9.8251	-12.7326	-9.1769	8.9180	0.9770
$\gamma_{X,4} =$		-8.8693*	-8.8235	-6.0135	3.2609	0.6443
$\gamma_{r,1} =$		-1.1391*	-1.8635**	-0.6181	0.3233	0.4325

$\gamma_{r,2} =$		-0.3732**	-0.3674	0.0162	0.4371***	0.1891
$\gamma_{r,3} =$		-0.2267**	-0.1983	-0.0127	0.2494**	0.0651
$\gamma_{r,4} =$		-0.0034	-0.0557	-0.1462	0.1433	0.0216
$R^2 =$		0.6164	0.5201	0.6619	0.6242	0.6094
$\alpha_j =$	3	-0.0152	0.0077	0.0777	-0.0472	-0.0323
$\beta_X =$		-1.8215**	-0.2010	-0.2803	-1.3006	-0.5515
$\beta_B =$		0.4385***	0.1503	0.5295***	0.3476**	0.2250
$\gamma_{L,1} =$		0.3007**	0.0684	0.4479***	0.2787**	0.1791
$\gamma_{L,2} =$		0.5474***	0.3239	0.4088***	0.3390***	0.1926
$\gamma_{L,3} =$		1.3950***	0.7324***	1.0433***	0.9479***	0.5962***
$\gamma_{L,4} =$		0.7092***	0.3536	0.5223***	0.4496***	0.3340**
$\gamma_{L,5} =$		0.5580***	0.2022	0.4739***	0.3707***	0.2816**
$\gamma_{C,1} =$		-0.4179***	0.0335	-0.3476**	-0.3377**	-0.0766
$\gamma_{C,2} =$		0.0108	0.6114**	0.3133*	-0.2495	0.0754
$\gamma_{C,3} =$		0.1178	0.6398	0.6624**	1.0477***	0.3598
$\gamma_{C,4} =$		-0.3709**	-0.0254	-0.0814	-0.0169	-0.2842*
$\gamma_{C,5} =$		-0.4498***	-0.0246	-0.2187	-0.1443	-0.3197**
$\gamma_{X,1} =$		-3.3554	-13.7523	-9.6000	-3.9431	9.2659
$\gamma_{X,2} =$		-6.5476	-9.6705	-9.7019*	-1.3440	6.8889
$\gamma_{X,3} =$		-8.6446*	-7.2768	-9.8973**	1.3509	4.2318
$\gamma_{X,4} =$		-0.9288	-4.7626	-6.6919*	0.7345	5.4704
$\gamma_{r,1} =$		-0.0207	0.1075	-1.3737**	-0.6265	-0.0221
$\gamma_{r,2} =$		-0.3217**	0.0997	-0.2007	-0.0212	-0.1893
$\gamma_{r,3} =$		-0.1816**	0.0310	-0.0908	-0.0734	-0.0685
$\gamma_{r,4} =$		-0.0397	-0.0923	-0.0370	0.0162	-0.0403
$R^2 =$		0.6469	0.5067	0.6526	0.5908	0.5809
$\alpha_j =$	4	0.0008	-0.1665	0.0395	0.0942	-0.1174
$\beta_X =$		-0.3008	0.5425	0.0219	-1.1434	-1.1810
$\beta_B =$		0.7724***	0.5877***	0.2260	0.1703	0.1744
$\gamma_{L,1} =$		0.5929***	0.5539***	0.2387	0.1659	0.1208
$\gamma_{L,2} =$		0.7188***	1.0153***	0.2836*	0.6831***	0.1399
$\gamma_{L,3} =$		1.3082***	1.1527***	0.5949***	0.3920**	0.3369**
$\gamma_{L,4} =$		0.9408***	0.7631***	0.2746	0.1860	0.5586***
$\gamma_{L,5} =$		0.7059***	0.6024***	0.1830	0.1602	0.2542
$\gamma_{C,1} =$		-0.0672	-0.6953***	-0.3529**	-0.2962	-0.0719
$\gamma_{C,2} =$		1.3137***	0.0090	-0.0299	1.5220***	-0.1712
$\gamma_{C,3} =$		-0.5306	0.7289**	1.0959***	0.1241	0.7083**
$\gamma_{C,4} =$		-0.4428	-0.2436	0.1048	0.0914	-0.1662
$\gamma_{C,5} =$		-0.4382**	-0.3553*	-0.0956	-0.0428	-0.2542
$\gamma_{X,1} =$		6.4480	10.1884	-17.4460	-17.4400	12.3788
$\gamma_{X,2} =$		-3.7219	11.4158	-10.5801	-17.4324*	14.6213
$\gamma_{X,3} =$		-2.0524	4.4069	-10.7378	-11.2148	10.1153
$\gamma_{X,4} =$		-0.3541	2.2260	-4.6619	-8.2314	8.8735*
$\gamma_{r,1} =$		-0.6877	-1.1326	0.8236	-0.5269	-0.2178
$\gamma_{r,2} =$		-0.1271	-0.0374	0.1888	-0.0809	-0.0167
$\gamma_{r,3} =$		-0.0598	-0.0514	0.1859	0.0208	-0.0396
$\gamma_{r,4} =$		-0.0964	-0.1298	0.0579	-0.0508	-0.0144
$R^2 =$		0.5886	0.6507	0.6116	0.6583	0.5723
$\alpha_j =$	5	-0.1375*	-0.0331	-0.0385	-0.0091	0.1983*
$\beta_X =$		1.3931	-1.2745	1.2499	-1.6759	-0.4344
$\beta_B =$		0.6341***	-0.0455	0.0142	0.2394	-0.0874

$\gamma_{L1} =$		0.5662***	-0.0508	-0.0256	0.2570	-0.0756
$\gamma_{L2} =$		0.5154***	0.1097	0.0459	0.3909	-0.0109
$\gamma_{L3} =$		1.2151***	0.6967***	0.9663***	1.0097***	1.1010***
$\gamma_{L4} =$		0.6680***	0.2172	0.4095**	0.3503	0.3141
$\gamma_{L5} =$		0.6181***	0.0872	0.2447	0.2759	0.1547
$\gamma_{C1} =$		-0.5200***	-0.1728	0.0627	-0.1509	0.1713
$\gamma_{C2} =$		-0.4090**	0.0297	1.2839***	1.8741***	1.8706***
$\gamma_{C3} =$		0.9056***	1.3037***	-0.2618	-0.0770	-0.1068
$\gamma_{C4} =$		-0.3046*	0.0016	-0.3459*	-0.4633*	-0.4327**
$\gamma_{C5} =$		-0.5009***	-0.1289	-0.2614	-0.3217	-0.2753
$\gamma_{X1} =$		4.4153	-0.5202	-7.3370	10.1279	-23.1146*
$\gamma_{X2} =$		4.7263	-1.3300	-5.4336	7.3697	-17.9560*
$\gamma_{X3} =$		0.8778	1.4379	0.8669	3.6787	-9.8271
$\gamma_{X4} =$		0.4538	-2.7149	-5.9107	-8.2196	-6.3309
$\gamma_{r1} =$		0.2874	-0.4632	0.8128	-0.1521	0.0307
$\gamma_{r2} =$		0.2169	-0.1676	0.1289	0.0915	-0.0595
$\gamma_{r3} =$		0.1073	-0.0365	0.2083	0.1485	0.0181
$\gamma_{r4} =$		0.0187	-0.1416	0.1186	0.0149	0.1514
$R^2 =$		0.7684	0.6592	0.6539	0.7705	0.8256

Table 6B: Business-Cycle Currency-CAPM (Weekly)

Contraction	Volatility	Volume				
Parameters		1 Low	2	3	4	5 High
$\alpha_j =$	1 Low	-0.0356	0.1770**	0.0587	0.0623	0.0038
$\beta_X =$		-0.1392	-0.7474	0.1762	-0.4218	-0.0960
$\beta_B =$		1.5399***	0.6005***	0.1633*	0.8379***	0.6976***
$\gamma_{L1} =$		1.3229***	0.5738***	0.1402	0.7772***	0.6741***
$\gamma_{L2} =$		1.4661***	0.4874***	0.1400	0.7782***	0.6759***
$\gamma_{L3} =$		1.5121***	0.5935***	0.2268**	0.8932***	1.2170***
$\gamma_{L4} =$		1.6454***	0.6781***	0.2660**	0.9727***	0.8308***
$\gamma_{L5} =$		1.6433***	0.6536***	0.2161**	0.8443***	0.6959***
$\gamma_{C1} =$		-0.5062***	-0.2344	-0.1532	-0.4567***	-0.5191***
$\gamma_{C2} =$		-0.1518	0.1969	-0.1106	-0.4525**	-0.3699*
$\gamma_{C3} =$		-0.1359	0.6206	0.3011	0.0949	0.1123
$\gamma_{C4} =$		0.3903***	0.3809*	0.2694*	0.6188***	1.0297***
$\gamma_{C5} =$		-1.7764***	-0.1313	-0.0231	0.7089***	-0.1112
$\gamma_{X1} =$		2.0694	-9.0104	-2.5410	-4.9501	-3.9879
$\gamma_{X2} =$		-0.1238	-11.3473	-2.3363	-3.2319	-0.4029
$\gamma_{X3} =$		-0.8342	-8.7322	-2.4070	-2.0525	-1.4968
$\gamma_{X4} =$		1.3658	-3.0151	4.4209	-0.4727	-2.5873
$\gamma_{r1} =$		1.6072***	-1.0135	-0.7332**	0.1182	1.1977***
$\gamma_{r2} =$		0.0590	-0.4305**	-0.2395**	-0.2469**	-0.0484
$\gamma_{r3} =$		0.0020	-0.2184*	-0.1420**	-0.2094***	-0.0358
$\gamma_{r4} =$		0.1797**	-0.1917*	-0.1004*	-0.0044	0.0490
$R^2 =$		0.6201	0.3515	0.3814	0.4311	0.5201

$\alpha_j =$	2	0.0343	-0.0625	-0.0287	0.0223	0.2304***
$\beta_X =$		0.4978	-2.1083***	0.7486	-0.4259	1.1452
$\beta_B =$		0.9636***	0.1823	0.4446***	0.1621	0.6927***
$\gamma_{L1} =$		0.8206***	0.1566	0.3688***	0.1617	0.5886***
$\gamma_{L2} =$		0.7867***	0.1709	0.3273**	0.1627	0.6049***
$\gamma_{L3} =$		1.2712***	0.4403***	0.7670***	0.4600***	0.7387***
$\gamma_{L4} =$		1.4259***	0.3975***	0.8164***	0.2548**	0.9930***
$\gamma_{L5} =$		1.0040***	0.2426*	0.4688***	0.1858	0.8394***

$\gamma_{C1} =$		-0.4783***	-0.0852	-0.1867	-0.2048	-0.3856*
$\gamma_{C2} =$		-0.3981	-0.0334	0.0160	-0.1228	-0.4201*
$\gamma_{C3} =$		-0.1630	-0.3733	0.3952	0.5890*	0.3714
$\gamma_{C4} =$		0.9073***	-0.1533	-0.0647	0.1351	1.5343***
$\gamma_{C5} =$		-0.3148	-0.4156***	-0.3696**	-0.2286*	-0.2540
$\gamma_{X1} =$		1.2924	1.1189	2.7850	-0.8990	-12.2234
$\gamma_{X2} =$		5.6185	1.7360	1.8750	-3.0351	-13.2773*
$\gamma_{X3} =$		-1.4568	3.0393	0.3983	-2.2329	-10.6659*
$\gamma_{X4} =$		0.9257	2.7968	2.6608	2.5883	-3.3737
$\gamma_{r1} =$		-0.3182	0.8304	-0.1835	0.0084	-1.5255*
$\gamma_{r2} =$		-0.2350	0.2201	-0.0383	-0.0987	-0.5873***
$\gamma_{r3} =$		-0.1571	0.1333	-0.0303	-0.0270	-0.3868***
$\gamma_{r4} =$		-0.1638	0.1835**	-0.0009	0.0205	-0.2819**
$R^2 =$		0.6164	0.5201	0.6619	0.6242	0.6094

$\alpha_j =$	3	0.0456	-0.0227	0.0593	0.2645**	0.2692*
$\beta_X =$		0.6733	0.6043	-1.0774	2.1587*	1.5297
$\beta_B =$		0.6550***	0.2204	0.5734***	0.6712***	0.6793***
$\gamma_{L1} =$		0.5346***	0.1738	0.4713***	0.5584***	0.5434**
$\gamma_{L2} =$		0.5453***	0.1635	0.4698***	0.5699***	0.5398**
$\gamma_{L3} =$		1.1781***	0.5761***	0.6534***	0.8493***	0.8022***
$\gamma_{L4} =$		1.1048***	0.4800***	1.1218***	1.2662***	0.9674***
$\gamma_{L5} =$		0.7175***	0.2222*	0.7411***	0.6440***	0.5896**
$\gamma_{C1} =$		-0.1840	-0.0162	-0.1344	-0.1808	-0.1466
$\gamma_{C2} =$		-0.1601	-0.0045	0.0008	-0.1415	-0.1928
$\gamma_{C3} =$		-0.0470	-0.1360	0.0433	0.2926	0.7247
$\gamma_{C4} =$		0.6359***	-0.0184	0.1251	0.9717***	1.4123***
$\gamma_{C5} =$		-0.5287***	-0.2292*	-1.0845***	-0.2594	-0.2638
$\gamma_{X1} =$		7.9644	3.7820	-2.5381	-11.9516	-16.0550
$\gamma_{X2} =$		8.2271	4.4315	-3.7565	-12.7803	-18.5582
$\gamma_{X3} =$		7.9922	1.9873	-1.9221	-7.3526	-15.1116
$\gamma_{X4} =$		6.6448	-0.3465	1.7608	-6.8554	-8.0942
$\gamma_{r1} =$		-0.9944	0.0572	1.1642	-1.8047*	-0.5725
$\gamma_{r2} =$		-0.3525**	-0.0161	-0.0802	-0.5464**	-0.6145**
$\gamma_{r3} =$		-0.2215**	0.0145	0.0141	-0.3791**	-0.2941
$\gamma_{r4} =$		-0.1313	-0.0448	0.0944	-0.1967	-0.1941
$R^2 =$		0.6469	0.5067	0.6526	0.5908	0.5809

$\alpha_j =$	4	-0.0557	0.1539*	0.1616	0.0783	0.5626***
$\beta_X =$		0.2162	1.6228*	0.2681	2.3398	3.5573**
$\beta_B =$		0.1163	0.6051***	1.1052***	0.1879	0.2485
$\gamma_{L1} =$		0.0732	0.5142***	0.9003***	0.1998	0.2269
$\gamma_{L2} =$		0.0372	0.5590***	0.8963***	0.2130	0.2401
$\gamma_{L3} =$		0.0478	0.9959***	1.0031***	0.7154***	0.2920
$\gamma_{L4} =$		0.5915***	0.8504***	1.5814***	0.5478***	0.6201**
$\gamma_{L5} =$		0.2790**	0.6905***	1.7045***	0.2537	0.5180*
$\gamma_{C1} =$		-0.0533	-0.1809	-0.4093	-0.0864	-0.1468
$\gamma_{C2} =$		-0.0746	-0.0150	-0.1675	0.2469	0.0089
$\gamma_{C3} =$		1.6005***	0.2920	-0.1763	1.1726**	0.3576
$\gamma_{C4} =$		0.1237	0.4971***	0.7486***	0.6753***	1.7475***
$\gamma_{C5} =$		-0.2669**	-0.9049***	-1.5283***	-0.4698**	-0.2206
$\gamma_{X1} =$		3.3700	-8.0127	2.2425	-4.5623	-68.4605***
$\gamma_{X2} =$		3.7480	-7.2062	-2.6811	-6.5924	-59.7854***
$\gamma_{X3} =$		0.1471	-5.6569	5.2038	-3.2077	-45.1935***

$\gamma_{X,4} =$		6.3141*	-2.4700	-2.4724	5.9110	-26.4538***
$\gamma_{r,1} =$		-0.1200	-0.0022	-1.5472	0.4545	0.7556
$\gamma_{r,2} =$		-0.0288	-0.1684	-0.6796**	0.1692	-0.3026
$\gamma_{r,3} =$		-0.0752	-0.0575	-0.3563*	0.0034	-0.0468
$\gamma_{r,4} =$		-0.0390	-0.0675	-0.1453	-0.0100	0.0201
$R^2 =$		0.5886	0.6507	0.6116	0.6583	0.5723
$\alpha_j =$	5	0.1419**	0.2768**	-0.3939*	0.0214	-0.2190*
$\beta_X =$		0.3465	0.4834	3.0998	1.0468	0.3090
$\beta_B =$		1.5949***	0.5456**	1.7444***	2.3565***	2.4005***
$\gamma_{L,1} =$		1.3388***	0.4275**	1.5039***	2.0783***	2.0274***
$\gamma_{L,2} =$		1.2917***	0.3798*	1.5043***	2.0619***	1.6500***
$\gamma_{L,3} =$		1.3870***	0.7140***	1.4619***	1.8163***	1.7660***
$\gamma_{L,4} =$		1.7692***	0.9281***	2.0331***	2.4365***	2.3513***
$\gamma_{L,5} =$		1.8302***	0.7992***	1.9034***	2.4054***	2.3538***
$\gamma_{C,1} =$		-0.8656***	-0.2253	-0.9855**	-1.7787***	-1.4385***
$\gamma_{C,2} =$		-0.8342***	-0.2153	-0.8106	-1.4665***	-1.4748***
$\gamma_{C,3} =$		-0.2695	0.1854	1.1715***	0.8463***	1.1195***
$\gamma_{C,4} =$		1.5230***	2.1364***	-0.8070**	1.4348***	1.5629***
$\gamma_{C,5} =$		-1.8552***	-0.5806**	-1.9672***	-2.3698***	-2.2713***
$\gamma_{X,1} =$		-5.4631	-35.5702**	47.5189*	-2.4432	34.2186**
$\gamma_{X,2} =$		-7.6128	-23.2368**	37.6244*	-0.5103	24.4375**
$\gamma_{X,3} =$		-6.4871	-16.1766*	31.4808**	-0.8624	15.3685*
$\gamma_{X,4} =$		4.5965	-10.7301	23.0069*	14.0258	10.6968
$\gamma_{r,1} =$		0.2899	-0.4555	1.8451	0.4265	-0.3503
$\gamma_{r,2} =$		-0.3805***	-0.2526	0.4635	-0.2389	-0.2095
$\gamma_{r,3} =$		-0.2928***	-0.1161	0.0251	-0.3423	-0.2439**
$\gamma_{r,4} =$		-0.1888***	-0.0224	0.0994	-0.0822	-0.3094***
$R^2 =$		0.7684	0.6592	0.6539	0.7705	0.8256

Table 6B: Business-Cycle Currency-CAPM (Weekly)

Peak	Volatility	Volume				
Parameters		1 Low	2	3	4	5 High
$\alpha_j =$	1 Low	0.0000	-0.0072	0.1032	-0.0290	0.0802
$\beta_X =$		-0.0000	0.9217	0.1287	0.2191	-0.7965
$\beta_B =$		0.0000***	1.6468***	1.5295***	0.5440***	1.3664***
$\gamma_{L,1} =$		0.0000***	1.5855***	1.5227***	0.5032***	1.2234***
$\gamma_{L,2} =$		0.0000***	1.5002***	1.3237***	0.4733***	1.1556***
$\gamma_{L,3} =$		0.0000***	1.6320***	1.2602***	0.5140***	1.0540***
$\gamma_{L,4} =$		0.0000***	1.6717***	1.7044***	0.4984***	1.3509***
$\gamma_{L,5} =$		0.0000***	1.8045***	1.6540***	0.7565***	1.4706***
$\gamma_{C,1} =$		-0.0000	-0.4878**	-0.9200***	-0.3796***	-0.7999***
$\gamma_{C,2} =$		-0.0000***	-0.3743	-0.5742***	-0.4209**	-0.9299***
$\gamma_{C,3} =$		0.0000	-0.1941	-0.3928	0.1874	0.2018
$\gamma_{C,4} =$		-0.0000***	-0.0593	0.3937	0.0150	-0.1757
$\gamma_{C,5} =$		3.7970***	0.7246***	0.9015***	0.3566***	1.3724***
$\gamma_{X,1} =$		-0.0000	-7.0396	-7.3744	5.8953	7.6229
$\gamma_{X,2} =$		0.0000	-2.9289	-7.3522	4.2996	1.5952
$\gamma_{X,3} =$		0.0000	-1.4492	-4.0792	3.4913	1.3940
$\gamma_{X,4} =$		0.0000	-2.2294	-1.3853	4.7919	6.8502*
$\gamma_{r,1} =$		-0.0000	0.9540	-0.0914	-0.4088	-2.5570***
$\gamma_{r,2} =$		-0.0000*	0.1752	-0.2787	-0.0630	-0.5885***
$\gamma_{r,3} =$		-0.0000	0.0023	-0.2764**	-0.1336*	-0.4910***
$\gamma_{r,4} =$		-0.0000	0.0916	-0.1450	-0.0946	-0.2798***

$R^2 =$		0.6201	0.3515	0.3814	0.4311	0.5201
$\alpha_j =$	2	-0.0624	-0.0320	0.0358	0.1184*	-0.1444*
$\beta_X =$		0.4105	2.6130***	-0.6311	0.7153	-0.9108
$\beta_B =$		1.0253***	2.0426***	1.7311***	1.9101***	1.3220***
$\gamma_{L,1} =$		0.8858***	1.7243***	1.4254***	1.5812***	1.1289***
$\gamma_{L,2} =$		0.8908***	1.6963***	1.3614***	1.5633***	1.0981***
$\gamma_{L,3} =$		0.7708***	1.7744***	1.3767***	1.5867***	1.1376***
$\gamma_{L,4} =$		0.8135***	2.0879***	1.6737***	2.1339***	1.1971***
$\gamma_{L,5} =$		1.2195***	2.2168***	2.0157***	2.1682***	1.3499***
$\gamma_{C,1} =$		-0.4891***	-0.6976***	-0.6758***	-0.8142***	-0.5983***
$\gamma_{C,2} =$		-0.4488**	-0.7339***	-0.6892***	-0.7992***	-0.5737**
$\gamma_{C,3} =$		-0.2479	0.0965	0.1068	-0.0504	-0.7399**
$\gamma_{C,4} =$		-0.4383**	0.4411*	0.8513***	0.6238***	-0.5918***
$\gamma_{C,5} =$		1.2539***	0.9259***	1.0884***	0.9546***	1.5431***
$\gamma_{X,1} =$		17.4973	19.3913*	-1.2703	2.6587	16.4659*
$\gamma_{X,2} =$		11.7212	11.7044	0.2883	-0.8867	14.0759*
$\gamma_{X,3} =$		7.0691	6.0895	1.1195	0.3191	8.5633
$\gamma_{X,4} =$		8.7849	7.9818	1.4219	1.1175	7.1270
$\gamma_{r,1} =$		-0.3208	0.3159	0.1790	-1.1918**	0.9742
$\gamma_{r,2} =$		-0.0984	-0.3045	-0.2153	-0.5148***	0.1368
$\gamma_{r,3} =$		-0.1774	-0.2216*	-0.2130**	-0.4518***	-0.0178
$\gamma_{r,4} =$		-0.0389	-0.2300**	-0.1335	-0.3277***	0.0228
$R^2 =$		0.6164	0.5201	0.6619	0.6242	0.6094
$\alpha_j =$	3	0.0373	0.0876	0.0803	-0.1114	-0.2262
$\beta_X =$		0.1727	-0.3154	0.7653	-1.6485	-1.1116
$\beta_B =$		1.0076***	1.7722***	1.8268***	1.7893***	1.7086***
$\gamma_{L,1} =$		0.8362***	1.4390***	1.4675***	1.4731***	1.4055***
$\gamma_{L,2} =$		0.8130***	1.4029***	1.3757***	1.4042***	1.4349***
$\gamma_{L,3} =$		0.6811***	1.2716***	1.2584***	1.3874***	1.3331***
$\gamma_{L,4} =$		0.7148***	1.7943***	1.4995***	1.4379***	1.5767***
$\gamma_{L,5} =$		1.0550***	2.0624***	1.8523***	2.0374***	1.9583***
$\gamma_{C,1} =$		-0.4199***	-0.5950***	-0.5947***	-0.5334***	-0.5825***
$\gamma_{C,2} =$		-0.4741**	-0.5970***	-0.7817***	-0.6330**	-0.8245**
$\gamma_{C,3} =$		-0.1335	0.1073	0.0014	-0.6960	-0.8468
$\gamma_{C,4} =$		0.2579	0.6808***	0.5857***	-0.3933	-0.6268**
$\gamma_{C,5} =$		2.0093***	1.0672***	1.9019***	0.9595***	1.2837***
$\gamma_{X,1} =$		-0.9640	3.8449	-0.0089	0.3754	22.0173
$\gamma_{X,2} =$		-2.8092	1.1833	0.3635	3.4302	23.6468*
$\gamma_{X,3} =$		-3.5937	-0.0314	0.1194	0.2103	18.0318
$\gamma_{X,4} =$		0.8778	4.0989	1.4517	3.1235	11.6065
$\gamma_{r,1} =$		0.0631	-0.7953	-1.4887	2.5669**	0.1287
$\gamma_{r,2} =$		0.0005	-0.3995**	-0.3817*	0.3333	0.2939
$\gamma_{r,3} =$		-0.1385	-0.3586***	-0.3575***	0.1706	-0.0449
$\gamma_{r,4} =$		-0.0673	-0.1544*	-0.3330***	0.1245	0.0480
$R^2 =$		0.6469	0.5067	0.6526	0.5908	0.5809
$\alpha_j =$	4	0.0987	0.0395	-0.0399	0.0520	-0.3089
$\beta_X =$		-0.0533	-0.5501	0.0651	-1.5393	-3.2876*
$\beta_B =$		1.4367***	1.3013***	1.2402***	2.1091***	2.1963***
$\gamma_{L,1} =$		1.2221***	1.0520***	1.0308***	1.8196***	1.7301***
$\gamma_{L,2} =$		1.2221***	0.9509***	0.9861***	1.8079***	1.6957***
$\gamma_{L,3} =$		1.1846***	1.0227***	0.8889***	1.6668***	1.7066***

$\gamma_{L4} =$		1.4147***	1.2256***	1.0074***	1.9912***	1.9166***
$\gamma_{L5} =$		1.6037***	1.4062***	0.8896***	2.2474***	2.0485***
$\gamma_{C1} =$		-0.7890***	-0.6521***	-0.6026***	-1.4025***	-0.8653***
$\gamma_{C2} =$		-0.8474***	-0.7082***	-0.5721*	-1.5992***	-1.3146***
$\gamma_{C3} =$		-0.5941	-0.7685**	-0.1526	0.0230	-0.3986
$\gamma_{C4} =$		1.0658***	0.3982**	-0.2240	0.1908	-0.8131**
$\gamma_{C5} =$		1.5138***	2.2169***	2.4823***	1.4892***	1.3784***
$\gamma_{X1} =$		-10.9478	4.6577	5.3930	-2.1231	52.3304**
$\gamma_{X2} =$		-9.3693	2.5183	2.7391	0.6702	45.2715***
$\gamma_{X3} =$		-4.1322	2.0067	-0.3835	-0.7938	33.5794**
$\gamma_{X4} =$		-5.5338	5.0233	4.0664	-4.7108	19.3825**
$\gamma_{r1} =$		0.8262	-0.4419	0.7837	-0.4491	-2.1330
$\gamma_{r2} =$		-0.1208	-0.3811**	-0.0130	-0.4647*	-0.3005
$\gamma_{r3} =$		-0.1441	-0.3514***	-0.1372	-0.3517*	-0.4333*
$\gamma_{r4} =$		-0.0324	-0.1621*	-0.1402	-0.0839	-0.3792*
$R^2 =$		0.5886	0.6507	0.6116	0.6583	0.5723
$\alpha_j =$	5	0.0070	-0.0802	0.4887***	0.0003	0.0071
$\beta_X =$		-0.0163	-0.6038	-3.2006	-0.0008	0.1136
$\beta_B =$		0.0768***	1.5075***	0.8327***	-0.0015	0.0139
$\gamma_{L1} =$		0.0639***	1.2717***	0.6253**	-0.0014	0.0115
$\gamma_{L2} =$		0.0613***	1.1411***	0.5422*	-0.0016	0.0097
$\gamma_{L3} =$		0.0497*	1.1747***	0.6794*	0.0016	0.0082
$\gamma_{L4} =$		0.0627**	1.2326***	0.4891	0.0012	0.0075
$\gamma_{L5} =$		0.0107	1.3456***	0.6323**	0.0092***	0.0073
$\gamma_{C1} =$		-0.0414	-0.8581***	-0.3517	0.0003	-0.0074
$\gamma_{C2} =$		-0.0367	-0.8064***	0.0198	-0.0037	-0.0014
$\gamma_{C3} =$		-0.0129	-0.5691	-0.1638	-0.0026	-0.0045
$\gamma_{C4} =$		-0.0213	-0.8546***	2.1108***	-0.0029	-0.0030
$\gamma_{C5} =$		3.7792***	2.1386***	3.3633***	3.8990***	3.9052***
$\gamma_{X1} =$		0.1654	20.5778	-38.4349*	0.1250	-1.3085
$\gamma_{X2} =$		-0.2480	11.8749	-28.9685*	0.1670	-0.8192
$\gamma_{X3} =$		-0.3140	7.9816	-31.4690**	0.1194	-0.6390
$\gamma_{X4} =$		0.0249	10.7787	-13.5500	0.0567	-0.4526
$\gamma_{r1} =$		-0.0688	0.1925	-2.7074*	-0.0422**	0.0784*
$\gamma_{r2} =$		-0.0344	-0.1320	-1.0218***	-0.0036	0.0003
$\gamma_{r3} =$		-0.0215	-0.2744*	-0.6213**	-0.0046*	0.0056
$\gamma_{r4} =$		-0.0094	-0.1703	-0.4587**	-0.0031	0.0043
$R^2 =$		0.7684	0.6592	0.6539	0.7705	0.8256

Table 6B: Business-Cycle Currency-CAPM (Monthly)						
Trough	Volatility	Volume				
Parameters		1 Low	2	3	4	5 High
$\alpha_j =$	1 Low	0.3895	0.6661	0.8842	0.1599	0.2909
$\beta_X =$		-0.2384	0.4966	-0.8753	-2.6111	0.1402
$\beta_B =$		0.8944***	1.7627***	1.0693**	1.5500***	1.2140***
$\gamma_{L,1} =$		0.9161**	1.9692***	1.2399**	1.7413***	1.3897***
$\gamma_{L,2} =$		0.9744**	2.2029***	0.9801*	1.7464***	1.4405***
$\gamma_{L,3} =$		2.4540***	2.0994***	0.9677	1.9983***	2.2141***
$\gamma_{L,4} =$		1.0228***	1.3223	0.2898	1.6100***	0.7420***
$\gamma_{L,5} =$		1.1101***	1.4378**	1.2041**	1.3364***	1.1129***
$\gamma_{C,1} =$		0.8823***	1.0632**	0.8097**	0.1990	1.2228***
$\gamma_{C,2} =$		0.3630	0.4738	0.6347	-0.4194	1.3849***
$\gamma_{C,3} =$		1.6187	1.7402	1.1200	-1.1560	-1.1207
$\gamma_{C,4} =$		0.0975	-2.9223*	0.4202	-1.5478***	-0.8935***
$\gamma_{C,5} =$		-0.2901	-1.1344	-0.4226	0.0310	-1.0655***
$\gamma_{X,1} =$		-2.8222	-43.2614	-19.7104	-12.0917	-34.0165**
$\gamma_{X,2} =$		-7.4979	-32.7147	-28.3786	-18.4199	-22.4990**
$\gamma_{X,3} =$		-3.0256	-23.2779	-22.7356	-3.7964	-13.2945*
$\gamma_{X,4} =$		-1.6611	-9.1636	-14.4759	0.7000	-7.6607
$\gamma_{r,1} =$		-1.4783	0.7505	-2.1130	0.6838	1.7508**
$\gamma_{r,2} =$		-0.5046	0.8240	-0.8656	0.3673	0.6545***
$\gamma_{r,3} =$		-0.2228	0.6074	-0.2412	0.2340	0.8075***
$\gamma_{r,4} =$		-0.5747**	0.1676	-0.3281	0.1982	0.1502*
$R^2 =$		0.1143	-0.0332	0.1652	0.2415	0.6159
$\alpha_j =$	2	0.3541	-0.1602	0.0565	0.0821	0.2229
$\beta_X =$		-2.2367	-2.9020	0.9607	-0.9539	-0.4289
$\beta_B =$		1.6876***	1.6086***	1.9047***	1.9062***	1.5637***
$\gamma_{L,1} =$		1.9490***	2.0520***	2.4141***	1.8766***	1.8255***
$\gamma_{L,2} =$		2.0415***	1.9688***	2.4762***	2.3011***	1.9827***
$\gamma_{L,3} =$		1.2691*	1.9194***	2.2791***	2.1584***	1.5597***
$\gamma_{L,4} =$		2.2022***	1.5917***	1.8379***	1.5798**	1.3989***
$\gamma_{L,5} =$		1.9787***	1.5677***	1.8671***	1.8244***	1.4755***
$\gamma_{C,1} =$		1.7237***	1.6409***	1.4726***	0.9640***	1.5928***
$\gamma_{C,2} =$		1.7837***	1.5632***	1.0035***	0.7025*	0.9991***
$\gamma_{C,3} =$		2.2889**	-1.9560*	-0.0107	-1.9031*	0.7642
$\gamma_{C,4} =$		-1.6613*	-0.9432**	-1.1649	-1.0414	0.2762
$\gamma_{C,5} =$		-1.3407**	-1.0707***	-1.2976***	-0.9013**	-1.0011***
$\gamma_{X,1} =$		-34.2487	0.7392	-18.8002	-17.6725	-34.1896
$\gamma_{X,2} =$		-16.6818	1.2362	-11.1494	-8.9646	-18.2026
$\gamma_{X,3} =$		-11.7986	5.2208	0.7855	-1.7293	-10.3041
$\gamma_{X,4} =$		1.0218	1.8554	-1.0828	-5.7623	-8.9977
$\gamma_{r,1} =$		1.3140	0.1005	0.0300	-0.7870	-0.8297
$\gamma_{r,2} =$		0.2000	0.4331	0.4734	0.3913	0.2288
$\gamma_{r,3} =$		0.5876	0.7548***	0.7721**	0.1473	0.5200**
$\gamma_{r,4} =$		-0.0007	0.2508	0.1574	-0.0303	-0.0608
$R^2 =$		0.2129	0.5380	0.3217	0.3348	0.2796
$\alpha_j =$	3	0.3706	1.1262**	1.6578***	0.5279	-0.2103
$\beta_X =$		-1.9621	-2.7735	-0.3534	2.0033	0.7326
$\beta_B =$		1.9505***	1.9553***	1.8623***	2.1743***	1.2080***
$\gamma_{L,1} =$		2.4183***	2.5496***	2.4359***	2.6434***	1.3947***
$\gamma_{L,2} =$		2.3777***	2.8855***	2.8877***	3.0472***	1.1722***

$\gamma_{L,3} =$		1.5320***	3.0094***	2.9658***	3.3007**	1.0151*
$\gamma_{L,4} =$		1.9840***	1.1614*	1.4452**	1.2015**	1.9051***
$\gamma_{L,5} =$		1.7994***	1.4009***	1.6426***	1.8927***	1.3545***
$\gamma_{C,1} =$		1.4762***	1.0829***	1.4629***	1.0700***	1.1856***
$\gamma_{C,2} =$		1.7365***	0.8003**	0.3902	1.0627***	1.4996***
$\gamma_{C,3} =$		3.3031**	-0.4583	-0.8608	0.7950	-0.3222
$\gamma_{C,4} =$		-1.9943***	-0.5124	-0.8061*	-1.0580**	-0.3483
$\gamma_{C,5} =$		-1.8197***	-0.7610*	-2.0631***	-1.7969***	-1.0602***
$\gamma_{X,1} =$		-37.3534	-61.5424*	-103.2916***	7.2251	-7.3798
$\gamma_{X,2} =$		-16.2857	-36.6453	-57.8905**	-2.6451	-9.8192
$\gamma_{X,3} =$		-16.2189	-32.4692*	-45.6521**	3.4598	-1.6062
$\gamma_{X,4} =$		-11.1708	-15.8614	-26.8542*	8.2749	-2.6639
$\gamma_{r,1} =$		0.5677	-2.5754	-4.0334	-4.0801*	0.8442
$\gamma_{r,2} =$		0.2312	0.0392	-0.1576	-0.5932	0.1906
$\gamma_{r,3} =$		0.6933*	0.2542	0.2601	-0.1751	0.2307
$\gamma_{r,4} =$		0.1615	-0.2742	-0.3074	-0.3066	0.0228
$R^2 =$		0.4608	0.3967	0.5928	0.4108	0.3555
$\alpha_j =$	4	-0.0683	0.9857	1.0031**	-1.1535*	-0.4558
$\beta_X =$		2.0184	-6.8101*	-2.9081	0.1455	-2.6140
$\beta_B =$		1.7464***	1.2867***	1.6941***	1.2357***	0.6504
$\gamma_{L,1} =$		2.2135***	1.7746***	2.0241***	1.5497***	0.7861
$\gamma_{L,2} =$		1.8520***	2.1608***	2.0277***	1.2938***	0.4357
$\gamma_{L,3} =$		1.9865***	3.2840***	1.9599**	1.6406	1.2333
$\gamma_{L,4} =$		2.4488***	0.2936	1.4963***	1.4767***	-0.2404
$\gamma_{L,5} =$		1.6770***	0.6151*	1.4507***	1.2033***	0.7833*
$\gamma_{C,1} =$		1.5917***	1.2244***	1.2931***	1.2093***	1.6894***
$\gamma_{C,2} =$		1.0617**	0.8977**	1.1661**	1.0951**	1.3439*
$\gamma_{C,3} =$		1.2786	-0.5143	1.5996	-0.7180	1.5212
$\gamma_{C,4} =$		-1.4084**	-0.5299	-1.9047***	-0.1567	-0.2997
$\gamma_{C,5} =$		-1.1069***	-0.6766*	-1.1409***	-0.8304***	-0.4294
$\gamma_{X,1} =$		1.4553	-52.0710	-77.6470**	-38.6725	-6.2270
$\gamma_{X,2} =$		15.7720	-32.2092	-48.3642**	-11.9241	5.3681
$\gamma_{X,3} =$		9.9924	-21.8129	-22.8295	-3.7505	3.8966
$\gamma_{X,4} =$		11.4529	-9.1717	-12.8498	-6.9925	9.2195
$\gamma_{r,1} =$		-2.7884	-3.0294	-0.8315	9.9937*	2.0812
$\gamma_{r,2} =$		-0.0751	-0.4323	0.0739	1.8878**	0.5619
$\gamma_{r,3} =$		0.3175	0.1565	0.2958	1.4331**	0.4462
$\gamma_{r,4} =$		-0.1035	-0.2380	-0.0987	0.8084*	0.2801
$R^2 =$		0.4825	0.3156	0.4457	0.2410	0.1661
Trough	Volatility	Volume				
Parameters		1 Low	2	3	4	5 High
$\alpha_j =$	5	-0.1992	0.5240*	-0.5000	0.0000	0.0351
$\beta_X =$		0.8854	-2.6205	-0.4557	0.0000	-0.5693
$\beta_B =$		0.9622***	1.3909***	0.8066***	-0.0000	0.7101***
$\gamma_{L,1} =$		1.0489***	1.9187***	1.3343***	1.9599	0.6654**
$\gamma_{L,2} =$		1.6718***	2.5011***	1.4531**	0.0000	1.3067***
$\gamma_{L,3} =$		0.4450	1.6022***	0.8411*	0.0000	0.0426
$\gamma_{L,4} =$		0.8701***	1.0520***	0.4878*	0.0000	0.6280**
$\gamma_{L,5} =$		1.0753***	0.9675***	0.5136**	-0.0000	1.0391***
$\gamma_{C,1} =$		2.0328***	1.4751***	1.8027***	2.0859	2.1780***
$\gamma_{C,2} =$		2.1960***	1.0884***	0.6921	-0.0000	2.1027***
$\gamma_{C,3} =$		-0.5162	-0.8235**	0.2500	0.0000	-0.0726

$\gamma_{C,4} =$		-0.8915***	-0.9252***	-0.2687	-0.0000	-0.5756**
$\gamma_{C,5} =$		-0.9775***	-0.9087***	-0.4564*	-0.0000	-0.8082***
$\gamma_{X,1} =$		-7.8263	-28.1689	25.4818	-0.0000	-15.7090
$\gamma_{X,2} =$		6.5655	-14.6766	21.6685	-0.0000	-7.6953
$\gamma_{X,3} =$		8.6175	-12.9330	20.1053	-0.0000	-5.9183
$\gamma_{X,4} =$		7.1993	-14.4147	6.2819	-0.0000	3.8947
$\gamma_{r,1} =$		0.7256	-2.8377**	-0.7806	0.0000	1.0035
$\gamma_{r,2} =$		0.5603*	-0.1183	-0.0744	0.0000	0.1240
$\gamma_{r,3} =$		0.4447**	0.2459	0.1420	0.0000	0.3558**
$\gamma_{r,4} =$		0.0876	-0.0764	-0.1806	0.0000	-0.0356
$R^2 =$		0.6869	0.6050	0.5112	0.6330	0.6335

Table 6B: Business-Cycle Currency-CAPM (Monthly)

Expansion	Volatility	Volume				
Parameters		1 Low	2	3	4	5 High
$\alpha_j =$	1 Low	0.0726	-0.2687	-1.0057*	-0.2051	-0.3174
$\beta_X =$		-1.6371	-5.8957	4.0775	2.3443	0.2530
$\beta_B =$		0.3980	0.0602	1.0990**	0.1651	0.3643*
$\gamma_{L,1} =$		0.3704	-0.0585	1.1153**	0.1845	0.3977*
$\gamma_{L,2} =$		0.4407	-0.0984	1.2177**	0.1437	0.4087*
$\gamma_{L,3} =$		-0.2450	-0.0046	1.0950*	0.2258	0.3947
$\gamma_{L,4} =$		0.3195	0.1917	2.0018***	0.0952	0.3839
$\gamma_{L,5} =$		0.4279	0.3395	0.9390**	0.3788	0.2848
$\gamma_{C,1} =$		0.2216	0.4606	0.2132	0.8718***	-0.0636
$\gamma_{C,2} =$		0.4391	-0.0334	0.2950	1.2159***	-0.0816
$\gamma_{C,3} =$		0.1886	-0.2534	0.4326	0.3916	0.9111
$\gamma_{C,4} =$		0.0717	1.8078	-2.0750*	0.0312	0.1389
$\gamma_{C,5} =$		-0.0672	0.7397	-0.5737	-0.5005	-0.3869
$\gamma_{X,1} =$		-15.9728	-3.4772	24.6501	-2.8307	35.7515**
$\gamma_{X,2} =$		-7.1958	0.8267	34.8538	5.4614	22.3824**
$\gamma_{X,3} =$		-1.3229	-0.1374	31.0776*	-4.5570	13.7847*
$\gamma_{X,4} =$		-0.0101	-1.6514	19.2876	-0.4330	9.1351
$\gamma_{r,1} =$		-0.5722	1.7556	1.8965	1.0342	-1.1684
$\gamma_{r,2} =$		-0.1014	-0.1525	1.0189*	0.3460	-0.2819
$\gamma_{r,3} =$		0.1333	0.0652	0.6749**	0.4779**	-0.1032
$\gamma_{r,4} =$		0.0838	0.0344	0.2952	-0.0236	-0.0809
$R^2 =$		0.1143	-0.0332	0.1652	0.2415	0.6159
$\alpha_j =$	2	-0.5850	-0.1378	-0.5721	-0.4795	-0.3320
$\beta_X =$		0.4932	2.8626	1.0374	2.0730	0.1237
$\beta_B =$		0.0081	0.4284	0.1580	0.0747	0.1610
$\gamma_{L,1} =$		-0.1087	0.3451	0.0768	0.1633	0.0599
$\gamma_{L,2} =$		-0.2351	0.1968	-0.0704	0.0988	0.0901
$\gamma_{L,3} =$		0.0901	0.1064	-0.2822	-0.0243	0.0724
$\gamma_{L,4} =$		-0.5058	-0.3277	0.1074	0.3479	-0.1191
$\gamma_{L,5} =$		-0.1980	0.4213	0.0355	0.0950	0.1696
$\gamma_{C,1} =$		-0.4132*	-0.6996***	-0.3679	-0.0309	0.0795
$\gamma_{C,2} =$		-0.4222	-0.6955***	0.0363	-0.0265	0.0970
$\gamma_{C,3} =$		-0.1218	1.4295*	1.5216**	1.5216**	0.5274
$\gamma_{C,4} =$		0.4439	0.1480	-0.2087	0.6384	-0.1691
$\gamma_{C,5} =$		0.4139	0.0487	-0.0819	0.1382	-0.3432
$\gamma_{X,1} =$		11.6161	5.3065	36.1639	33.0428	46.8792**
$\gamma_{X,2} =$		5.2505	2.3167	22.3865	22.9149	32.7200**
$\gamma_{X,3} =$		13.5723	0.4373	12.5830	21.6232*	18.9675

$\gamma_{X,4} =$		1.4153	-0.2002	9.8187	9.1402	14.3299
$\gamma_{r,1} =$		0.6041	-0.8455	0.7060	-0.9255	-0.9622
$\gamma_{r,2} =$		0.4174	-0.3406	-0.1014	-0.3972	-0.3201
$\gamma_{r,3} =$		0.0419	-0.4645*	-0.0751	0.0515	-0.0990
$\gamma_{r,4} =$		0.2465	-0.2040	-0.0209	-0.1044	-0.1683
$R^2 =$		0.2129	0.5380	0.3217	0.3348	0.2796
$\alpha_j =$	3	-0.1218	-0.7696*	-2.0592***	-0.9452***	0.0336
$\beta_X =$		0.6611	-0.1504	-3.6338	0.5719	0.6736
$\beta_B =$		0.3346	-0.0291	0.1878	0.0670	0.2334
$\gamma_{L,1} =$		0.3304	-0.2448	-0.0471	-0.0476	0.3961
$\gamma_{L,2} =$		0.1872	-0.5468	-0.5275	-0.0759	0.2549
$\gamma_{L,3} =$		0.4548	-0.5184	-0.8075	-0.8253	0.6254
$\gamma_{L,4} =$		0.7385	0.0930	0.1680	0.4957*	-0.2779
$\gamma_{L,5} =$		0.3492	0.3048	0.2914	0.1691	0.1674
$\gamma_{C,1} =$		-0.5209**	-0.3673	-0.2091	-0.1419	0.0504
$\gamma_{C,2} =$		-0.5354	-0.0403	0.3175	-0.4561**	-0.0090
$\gamma_{C,3} =$		-0.4856	0.8362	1.3324**	-0.4402	1.1710
$\gamma_{C,4} =$		0.4685	0.5789	0.0412	0.5569***	0.2267
$\gamma_{C,5} =$		0.1512	0.4170	-0.0019	0.0626	-0.3892
$\gamma_{X,1} =$		-1.3658	19.0895	88.5515***	27.7467	17.0321
$\gamma_{X,2} =$		-3.1635	13.5393	53.0162***	22.2507	12.6815
$\gamma_{X,3} =$		4.0129	16.7556	37.5271**	21.3464**	14.7385
$\gamma_{X,4} =$		2.4296	6.1633	26.7799**	8.2437	21.7243
$\gamma_{r,1} =$		-0.4697	1.0042	8.1691**	1.0641	-0.7880
$\gamma_{r,2} =$		-0.1854	0.0114	0.8675	0.5586**	-0.2158
$\gamma_{r,3} =$		-0.1536	-0.1006	0.4916	0.3363**	-0.0704
$\gamma_{r,4} =$		-0.1399	0.0947	0.5072	0.1877	-0.1276
$R^2 =$		0.4608	0.3967	0.5928	0.4108	0.3555
$\alpha_j =$	4	0.7187**	-0.5547	-0.8722***	0.1768	-0.0867
$\beta_X =$		-0.9020	5.7054**	1.2335	-2.2126	1.6039
$\beta_B =$		0.5831**	0.2301	0.5193**	-0.0972	0.4526
$\gamma_{L,1} =$		0.6890**	0.1821	0.6702**	-0.0499	0.5194
$\gamma_{L,2} =$		0.6675**	0.2190	0.6201**	0.0357	0.3831
$\gamma_{L,3} =$		0.1227	-0.1046	0.8834*	-0.9817*	-0.0358
$\gamma_{L,4} =$		-0.6320	0.2128	0.6711**	-0.3006	1.1011
$\gamma_{L,5} =$		0.5585**	0.3776	0.5886**	-0.1844	0.5714**
$\gamma_{C,1} =$		-0.4684*	-0.1276	-0.5066***	0.0534	-0.3863
$\gamma_{C,2} =$		-0.0641	-0.3425	-0.4379	0.1068	-0.0118
$\gamma_{C,3} =$		0.3443	0.8917	-0.9013	0.3476	-0.0520
$\gamma_{C,4} =$		-0.2537	0.3280	0.2942	0.1192	0.0054
$\gamma_{C,5} =$		-0.5424**	-0.0916	0.1459	0.1145	0.0294
$\gamma_{X,1} =$		-43.4110*	22.2259	75.1061***	-2.0421	-9.0448
$\gamma_{X,2} =$		-33.8323*	15.5435	56.7567***	-2.8122	-14.5756
$\gamma_{X,3} =$		-26.1761**	9.3760	33.8651***	4.7061	-5.5688
$\gamma_{X,4} =$		-12.0109	5.2467	22.2682**	-2.3106	-7.7928
$\gamma_{r,1} =$		-0.8524	1.4591	-4.0034**	-1.2737	-1.2578
$\gamma_{r,2} =$		-0.1592	0.2464	-0.5279*	-0.0902	0.0271
$\gamma_{r,3} =$		-0.2291	0.1059	-0.4270**	-0.0850	-0.0028
$\gamma_{r,4} =$		-0.1528	0.0843	-0.2894**	-0.0098	0.0708
$R^2 =$		0.4825	0.3156	0.4457	0.2410	0.1661
$\alpha_j =$	5	-0.5300	-0.3364	-0.2673	-0.5152	0.6460

$\beta_X =$		1.4939	2.4368	3.3256	-1.0847	-3.9816
$\beta_B =$		0.3420	0.4117	-0.5220*	0.8706***	-0.4855
$\gamma_{L,1} =$		0.2891	0.4038	-1.0940**	-0.0750	-0.2589
$\gamma_{L,2} =$		0.2329	0.1352	-1.9631**	1.6645***	0.0254
$\gamma_{L,3} =$		0.6099	-0.3598	0.6249	0.7178*	-1.9249*
$\gamma_{L,4} =$		0.4468*	0.4715	-0.1155	0.9888***	-0.4375
$\gamma_{L,5} =$		0.3542	0.4333	-0.2510	0.7335***	-0.6573
$\gamma_{C,1} =$		-0.4096*	-0.3654	0.7296**	-0.0798	0.9383
$\gamma_{C,2} =$		-0.4243	-0.3285	1.0217	1.5216***	2.1819
$\gamma_{C,3} =$		1.3050**	1.8082***	0.8933	0.4039	3.8932***
$\gamma_{C,4} =$		0.2547	-0.2632	0.3560	-0.3527	0.8693
$\gamma_{C,5} =$		-0.3230	-0.4591	0.3132	-0.7585***	0.3043
$\gamma_{X,1} =$		34.2211	20.7880	14.4059	26.3519	-17.7803
$\gamma_{X,2} =$		28.8192*	14.8746	10.1622	17.7303	-18.8502
$\gamma_{X,3} =$		14.7199	11.4615	-0.7915	9.3411	1.1138
$\gamma_{X,4} =$		10.5643	6.7042	6.8981	20.3185	18.0033
$\gamma_{r,1} =$		-1.8309	0.4839	0.2126	-0.9949	-0.7272
$\gamma_{r,2} =$		-0.3642	-0.1864	-0.1238	-0.3925	0.3639
$\gamma_{r,3} =$		-0.2789	-0.1810	0.2278	0.0823	0.3517
$\gamma_{r,4} =$		-0.1259	-0.0771	0.0550	-0.0942	-0.0429
$R^2 =$		0.6869	0.6050	0.5112	0.6330	0.6335
Table 6B: Business-Cycle Currency-CAPM (Monthly)						
Contraction	Volatility	Volume				
Parameters		1 Low	2	3	4	5 High
$\alpha_j =$	1 Low	-0.0318	-0.2818	0.1506	0.2203	0.0265
$\beta_X =$		-2.3348	-1.9486	-0.9316	0.4753	-0.3932
$\beta_B =$		0.0680	0.5392	0.8571***	0.2053	2.4218***
$\gamma_{L,1} =$		0.0774	0.4829	0.9777***	0.2012	2.2126***
$\gamma_{L,2} =$		0.0018	0.4382	0.8673**	0.1127	2.1508***
$\gamma_{L,3} =$		0.0351	0.1361	0.6269	0.2239	1.3912***
$\gamma_{L,4} =$		0.0794	0.9479*	0.7566*	0.2693	2.8742***
$\gamma_{L,5} =$		0.0243	0.6479*	0.8666***	0.1742	2.6023***
$\gamma_{C,1} =$		-0.1267	-0.5116**	-0.2732	-0.1027	-1.1593***
$\gamma_{C,2} =$		-0.1493	-0.1399	-0.3809	-0.0359	-1.3033***
$\gamma_{C,3} =$		-0.3055	-1.0236	0.1195	0.2787	0.2096
$\gamma_{C,4} =$		0.2157	-0.1973	0.3095	0.4037	0.7547***
$\gamma_{C,5} =$		0.0735	0.2110	0.3181	-0.1042	-2.6126***
$\gamma_{X,1} =$		5.7893	19.1072	10.1379	-0.9536	-1.7349
$\gamma_{X,2} =$		3.1400	9.2755	-0.4126	-1.1345	0.1166
$\gamma_{X,3} =$		3.6108	7.6439	-7.5361	-0.8202	-0.4902
$\gamma_{X,4} =$		0.0079	7.6973	-0.6871	-1.5961	-1.4744
$\gamma_{r,1} =$		-0.6142	0.8813	-0.2594	-1.6465*	-0.5823
$\gamma_{r,2} =$		0.0168	-0.2347	-0.4162	-0.4743**	-0.3727*
$\gamma_{r,3} =$		-0.0561	-0.2132	-0.2656	-0.2702*	-0.7044***
$\gamma_{r,4} =$		-0.0803	-0.0757	-0.0686	-0.2269**	-0.0693
$R^2 =$		0.1143	-0.0332	0.1652	0.2415	0.6159
$\alpha_j =$	2	0.0532	0.3081	0.6669	0.9637*	0.6884
$\beta_X =$		-1.6768	2.5052	3.0412	-0.9681	2.1166
$\beta_B =$		0.9544***	0.1948	1.0467***	0.9122***	1.2693**
$\gamma_{L,1} =$		1.0220***	0.1225	1.1238**	0.9072**	1.6453**
$\gamma_{L,2} =$		0.9130**	0.0539	0.8262	0.8492	0.8094
$\gamma_{L,3} =$		0.3051	-0.6945*	0.2987	0.4465	0.9823

$\gamma_{L,4} =$		1.2910**	0.5656	1.0684	0.3484	1.3205*
$\gamma_{L,5} =$		0.9695***	0.2341	1.1445**	0.8717**	1.2670**
$\gamma_{C,1} =$		-0.2326	0.1549	-0.2667	-0.0903	-0.6877
$\gamma_{C,2} =$		-0.5870*	0.1777	-0.0426	-0.0243	-0.3159
$\gamma_{C,3} =$		-1.0463	0.4715	0.0190	1.9558*	0.0800
$\gamma_{C,4} =$		0.7686	0.0935	0.7299	-0.4039	-0.1706
$\gamma_{C,5} =$		-0.1827	0.2363	-0.4286	-0.4709	0.5288
$\gamma_{X,1} =$		-24.6526	-12.4896	-7.3616	-48.1964	-1.2839
$\gamma_{X,2} =$		-25.8778	-17.1126	-7.8282	-33.9509	0.3823
$\gamma_{X,3} =$		-17.0877	-12.4985	-12.7738	-32.9944*	-7.1362
$\gamma_{X,4} =$		-7.3309	3.6401	-10.6521	-5.9291	6.2574
$\gamma_{r,1} =$		4.2902**	0.6561	-3.4556	-0.3395	-4.7547
$\gamma_{r,2} =$		0.5310	-0.1514	-0.7289	-0.0059	-0.9170
$\gamma_{r,3} =$		0.5480*	0.2110	-0.3632	0.1618	-0.7069
$\gamma_{r,4} =$		0.2380	0.0700	-0.2100	-0.0922	-0.3207
$R^2 =$		0.2129	0.5380	0.3217	0.3348	0.2796
$\alpha_j =$	3	0.0194	0.1660	0.4642	0.6456	-0.2910
$\beta_X =$		5.8066***	-0.3014	-1.5476	-3.0483	1.9864
$\beta_B =$		0.3330	-0.4705	0.7170**	0.6937	1.3459***
$\gamma_{L,1} =$		0.1888	-0.4225	0.2965	0.4789	0.5668
$\gamma_{L,2} =$		0.1116	-0.6898	0.4072	-0.4589	1.0644*
$\gamma_{L,3} =$		-0.0905	-0.4881	0.7386	1.7938	-0.8059
$\gamma_{L,4} =$		0.2394	-0.6551	1.5446***	0.9518	1.9365**
$\gamma_{L,5} =$		0.4158	-0.4754	1.0914***	0.8412	1.3980***
$\gamma_{C,1} =$		0.1335	0.2326	-0.2405	-0.2567	-0.5932
$\gamma_{C,2} =$		0.3995	-0.3085	-0.2137	-0.1000	-0.2166
$\gamma_{C,3} =$		-1.0711	0.4104	0.0599	-0.4154	0.5961
$\gamma_{C,4} =$		2.5437***	2.0459***	0.6852**	0.8340	-0.1676
$\gamma_{C,5} =$		-0.2485	0.8088***	-1.2574***	-0.8005	-0.7330
$\gamma_{X,1} =$		36.7315*	-17.8414	-14.8702	-37.3412	54.6264
$\gamma_{X,2} =$		21.8006	-12.1669	-19.5140	-23.9951	32.6521
$\gamma_{X,3} =$		12.8360	-10.3326	-6.7627	-29.3836	4.1302
$\gamma_{X,4} =$		-2.8923	-8.8122	1.8734	-23.3935	-22.4630
$\gamma_{r,1} =$		-3.3433	1.3131	0.5028	2.5000	-3.6370
$\gamma_{r,2} =$		-0.6653*	0.0858	-0.4099	-0.2055	-0.6160
$\gamma_{r,3} =$		-0.1535	0.1426	-0.2900	-0.2486	-0.5211
$\gamma_{r,4} =$		-0.2583	-0.0025	-0.3350	-0.0690	-0.1270
$R^2 =$		0.4608	0.3967	0.5928	0.4108	0.3555
$\alpha_j =$	4	0.5578	0.1487	0.2548	-0.6369	-1.5297*
$\beta_X =$		4.0733	-4.5156	6.1052	2.0062	-8.2765
$\beta_B =$		1.1179***	-0.3573	0.4380	0.1321	0.5922
$\gamma_{L,1} =$		1.2827**	-0.4883	1.0142*	0.1643	1.0547
$\gamma_{L,2} =$		1.1306**	-1.0434**	0.3582	-0.1854	0.6614
$\gamma_{L,3} =$		0.8658	-0.2762	0.9836	0.5882	0.4276
$\gamma_{L,4} =$		0.2158	-0.1398	0.6367	-0.0203	1.0252
$\gamma_{L,5} =$		0.8409*	-0.2619	0.5508	-0.2394	0.6504
$\gamma_{C,1} =$		-0.7825*	0.2436	-0.0547	0.1986	0.0496
$\gamma_{C,2} =$		-0.8676	0.2800	-0.3629	0.0835	-0.1883
$\gamma_{C,3} =$		-1.5905	0.4580	0.5059	-0.0411	-0.1227
$\gamma_{C,4} =$		3.1223***	1.6675***	1.3924*	0.8331	-0.1181
$\gamma_{C,5} =$		0.4012	0.7175**	0.9649**	0.2665	0.2322
$\gamma_{X,1} =$		33.2807	3.9250	42.0043	-45.8650	101.2742**

$\gamma_{X,2} =$		5.7309	0.1395	25.0598	-32.1532	75.6998**
$\gamma_{X,3} =$		6.6743	-2.0320	30.2197	-3.3612	80.5831***
$\gamma_{X,4} =$		-19.4925	3.6927	19.9417	5.8660	47.8260**
$\gamma_{r,1} =$		-7.6428***	-1.6078	-6.7404**	11.3087	-3.4645
$\gamma_{r,2} =$		-1.5931***	-0.4197	-0.9843*	2.1322	0.9809
$\gamma_{r,3} =$		-0.7767**	-0.2701	-0.8070**	2.0192**	0.5485
$\gamma_{r,4} =$		-0.4804*	-0.1785	-0.6196**	1.1340	0.2653
$R^2 =$		0.4825	0.3156	0.4457	0.2410	0.1661
$\alpha_j =$	5	0.7883**	0.4499	1.0820	-0.6367	-1.8102
$\beta_X =$		-2.3098	3.1186	-2.5504	-0.1633	5.0145
$\beta_B =$		2.6507***	2.1293***	3.0461***	0.5068	1.5128**
$\gamma_{L,1} =$		2.6206***	1.5901*	4.2165***	-0.0040	0.6582
$\gamma_{L,2} =$		2.1190***	1.3930	3.4832*	-0.0238	0.2276
$\gamma_{L,3} =$		2.9570***	2.5857*	1.1668	1.9146*	2.8091*
$\gamma_{L,4} =$		2.7053***	2.3298***	2.7039***	0.7547	1.7731**
$\gamma_{L,5} =$		2.9407***	2.6358***	2.6698***	0.3870	2.5855***
$\gamma_{C,1} =$		-1.5876***	-0.8127	-1.9742***	-0.0043	-1.4124
$\gamma_{C,2} =$		-1.7390***	-0.5875	-0.7942	0.5689	-1.4008
$\gamma_{C,3} =$		-0.6032	-1.2145	-1.0017	1.1196	-1.8670*
$\gamma_{C,4} =$		0.6860**	0.9688	-0.4769	-0.4410	1.5885**
$\gamma_{C,5} =$		-3.0955***	-1.7964***	-3.0744***	-0.7432	-1.4003*
$\gamma_{X,1} =$		-26.9564	-7.4463	-36.3593	65.5125	119.2807
$\gamma_{X,2} =$		-36.4751*	1.7022	-18.4348	54.4109	95.5370
$\gamma_{X,3} =$		-24.1351*	25.5338	-13.8158	47.5271	46.8111
$\gamma_{X,4} =$		-17.1284	7.6565	-0.6875	57.7073*	3.8867
$\gamma_{r,1} =$		0.7951	-3.6307	-1.9456	-2.0588	-1.2825
$\gamma_{r,2} =$		-0.3080	-0.4332	0.1549	0.0881	-0.6908
$\gamma_{r,3} =$		-0.2101	-0.4835	-0.4811	0.2239	-1.6049***
$\gamma_{r,4} =$		-0.0174	-0.2549	0.0912	-0.2481	0.0126
$R^2 =$		0.6869	0.6050	0.5112	0.6330	0.6335

Table 6B: Business-Cycle Currency-CAPM (Monthly)

Peak	Volatility	Volume				
Parameters		1 Low	2	3	4	5 High
$\alpha_j =$	1 Low	-0.4304	-0.1157	-0.0291	-0.1751	-0.0000
$\beta_X =$		4.2103	3.7477	-2.2706	-0.2086	-0.0000
$\beta_B =$		2.6395***	1.6379***	0.9746***	2.0797***	-0.0000
$\gamma_{L,1} =$		2.6361***	1.6064***	0.6671**	1.8730***	-0.0000**
$\gamma_{L,2} =$		2.5831***	1.4573**	0.9349***	1.9972***	-0.0000
$\gamma_{L,3} =$		1.7559***	1.7691***	1.3103***	1.5519***	-0.0000
$\gamma_{L,4} =$		2.5783***	1.5381**	0.9519**	2.0255***	0.0000
$\gamma_{L,5} =$		2.4377***	1.5748***	0.9904***	2.1105***	-0.0000
$\gamma_{C,1} =$		-0.9773***	-1.0123***	-0.7496***	-0.9681***	-0.0000
$\gamma_{C,2} =$		-0.6527*	-0.3004	-0.5488*	-0.7606**	-0.0000
$\gamma_{C,3} =$		-1.5018	-0.4632	-1.6721**	0.4857	0.0000
$\gamma_{C,4} =$		-0.3849	1.3118	1.3453*	1.1129**	0.0000
$\gamma_{C,5} =$		0.2837	0.1837	0.6782**	0.5738	4.0650***
$\gamma_{X,1} =$		13.0058	27.6314	-15.0776	15.8760	-0.0000
$\gamma_{X,2} =$		11.5537	22.6125	-6.0626	14.0929	0.0000
$\gamma_{X,3} =$		0.7376	15.7714	-0.8059	9.1736	0.0000
$\gamma_{X,4} =$		1.6633	3.1176	-4.1247	1.3292	-0.0000
$\gamma_{r,1} =$		2.6647	-3.3874	0.4759	-0.0715	-0.0000
$\gamma_{r,2} =$		0.5892	-0.4368	0.2629	-0.2390	0.0000

$\gamma_{r,3} =$		0.1456	-0.4594	-0.1681	-0.4417*	0.0000
$\gamma_{r,4} =$		0.5712**	-0.1263	0.1015	0.0524	-0.0000***
$R^2 =$		0.1143	-0.0332	0.1652	0.2415	0.6159
$\alpha_j =$	2	0.1778	-0.0101	-0.1514	-0.5663	-0.5793
$\beta_X =$		3.4202	-2.4659	-5.0394	-0.1510	-1.8115
$\beta_B =$		1.3498***	1.7682***	0.8907**	1.1069***	1.0060*
$\gamma_{L,1} =$		1.1376**	1.4804**	0.3853	1.0528**	0.4694
$\gamma_{L,2} =$		1.2806**	1.7805***	0.7680	0.7510	1.1178
$\gamma_{L,3} =$		2.3357***	2.6686***	1.7044***	1.4195**	1.3856*
$\gamma_{L,4} =$		1.0125	2.1704***	0.9863	1.7239**	1.3997**
$\gamma_{L,5} =$		1.2498***	1.7769***	0.9529*	1.2089***	1.0878**
$\gamma_{C,1} =$		-1.0779***	-1.0961***	-0.8380**	-0.8428**	-0.9847**
$\gamma_{C,2} =$		-0.7746	-1.0454**	-0.9972**	-0.6517	-0.7802
$\gamma_{C,3} =$		-1.1208	0.3427	-1.4378	-1.5744	-1.3716
$\gamma_{C,4} =$		0.4488	0.7016	0.6437	0.8069	0.0635
$\gamma_{C,5} =$		1.1095*	0.7857*	1.8082***	1.2340***	0.8155
$\gamma_{X,1} =$		47.2852	6.4439	-10.0021	32.8261	-11.4058
$\gamma_{X,2} =$		37.3090	13.5597	-3.4089	20.0006	-14.8997
$\gamma_{X,3} =$		15.3140	6.8403	-0.5947	13.1005	-1.5272
$\gamma_{X,4} =$		4.8938	-5.2953	1.9161	2.5512	-11.5897
$\gamma_{r,1} =$		-6.2083**	0.0889	2.7196	2.0521	6.5467**
$\gamma_{r,2} =$		-1.1484*	0.0589	0.3570	0.0119	1.0082*
$\gamma_{r,3} =$		-1.1775***	-0.5013	-0.3338	-0.3606	0.2859
$\gamma_{r,4} =$		-0.4837	-0.1169	0.0735	0.2269	0.5498*
$R^2 =$		0.2129	0.5380	0.3217	0.3348	0.2796
$\alpha_j =$	3	-0.2682	-0.5226	-0.0628	-0.2283	0.4677
$\beta_X =$		-4.5056*	3.2254	5.5349*	0.4731	-3.3925
$\beta_B =$		1.3818***	2.5443***	1.2328***	1.0650*	1.2127***
$\gamma_{L,1} =$		1.0624**	2.1178***	1.3147***	0.9252	1.6424***
$\gamma_{L,2} =$		1.3235***	2.3510***	1.2326*	1.4876	1.5085***
$\gamma_{L,3} =$		2.1037***	1.9970***	1.1032	-0.2692	3.1654***
$\gamma_{L,4} =$		1.0381	3.4008***	0.8423	1.3511	0.4363
$\gamma_{L,5} =$		1.4355***	2.7698***	0.9746**	1.0970*	1.0800**
$\gamma_{C,1} =$		-1.0888***	-0.9481***	-1.0132***	-0.6714	-0.6427
$\gamma_{C,2} =$		-1.6006***	-1.0686**	-0.4940	-0.5066	-1.2740*
$\gamma_{C,3} =$		-1.7464	-0.7883	-0.5315	0.0607	-1.4448
$\gamma_{C,4} =$		-1.0178	-2.1125*	0.0797	-0.3329	0.2892
$\gamma_{C,5} =$		1.9169***	-0.4648	3.3224***	2.5347***	2.1824***
$\gamma_{X,1} =$		1.9877	60.2943	29.6103	2.3694	-64.2787
$\gamma_{X,2} =$		-2.3513	35.2729	24.3883	4.3895	-35.5144
$\gamma_{X,3} =$		-0.6300	26.0461	14.8877	4.5773	-17.2625
$\gamma_{X,4} =$		11.6335	18.5103	-1.7992	6.8750	3.4026
$\gamma_{r,1} =$		3.2453	0.2581	-4.6384	0.5160	3.5808
$\gamma_{r,2} =$		0.6195	-0.1365	-0.2999	0.2401	0.6412
$\gamma_{r,3} =$		-0.3862	-0.2961	-0.4617	0.0874	0.3609
$\gamma_{r,4} =$		0.2367	0.1820	0.1352	0.1879	0.2318
$R^2 =$		0.4608	0.3967	0.5928	0.4108	0.3555
$\alpha_j =$	4	-1.2082**	-0.5797	-0.3856	1.6136	2.0722*
$\beta_X =$		-5.1898	5.6204	-4.4306	0.0609	9.2867
$\beta_B =$		0.5527	2.8406***	1.3486**	2.7294***	2.3049***
$\gamma_{L,1} =$		-0.1852	2.5316***	0.2916	2.3359***	1.6398*

$\gamma_{L2} =$		0.3499	2.6636***	0.9939	2.8559**	2.5198**
$\gamma_{L3} =$		1.0250*	1.0967	0.1730	2.7529	2.3749
$\gamma_{L4} =$		1.9674*	3.6333***	1.1959	2.8442***	2.1141
$\gamma_{L5} =$		0.9236**	3.2692***	1.4099*	3.2206***	1.9949***
$\gamma_{C1} =$		-0.3407	-1.3404***	-0.7318	-1.4613**	-1.3527**
$\gamma_{C2} =$		-0.1300	-0.8352	-0.3653	-1.2854	-1.1438
$\gamma_{C3} =$		-0.0324	-0.8354	-1.2042	0.4115	-1.3465
$\gamma_{C4} =$		-1.4602**	-1.4655*	0.2181	-0.7956	0.4123
$\gamma_{C5} =$		1.2482***	0.0508	0.0301	0.4493	0.1679
$\gamma_{X1} =$		8.6750	25.9202	-39.4635	86.5797	-86.0023
$\gamma_{X2} =$		12.3294	16.5262	-33.4522	46.8895	-66.4924
$\gamma_{X3} =$		9.5094	14.4689	-41.2554	2.4055	-78.9108**
$\gamma_{X4} =$		20.0505	0.2323	-29.3601	3.4371	-49.2527*
$\gamma_{r1} =$		11.2835***	3.1781	11.5753***	-20.0287**	2.6411
$\gamma_{r2} =$		1.8274***	0.6056	1.4383*	-3.9299**	-1.5699
$\gamma_{r3} =$		0.6883*	0.0077	0.9382*	-3.3673***	-0.9919
$\gamma_{r4} =$		0.7368***	0.3322	1.0077***	-1.9326**	-0.6162
$R^2 =$		0.4825	0.3156	0.4457	0.2410	0.1661
$\alpha_j =$	5	-0.0590	-0.6375	-0.3146	1.1518	1.1290
$\beta_X =$		-0.0695	-2.9349	-0.3196	1.2480	-0.4636
$\beta_B =$		0.0450	0.0681	0.6693	2.6226***	2.2626***
$\gamma_{L1} =$		0.0415	0.0875	-0.4568	-0.0053	2.9353***
$\gamma_{L2} =$		-0.0237	-0.0294	1.0268	2.3593*	2.4403**
$\gamma_{L3} =$		-0.0119	0.1719	1.3672	1.3676	3.0732***
$\gamma_{L4} =$		-0.0222	0.1467	0.9238	2.2564***	2.0364***
$\gamma_{L5} =$		-0.3702***	-0.0366	1.0675*	2.8795***	1.0327*
$\gamma_{C1} =$		-0.0356	-0.2971	-0.5580	-0.0056	-1.7039**
$\gamma_{C2} =$		-0.0327	-0.1725	-0.9196	-2.0905**	-2.8837*
$\gamma_{C3} =$		-0.1856*	0.2298	-0.1416	-1.5235	-1.9537**
$\gamma_{C4} =$		-0.0492	0.2197	0.3897	0.7937	-1.8822***
$\gamma_{C5} =$		4.3961***	3.1642***	3.2176***	1.5017*	1.9042***
$\gamma_{X1} =$		0.5616	14.8272	-3.5285	-91.8644	-85.7914
$\gamma_{X2} =$		1.0904	-1.9002	-13.3959	-72.1412	-68.9915
$\gamma_{X3} =$		0.7977	-24.0623	-5.4980	-56.8682	-42.0066
$\gamma_{X4} =$		-0.6352	0.0540	-12.4925	-78.0258**	-25.7847
$\gamma_{r1} =$		0.3103	5.9844**	2.5136	3.0537	1.0061
$\gamma_{r2} =$		0.1119*	0.7379	0.0433	0.3044	0.2029
$\gamma_{r3} =$		0.0443	0.4186	0.1113	-0.3062	0.8974**
$\gamma_{r4} =$		0.0556*	0.4083	0.0344	0.3423	0.0659
$R^2 =$		0.6869	0.6050	0.5112	0.6330	0.6335

Table 7 shows the out-of-the-sample daily, weekly, and monthly results of C-CAPM, FX-Factor, RR-Factor, and GLM Models, with long rolling-testing periods. Table 7A is for the value-weighted and Table 7B for the volume-weighted portfolios.

TABLE 7A: Out-of-Sample Prediction (Value-Weighted Portfolios)			
	Daily (675,50,30)	Weekly (104,12,12)	Monthly (36,12,12)
Number of Individual Portfolios	5x5	5x5	5x5
Number of Records	8333	3583	533
C-CAPM Success Rate	63.30%	61.07%	55.72%
FX-Factor Success Rate	64.41%	61.26%	54.22%
RR-Factor Success Rate	64.48%	60.37%	57.04%
Trough: GLM Success Rate	70.54%	54.31%	62.29%
Expansion: GLM Success Rate	59.04%	58.50%	58.16%
Contraction: GLM Success Rate	64.19%	54.17%	56.85%
Peak: GLM Success Rate	52.03%	53.45%	62.85%
C-CAPM Average Monthly Return with Short Sale	2.60%	4.28%	14.21%
FX-Factor Average Monthly Return with Short Sale	2.68%	4.23%	13.72%
RR-Factor Average Monthly Return with Short Sale	2.68%	4.20%	12.99%
Trough: GLM Average Monthly Return with Short Sale	3.64%	0.81%	14.68%
Expansion: GLM Average Monthly Return with Short Sale	1.87%	4.81%	15.26%
Contraction: GLM Average Monthly Return with Short Sale	3.11%	2.67%	13.57%
Peak: GLM Average Monthly Return with Short Sale	1.01%	1.72%	16.71%
C-CAPM Average Monthly Return with No Short Sale	1.48%	2.36%	9.83%
FX-Factor Average Monthly Return with No Monthly Short Sale	1.52%	2.34%	9.59%
RR-Factor Average Monthly Return with No Monthly Short Sale	1.52%	2.32%	9.22%
Trough: GLM Average Monthly Return with No Short Sale	2.00%	0.63%	10.07%
Expansion: GLM Average Monthly Return with No Short Sale	1.11%	2.63%	10.36%
Contraction: GLM Average Monthly Return with No Short Sale	1.74%	1.56%	9.51%
Peak: GLM Average Monthly Return with No Short Sale	0.69%	1.08%	11.08%
Buy and Hold Average Monthly Return	0.36%	0.44%	5.46%

TABLE 7B: Out-of-Sample Prediction (Volume-Weighted Portfolios)			
	Daily (675,50,30)	Weekly (104,12,12)	Monthly (36,12,12)
Number of Individual Portfolios	5x5	5x5	5x5
Number of Records	8168	3470	531
C-CAPM Success Rate	62.38%	59.74%	53.86%
FX-Factor Success Rate	62.56%	59.74%	51.79%
RR-Factor Success Rate	64.08%	59.39%	53.30%
Trough: GLM Success Rate	70.45%	55.76%	65.91%
Expansion: GLM Success Rate	59.02%	57.49%	61.02%
Contraction: GLM Success Rate	64.12%	54.76%	57.63%
Peak: GLM Success Rate	53.07%	53.31%	66.48%
C-CAPM Average Monthly Return with Short Sale	2.71%	4.66%	14.81%
FX-Factor Average Monthly Return with Short Sale	2.67%	4.47%	13.24%
RR-Factor Average Monthly Return with Short Sale	2.78%	4.54%	14.13%
Trough: GLM Average Monthly Return with Short Sale	3.67%	1.34%	17.52%
Expansion: GLM Average Monthly Return with Short Sale	1.98%	4.88%	17.80%
Contraction: GLM Average Monthly Return with Short Sale	3.23%	3.02%	13.84%
Peak: GLM Average Monthly Return with Short Sale	1.09%	1.91%	18.93%
C-CAPM Average Monthly Return with No Short Sale	1.56%	2.52%	9.69%
FX-Factor Average Monthly Return with No Monthly Short Sale	1.54%	2.42%	8.90%
RR-Factor Average Monthly Return with No Monthly Short Sale	1.59%	2.46%	9.35%
Trough: GLM Average Monthly Return with No Short Sale	2.04%	0.86%	11.04%
Expansion: GLM Average Monthly Return with No Short Sale	1.19%	2.63%	11.18%
Contraction: GLM Average Monthly Return with No Short Sale	1.82%	1.70%	9.20%
Peak: GLM Average Monthly Return with No Short Sale	0.75%	1.15%	11.75%
Buy and Hold Average Monthly Return	0.40%	0.38%	4.56%

Table 8 shows the out-of-the-sample daily, weekly, and monthly results of C-CAPM, FX-Factor, RR-Factor, and GLM Models, with short rolling-testing periods. Table 8A is for the value-weighted and Table 8B for the volume-weighted portfolios.

TABLE 8A: Out-of-Sample Prediction – Robustness Check (Value-Weighted Portfolios)			
	Daily (500,50,30)	Weekly (52,12,12)	Monthly (24,12,12)
Number of Individual Portfolios	5x5	5x5	5x5
Number of Records	12508	4537	796
C-CAPM Success Rate	64.47%	61.60%	58.17%
FX-Factor Success Rate	65.32%	60.58%	58.29%
RR-Factor Success Rate	65.05%	60.99%	56.66%
Trough: GLM Success Rate	70.52%	60.50%	62.69%
Expansion: GLM Success Rate	60.54%	58.76%	59.05%
Contraction: GLM Success Rate	63.88%	57.20%	61.43%
Peak: GLM Success Rate	53.40%	58.54%	61.18%
C-CAPM Average Monthly Return with Short Sale	2.57%	5.58%	9.74%
FX-Factor Average Monthly Return with Short Sale	2.59%	5.61%	9.90%
RR-Factor Average Monthly Return with Short Sale	2.57%	5.52%	9.31%
Trough: GLM Average Monthly Return with Short Sale	3.34%	2.89%	10.30%
Expansion: GLM Average Monthly Return with Short Sale	2.05%	6.31%	10.64%
Contraction: GLM Average Monthly Return with Short Sale	2.96%	5.02%	13.47%
Peak: GLM Average Monthly Return with Short Sale	1.08%	4.70%	10.22%
C-CAPM Average Monthly Return with No Short Sale	1.45%	3.06%	6.02%
FX-Factor Average Monthly Return with No Monthly Short Sale	1.46%	3.08%	6.10%
RR-Factor Average Monthly Return with No Monthly Short Sale	1.46%	3.03%	5.80%
Trough: GLM Average Monthly Return with No Short Sale	1.84%	1.72%	6.30%
Expansion: GLM Average Monthly Return with No Short Sale	1.20%	3.43%	6.47%
Contraction: GLM Average Monthly Return with No Short Sale	1.65%	2.79%	7.88%
Peak: GLM Average Monthly Return with No Short Sale	0.71%	2.63%	6.26%
Buy and Hold Average Monthly Return	0.34%	0.55%	2.30%

TABLE 8B: Out-of-Sample Prediction – Robustness Check (Volume-Weighted Portfolios)			
	Daily (500,50,30)	Weekly (52,12,12)	Monthly (24,12,12)
Number of Individual Portfolios	5x5	5x5	5x5
Number of Records	12187	4388	779
C-CAPM Success Rate	63.74%	60.96%	57.89%
FX-Factor Success Rate	64.94%	60.78%	56.10%
RR-Factor Success Rate	64.98%	59.46%	55.20%
Trough: GLM Success Rate	70.35%	59.94%	67.01%
Expansion: GLM Success Rate	60.69%	59.41%	59.69%
Contraction: GLM Success Rate	63.90%	57.84%	63.29%
Peak: GLM Success Rate	53.45%	57.41%	62.26%
C-CAPM Average Monthly Return with Short Sale	2.64%	6.14%	11.24%
FX-Factor Average Monthly Return with Short Sale	2.69%	5.63%	10.49%
RR-Factor Average Monthly Return with Short Sale	2.68%	5.64%	9.72%
Trough: GLM Average Monthly Return with Short Sale	3.39%	3.08%	13.65%
Expansion: GLM Average Monthly Return with Short Sale	2.20%	7.04%	11.42%
Contraction: GLM Average Monthly Return with Short Sale	3.04%	5.24%	14.00%
Peak: GLM Average Monthly Return with Short Sale	1.18%	4.78%	10.77%
C-CAPM Average Monthly Return with No Short Sale	1.50%	3.35%	6.20%
FX-Factor Average Monthly Return with No Monthly Short Sale	1.53%	3.09%	5.82%
RR-Factor Average Monthly Return with No Monthly Short Sale	1.52%	3.10%	5.44%
Trough: GLM Average Monthly Return with No Short Sale	1.88%	1.82%	7.41%
Expansion: GLM Average Monthly Return with No Short Sale	1.29%	3.80%	6.29%
Contraction: GLM Average Monthly Return with No Short Sale	1.71%	2.90%	7.58%
Peak: GLM Average Monthly Return with No Short Sale	0.78%	2.67%	5.97%
Buy and Hold Average Monthly Return	0.37%	0.56%	1.16%

Figure 1 shows the regression plot and time series risk premium between Bitcoin and the crypto-index.

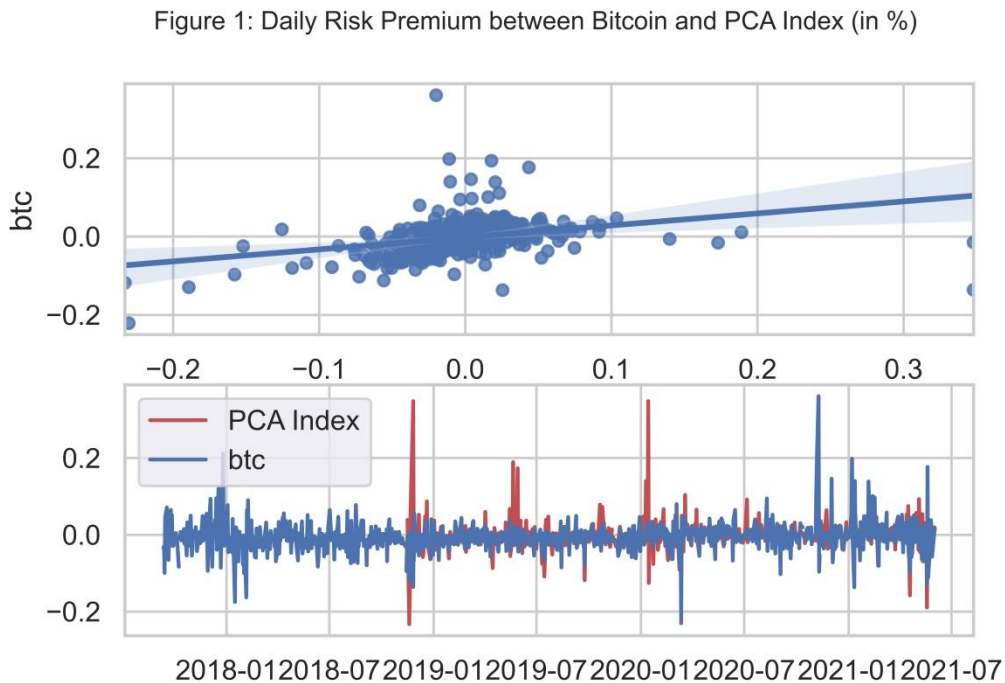


Figure 2 shows the regression plot and time series risk premium between Tether and the USD index.

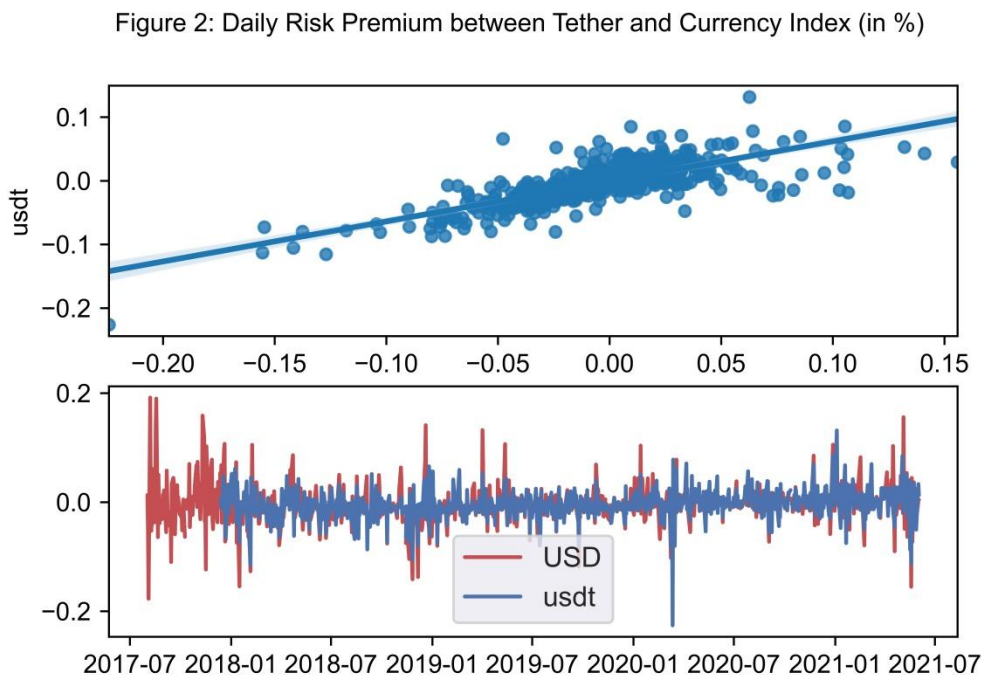


Figure 3 shows the daily, weekly, and monthly plots of the risk premium frequency distributions of the [2,2] portfolio with their associated normal distributions.

Figure 3: Daily, Weekly, Monthly [2,2] Risk Premium Plots

