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THE EFFECT OF CONGRESSIONAL SESSIONS ON THE STOCK MARKET IN EMERGING DEMOCRACY: THE CASE OF TAIWAN

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Abstract

This paper uses data on Taiwan stock market over a long sample period to examine whether there exist the effect of congressional session. These results provide evidences that the congressional effect is negative effect on stock returns but volatilities are not significant. However, the congressional effect on stock market returns following financial reform significantly dropped, and significantly increased for the volatilities in the same circumstances. The empirical result implies that the investors rationally measure stock market efficiently reflect congressional activity and adjust their expectations to alter portfolio allocation accordingly.

Keywords: Political uncertainty, Congressional effect, Volatility asymmetry, EGARCH-M
JEL Classification: D89

I. *Introduction*

Politics significantly influences financial markets. Stock markets generally respond to new information regarding political decisions that may affect domestic and foreign policy. As such, market efficiency requires that stock markets absorb news and political events into stock prices in anticipation of outcomes of political uncertainty. Hence positive stock returns are expected following the resolution of political uncertainty. In contrast, if the outcome of the political uncertainty does not allow investors to immediately measure the negative impact on the stock

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market, then the political outcome constitutes an uncertainty inducing surprise.

While political uncertainty takes different shapes, this paper focuses on one particular kind of political uncertainty associated with congressional sessions (Michelson, 1993; Lamb, Pace and Kennedy, 1997). In mature democracies, legislative institutions are always important in curbing the powers of the president or premier and holding national stability (such as Congress and Parliament). Most of the uncertainty regarding major bills, budgets and other important national affairs are determined through decisions by vote or political negotiation during congress sessions. Therefore, the information discharged from congressional sessions creates the ambiguous political situation to prevent investors from predicting the future of the country and revising their expectations. In contrast, the recess of congress brings a temporary end to political struggle and so should induce positive stock market return.

Taiwan Congress, the Legislative Yuan, is the top legislative institution and played an important role on the path to Taiwan's democratization. The last of the members elected in 1948 retired on December 31, 1991. Moreover, the 130 new members elected in 1989 wielded legislative power on behalf of the people. These developments represented an important step in the democratic reform of Taiwan. In December 1992, based on the amendment to the Constitution, 161 members of the Second Legislative Yuan were elected. In December 1995, 164 members of the Third Legislative Yuan were elected. Taiwanese democracy thus finally became firmly established.

Democratically elected legislative assemblies are empowered to decide by vote matters such as budgetary bills, auditing reports and other important affairs of state. Moreover such assembles can curb the powers of the president and premier. Discussing and deciding upon budgetary and major bills are the best way for the Legislative Yuan to supervise government administration. However, not many academic researches have explored the stock market behavior during the lasting political uncertainty created by congressional disputes.

Specifically, the purpose of this paper is to investigate the response of stock market to political uncertainty during congressional sessions in Taiwan. Employing univariate asymmetric GARCH model, we utilize stock return volatility as measures of the impact of political uncertainty during congressional period to explore the dynamic relationship between financial market reaction and political behavior in the Legislative Yuan. Second, we discriminated the different type of congressional effect further (for example, the government bills, statutory bills introduced by legislators and emergency bills, see Appendix 1), and illustrated what type of congressional effect can improve investor's substantive understanding of certain political phenomenon in the Legislative Yuan. This paper is organized as follows. Section 2 discusses the related literature. Section 3 then presents EGARCH models of financial returns. Next, section 4 describes the preliminary analysis and presents empirical evidence. Finally, section 5 discusses the results and presents conclusions.

II. *Literature Review*

Politics and that economy are inextricably linked; that is, they have significant influence on each other, and cannot be separated. The economy has its own cycles in which market volatility can generate economic depression and uncertainty. Hence, whether political factors affect the economy has been an important area of analysis (Nordhaus, 1975; Soh, 1986; Milas,

2000). Other studies have found that the impact of different political behavior significantly affect economic variables (Bratsiotis, 2000; Cover and VanHoose, 2000).

Furthermore, recent researches have examined market efficiency by examining stock market responses to uncertain political events. Most empirical investigations have focused on tracking financial market movements in relation to elections (Gemmill, 1992; Gwilym and Buckle, 1994). Major studies supported the presidential election cycles, in which US stock markets make larger gains in the third and fourth year of a presidential term, while average returns in second year were found to be negative (Huang, 1985; Foerster, 1994; Stoken, 1994; Foerster and Schmitz, 1997).

Other studies have focused on the stock market preference. Academic research on such subject reported that small stock perform better under Democrats relative to Republicans. (Reilly and Luksetich, 1980; Santa-Clara and Valkanov, 2003). Further empirical studies examined the impact of various types of political information on stock markets (Bachman, 1992; Chan and Wei, 1996; Willard, Guinnane and Rosen, 1996; Bittlingmayer, 1998; Pantzalis, Stangeland and Turtle, 2000; Kim and Mei, 2001; Perotti and Oijen, 2001; Hassan, Maroney, El-Sady and Telfah, 2003).

Various political events significantly influence stock market behavior, however, only a few academic researches have explored the stock market behavior responses to congressional calendar (Michelson, 1993; Lamb *et al*., 1997). Nevertheless, they merely mention about stock return, and ignore stock volatility that reflected the unexpected shocks of political impact. Therefore, the present study examines how stock returns and volatilities react to political uncertainty, such as political disputes in Congress.

III. *Methodology*

1. The Sample Data

Daily Taiwan Stock Exchange Value Weighted Index (TAIEX) collected from Taiwan Economic Journal (TEJ) used in this paper for the sample period from January 1, 1991 to May 31, 2005. Daily stock returns were calculated as the difference in the logarithms of daily stock prices multiplied by 100.

According to constitution, the Legislative Yuan shall hold two sessions each year. The first session shall run from February to the end of May, and the second session from September to the end of December. If necessary, the Legislative Yuan may hold an extra session either at the request of the President or upon the request of more than one-fourth of the members. Dates when the Legislative Yuan was in session and recess were obtained from the official records (http://www.ly.gov.tw/ly/en/01_introduce/01_introduce_01.jsp) that contained about 35 sessions and 34 recesses during the sample period.

2. Modeling Time-varying Volatility

Motivated by the existing empirical literature about the market volatility, we assume here that second order moments fit to an EGARCH process, introduced by Nelson (1991). Unlike GARCH, the EGARCH model imposes no positive constraints on estimated parameters and

explicitly accounts for asymmetry in market return volatility, thereby avoiding possible misspecification in the volatility process. Accordingly, the dummies are embedded in the EGARCH model to detect the effect of congressional sessions as follows:

$$R_t = (1 + a_M D_M)\left(a_0 + \sum_{i=1}^{3} a_i D_i + \sum_{i=1}^{m} b_i R_{t-i} + \varepsilon_t \right) \tag{1}$$

$$\varepsilon_t \,|\, \Omega_{t-1} \sim \mathrm{T}(0, h_t) \tag{2}$$

$$ln\ h_t = (1 + \tau_M D_M)\left(\tau_0 + \sum_{i=1}^{3} \tau_i D_i + \alpha[\,|u_{t-1}| - E\,|u_{t-1}| + \theta u_{t-1}] + \beta\ ln\ h_{t-1} \right) \tag{3}$$

Where in equation (2), central t distribution allows stock returns have thicker tails, but is still symmetric (Harvey and Siddique, 1999, 2000; Ang and Chen, 2002). Therefore, we assume that TAIEX returns come from a non-central t distribution. Furthermore, in equation (3), EGARCH model stressed an asymmetric function for past innovation shocks. u_t *is the innovation standardized by dividing the random error by conditional variance,* $u_t = \varepsilon_t / \sqrt{h_t}$. *In other words,* $(|u_{t-1}| - E|u_{t-1}|)$ *signifies the impact magnitude, size effect, coming from the unexpected shock and* θu_{t-1} *indicates the sign effect in which the impact goes. Under such the condition, the positive coefficient,* θ, *denotes the nonexistence of asymmetric volatility (leverage effect), while* θ *is negative, which is also statistically significant, represents the presence of leverage effect. Moreover,* $\beta\ ln\ h_{t-1}$ *exhibits the linkage between current volatility and past volatility. When* β *is positive and statistically significant, it denotes that current volatility is a function of past volatility. Furthermore, to be as parsimonious as possible as suggested by Bollerslev et al. (1992), EGARCH (1,1) model is practiced to capture the asymmetric volatility.*

Furthermore, to allow for sufficient flexibility in the estimation, we allow the squared root of the conditional variance to enter the mean return equation, leading to an EGARCH-in-mean (EGARCH-M) to obtain parsimonious estimations and compare if the same results are obtained by EGARCH.

$$R_t = (1 + a_M D_M)\left(a_0 + \sum_{i=1}^{3} a_i D_i + \sum_{i=1}^{m} b_i R_{t-i} + c\sqrt{h_t} + \varepsilon_t \right) \tag{4}$$

D_1 denotes the dummy of congressional effect. Where D_1 equals 1 when it corresponds with the Legislative Yuan being in session and recess equals 0 when in recess. Moreover, D_2 represents the dummy of financial reform, after the first transfer of presidential power to an opposition party,[1] New President Chen Shui-bian ranked the financial reform as the highest priority and simultaneously the Amendment to the Banking Law, the Financial Holding Company Law, the Merger Law of Financial Institutions passed by the Legislative Yuan and substantially deregulated foreign investors to Taiwan stock market on June 27, 2001. This legislation is essential to improving financial market efficiency and to facilitate financial restructuring and liberalizing. Therefore, the sample period is further broken into a pre-financial reform period (D_2 equals 0) and a post-financial reform period (D_2 equals 1). *Finally,* D_3 *denotes the interactive effect of congressional effect and financial reform* ($D_3 = D_1 \times D_2$). *Where* D_3 *equals 1 when it corresponds with the Legislative Yuan being in session during*

[1] After a long and difficult and struggle, Democratic Progressive Party (DPP) ended over 50 years of Kuomintang rule in ROC (Republic of China) in Year 2000 direct presidential election, marking the first democratic transfer of power and constructing democratic watershed in Taiwan.

post-financial reform period.

Moreover, it is well known that the Asian Financial Crisis, sparked from Thailand in July 2, 1997, has brought severe turmoil to Asian stock markets. So the Asian Financial Crisis made a great impact on TAIEX may be investigated. Therefore, In order to estimate the impact of Asian Financial Crisis, we interacted the EGARCH conditional-volatility equation (1) and (3) with a multiplicative dummy, D_M, where D_M takes on a value of 0 prior to Asian Financial Crisis and a value of 1 after Asian Financial Crisis. The significant negative (positive) -parameter estimate for α_M and τ_M would indicate the decrease (increase) in the return and volatility associated with Asian Financial Crisis.

The lags of conditional mean returns of GARCH (1,1) model is chosen as two by the minimum value of the Akaike information criterion (Akaike, 1973) and the Schwarz Bayesian Criterion (Schwarz, 1978). The parameters of the mean and time-varying conditional variance-covariance are jointly determined using the maximum likelihood estimation method. Since the log likelihood function is a nonlinear function of the parameters, the algorithm proposed by Berndt, Hall, Hall and Hausman (1974), is used to obtain the maximum likelihood estimates of the parameters.

IV. *Data Descriptions and Empirical Results*

1. Data Descriptions

This section presents a preliminary analysis of the Taiwan stock market. The trend of Taiwan stock market and return are shown as Figs. 1 and 2, respectively. Table 1 lists the basic statistics of daily Taiwan stock returns during the sample period.

The mean of TAIEX returns is not significantly different from 0 at the 5% level. The skewness of TAIEX returns series is negatively skewed at 5% significance level and kurtosis exhibits excess kurtosis at the 5% level. The skewness and kurtosis measurements are highly significant revealing departures from normality. *Likewise, the Jarque-Bera statistic for TAIEX returns series reject significantly the assumption of the normality at the 5% level. Regarding the shape parameters of the distribution of TAIEX returns, this study concludes that the distribution is not clearly normal.*

The Ljung-Box statistics of the TAIEX returns give $Q(6)=45.7043$ and $Q(12)=52.0958$ that are statistically significant at the 1% level, revealing daily TAIEX returns have significant serial correlation. The unit root test result of the ADF and Phillips-Perron are exhibited in the last two columns. TAIEX returns series are stationary and the lag interval is 2, which is determined based on the minimum values of AIC and SBC. Since TAIEX return series have been differenced by first order, the non-stationarity does not impose a problem.

Table 2 listed the result of ARCH test to find out if there is any heteroscedasticity (Engle, 1982) and diagnostic test (SBT, NSBT, PSBT, and JT) to find out if the conditional heteroskedasticity has any asymmetric effect (Engle and Ng, 1993). Based on the above examination, the volatilities of TAIEX returns exhibit conditional heterscedastical and asymmetry.

FIG. 1. THE TREND GRAPH OF TAIEX

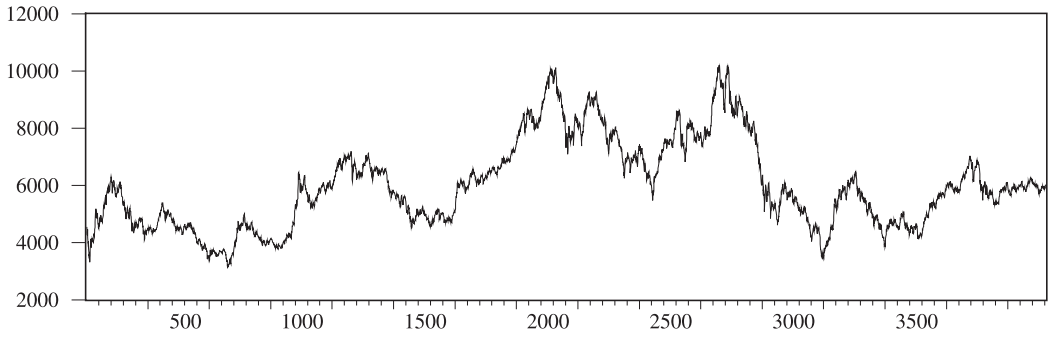

FIG. 2. THE TREND GRAPH OF TAIEX RETURNS

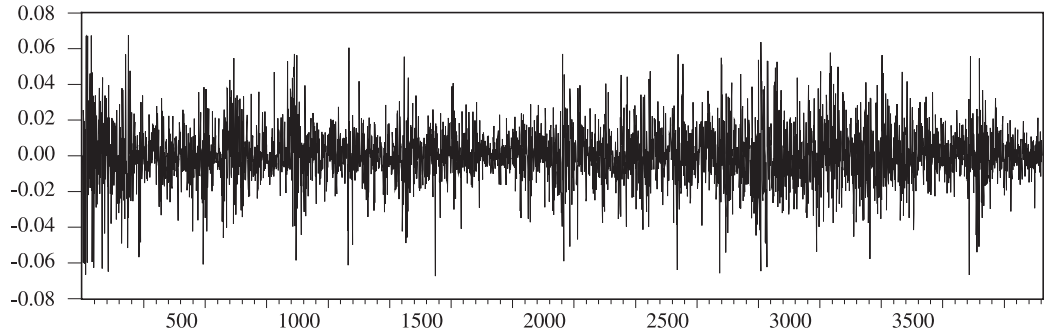

TABLE 1. BASIC STATISTICS FOR TAIWAN STOCK MARKET RETURNS

Mean	0.0072	Std. Dev.	1.6434
Maximum	6.5469	Minimum	−6.9757
Skewness	−0.1004**	Kurtosis	2.0427**
Q(6)	45.7043**	Q(12)	52.0958**
ADF test	−34.2227**	P-P test	−60.1618**
Jarque-Bera	685.3033**	Sample Size	3904

Notes: 1. ** (*) denotes statistical significance at 1% (5%) level.

2. Normal test is checked by the Jarque-Bera test, which is based on Jarque and Bera (1987) and are asymptotically chi-square distributed with 2 degree of freedom.

3. $Q^2(6)$ ($Q^2(12)$) is the Ljung-Box Q statistic for the squared returns lagged 6 trading days and its critical value at 5% significant level is 12.5916 and 21.0261.

4. The ADF (Augmented Dickey-Fuller) and the P-P (Phillips and Perron) tests are under the hypothesis (H_0: *unit root*) which its critical value is decided on the critical value table of MacKinnon (1991).

TABLE 2. THE ARCH EFFECT AND VOLATILITY ASYMMETRY TEST

Method	ARCH(3)[2]	SBT[3]	NSBT[3]	PSBT[3]	JT[4]
Value	1063.4426**	0.1522	−5.8383**	3.1454**	829.7633**
	(5.3375)	(0.1723)	(0.0860)	(0.0867)	(5.3798)

Notes: 1. ** (*) denotes statistical significance at 1%(5%) level.
2. ARCH denotes the Lagrange Multiplier test of Engle (1982) and the criterion is 7.82 at the 5% significant level.
3. SBT, NSBT and PSBT denote the sign bias test, negative size bias test and positive size bias test respectively and the criterion is 2.353 at the 5% significant level.
4. JT denotes the joint test and the criterion is 7.82 at the 5% significant level.

2. Empirical Result

This section presents an empirical result in Table 3 and Table 4, respectively. Firstly, in section 2.1, we employed EGARCH model to estimate the response of TAIEX stock returns and volatilities to political uncertainty during congressional sessions (the Legislative Yuan) in Table 3. Afterward, in section 2.2, we investigate how type of congressional effect can affect TAIEX stock returns and volatilities in Table 4.

Testing for Congressional Effect

For EGARCH (EGARCH-M) model diagnosing, the Ljung-Box statistics give $Q(6) = 6.5842$ (5.9725) and $Q(12) = 18.2208$ (14.7955) for the standardized residual process and $Q(6) = 3.2638$ (2.1767) and $Q(12) = 11.2452$ (8.9983) for the square process. Therefore, there is no correlation or conditional heteroscedasticity in the standardized residuals of the fitted model. The above EGARCH and EGARCH-M model are adequate.

Comparing EGARCH and EGARCH-M models, Table 3 reveals that the coefficient of congressional dummy, a_1, is significantly negative at 5% significant level on TAIEX returns. Such negative results are consistent with Lamb *et al* (1997). Facing the political uncertainty generated by the Legislative Yuan, such as policy disputes and violence, the investors become more conservative and this may reduce the equity returns. In contrast, the insignificant coefficient, τ_1, in the volatility equation of Table 3 indicates that the congressional dummy has no effect on TAIEX volatilities.

The dummy of finical reform, a_2 in Table 3, shows that TAIEX returns are significantly lowered at the 1% level. Having replaced the KMT as the ruling party in the 2000 presidential election, the DPP now faces criticism due to the recent economic recession. Despite the DPP government provided a series of finical reform policies to facilitate financial restructuring,[2] the DPP has failed to prevent a large outflow of Taiwan capital to Mainland China, resulting in the closure of many factories and rising unemployment. Therefore, TAIEX returns have dropped, causing huge losses for stockholders and deeply impacting economic performance. Additionally, the significant coefficient, τ_2, indicates that longstanding fitful finical and economic policies has increased TAIEX volatilities following finical reform in Taiwan.

Moreover, our findings suggest an interesting result that during the congressional session,

[2] Such as enacting the Merger Law to allow foreign and domestic financial institutions to merge, effectively reduce the Non-performing Loan (NPL) ratio, allow Financial Holding Companies to be established and deregulated Qualified Foreign Institutional Investors (QFII) foreign investors to Taiwan stock market.

TABLE 3. ESTIMATION RESULT OF THE AR-EGARCH MODEL

Coefficient / Variable	Estimation (EGARCH)		Estimation (EGARCH-mean)	
	Return (a_i)	Volatility (τ_i)	Return (a_i)	Volatility (τ_i)
Constant	0.0826**	0.0228**	0.0962**	0.0314**
(a_0, τ_0)	(0.0292)	(0.0080)	(0.0264)	(0.0054)
Congressional Effect	−0.0937*	0.0054	−0.0542*	0.0152
(a_1, τ_1)	(0.0386)	(0.0092)	(0.0269)	(0.0124)
Effect of Financial Reform	−0.0313*	0.0023**	−0.0625**	0.0144*
(a_2, τ_2)	(0.0143)	(0.0067)	(0.0304)	(0.0059)
Interactive Effect	−0.0111*	0.0058*	−0.0874*	0.0039*
(a_3, τ_3)	(0.0046)	(0.0026)	(0.0395)	(0.0019)
Effect of AFC	0.0146	0.0116	0.0417	0.0131
(a_M, τ_M)	(0.0136)	(0.0136)	(0.0337)	(0.0126)
β	0.9595**		0.9624**	
	(0.0089)		(0.0058)	
α	−0.5094**		−0.1944**	
	(0.1044)		(0.0542)	
θ	0.1225**		0.1489**	
	(0.0168)		(0.0112)	
b_1	0.0251		0.0304*	
	(0.0138)		(0.0133)	
b_2	0.0072*		0.0065*	
	(0.0025)		(0.0023)	
C			0.0021	
			(0.0183)	
Model Diagnosis				
$Q(6)$	6.5842		5.9725	
$Q(12)$	18.2208		14.7955	
$Q^2(6)$	3.2638		2.1767	
$Q^2(12)$	11.2452		8.9983	

Notes: 1. ** (*) denotse statistical significance at 1%(5%) level and Numbers in parentheses are asymptotic standard error.

2. Q(6) and $Q^2(6)$ are the Ljung -Box Q statistic for the returns and the squared returns lagged 6 trading days and its critical value at 5% significant level is 12.5916.

3. Q(12) and $Q^2(12)$ are the Ljung -Box Q statistic for the returns and the squared returns lagged 12 trading days and its critical value at 5% significant level is 21.0261.

TAIEX returns (a_3) after the finical reform significantly drop those prior to the finical reform, and TAIEX volatilities (τ_3) increased significantly. *In fact, the new political ruling party, DPP, lack governmental experience and minority in the Legislative Yuan, despite the DPP tried to undertake projects to facilitate financial restructuring. These reasons generated performance of finical reform is not as good as the expectation of investors result in conservative investing action that may reduce the TAIEX returns and increased TAIEX volatilities.*

Finally, the insignificant coefficient in Table 3, a_M and τ_M, indicate that the impact of the Asian Financial Crisis is insignificantly correlated with TAIEX returns and volatilities. This result is consistent with Nieh (2002). Over the years, Taiwan has developed as a highly diversified manufacturing center, producing hi-tech products for global markets. Moreover, the government has effectively developed the industrial structure, small and medium enterprises, many of which are hi-tech start-ups financially supported by the venture capital

industry and the robust IPO market (Liu and Huang, 2005). Therefore, solid economic fundamentals and flexible industrial structure has maintained, making the economy very robust and vibrant and Taiwan successfully surmounted the Asian Financial Crisis.

Testing for the Effect of Government Bills, Statutory Bills and Emergency Bills

According to constitution, different sessions of the Legislative Yuan are designed to achieve three primary objectives. The Legislative Yuan shall hold two sessions each year. The first session shall run from February to the end of May, and the second session from September to the end of December. If necessary, however, the session may be prolonged according to the law. In addition, the Legislative Yuan may hold an extra session either at the request of the State President or upon the request of more than one-fourth of the members. Furthermore, the primary objective of the first session of the Legislative Yuan that has the power to control the national budget before the Government began to implement the national budget. Moreover, in the second session, the Legislative Yuan must check by voting on issues such as statutory bills, auditing reports and other important national affairs. Finally, the Legislative Yuan may hold an extra session (i.e. emergency bills) at the request of either the president or more than a quarter of the legislature members. Therefore, based on the above statement, we further examine the existence of congressional effect from various types including the government bills (D_1^*), *the statutory bills* (D_2^*) *and emergency bills* (D_3^*).

Basically, the purpose of the government bills, the annual national budget, is focus on national emphasis including the economic development, promoting the high technology industry, the educational stuff and public security. In fact, facing the political uncertainty generated by the Legislative Yuan, such as policy disputes and violence, the Taiwanese have no real choice, so investors take apathy attitude toward political environment. Therefore, the insignificant co-efficient, a_1^* *and* τ_1^*, *in the return and volatilities equation of Table 4 indicates that the effect of the government bills of congressional dummy has no effect on TAIEX returns and volatilities respectively.*

The new government devised various policies to reform financial system, but passing annual national budget would be severely supervised and boycott from the opposition parties, even though budget possible may be cut. Regarding the constantly changing of congressional political situation, the investors seemed to lack confidence and would hold the conservative position, during the congressional sessions when examining the government bills after financial reform. Therefore, Table 4 showed that after the finical reform, TAIEX returns (a_5^*) *are significantly lower, and TAIEX volatilities* (τ_5^*) *increased significantly.*

In contrast, for the ruling party, due to neither becoming the majority in the Legislative Yuan nor playing the leading role in the rules of procedure, the opposition party intent to against deliberately, especially for the bills related to the ideology of political party. Furthermore, because not only without the unification of the party and political leader before delivering the bill to the Legislative Yuan, but also not to look for support from inter-party negotiation with the opposition party, the congressional inefficiency and disorder of congress become familiar phenomenon in Taiwan and usually let people perceive political apathy and alienation. Therefore, during the all sample period and post-financial reform period, the congressional effect from other important bills (a_2^*, τ_2^* and a_6^*, τ_6^*) and extra bills (a_3^*, τ_3^* and a_7^*, τ_7^*) were unable to significantly influence TAIEX stock returns and volatilities respectively.

TABLE 4. ESTIMATION RESULT FOR THREE PRIMARY OBJECTIVES

$$R_t = a_0^* + \sum_{i=1}^{7} a_i^* D_i^* + b_1 R_{t-1} + \varepsilon_t$$

$$\ln h_t = \tau_0^* + \sum_{i=1}^{7} \tau_i^* D_i^* + \alpha[\,|u_{t-1}| - E|u_{t-1}| + \theta u_{t-1}] + \beta \ln h_{t-1}$$

D_1^* denotes the dummy of *government bills*, D_2^* denotes the dummy of *statutory bills*, D_3^* denote the dummy of *emergency bills*, D_4^* represents the *financial reform* dummy and the interactive dummy $D_5^* = D_1^* \times D_4^*$, $D_6^* = D_2^* \times D_4^*$ and $D_7^* = D_3^* \times D_4^*$.

Coefficient / Variable	Estimation (EGARCH)		Estimation (EGARCH-M)	
	Return (a_i^*)	Volatility (τ_i^*)	Return (a_i^*)	Volatility (τ_i^*)
Constant	0.0185**	0.0825**	0.0125*	0.0959**
(a_0^*, τ_0^*)	(0.0059)	(0.0134)	(0.0039)	(0.0183)
Effect of government bills	−0.0158	−0.0019	−0.0134	−0.0069
(a_1^*, τ_1^*)	(0.0644)	(0.0111)	(0.0663)	(0.0142)
Effect of statutory bills	−0.0127	−0.0033	−0.0103	−0.0067
(a_2^*, τ_2^*)	(0.0661)	(0.0116)	(0.0686)	(0.0149)
Effect of emergency bills	−0.0419	−0.0397	−0.0135	−0.0458
(a_3^*, τ_3^*)	(0.3677)	(0.0924)	(0.3075)	(0.1108)
Effect of financial reform	−0.3488**	0.0449*	−0.3586**	0.0450*
(a_4^*, τ_4^*)	(0.1271)	(0.0200)	(0.1282)	(0.0194)
Interactive of D_1^* and D_4^*	−0.3667*	0.0042*	−0.3729*	0.0116*
(a_5^*, τ_5^*)	(0.1835)	(0.0018)	(0.1844)	(0.0052)
Interactive of D_2^* and D_4^*	−0.1956	−0.0244	−0.2003	−0.0214
(a_6^*, τ_6^*)	(0.1638)	(0.0255)	(0.1648)	(0.0324)
Interactive of D_3^* and D_4^*	−0.0655	−0.0872	−0.0371	−0.0335
(a_7^*, τ_7^*)	(0.7464)	(0.3092)	(0.6968)	(0.3646)
β	0.9490**		0.9412**	
	(0.0090)		(0.0115)	
α	−0.3969**		−0.4257**	
	(0.0752)		(0.0710)	
θ	0.1941*		0.2103*	
	(0.0196)		(0.0243)	
b_1	0.0362*		0.0408*	
	(0.0176)		(0.0185)	
c			0.0416**	
			(0.0136)	
Model Diagnosis				
Q(6)	3.3437		2.8009	
Q(12)	9.7164		9.5331	
$Q^2(6)$	11.8964		10.0829	
$Q^2(12)$	19.3817		17.4338	

Notes: 1. ** (*) denotse statistical significance at 1%(5%) level and Numbers in parentheses are asymptotic standard error.

2. Q(6) ($Q^2(6)$) is the Ljung -Box Q statistic for the returns (the squared returns) lagged 6 trading days and its critical value at 5% significant level is 12.5916.

3. Q(12) ($Q^2(12)$) is the Ljung -Box Q statistic for the returns (the squared returns) lagged 12 trading days and its critical value at 5% significant level is 21.0261.

V. *Conclusions*

This study empirically examines the behavior in stock market returns and volatilities during sessions of the Legislative Yuan using the EGARCH model from January 1991 to May 2005. Our investigation found that TAIEX returns are significantly negative 5% level, but volatilities are not statistically significant at the 5% level for the congressional effect. However, the effect of financial reform on TAIEX returns is significantly negative at the 1% level and is significantly increased at the 1% level of volatilities. Moreover, the congressional effect on stock return following financial reform significantly drops that before financial reform, and has significantly positive effects for the stock volatilities.

On the Whole, the findings above demonstrate that no congressional effect exists for TAIEX volatilities. Perhaps the stock market was inefficient and numb with this phenomenon that the political uncertainty generated while the Legislative Yuan is always debating any policies and issues. Nevertheless, after a series innovation of financial policy (Merger Law and Financial Holding Companies were established and the deregulation of foreign direct investors to equity market), we found that the existence of congressional effect on TAIEX volatilities. The empirical result implies that the investors rationally measure stock market efficiently reflect congressional activity and adjust their expectations to alter portfolio allocation accordingly. Therefore, the investors would hold a conservative position during the congressional sessions when examining the government bills especially. Future studies may further investigate how the financial markets reflect the behavioral changes of political ecology.

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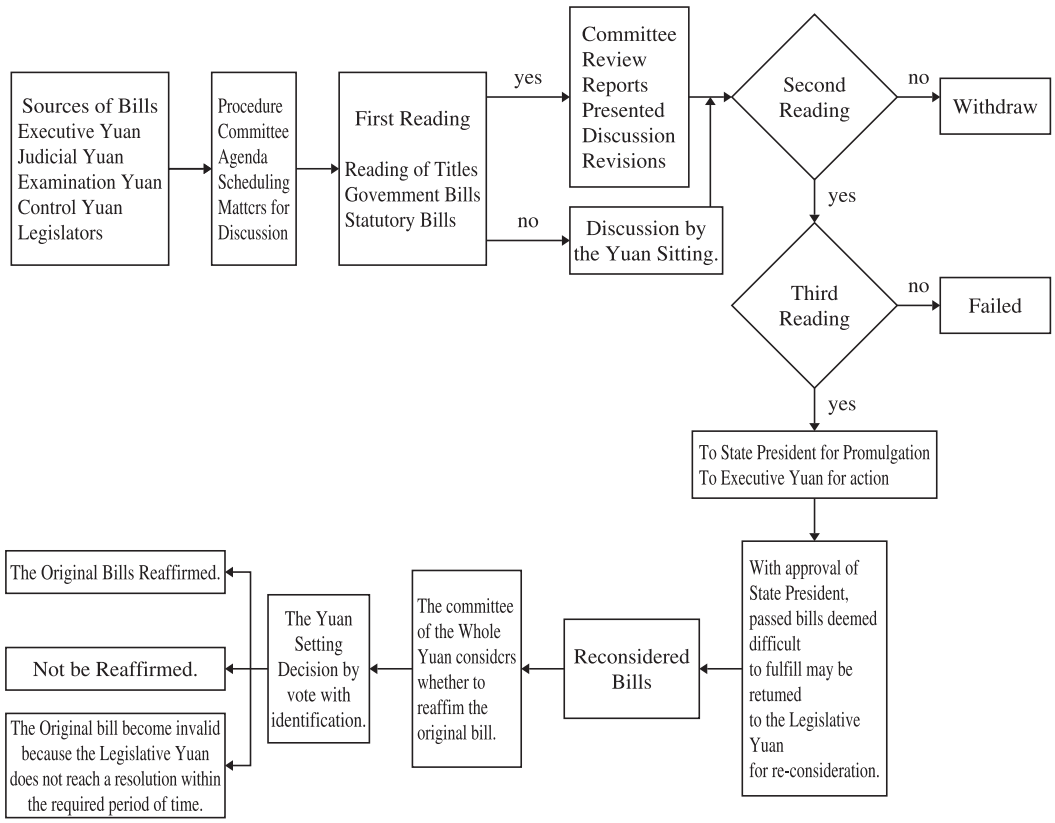
APPENDIX 1. THE LEGISLATIVE PROCEDURE



Source: **The Legislative Yuan, Taiwan, R.O.C.**