

Political Leadership Events and Stock Market Reactions: Evidence from the Greater China Region

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This study examines a series of events associated with the top-leadership power struggles within three zones of “the greater China” (Hong Kong, Taiwan, and Mainland) between 2005 and 2014. For each zone, a pair of events is selected, with one being “the winner’s case” and the other being “the loser’s case”. The results show significant differences in stock market reactions among those three ethnic Chinese regions; even after exchange rate fluctuations are adjusted for, such variations in performance across equity markets persist, suggesting that stock investors in those three markets might have different levels of aversion to local political risk.

INTRODUCTION

According to Bilson et al. (2002), among various asset pricing factors, political risk is not as frequently addressed by researchers as market (systematic) risk, interest rate risk, exchange rate risk or credit risk. Also relatively to developed countries, the emerging markets, in particular those with more rigid and less liberal in economic and/or political regimes, are presumably subject to greater uncertainties in both their political/economic policies and the resulting outcomes to the society. Therefore, political risk is typically considered relatively more influential to asset values in such types of emerging markets.

This empirical work focuses on the valuation impact of leadership-shifting political events on the financial markets in the “Greater China Region”, which generally includes the ethnic Chinese zones of Mainland China, Taiwan, and Hong Kong. (Macau is also within the Greater China Region, but she does not have an independent stock market or securities exchange, with her residents typically trading securities listed on Hong Kong Securities Exchange. As such, this market event study does not cover Macau.) These three zones have the same majority population of ethnic Chinese, and share largely similar language and traditional culture, yet they also differ from each other in their political and economic systems (to be further described in Section 3).

By the Western World standards, it is believed that within the “Greater China Region”, Taiwan is with the highest level of political freedom, Hong Kong is with the highest level of economic freedom and legal system fairness, while Mainland China is with the most rigid centralized controls on politics and economy but also the strongest economic growth. Due to the differences in economic and political systems across these three zones, it shall be interesting to examine whether their financial markets may react similarly or differently when some specific events of “good news for top leadership” and “bad news for top leadership” that occur within each region respectively. Furthermore, political events may affect not only an emerging market’s equity prices but also currency values. This study of equity behaviors thus adjusts

for the corresponding exchange rate fluctuations, in order to better measure and compare market performance across such three zones.

This is the first known research attempt to compare across the “Greater China Region” the financial market reactions to the events involving the changes in top political leadership. In particular, so far it remains rather sensitive to study the effects of Mainland China’s leadership shifts inside the ruling CCP, because of her special political regime.

LITERATURE REVIEW

Most of the existing studies regarding political leadership events and financial market reactions focus on governmental and/or congressional elections. Regarding developed countries, Gemmill (1992) observes significant anomalies in stock price during governmental and/or congressional elections in the UK. Dobson and Dufrene (1993) find that U.S. presidential elections can also cause a significant structural change in the degree of correlation between the S&P 500 and the London, Tokyo, and Toronto stock indexes, causing those overseas developed markets to co-integrate by more with the American market during US election periods. Santa-Clara and Valkanov (2003) document a historical “presidential premium” for US large-cap stock performance during the Democratic Party administration, and such a significant premium still exist after market volatility changes are corrected for, even though not as large as previously estimated (Cambell and Li, 2004). Additional studies on developed economies (Johnson et al., 1999; Beaulieu et al., 2005; Beyer et al., 2008), find various evidence of political events on not only the overall stock market, but also on specific industries.

Besides the stockholder partisan preference, the “political business cycle” (PBC) theorem suggests that, during the administration of a party, “elected incumbent government officials have incentives to pursue economic policies calculated to increase voter support in an election year” (Block and Vaaler, 2004, pp. 917). Such a PBC could considerably influence the corporate investment strategies (Julio and Yook, 2012) and asset market pricings. The empirical evidence of PBC valuation impact in industrialized countries is mixed (e.g., Lin and Wang, 2005; Dopke and Pierdzioch, 2006; Fuss and Bechtel, 2008; Colley, 2009; Bruner, 2009; Furió and Pardo, 2012). But for non-industrialized countries with democratic political systems, such a PBC symptom is far more common (Block and Vaaler, 2004). Furthermore, for developing countries who face regime unrest (related or unrelated to elections, if any), the side-effects of political events on economic growth and society development are more significant, resulting in a relatively more significant changes in stock market returns and/or volatilities (e.g., Bailey and Chung, 1995; Jensen and Schmith, 2005; Suleman, 2012; Benton, 2013; Chau et al., 2014; Lumiajiak et al., 2014). The not-yet-published working paper by Osa (2014), who examines around the world a total of 48 national stock market indices for their possible reactions to the corresponding leadership-change events, finds that such type of political transitions do not result in significant shifts in mean returns, but instead do lead to significant increases in volatility, with developing countries being even more so affected than developed countries. However, Osa (2014) does not cover the stock market indices and associated leadership-change events of Mainland China or Hong Kong.

With regard to the “Greater China Region” specifically, Ma et al. (2003) find that the Tiananmen-Square Bloodshed in June 1989 incident has a significant yet “discerning” share-price impact on various U.S. firms with joint ventures in Mainland China; yet the wealth effects on Chinese corporations back then remain unknown, because Chinese securities exchanges in both cities of Shanghai and Shenzhen had not opened for business until the early 1990s. The existing publications about Mainland China and her relationship with political risk are merely concerning either “how China’s politics may affect their partners/neighbors”, or “how their partners/neighbors’ politics may affect China’s economy (such as direct foreign investments to them or from them, or the quasi-political WTO entry negotiations)”. Although there are voluminous empirical works studying the wealth effects of Mainland China’s “reform and opening-up” new policy introductions on her own capital markets, it remains virtually “silent” in the research area concerning how a specific CCP leadership change may affect the macro-economic and/or

financial market performance. Top leaderships, so it seems, were not supposed to be evaluated there in financial market terms.

By contrast, for Taiwan and Hong Kong, there have long been a variety of studies regarding the wealth effects of political events, either external or internal ones, on their financial market performance. For instance, both Chan and Wei (1996) and Kim and Mei (2001) document that political news substantially increases stock volatility in Hong Kong. Chen et al. (2005), employing a risk-adjusted Multivariate Regression Model (MVRM), investigate the valuation impact of some major political events on Taiwan's equity market during the January 1996 – June 2002 period. Bin and He (2006), using the same methodology as Chen et al. (2005)'s, further their study into a updated series of cross-Taiwan-Strait political events and the associated wealth effects, not only covering additional events during the extended 1996-2005 periods, but also covering the stock market indices of Taiwan, Hong Kong and Mainland China. More recently, He et al. (2014) find that between years of 2006 and 2011, Taiwan's stock market index has suffered a significant average daily wealth loss from the cross-strait political tensions. Nevertheless, no published works have so far compared across these three "Greater China" sub-regions regarding the "leadership-shift" political risk exposure on the corresponding stock market of each own. This study attempts to fill in this gap.

THE "GREATER CHINA REGION" AND LEADERSHIP-RELATED EVENTS

Taiwan (Republic of China)

Since the 1990s Taiwan has been rapidly reforming her political system from the one-party regime to the "multi-party, free-election" model. Currently, she operates her politics with two largest parties competing against each other term after term. One is the more-than-100-years-old Chinese Nationalist Party ("Kuomintang" KMT in Chinese pronunciations, or so-called "the blues"); the other is the relatively younger Democratic Progressive Party (DPP, or so-called "the greens"). All elections are direct, without the intermediary of US-style Electoral College.

Taiwan's political reform is mixed with her pro-independence (from China) movement since mid-1990s, growingly making her a political and military target of Mainland China, who has been claiming the sovereignty of Taiwan's territory and planning for cross-strait reunification ("by peace if ever possible, by force if necessary"). Mainland China passes the anti-secession law in March 2005, making her firm stand on territorial integrity. As a gesture of "unyielding against the (Mainland) tyranny" and a tool of gaining support from the local people for government and/or parliament elections, Taiwan's bi-party political leaderships, explicitly (by the greens) or implicitly (by the blues), attempt to dwarf Mainland's "one China across the strait" policy, trying to politically alienate Taiwan from Mainland China, if not openly break away.

However, Taiwan and Mainland have been directly conducting trades, traffics (via sea and air) and post services across the strait since December 2008. Economically, not only Taiwan but also her Western allies (e.g., the US and Japan) have been outpaced or even outgrown by Mainland China. In the present, Taiwan's trade deficits are more than covered by her cross-strait trade surplus with Mainland, with more bilateral trade and investment agreements on their way. It has been known as a "politically cold, but economically hot" relationship across the Taiwan Strait. KMT "the blues" are generally considered, by the Taiwanese public, to be more business-oriented than their counterparty DPP "the greens".

Specifically for this study, two major events are selected to examine the political risk valuation impact that involves the actual and/or possible changes in top leadership.

Taiwan Leadership Event 1, "Good News": On March 22, 2008, Mr. Ma Ying-jeou, as the KMT Chairman, won the election for the 12th Presidency of Republic of China (Taiwan). He obtained 58.45% of the popular vote, defeating Mr. Hsieh Chang-ting, the DPP candidate. (Later in 2012, Ma easily defeated the DPP candidate Ms. Tsai Ing-wen, and won the re-election.)

Taiwan Leadership Event 2, "Bad News": On December 3, 2014, Mr. Ma Ying-jeou, resigned his KMT chairmanship in order to take the blame for KMT's bitter failure to keep her former powerbases in Taiwan. Ma was thus considered, at least by some of the Taiwanese people, as a "lame-duck president".

(Earlier on the November 29, 2014, the DPP, under the leadership of Ms. Tsai Ing-wen, won a substantial victory in the “nine-in-one” local executive elections, wrestling away many municipalities and counties from the KMT, whose holdings on those powerbases dropped from the former 14 to merely 6, out of a total of 22, with DPP-controlled municipalities and counties growing from the former 6 to 13.)

Hong Kong

The former British colony has been reunified with Mainland China since the July of 1997. It has a highly-regarded liberality in business environments, and also has a modern UK-style independent legal system. These competitive edges make it remain a world-famous global commercial and financial center. In accordance with the “Basic Law” and the set time table of system transformation (from the colonial-era regime of “British governor plus local elites”), its political reform is supervised by Mainland’s central authority, but has made step-by-step progress toward the final goal of self-governance, including public direct elections for Hong Kong government’s Chief Executive and all of her parliament members.

Economically, Hong Kong concentrates in the services sector, in particular finance, real estate, shipping and tourism. But she lacks local manufacturing, especially home-grown high technology industries. Hong Kong’s business was hit hard by the 2008 financial meltdown of the Western World, along with the start, since December 2008, of Mainland-Taiwan cross-strait direct communications in trade and traffic, which makes Hong Kong no longer an indispensable route between those two partners.

As Hong Kong is losing her economic edge over Mainland, some radical members in Hong Kong parliament, along with their supporters, become impatient and dissenting. From time to time, they have openly questioned the creditability of local government (including the top leader Chief Executive), challenged Mainland’s central authorities, and in more recent years, encouraged street protests in the names of democracy and freedom against the “Basic Law”, in attempt to “fast forward” the political reform time schedule into “100% direct elections now”. Such fluctuations in Hong Kong’s traditional “law and order” environments have somehow soured her political relationship with Mainland, yet the economic ties still remain strong as Hong Kong’s economy relies upon Mainland more than ever.

Hong Kong Leadership Event 1, “Bad News”: On March 10, 2005, Mr. Tung Chee-hwa, held a press conference to announce his resignation from the position of Chief Executive (CE, Hong Kong government’s top leader) before his second term was fully served. His explanation was “personal health problem of leg pain”, and two days later his resignation was formally approved by the Mainland central government in Beijing. (Tung was the first CE since the 1997 Hong Kong reunification with Mainland China. In January 2005, when Tung provided his CE annual administrative report to the Hong Kong parliament and the public, he admitted that there existed deficiencies in the decision-making process of the government. It was soon followed by the report from Hong Kong Audit Commission, which aroused further public suspicion and criticism of possible collusion between private businessmen and government officials, and then triggered Tung’s resignation.)

Hong Kong Leadership Event 2, “Good News”: On March 25, 2012, Mr. Leung Chun-ying was elected by the Hong Kong Election Committee as the 4th Chief Executive (CE) of Hong Kong. Before his being elected, Leung and the other two candidates went through live broadcast debates; and he was widely believed to be pro-Mainland. (The Hong Kong Election Committee was set up in accordance with the “Basic Law”, and was empowered to elect CEs until the general suffrage should become available. It consisted of 1,200 members across different segments of the Hong Kong community.)

Mainland

Since Mainland China takes her path of “reform (internally) and opening up (externally, particularly towards the Western World)” back in the end of 1970s, she remains one of the fastest-growing economic powers in the world, and now ranks in Gross Domestic Products only second to the US (in nominal terms alone). With her entry into World Trade Organizations in 2001, Mainland China’s economic policies have been increasingly open and market-orientated. So far her economy has grown into the second largest among all nations on Earth, only next to that of the US.

Politically, however, her political leaders appear to be much less willing to reform its existing political power regime in which “the Chinese Communist Party (CCP) must remain the central role as the sole leading (ruling) party.” With Chairman Mao Zedong passing away in 1976, the CCP has resumed her original system of “collective leadership and responsibility”, in particular at the highest level of central authorities, i.e., the Standing Committee of Political Bureau, or commonly addressed as “the CCP Central Committee”. That central committee consists of 5~9 members, including the party boss, which is titled as the General Secretary. Although since the 1990s, the CCP General Secretary also serves as the President of the Nation and the Chairman of the National Military Committee (i.e., the supreme commander of the military forces), therefore making him/her the top “party + state + military” leader, yet unlike in Mao’s era, he/she is not granted sole veto power within the central authorities. Top leaders are now also subject to upper limits in their service terms (typically no more than two 5-year terms).

Mainland’s high-ranking leaderships are not openly elected in an oratory campaign style; instead, the local leaders are virtually designated and supervised by the central authorities, and the national leaders are picked from those local administrators, based on his/her merits gathered through past work experience (although the defining standards of such merits could be up to change, depending on the CCP’s goals and needs). In other words, the process somehow resembles a “family-arranged engagement and marriage” except without forcing the unwilling one to accept the position, and the CCP “family heads” (central authorities) do the screening, close inspection and decision-making. The nationwide congress of the CCP representatives will later endorse such decisions, so will the National People’s Congress later (the CCP is the ruling party which holds the overwhelming majority of seats). The screening and inspection process could be time-consuming, but the trend pattern is still identifiable by outsiders under most circumstances, based on a party-member official’s promotion speed and path. To search for and then thoroughly inspect the finalist(s) for being the next-generation top national leader, it surely takes the CCP even longer time and efforts; yet the selection outcome is even more “predictable”, compared with those lower-ranking leaders, before the final announcement is made to the public (i.e., the final winner will hardly arouse astonishments).

The fast progress of “reform and opening up” inevitably causes economic imbalance and wealth inequality among the citizens. Illegal or “legal” economic/political corruptions mushroom within Mainland China, raising great concerns across the whole Mainland society, and even causing strong disagreements among some of the CCP’s high-ranking officials and their followers. Some “fundamental” communists claim that they are the true inheritors of Mao Zedong (the founder of the People’s Republic of China in the Mainland)’s and his political economic system. Some “reformative” communists claim that they are the true inheritors of Deng Xiaoping (the grand architect of “reform and opening up”)'s and his political economic system. As both Mao and Deng have gained high prestige and popularity among the Mainland people, CCP moderates affirm that it is politically incorrect to undermine one great leader’s authority with that of the other; instead, the party and the nation should integrate them into a whole.

Yet the political debates are carried on, in some cases hiding fierce power struggles and even irreconcilable conflicts. As a result, during the recent years, the CCP central authorities have launched a series of party discipline actions, and later with juridical punishments, that target various ranks of officials, who are found corrupt in unlawfully grabbing economic interests and abusing political powers. One of those who were found guilty, Bo Xilai, was a member of the CCP Political Bureau, an important municipality head, and a possible candidate (as anticipated by his supporters and planned by his collaborators) for taking over the new-generation top leadership; and another was Zhou Yongkang, whom is considered Bo’s senior (both in age and power) collaborator. For CCP politics nowadays, the winner of the top leadership may not be able to “take all”, yet there are no explicit losers either; however, if anyone is found challenging central authorities’ arrangement and jeopardizing party unity, this off-key loser, and normally his/her political faction too, will be relentlessly cast out and “lose all” for sure.

Mainland Leadership Event 1, “Bad News”: On March 15, 2012, the next day of the adjournments of National People’s Congress and Chinese People’s Political Consultative Conference, Mr. Bo Xilai was removed from his post, and detained for further investigations by the central authorities. (Bo was widely believed, or so he behaved publicly, to be a “fundamental Maoist” among the CCP high-ranking officials.

Nevertheless, his wife murdered a British citizen “due to conflict of economic interests” in November 2011 within Bo’s municipality; and after Bo’s downfall in 2012, he was accused of cover-up. Later in 2013 by open trial, Bo was also found guilty in “power-for-money” corruptions, and thus sentenced to life in prison. Yet rumors spread that Bo and some of his powerful collaborators had also been plotting to, with coup being included in their options, make Bo the successor of national top leadership. The disgraceful downfall of Bo caused side-effects, not only implicating an unknown numbers of officials and businessmen, but also making public a severe party split that demands political surgery.)

Mainland Leadership Event 2, “Good News”: On November 15, 2012, the nationwide congress of the CCP representatives elected Mr. Xi Jinping to be the General Secretary and the CCP military head, thus confirming Xi’s top leadership in the ruling party and de facto in the nation. [Compared with the flamboyant Bo, Xi was then considered low-profile among the high-ranking politicians of comparable ages and backgrounds. His promotions outpaced that of Bo though. By 2010, he has already become one of the CCP Politburo Standing Committee members, one of the vice chairmen of National Military Committee, and the Vice President of the Nation. Apparently Xi received more favors than Bo during the process of inspections by the CCP central authorities. (After his coming to top power, Xi does begin to make his political stands more clearly known to the public. In statements, He affirms that he will keep the integrity of “the developments in the first 30 years” (administrated by Mao Zedong) with “the developments in the following 30 years” (administrated by Deng Xiaoping and the subsequent successors), without contradicting one against another. In actions, Xi shows his iron fists by launching a series of anti-corruption purges, which is still ongoing to the present. Bo Xilai, Zhou Yongkang (a former CCP Politburo Standing Committee member, in charge of national security) and Xu Caihou (an army general and also a former Vice Chairman of National Military Committee) were among the main culprits of those downfallen. Xi proves himself a political hardliner; yet the exact direction of his economic reform policies remains to be seen.]

DATA AND METHODOLOGY

For this study, daily time series of stock market indices are downloaded from the Yahoo! Finance’s “Historical Prices” sections (the US S&P 500 stock index can be accessed via <http://finance.yahoo.com/q/hp?s=GSPC>, Taiwan Stock Exchange’s TSE composite index via <http://finance.yahoo.com/q/hp?s=TWII+Historical+Prices>, Hong Kong’s Hang-Seng index via <http://finance.yahoo.com/q/hp?s=HSI+Historical+Prices>, and Shanghai Security Exchange’s SSE composite index via <http://finance.yahoo.com/q/hp?s=000001.SS+Historical+Prices>). In order to control for possible effects of exchange rate fluctuations across the sample period on corresponding stock index returns, we also obtain the daily time series of currency rates (New Taiwan Dollar, Hong Kong Dollar, and Mainland Yuan) from the “Economic Research” online database, which is sponsored by the US Federal Reserve Bank of St. Louis (<http://research.stlouisfed.org/fred2/categories/15>). The asset (index or currency) return for a specific day t is measured as the difference in natural logarithms of the asset prices between Days t and $t - 1$. Our sample period covers from January 1, 2005 through December 31, 2014, a full 10-year horizon. Table 1 summarizes the key descriptive statistics of these daily returns.

TABLE 1
DESCRIPTIVE STATISTICS OF DAILY ASSET RETURNS

Assets	Mean	Std. Dev.	Min.	Max.	Kurtosis	Skewness	J-B
S&P 500 Index	0.0293%	1.2867%	-9.0350%	11.5800%	11.3032	-0.0812	7,492
TSE Comp. Index	0.0248%	1.2417%	-6.5133%	6.7422%	3.4961	-0.2993	66
Hang Seng Index	0.0331%	1.5857%	-12.7000%	14.3471%	10.3020	0.3238	5,837
SSE Comp. Index	0.0376%	1.6302%	-8.8407%	9.4549%	3.9691	-0.1704	115
NT Dollar/US\$	0.0003%	0.3022%	-3.3651%	2.5159%	13.0136	-0.5848	11,041
HK Dollar/US\$	-0.0001%	0.1046%	-0.5199%	0.5226%	14.3379	0.0605	13,965
Chinese Yuan/US\$	-0.0110%	0.1129%	-1.9984%	0.9910%	49.0262	-2.0666	231,968

The stock market reactions to a specific event can be estimated and tested for significance on two major measures: the abnormal mean return and the shifts in return volatility. In Phrase One, to examine the abnormal mean returns, the author employs a Multivariate Regression Model (MVRM) similar to those used in Bin et. al. (2004), Kim et al. (2009) and Nazir et. al. (2014). This model is built upon a system of portfolio return equations for event announcements, with systematic risk and political-event risk being factored into the pricing process:

$$R_{j,t} = \Phi_j + \mu_j R_{m,t} + \varphi_{Gj} \text{GOODNEWS}_{j,t} + \varphi_{Bj} \text{BADNEWS}_{j,t} + \varepsilon_{j,t}, \quad (1)$$

where $R_{j,t}$ = the return on a Greater-China-Region (GCR) market index j on day t ; $R_{m,t}$ = the return on the US S&P 500 index (as a benchmark for international performance comparison, in order to control for global financial market fluctuations) on day t ; Φ_j = an intercept coefficient for GCR index j ; μ_j = coefficient of sensitivity to US market for GCR index j ; $\text{GOODNEWS}_{j,t}$ and $\text{BADNEWS}_{j,t}$ = a dummy variable which equals 1 during the [-1, +1] window period around the announcement of “good news” and “bad news” respectively, and equals 0 otherwise; φ_{Gj} and φ_{Bj} = the price return reaction of “good news” and “bad news”, respectively, on the corresponding GCR index j ; $\varepsilon_{j,t}$ = an independent-and-identically-distributed normal error term. Controlling for the autocorrelation across days and the variation across markets in variance of returns, the Seemingly Unrelated Regression (SUR) methodology is applied on daily returns series over 60 trading days around the event window, to jointly estimate the abnormal mean-return performance of the three GCR indices, and then test the following null hypotheses:

Hypothesis A: $\varphi_{Gj} = 0$ across j , i.e., the abnormal return for each of the three GCR market indices equals zero when a corresponding “good news” leadership event occurs.

Hypothesis B: $\varphi_{Bj} = 0$ across j , i.e., the abnormal return for each of the three GCR market indices equals zero when a corresponding “bad news” leadership event occurs.

All three GCR stock market indices are in local currency terms. When taking exchange rate fluctuations into account and checking for outcome robustness, however, our pricing model should be extended to:

$$R_{j,t} = \Phi_j + \mu_j R_{m,t} + \lambda_j \text{EX}_{j,t} + \varphi_{Gj} \text{GOODNEWS}_{j,t} + \varphi_{Bj} \text{BADNEWS}_{j,t} + \varepsilon_{j,t}, \quad (2)$$

where $\text{EX}_{j,t}$ = the daily percentage change in exchange rate between the US dollar and the currency corresponding to the j th GCR stock index (e.g., NT Dollar, HK Dollar and Mainland Chinese Yuan corresponding to TSE, Hang Seng and SSE index, respectively). Thus, Hypotheses A and B should be tested again based on Equation (2) to control for both international systematic risk and exchange rate risk

factors, therefore capturing the political risk effect eventually. That would be more helpful to US investors who are interested in those GCR stock markets but concern about the associated political risk.

Then in Phrase Two, the author employs a “Generalized Autoregressive Conditional Heteroscedasticity” (GARCH) framework, so as to examine the effects of a specific event on volatility changes in the corresponding GCR stock index returns. Asymmetric GARCHs, such as GJR-GARCH (Glosten, Jagannathan & Runkle, 1993) and exponential GARCH (E-GARCH), allow good news and bad news to have different impact on volatility. Although Engle and Ng (1993) argue that the GJR-GARCH should be the best fit for capturing the volatility asymmetry responding to news, even outperforming the E-GARCH alternative, some more recent studies (e.g., Lin and Wang, 2005; Suleman, 2014) recommend E-GARCH over GJR-GARCH, on the ground that there are no constraints of “non-negativity” for E-GARCH parameters. The EGARCH (1, 1) model is designed as:

$$R_{j,t} = \Phi_j + \eta_j R_{j,t-1} + \mu_j R_{m,t} + \varphi_{Gj} \text{GOODNEWS}_{j,t} + \varphi_{Bj} \text{BADNEWS}_{j,t} + u_{j,t}, \quad (3)$$

$$R_{j,t} = \Phi_j + \eta_j R_{j,t-1} + \mu_j R_{m,t} + \lambda_j \text{EX}_{jt} + \varphi_{Gj} \text{GOODNEWS}_{j,t} + \varphi_{Bj} \text{BADNEWS}_{j,t} + u_{j,t}, \quad (4)$$

$$\text{Ln}(h_{j,t}) = \omega_j + \alpha_j |u_{j,t-1}| / (h_{t-1})^{0.5} + \gamma_j u_{j,t-1} / (h_{t-1})^{0.5} + \beta_j \text{Ln}(h_{j,t-1}) + \theta_{Gj} \text{GOODNEWS}_{j,t} + \theta_{Bj} \text{BADNEWS}_{j,t}. \quad (5)$$

$\text{Ln}(h)$ denotes natural logarithm value of the conditional variance in excess returns. In modeling Equation (3), besides the lagged GCR index movements, the international stock market fluctuations are adjusted for; and in Equation (4), the currency risk exposures are also controlled for. Among the parameters, β measures the impact of past-period variance on current-period conditional variance, α measures the past-period influence expected from the information set then, while γ measures the variance asymmetry effect, for instance, a negative γ signifies that bad news has greater impact on volatility than good news with the same magnitude; and vice versa.

RESULTS

The MVRM Results of Abnormal Mean Returns

Table 2 reports the key MVRM outcomes of Equations (1) and (2), in particular the risk-adjusted cumulative abnormal returns on each GCR Index j over the [-1, +1] three-day period surrounding the “good news”/“bad news” announcement, respectively. Panel A of the Table lists the SUR estimates of cumulative abnormal returns before the corresponding exchange rate movements is controlled for, whereas Panel B documents SUR estimates that are adjusted for exchange rate risk.

Firstly in Panel A, with only the international equity market risk (e.g., from S&P-500) but not the currency risk being considered, Taiwan’s TSE stock index gained an excess return of 1.4375% within three days (significant at the 0.01 level) when the “good news” about Taiwan leadership went public. Taiwan stock market reacted favorably when Mr. Ma won the presidential election, after the previous 8-years-long controversial administration by the former President Chen. In Panel B, when the “NT Dollar vs. US\$” exchange rate risk was also taken into account, the TSE index gain persists (2.8183% in three days, significant at the 0.01 level). Several years later, however, when the same Mr. Ma suffered his political defeat and had to give up his party leadership (“bad news”), which possibly made him a lame-luck president, Taiwan stockholders reacted not negatively but positively, with the TSE index gaining 2.1302% in three days, or 1.8699% (both significant at the 0.05 level) if currency risk was accounted for.

Secondly, as for Hong Kong’s stock market, Heng Seng Index accumulated an insignificant excess return of 0.2010% within three days when the government top leader, Mr. Tung, quit his job under pressure (“bad news”). Several years later when “good news” came, Mr. Leung was elected the top leader, Heng Seng Index accumulated an excess return of 0.2633% over three days, yet still statistically insignificant (even at the 0.10 level). Such insignificance in HK stock market responses were still the case

regardless of good news or bad news, after the “HK Dollar vs. US\$” exchange rate influence was adjusted for.

TABLE 2
THE MVRM SUR ESTIMATES OF ABNORMAL RETURNS ON GCR MARKET INDICES

Leadership Event	Panel A: Equation (1), GCR Market 3-Day Abnormal Return before Adjusting for Exchange Rate Risk			Panel B: Equation (2), GCR Market 3-Day Abnormal Return after Adjusting for Exchange Rate Risk		
	ϕ for [-1, +1]	<i>t</i> -value	<i>p</i> -value	ϕ for [-1, +1]	<i>t</i> -value	<i>p</i> -value
Taiwan Event 1, Mar-22-2008, “Good News”	1.4375%***	4.7447	0.0016	2.0183%***	5.2259	0.0003
Taiwan Event 2, Dec-03-2014, “Bad News”	2.1302%**	2.1590	0.0462	1.8699%**	2.0121	0.0493
HongKong Event 1, Mar-10-2005, “Bad News”	0.2120%	1.2130	0.4192	0.2633%	1.4836	0.3025
HongKong Event 2, Mar-25-2012, “Good News”	0.7225%	1.1405	0.2871	0.7775%	1.2680	0.2309
Mainland Event 1, Mar-15-2012, “Bad News”	-2.6434%**	-2.2231	0.0302	-2.5216%**	-2.1150	0.0375
Mainland Event 2, Nov-15-2012, “Good News”	0.5608%	1.5325	0.1671	0.4922%	1.4270	0.1903

Note: *, ** and *** denotes statistical significance at the 0.10, 0.05 and 0.01 levels, respectively.

Thirdly in Mainland China, with Mr. Bo’s sudden being disciplined by the CCP central authorities (“bad news”), the SSE Index suffered a 3-day excess return of -2.6434%, negatively significant at the 0.05 level. After the “Chinese Yuan vs. US\$” exchange rate impact was considered, the excess return amounted to -2.5216%, again negatively significant at the 0.05 level. After exactly eight full months, the dust settled with Mr. Xi’s formally becoming the undisputable top leader (“good news”), and the SSE Index gained a three-day 0.5608% excess return before adjusting for exchange-rate effects and 0.4922% after, though in neither cases being statistically significant.

The E-GARCH Results of Market Volatility

Tables 3 through 5, corresponding to Taiwan, Hong Kong and Mainland indices respectively, summarize the E-GARCH (1, 1) findings of Equations (4) and (5), in which the contemporary GCR index return and volatility are jointly modeled by the impact of leadership events along with the effects of lagged GCR index return, of international equity market fluctuations, and of currency rate changes. (Those estimates based on Equation 3 without adjusting for exchange rate risk seem very resembling in terms of parameter signs and level of significance, so their presentation tables are omitted to save space.)

TABLE 3
THE E-GARCH (1, 1) ESTIMATES OF VOLATILITY ON TAIWAN STOCK MARKET INDEX
AFTER ADJUSTING FOR EXCHANGE RATE RISK

$R_{j,t} = \Phi_j + \eta_j R_{j,t-1} + \mu_j R_{m,t} + \lambda_j EX_{jt} + \varphi_{Gj} \text{GOODNEWS}_{j,t} + \varphi_{Bj} \text{BADNEWS}_{j,t} + u_{j,t}$ $\text{Ln}(h_{j,t}) = \omega_j + \alpha_j u_{j,t-1} / (h_{t-1})^{0.5} + \gamma_j u_{j,t-1} / (h_{t-1})^{0.5} + \beta_j \text{Ln}(h_{j,t-1}) + \theta_{Gj} \text{GOODNEWS}_{j,t} + \theta_{Bj} \text{BADNEWS}_{j,t}$			
Variable	Return Effect		Volatility Effect
Constant	$\Phi_j = 0.0580^{***}$ (0.0079)		$\omega_j = 0.0196^{**}$ (0.0310)
“Bad News” Dummy	$\varphi_{Bj} = 0.0492^{***}$ (0.0035)		$\theta_{Bj} = 0.0098^{**}$ (0.0461)
“Good News” Dummy	$\varphi_{Gj} = 0.0656^{***}$ (0.0002)		$\theta_{Gj} = 0.0470^{***}$ (0.0006)
Coefficient	Estimation	Coefficient	Estimation
β_j	0.9237** (0.0140)	α_j	-0.3842** (0.0299)
γ_j	0.2659*** (0.0062)	η_j	0.2047*** (0.0001)
μ_j	0.7622** (0.0254)	λ_j	-0.0805 (0.2489)

Notes: (1) In parentheses are *p*-values. (2) *, ** and *** denotes significance at %10, %5 and %1, respectively.

In Table 3 above, when the Taiwan market is concerned, it is found that in line with the MVRM results, not only “Good News” but also “Bad News” are *positively* related to the stock returns ($\varphi_{Gj} = 0.0656$, $\varphi_{Bj} = 0.0492$, both are significant at the 0.01 level). Even “bad news” could cause a favorable market response in price returns; perhaps the news is considered not so bad. In addition, both dummy variables of leadership news are also positively associated with the stock market volatility ($\theta_{Gj} = 0.0470$, $\theta_{Bj} = 0.0098$, both are significant at the 0.01~0.05 levels), although the magnitude of volatility effect from “good news” apparently outweighs that from “bad news”. The Taiwan stock market, so it seems, strongly favors good news but does not get discouraged by bad news with good and bad news happening to the same politician (Mr. Ma)’s career; and the market volatility also reacts actively to both good and bad news. Moreover, a positive coefficient γ_j of 0.2659, significant at the 0.01 level, indicates that the selected “good news” has greater impact on volatility than “good news” with the same magnitude.

In Table 4, when the Hong Kong market is concerned, similar to those results observed from the MVRM model, neither “Good” or “Bad” news are found significantly related to the stock returns ($\varphi_{Bj} = -0.0211$, $\varphi_{Gj} = 0.0079$, both are insignificant). Also, neither of leadership-news dummy variables is significantly associated with the stock market volatility, after other risk factors are controlled for ($\theta_{Bj} = 0.0110$, $\theta_{Gj} = 0.0029$, both are insignificant at the 0.10 level). The Hong Kong stock market, seemingly, stays calm with the news of old political leader going (in Mr. Tung’s case, quitting) or new leader coming. Furthermore, a negative but insignificant coefficient γ_j of -0.0986 shows that “bad news” has a negligibly greater effect on volatility than “good news” with the same magnitude.

TABLE 4
THE E-GARCH (1, 1) ESTIMATES OF VOLATILITY ON HONG KONG STOCK MARKET INDEX AFTER ADJUSTING FOR EXCHANGE RATE RISK

$R_{j,t} = \Phi_j + \eta_j R_{j,t-1} + \mu_j R_{m,t} + \lambda_j EX_{jt} + \varphi_{Gj} \text{GOODNEWS}_{j,t} + \varphi_{Bj} \text{BADNEWS}_{j,t} + u_{j,t}$ $\text{Ln}(h_{j,t}) = \omega_j + \alpha_j u_{j,t-1} / (h_{t-1})^{0.5} + \gamma_j u_{j,t-1} / (h_{t-1})^{0.5} + \beta_j \text{Ln}(h_{j,t-1}) + \theta_{Gj} \text{GOODNEWS}_{j,t} + \theta_{Bj} \text{BADNEWS}_{j,t}$			
Variable	Return Effect	Volatility Effect	
Constant	$\Phi_j = 0.0160^{**}$ (0.0497)	$\omega_j = 0.0038^*$ (0.0985)	
“Bad News” Dummy	$\varphi_{Bj} = -0.0211$ (0.1473)	$\theta_{Bj} = 0.0110$ (0.4309)	
“Good News” Dummy	$\varphi_{Gj} = 0.0079$ (0.3264)	$\theta_{Gj} = 0.0029$ (0.1905)	
Coefficient	Estimation	Coefficient	Estimation
β_j	0.8290** (0.0205)	α_j	0.0642 (0.4002)
γ_j	-0.0986 (0.1730)	η_j	0.1168* (0.0872)
μ_j	0.5610** (0.0391)	λ_j	0.0109 (0.6587)

Notes: (1) In parentheses are *p*-values. (2) *, ** and *** denotes significance at % 10, % 5 and % 1, respectively.

TABLE 5
THE E-GARCH (1, 1) ESTIMATES OF VOLATILITY ON MAINLAND STOCK MARKET INDEX AFTER ADJUSTING FOR EXCHANGE RATE RISK

$R_{j,t} = \Phi_j + \eta_j R_{j,t-1} + \mu_j R_{m,t} + \lambda_j EX_{jt} + \varphi_{Gj} \text{GOODNEWS}_{j,t} + \varphi_{Bj} \text{BADNEWS}_{j,t} + u_{j,t}$ $\text{Ln}(h_{j,t}) = \omega_j + \alpha_j u_{j,t-1} / (h_{t-1})^{0.5} + \gamma_j u_{j,t-1} / (h_{t-1})^{0.5} + \beta_j \text{Ln}(h_{j,t-1}) + \theta_{Gj} \text{GOODNEWS}_{j,t} + \theta_{Bj} \text{BADNEWS}_{j,t}$			
Variable	Return Effect	Volatility Effect	
Constant	$\Phi_j = 0.0412^{**}$ (0.0231)	$\omega_j = 0.0275^{**}$ (0.0208)	
“Bad News” Dummy	$\varphi_{Bj} = -0.0503^{***}$ (0.0079)	$\theta_{Bj} = 0.0331^{**}$ (0.0183)	
“Good News” Dummy	$\varphi_{Gj} = 0.0107$ (0.1926)	$\theta_{Gj} = 0.0005$ (0.2330)	
Coefficient	Estimation	Coefficient	Estimation
β_j	0.8762** (0.0228)	α_j	0.1890** (0.0421)
γ_j	-0.1752** (0.0131)	η_j	0.3925*** (0.0040)
μ_j	0.2039* (0.0887)	λ_j	-0.0436 (0.3523)

Notes: (1) In parentheses are *p*-values. (2) *, ** and *** denotes significance at % 10, % 5 and % 1, respectively.

In Table 5 above, when the Mainland market is concerned, the announcement effects of “Good” and “Bad” news differ once again. The “Bad News” of Mr. Bo’s downfall is negatively and significantly associated with the broad market index returns ($\varphi_{Bj} = -0.0503$, significant at the 0.01 level), whereas the “Good News” of finalized transit of CCP top leadership to Mr. Xi is positively but insignificantly related to the index returns ($\varphi_{Gj} = 0.0107$, insignificant). The volatility effects also differ between “bad” and

“good” news, with $\theta_{Bj} = 0.0331$ (significant at the 0.05 level) and $\theta_{Gj} = 0.0005$ (insignificant), respectively. The Mainland stock market appears to be considerably disturbed by the political bad news of “the party is upset, and heads will roll”, while being conservatively optimistic to the good news of “the party gets back to her routine”. In addition, a negative coefficient γ_j of -0.1752, significant at the 0.05 level, suggests that “bad news” is more influential to volatility than “good news” with the same magnitude.

Nevertheless, even though exchange rate fluctuations are included into the corresponding GCR stock index pricing models, their effects, measured in terms of λ_j , do not appear to be statistically significant. It could be due to the facts that all these three GCR zones employ a “pegged floating” (by Hong Kong) or “managed floating” (by Taiwan and Mainland) exchange rate policy towards US\$, therefore making their exchange rate risk difficult to reflect when US\$ is used as the foreign exchange.

SUMMARY AND IMPLICATIONS

This study is the first known empirical work to compare across “Greater China Region” stock market responses to some key events involving the changes in top political leadership between years 2005 and 2014. The wealth effects of “good news vs. bad news” concerning not only the leaderships of Taiwan and Hong Kong, but also Mainland China’s CCP leadership, are examined in the research.

Based upon the MVRM-SUR estimates, it is found that the price return effects differ across those three GCR markets, with or without the exchange rate risk being factored. Taiwan stock market gains significantly to “good news” of President Ma’s coming to power, yet also gains significantly to “bad news” of the same President Ma’s midterm political defeat. Mainland stock market suffers a significant wealth loss with “bad news” of CCP coherence damage, yet does not gain significantly with “good news” of CCP leadership transit as planned. Hong Kong stock market neither suffers significantly from “bad news” of an old Chief Executive quitting the job, nor gains significantly from “good news” of a new CE winning the bid.

Then based upon the E-GARCH estimates, it is found that the volatility effects also differ across those three GCR markets, regardless of whether or not the exchange rate risk is considered. Taiwan stock market volatility increases significantly with both “good news” and “bad news”, although the good-news impact proves to be even stronger. Mainland stock market volatility increases significantly with “bad news” only; and also in their volatility determination process, the influence of bad news far outweighs that of good news. By comparison, Hong Kong stock market volatility seems statistically unaffected by either “good” or “bad” news about their local leaders. Such findings may lead to some interesting implications:

(a) Even though the stock investing publics in such three GCR zones share the largely similar ethnic origin, language and traditional culture, yet they could vary in the levels of political risk aversion. In specific, Mainland stockholders appear to be relatively “risk-averse” to leadership politics and thus particularly discouraged by the relevant bad news; Hong Kong stockholders seem to be rather “risk-neutral” or indifferent to leadership politics; and Taiwan stockholders, by comparison, show some “risk-loving” attitudes towards leadership politics. A possible explanation of such variations is that those three zones have different political and economic systems among them. Mainland China focuses on collective leadership and planned economy, and their system rigidity tends to make political outcasts, and typically also those politicians or businessmen in their circles, lose all. Taiwan uses Western-style partisan system that focuses on political liberty, with her economy also being divided by different businessmen groups who take “pro-blue” or “pro-green” political sides; therefore, one side’s political bad news might just be the other side’s political and economic good news. As for Hong Kong, before her rejoining with Mainland, she has experienced a long history of British colonial governorship and appointed elite administration, hence with one of the most free corporate economic system but without much political interest by the common public. The current political functioning system of Hong Kong is still viewed as

not much different from the old regime; so the local leadership politics has little impact on stockholders' sentiments.

(b) Such phenomena might still best reflect the existing political and economic realities in these three GCR zones, yet their political and economic systems could be up to change over time. In the future, should Hong Kong's full political reform be eventually materialized as scheduled in the Basic Law, or should Mainland's political system become less rigid and harsh so that "loser(s) do not have to lose all", or should Taiwan's pro-independence political controversies (which is the main cause for "Blue vs. Green" and "Taiwan vs. Mainland" political conflicts) be minimized, or should the exchange rate regimes of these three GCR zones alter to be more free-floating to US\$ (so the exchange rate risk can be better reflected in pricing), then the variations in the effects on GCR market return and volatility may not carry the same weight again.

(c) Finally, such findings would help both academic researchers and the global investing public to better identify and measure the political risk factor in their decision-making process for asset pricing, diversification and/or cross-region hedging, particularly in emerging markets. Specifically for US investors, the political risk of investing abroad should be kept in their mind during the valuation process, and so should the exchange rate risk pricing factor (provided it can be effectively reflected and estimated relative to US\$).

REFERENCES

- Bailey, W. & Chung, Y.P. (1995). Exchange rate fluctuations, political risk, and stock returns: Some evidence from an emerging market. *Journal of Financial and Quantitative Analysis*, 30, (4), 541-561.
- Beaulieu, M., Cosset, J. & Essaddam, N. (2005). The impact of political risk on the volatility of stock returns: The case of Canada. *Journal of International Business Studies*, 36, (5), 701-718.
- Benton, A.L. (2013). Partisan policy promises and sector-specific stock-market performance: Evidence from Mexico's 2006 presidential campaign. *Business and Politics*, 15, (2), 187-215.
- Beyer, S.B., Jensen, G.R. & Johnson, R.R. (2008). The presidential term. *Journal of Portfolio Management*, 34, (2), 135-142.
- Bilson, C.M., Brailsford, T. & Hooper, V.C. (2002). The explanatory power of political risk in emerging markets. *International Review of Financial Analysis*, 11, (1), 1-27.
- Bin, F.S., Blenman, L. & Chen, D.H. (2004). Valuation impact of currency crises: Evidence from the ADR market. *International Review of Financial Analysis*, 13, (4), 411-432.
- Bin, F.S. & He, F. (2006). Political risk and emerging market stock returns: Further evidence across the Taiwan strait and beyond. *International Journal of Business Research*, 6, (3), 190-197.
- Block, S.A. & Vaaler, P.M. (2004). The price of democracy: Sovereign risk ratings, bond spreads and political business cycles in developing countries. *Journal of International Money and Finance*, 23, (6), 917-946.
- Brunner, M. (2009). Does politics matter? The influence of elections and government formation in the Netherlands on the Amsterdam exchange index. *Acta Politica*, 44, (2), 150-170.
- Campbell, S.D. & Li, C. (2004). Alternative estimates of the presidential premium. *FEDS Working Paper* No. 2004-69. Available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=655281.
- Chan, Y. & Wei, J. (1996). Political risk and stock price volatility: The case of Hong Kong. *Pacific Basin Finance Journal*, 4, (2), 259-275.
- Chau, F., Deesomsak, R. & Wang, J. (2014). Political uncertainty and stock market volatility in the Middle East and North African (MENA) countries. *Journal of International Financial Markets, Institutions and Money*, 28, (1), 1-19.
- Chen, D.H., Bin, F.S. & Chen, C.D. (2005). The impacts of political events on foreign institutional investors and stock returns: emerging market evidence from Taiwan. *International Journal of Business*, 10, (1), 165-188.

- Cooley, J.W. (2009). Stock market returns and partisan political business cycles. *Working Paper*, Department of Economics, South Methodist University, USA. Available at <ftp://ftp1.economics.smu.edu/WorkingPapers/2009/COOLEY/COOLEY-2009-04.pdf>.
- Dobson, J. and Dufrene, U.B. (1993). The impacts of U.S. presidential elections on international security-markets. *Global Finance Journal*, 4, (1), 39-47.
- Dopke, J. & Pierdzioch, C. (2006). Politics and the stock market: Evidence from Germany. *European Journal of Political Economy*, 22, (4), 925-943.
- Engle, R.F., and Ng, V.K. (1993). Measuring and testing the impact of news on volatility. *Journal of Finance*, 48, (5), 1749-78.
- Furió, D. & Pardo, D. (2012). Partisan politics theory and stock market performance: Evidence for Spain. *Spanish Journal of Finance and Accounting*, 41 (3), 367-388.
- Fuss, R. & Bechtel, M.M. (2008). Partisan politics and stock market performance: The effect of expected government partisanship on stock returns in the 2002 German federal election. *Public Choice*, 135, (1), 131-150.
- Gemmill, G. (1992). "Political risk and market efficiency: Tests based in British stock and options markets in the 1987 election. *Journal of Banking and Finance*, 16, (1), 211-231.
- Glosten, L.R., Jagannathan, R. & Runkle, D. (1993). On the relation between the expected value and the volatility of the nominal excess return on stocks. *Journal of Finance*, 48, 1779-1801.
- He, Y., Nielsson, U. & Wang, Y. (2014). The cost of political tension: An anatomy. *Working Paper*, No. TES-484, Toulouse School of Economics, France. Available at http://www.tse-fr.eu/sites/default/files/medias/doc/wp/etrie/wp_tse_484.pdf.
- Jensen, N.M. & Schmith, S. (2005). Market responses to politics: The rise of Lula and the decline of the Brazilian stock market. *Comparative Political Studies*, 38, (10), 1245-70.
- Johnson, R.R., Chittenden, W.T. & Jensen, J.R. (1999). Presidential politics, stocks, bonds, bills, and inflation. *Journal of Portfolio Management*, 26, (1), 27-31.
- Julio, B. & Yook, Y. (2012). Political uncertainty and corporate investment cycles. *Journal of Finance*, 67, (1), 45-83.
- Kim, H.Y. & Mei, J. P. (2001). What makes the market jump? An analysis of political risk on Hong Kong stock returns. *Journal of International Money and Finance*, 20, (7), 1003-16.
- Kim, Y., Nam, J. & Wynne, K.J. (2009). An event study approach to shocks in gold prices on hedged and non-hedged gold companies. *Investment Management and Financial Innovations*, 6, (2), 112-119.
- Lin, C.T. & Wang, Y.H. (2005). An analysis of political changes on Nikkei 225 stock returns and volatilities. *Annals of Economics and Finance*, 6, 169-183.
- Lumiajiak, S., Treepongkaruna, S., Wee, M. & Brooks, R. (2014). Thai financial markets and political change. *Journal of Financial Management, Markets and Institutions*, 2 (1), 5-26.
- Ma, Y., Sun, H. & Tang, A.P. (2003). The stock return effect of political risk event on foreign joint ventures: Evidence from the Tiananmen Square incident. *Global Finance Journal*, 14 (1), 49-64.
- Nazir, M.S., Younus, H., Kaleem, A. and Anwar, Z. (2014). Impact of political events on stock market returns: Empirical evidence from Pakistan. *Journal of Economic and Administrative Sciences*, 30, (1), 60-78.
- Osa, P.B. (2014). Political leaders and financial markets: A quantitative study of the market response to changing political leadership. *Working paper*, Department of Political Science, University of Oslo, Norway. Available at <https://www.duo.uio.no/bitstream/handle/10852/40361/Osa-Master.pdf?sequence=1>.
- Santa-Clara, P. & Volkanov, R. (2003). The presidential puzzle: Political cycles and the stock market. *Journal of Finance*, 58, (5), 1841-72.
- Suleman, M.T. (2012). Stock market reactions to good and bad political news. *Asian Journal of Finance and Accounting*, 4, (1), 299-312.