The financial cost of rivalry: A tale of two South Asian neighbors

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Abstract

India and Pakistan have shared a troubled history since their inception in 1947. Although the last decade witnessed a normalization process after over half a century of confrontation, the road to normal relations between the two countries has often been marred by military events and terrorism. This paper examines the impact of bilateral political events and military aggression on returns and volatility for the stock indices of India and Pakistan. Our results show that volatility for stock indexes in both India and Pakistan shows a significant reaction to military news coming from the rival country in a reciprocal manner. The Indian stock market seems to show a subdued response to mutual confidence measures, whereas the Pakistani stock index appears to be sensitive to both mutual confidence-building or -shaking and military news originating from either country.

Key words: Political Risk; Confidence Building Measures; Military News; Emerging Markets; Spillovers; VAR-EGARCH.

JEL Classification Code: G13; G14

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1. Introduction

Identification of potential risk factors in emerging equity markets and their co-movement with the world market can add value for both international investors and policy-makers. International investors can gauge the potential risk and rewards of global diversification from knowledge of the response of stock markets to different news items (Pretorius 2002). Furthermore, policy-makers need to understand whether increased integration of stock markets is just caused by contagion or if there are some fundamental factors that can explain this process.

The main purpose of this paper is to examine the impact of bilateral political and military news on the stock markets in India and Pakistan.[1] Previous studies have generally examined the impact of political risk, usually measured as changes in the domestic political environment that could harm the development of business activities within one country (Kim and Mei 2001, Bilson et al. 2002). We extend this work to a regional setting and measure the impact of bilateral political and military news on the stock markets of two neighboring countries, India and Pakistan. We also measure the first and second moment dependences between the equity markets of these countries, and their integration with the world market. It is worth examining the financial impact of conflict among South Asian rivals for many reasons. Since the partition of the Indian subcontinent in 1947, when Britain dismantled its Indian empire, India and Pakistan have been arch rivals. This animosity is rooted in religion and history, and is epitomized by the long-running conflict over the states of Jammu and Kashmir. This has recently escalated into a dangerous nuclear arms race and the region is now considered as one of the most sensitive military flashpoints in the world.

However, in a last decade or so, India and Pakistan have started a process to normalize their relations after more than half a century of confrontation over Kashmir.[2] The renewed normalization process, described officially as composite dialogue, has led to many confidence-building measures undertaken by the leadership of both countries.[3] Nonetheless, deep mistrust between the two countries has prevailed on both sides. There have sometimes

[1] Our sample of bilateral political events and military acts of aggression include both positive and negative measures, and military news from Pakistan and India.

[2] The first high-level peace process between India and Pakistani leaders was initiated in 1997–1998.

[3] Confidence-building measures (CBMs) are defined as positive political measures taken by either of the two countries in question or both. They include diverse arrangements — such as restoring hotlines, ministerial meetings, new trade agreements, and release of prisoners etc.,— that can help to reduce tension and promote good neighborly relations. These steps or agreements ultimately develop trust between the states and help in achieving peace and stability in the region.

been abrupt changes in relations between India and Pakistan, and a good news item is often immediately followed by bad news and vice versa. For instance, the announcement on February 5, 2003 by India's Deputy Prime Minister that the country was willing to hold talks with Pakistan to try to resolve the dispute over Kashmir was followed by the expulsion of top diplomats by both India and Pakistan on February 8, 2003. Such a bilateral relationship is partly driven by the internal politics of these two countries. There are so-called hawks and religious fundamentalists on both sides who can jeopardize any attempt at reconciliation by the two governments. Thus, composite dialogue has often been marred by military acts of aggression or some other confidence-shaking news.[4]

Although the perceived influence of political and security risks is widely used to explain investor reactions in South Asian equity markets, to the best of our knowledge there are no studies that have considered the effect of political and military news across two national stock markets in the same region. On April 5, 2010, Reuter's website reported on "Signs of further thaw in India-Pakistan ties and progress on more substantive talks.[5] Any sign of rapprochement would be greeted positively by investors, but would not have a significant short-term market impact." Another caution is reported by the same website on the same date: "The danger of new attacks: Investors have priced in the threat level in India, as the muted market reaction to the 2008 Mumbai attacks showed, but attacks causing a serious deterioration in relations with Pakistan would be market-negative." This illustrates that any reconciliation measures between India and Pakistan or blows to their strengthening ties are perceived to have an impact on financial markets in the region. However, there is a large gap in the finance literature on whether political and security risks have a cross-border effect on regional stock indices. In this paper, we close this gap by measuring the effect of bilateral political and military news from both countries on the benchmark stock indices of India and Pakistan.

The major findings of our paper are as follows. First, volatility in both the Indian and Pakistan stock markets shows a significant reaction to military news coming from the rival country.

[4]Confidence-shaking news is defined as adverse statements or actions by either of the two countries in question or both. These represent steps that have derailed the process of restoring mutual confidence between India and Pakistan in the last decade. Examples of such measures include expulsion of diplomats, cross-border terrorism, cancellation of high-level talks, and tit-for-tat sanctions against each other. Moreover, our sample of military news include items such as the initiation of hostilities towards the other country, testing of nuclear missiles or engaging in cross-border fire.

[5]See http://www.reuters.com/article/2010/04/05/risks-india-idUSRISKIN20100405, 'Key political risks to watch in India'.

However, the Indian stock market is more resilient to bilateral political measures compared to the Pakistani market, and the Pakistani stock index appears to be more sensitive to both political and military news. Second, we find a significant volatility spillover from India to Pakistan. Since there are no formal trade relations between the two countries, we argue that this volatility spillover can be explained by political risk. Finally, our results also show significant spillovers from the MSCI World index to both Indian and Pakistani markets. However, the Indian stock index shows a greater degree of integration with the MSCI World index.

Many previous studies have linked uncertainty in a domestic political environment with excess volatility in stock markets.[6] However, few studies have measured the impact of political and military news across borders. Among those papers, Chen and Siems (2004) examine the response of the US capital market to 14 terrorist or military attacks dating back to 1915 and the response of global capital markets to two recent events, the Iraqi invasion of Kuwait in 1990 and the September 11, 2001 terrorist attacks. Their findings suggest that terrorist attacks and military invasions have great potential to affect capital markets around the world in a short period of time. Abadie and Gardeazabal (2003) examine the economic impact on firms of terrorist conflicts in the Basque region in Spain. They find that stocks of firms with a significant part of their business in the Basque region showed a positive relative performance when a truce became credible, and a negative relative performance at the end of the ceasefire. The study closest to our own is by Choudhry (2004), who examines mean stock market returns and volatility spillovers between stock markets of unfriendly neighboring countries. Potential foes were selected according to political situations in the previous ten years and included three pairs: Israel–Jordan, India–Pakistan, and Greece–Turkey. His results indicate bidirectional means and volatility spillovers between two countries not on friendly terms. However, this analysis was limited to measurement of return and volatility spillovers and did not take into account any political or military news.

This paper contributes to the financial literature in several ways. First, it is the first study to measure the direct impact of bilateral political and military news from India and Pakistan on price and volatility dynamics in the equity markets of the two countries. Second, the study is important in the context of emerging capital markets (ECMs), as we analyze the behavior of

[6] See, for example, Schwert (1989), Willard et al. (1996) and Bittlingmayer (1998), among others.

two emerging South Asian equity markets and their level of integration with world capital markets. ECMs have attracted the interest of international investors during the past decade. Most investors are attracted by the outstanding performance of the equity markets in these countries (Fountas and Segerdakis, 2002). However, they are still considered to be exposed to a considerable degree of political risk in comparison with developed markets (Chen et al. 2005). Nevertheless, ECMs can play an important role in international portfolio diversification, especially since globalization and co-movement of developed capital markets have dramatically increased so that capital flows can move within seconds to any location on the planet (Ng, 2000; Siourounis, 2002). Our paper also sheds a light on the issue of financial market development in South Asia. The unstable political relationship between India and Pakistan has not only overwhelmed attempts to encourage trade between the two countries, but has also impacted economic integration in the South Asian region as a whole.[7]

The remainder of the paper is organized as follows. Section 2 describes the data used in the study. The methodology is described in Section 3. Section 4 presents the empirical results and the paper is summarized in Section 5 with some concluding remarks.

2. Data

Our data set consist of daily closing prices for the Sensex30 index of the Bombay stock exchange, India; the KSE100 index of the Karachi stock exchange, Pakistan; and the Morgan Stanley Capital International World (MSCI World) index from January 1997 to December 2008. Key news items on bilateral political and military events in Pakistan and India are also considered. We use the MSCI World index as an exogenous variable that controls for any overlapping impact from international stock markets. All the stock index data are presented in US dollars to facilitate comparison between markets. After excluding outliers and other data anomalies, logarithmic returns are generated for daily opening to closing prices as:

$$R_{i,t} = 100 \times \log(P_{i,t}/P_{i,t-1}),$$

where $R_{i,t}$ is the daily return $t$and $P_{i,t}$ is the price level on day t. Descriptive statistics for daily returns from the KSE100, BSE30 and MSCI World indices are shown in Table 1.

Insert Table 1 about here

[7] Bilateral trade between India and Pakistan is less than 1% of their total trade. According to a report submitted to the World Bank by the Sustainable Development Policy Institute, the trade potential between India and Pakistan is estimated to be 10 times the current level (http://www.sdpi.org).

The highest mean daily return is observed for the KSE100 index at 0.025%, while the MSCI World index has the lowest mean daily returns among all three markets. It is evident that the Pakistani market is the most impulsive during our sample period, as shown by the maxima and minima. Both the Indian and Pakistani indices have high standard deviations relative to their mean returns, reflecting the well-known risk present in emerging markets. All three markets show negative skewness and are leptokurtic; the MSCI World index is the most extreme case among all three markets. The p-values for the Jarque-Bera (JB) test for non-normality of returns distributions show significant non-normality in daily returns. The autocorrelation coefficients for simple and squared returns for the first lag are also reported in Table 1. The first-order return autocorrelation coefficient exhibits significantly positive serial correlation for all three markets, typically attributed to market microstructure effects. Moreover, serial correlation coefficients for squared returns indicate the presence of volatility clustering effects for all three benchmark indices.

2.1 News data

Our sample of bilateral political events and military acts of aggression include both positive and negative measures and military news from Pakistan and India.[8] We collected 272 news items in total, divided into four different categories: confidence-building measures, confidence-shaking news, military news from India, and military news from Pakistan. We divided the news items into these four categories according to the nature and potential impact of the news. A few overlapping news items and those with dubious impact were removed from the sample. Of the remaining sample of 215 news items, 134 were categorized as confidence-building measures, 49 as confidence-shaking news, 14 as military news from India, and 18 as military news from Pakistan.[9] We conjecture that since most of the political and military news items are unexpected and influence the political and security perception of both countries, they should have a significant effect on the return and volatility of equity markets in these South Asian rivals.

2.2 Cross-correlation of returns

[8]The news items were hand collected using Google archive. Google archive provides all bilateral political and military news in a chronological order and lists the source of each news item. The selected sources were: Pakistan; Pakistan Press International (PPI), The News, Nation, and Dawn newspaper; India: Hindu, Hindustan Times, and Indian Express; International: New York Times, Washington Post, Guardian and BBC.

[9] Samples of news items from each category are shown in Appendix A.

Table 2 presents a cross-correlation matrix for returns from the KSE100, Sensex30 and MSCI World indices. All three return series are positively correlated. However, it is interesting to note that the correlation coefficient of 0.10 between KSE100 and Sensex30 indicates a rather small contemporaneous relationship. Moreover, the correlation between KSE100 and MSCI World return is also very small (0.04), indicating that the KSE100 is more of an independent stock index, not influenced by the world market. By contrast, Sensex30 displays higher correlation with the MSCI World index (0.30) indicating greater co-movement with international equity markets.

Insert Table 2 about here

3. Methodology

We investigated inter-market dependence across neighboring equity markets. We hypothesize that given the history of hostile relations, the stock markets of India and Pakistan do not have any significant dependence. Then we measured the financial impact of bilateral political events (both positive and negative) and military news from India and Pakistan on price and volatility dynamics in these equity markets. By gathering data on bilateral political events and military news, we can identify potential risk factors for these markets.

3.1 Bivariate VAR-EGARCH model

Equation (1) describes returns for the two markets as a vector autoregressive (VAR) model. Given the evidence of the world market effect in the literature, the MSCI World index is used as an exogenous variable in our bivariate VAR-EGARCH framework to control for overlapping impact on the Indian and Pakistani markets. The conditional mean in these two markets is influenced by the returns for world markets proxied by the MSCI World index, $R_{W,t-1}$, which is treated as exogenous variable in our VAR setting. The dependent variables, $R_{p,t}$ and $R_{I,t}$, are returns for Pakistani and Indian benchmark stock indices KSE100 and BSE30, respectively. The model for daily stock returns is given by:

$$\begin{pmatrix} R_{p,t} \\ R_{I,t} \end{pmatrix} = \begin{pmatrix} \beta_{1,0} \\ \beta_{2,0} \end{pmatrix} + \begin{pmatrix} \beta_{1,1} & \beta_{1,2} \\ \beta_{2,1} & \beta_{2,2} \end{pmatrix} \begin{pmatrix} R_{P,t-1} \\ R_{I,t-1} \end{pmatrix} + \begin{pmatrix} \beta_{1,3} R_{W,t-1} \\ \beta_{2,3} R_{W,t-1} \end{pmatrix} + \begin{pmatrix} \varepsilon_{p,t} \\ \varepsilon_{I,t} \end{pmatrix}, \quad (1)$$

$$\varepsilon_t | \Omega_{t-1} = \begin{pmatrix} \varepsilon_{P,t} \\ \varepsilon_{I,t} \end{pmatrix} \sim N[0, \Sigma_t], \quad (2)$$

and

$$\Sigma_t = \begin{pmatrix} \sigma_{P,t}^2 & \sigma_{PI,t}^2 \\ \sigma_{IP,t}^2 & \sigma_{I,t}^2 \end{pmatrix}, \quad (3)$$

where ε_t represents the error term conditional on the past information set Ω_{t-1}. $\sigma^2_{P,t}$, $\sigma^2_{I,t}$, and $\sigma^2_{PI,t}$ are the variances for Pakistan and India and the covariance between them, respectively. βs is a measure of the impact of domestic, regional and world innovations in the two countries.

For the volatility equation, we use the exponential generalized autoregressive conditional heteroskedasticity (EGARCH) model of Nelson (1991) and expand it to a bivariate version. In the equation system below, subscript 1 denotes Pakistan and 2 denotes India. The simplified bivariate EGARCH model to describe volatility spillovers is:

$$\log h_{Pt} = \gamma_{10} + \gamma_{11} \log \sigma^2_{P,t-1} + \gamma_{12} \log \sigma^2_{I,t-1} + g_P(Z_{Pt-1}) + \gamma_{13} \log R^2_{W,t-1} \quad (4a)$$

$$\log h_{It} = \gamma_{20} + +\gamma_{21} \log \sigma^2_{P,t-1} + \gamma_{22} \log \sigma^2_{I,t-1} + g_I(Z_{It-1}) + \gamma_{23} \log R^2_{W,t-1}, \quad (4b)$$

where

$$g_P(Z_{P,t-1}) = \left(|Z_{P,t-1}| - E|Z_{P,t-1}|\right) + \emptyset_1 Z_{P,t-1}, \quad (5a)$$

$$g_I(Z_{I,t-1}) = \left(|Z_{I,t-1}| - E|Z_{I,t-1}|\right) + \emptyset_2 Z_{I,t-1}, \quad (5b)$$

and

$$\sigma_{P,I,t} = \rho_{P,I} \sigma_{P,t} \sigma_{I,t}. \quad (6)$$

The variance function in Equations (4a) and (4b) allows its own (local) standardized innovations, as well as standardized innovations from a neighboring country, to exert an asymmetric impact on the volatility of the market in question. As a proxy for the volatility of the world index, we use squared returns from the MSCI World index. The exogenous world factor is used to capture a common global volatility that affects stock indices in both countries. Volatility spillovers in our model are measured by γ_{12} and γ_{21}. γ_{13} and γ_{23} measure volatility spillovers from world market to the Pakistani and Indian equity markets, respectively. Asymmetry, which is modeled by Equations (5a) and (5b), is present if $\emptyset_1$ and $\emptyset_2$ are greater than zero and are statistically significant. The ratio $|\text{-1+ } \emptyset|/|\text{1+ } \emptyset|$ is a measure of the leverage effect. The parameter vector Θ is estimated using maximum likelihood. The log likelihood function to be maximized is:

$$L(\Theta) = -Tlog(2\pi) - \frac{1}{2}\sum_{t=1}^{T} \log(|H_t(\Theta)|) - \frac{1}{2}\sum_{t=1}^{T} \varepsilon_t(\Theta)' H_t^{-1}(\Theta) \varepsilon_t(\Theta), \quad (7)$$

where T is the number of observations, ε_t is the 1×2 vector of innovations at time *t*, Σ*t* is the time-varying 2×2 variance–covariance matrix and Θ is the 24×1 parameter vector. In the equations above, the standardized innovation is $z_t = \varepsilon_t/\sigma_t$. The correlation in (6) is assumed to be time-invariant, an assumption that reduces the number of parameters to be estimated.

3.2 Measuring political and security risk

After determining bivariate return and volatility relations, we measured the effect of political and military news for both India and Pakistan, which is a focal point of our paper. To that end, we measured the response of stock returns and volatility to confidence-building and -shaking events and to military news from India and Pakistan by adding a dummy variable in our bivariate VAR-EGARCH model that takes a value of 1 on news days and 0 otherwise. It is important to note that we measure the response to each news category separately. The bivariate VAR-EGARCH model with an exogenous dummy variable is defined as follows for the Indian and Pakistani benchmark indices:

$$R_{P,t} = \beta_{10} + \beta_{10}R_{P,t-1} + \beta_{12}R_{I,t-1} + \beta_{13}R_{W,t-1} + \beta_{14}\text{Dummy} + \varepsilon_{P,t} \quad (8)$$

$$R_{I,t} = \beta_{20} + \beta_{21}R_{P,t-1} + \beta_{22}R_{I,t-1} + \beta_{23}R_{W,t-1} + \beta_{24}\text{Dummy} + \varepsilon_{I,t} \quad (9)$$

$$\text{logh}_{Pt} = \gamma_{10} + \gamma_{11}\text{logh}_{Pt-1} + \gamma_{12}\text{logh}_{It-1} + g_P(Z_{Pt-1}) + \gamma_{13}\log R^2_{W,t-1} + \gamma_{14}\text{Dummy} \quad (10)$$

$$\text{logh}_{It} = \gamma_{20} + \gamma_{21}\text{logh}_{Pt-1} + \gamma_{22}\text{logh}_{It-1} + g_I(Z_{It-1}) + \gamma_{23}\log R^2_{W,t-1} + \gamma_{24}\text{Dummy}, \quad (11)$$

where (8) and (9) are the return equations and (10) and (11) are the volatility equations. The only difference between these equations and the model described earlier is the addition of a dummy variable used as a proxy for political and military news from both India and Pakistan.

4. Empirical results

The empirical results for bivariate VAR-EGARCH models (1) and (4) are reported in Table 3. The findings are very interesting and are in line with our assertions. The univariate terms are consistent with previous findings in the literature. The AR coefficients (β_{11}, β_{22}) are positive and statistically significant for both countries, indicating positive serial correlation for returns. There is evidence of return spillovers from the Indian to the Pakistani benchmark index (β_{12}) but not vice versa (β_{21}). However, both markets are clearly affected by the MSCI World index, indicating that there are significant spillover effects of MSCI World returns on both the Sensex30 and KSE100 indices (β_{13} and β_{23}). However, the return spillover coefficients

suggest that the Indian index is more integrated with world stock markets. These results are in accordance with those of Choudhry (2004).

The volatility dynamics reveal more interesting results. The volatility persistence coefficients (γ_{11} and γ_{22}) are consistent with the results reported by Choudhry (2004) for Indian and Pakistani stock markets. There is also evidence of volatility asymmetry in both markets, indicating that negatively lagged innovations have greater effects on next-day volatility than positive innovations (parameters $Ø_1$ and $Ø_2$). The volatility asymmetry findings are consistent with Koutmos and Booth (1995), among others, who have reported similar asymmetric volatility behavior in financial markets.

Insert Table 3 about here

We now focus on the cross-terms that measure volatility spillovers from foreign markets to a local market. No significant volatility spillovers are evident between India and Pakistan (γ_{12} and γ_{21}). However, volatility in the Indian stock market is affected by the MSCI World index (γ_{23}), confirming that the Sensex30 is more integrated with world stock markets. On the contrary, there is no evidence of a volatility spillover from the MSCI World index to the KSE100 (γ_{13}). As noted by Kutan and Perez (2002), returns and volatility in emerging stock markets are, for the most part, country-specific and associated with political events. Thus, the Pakistani stock market, according to its low correlation with the MSCI World index, can be viewed as an indigenous market. The residual statistics for both simple and squared standardized residuals show no evidence of serial correlation, as the coefficients are numerically very small and statistically non-significant.

4.1 The effect of political news

To assess the effect of bilateral political news (positive and negative) on return volatility for the Indian and Pakistani stock markets, we introduced a dummy variable for confidence-shaking news in our bivariate VAR-EGARCH framework. We hypothesized that negative news should have an adverse effect on returns and volatility for these stock markets. Table 4 lists the estimation results for Equations (8)–(11). The bivariate return and volatility interaction results are similar to those reported in Table 4, but return spillovers from the Indian to the Pakistani stock market disappear after including confidence-shaking news in the analysis (β_{12}). Moreover, the effect of MSCI World volatility on volatility in the Indian stock market is now much greater (γ_{23}). However, it is interesting to note that while volatility for the

Pakistani benchmark index responds to confidence-shaking news (γ_{14}), the Indian equity market exhibits a subdued response (γ_{24}). In our view, there are two possible explanations for this finding. First, ongoing economic liberalization since 1991 has moved the Indian economy towards a market-based system and has resulted in sustained economic growth. Second, a stable democracy and increasing political influence arising from strong economic growth and greater international trade links have made the Indian economy more resilient than that of Pakistan. Moreover, as observed in Appendix A, the majority of bilateral political news stories originated from India, indicating the country's increasing economic and political influence in relations with Pakistan. Regular military interventions, an uncertain political environment and increasing security fears in the last two decades have significantly inhibited economic growth in Pakistan and weakened its bargaining position in relations with India. Thus, it seems intuitive that the KSE100 index responds negatively to adverse bilateral political news as volatility significantly increases in the Pakistani stock market.

Insert Table 4 about here

We then introduced a dummy variable for confidence-building measures in our bivariate VAR-EGARCH framework. The estimation results for Equations (8)–(11) are reported in Table 5. The results are interesting and in line with our earlier assertion. There are return spillovers from both the Indian and the MSCI World indices to the Pakistani benchmark index, but Indian market returns are only affected by the MSCI World index. However, volatility spillovers are observed from the MSCI World index to Sensex30 index but not to KSE100 (γ_{13} and γ_{23}), again confirming India's increased links to world markets. Another important finding is that confidence-building measures are viewed positively by investors in the Karachi stock market, as the volatility response coefficient is negative and significant (γ_{14}), indicating that positive confidence measures reduce the level of volatility in the Pakistani market compared to days when there are no positive political moves between the two countries. However, the response coefficient for the Indian benchmark index is negative, but non-significant (γ_{24}), indicating a muted response from the Indian market.

These results further confirm that the Indian stock market is more resilient to bilateral political events than the Pakistani market. Again, the fact that India's increased political and economic influence in the region, together with greater integration with world markets, helps explain these findings. Our results show that the Pakistani stock market is more sensitive to

India–Pakistan relations, as it responds significantly to both positive and negative confidence measures. Another plausible explanation for these findings is that in recent years Pakistan has been forthcoming in proposing bilateral measures to ease tension with its South Asian rival because a tumbling economy and the geopolitical situation have forced Pakistan to show greater willingness to negotiate on bilateral issues with India.

Insert Table 5 about here

4.2 Military news

We investigated whether military news from India and Pakistan affects returns and volatility in the stock markets in our bivariate VAR-EGARCH framework. Table 6 reports the estimation results after adding a dummy variable for military news from India in Equations (8)–(11). The findings provide greater insight into the effect of Pakistan–India relations on stock indices.

We first assess the return response coefficients. Bilateral returns spillovers are not observed for either country. However, similar to the results obtained in previous analyses of confidence measures, KSE100 returns remain unaffected by MSCI World returns, whereas Sensex30 returns are positively influenced by MSCI World returns (β_{23}). Indian military news does not seem to have any contemporaneous effect on either stock market (β_{14} and β_{24}). The most interesting finding in Table 6 is that the coefficient for the volatility response of the Pakistani market (γ_{14}) to military news generated in India is significant. This indicates that volatility in the Pakistani stock market increases significantly on receipt of military news from India. However, the Indian stock market again seems to be unaffected by any such event (γ_{24}). This implies that any military aggression shown by India increases uncertainty and volatility in the Pakistani stock market. Any increase in the military arsenal of India is generally not welcomed by investors in Pakistan.

Insert Table 6 about here

We further our analysis by estimating the influence of Pakistani military news. To that end, a dummy variable for Pakistani military news is included in return and volatility equations (8)–(11). The empirical results are reported in Table 7, which provides yet another set of

interesting results. The returns in both markets are unaffected by military news from Pakistan. However, volatility increases significantly (γ_{24}) in the Indian stock market in response to military news from Pakistan. It is noteworthy that this is the first case for which Indian volatility responds negatively to cross-border news from Pakistan. This indicates that investors in India cautiously watch military activity across the border in Pakistan and that military news increases the level of uncertainty in the Indian stock market and thus the level of volatility. More interestingly, the coefficient for the volatility response (γ_{14}) to military news coming from Pakistan is negative and significant. This implies that growth and modernization of the Pakistani military arsenal against India are welcomed by investors in Pakistan and hence the level of volatility decreases. An increase in Pakistani military strength (e.g., successful missile tests) increases the general sense of security not only among the general population but also among stock market participants. This supports our point that the Pakistani stock market is more indigenous and independent than the Indian stock market because it has fewer foreign investors.

Insert Table 7 about here

There are several plausible reasons for the response of the Indian market to Pakistani military news. First, Pakistan has been under military rule more for than half of the country's lifetime, and thus the military establishment in Pakistan has always been a strong factor in bilateral relations with India. Second, for historical and security reasons, Indian and Pakistani military policies have been centric to each other. Therefore, it seems natural that investors in India cautiously watch military news coming from Pakistan because it increases the level of volatility in the Indian stock market. Third, foreign investors in the Indian stock market may associate Pakistani military news with future instability in the region, which thus increases the level of volatility for the Indian market.

Overall, our results suggest that investors consider military news in both countries as a potential risk factor. Whereas the Pakistani benchmark index responds to both confidence measures and military news, the Indian index is only significantly affected by military news generated from Pakistan. Moreover, our findings indicate that the Indian stock market shows a greater degree of integration with the MSCI World index compared to the Pakistani market.

5. Conclusion

Investors and researchers value political risk as an important factor in asset pricing. Many plausible reasons have been offered for the influence of political risk on financial markets. There is a consensus in the literature that political instability in a region hinders economic development and hence affects capital markets [Chen and Siems (2004), Eckstein and Tsiddon (2004)]. In this paper, we examined the impact of bilateral political measures and military news from both India and Pakistan on the price and volatility of their equity markets. Our results show that volatility for stock indexes for both India and Pakistan shows a significant reaction to military news coming from the rival country. However, whereas the Indian stock market seems to be more resilient to bilateral political news compared to the Pakistani market, the latter appears to be more sensitive to both bilateral political measures and military news. We also investigated whether there is inter-market dependence across equity markets in Pakistan and India. We find that these South Asian rivals do not generally react to innovations originating in each other's market. Although we generally find significant spillovers from the MSCI World index to both the Indian and Pakistani equity markets, our findings indicate a greater degree of integration between the Indian equity market and the MSCI World index.

We believe that the results reported here are intuitive and the analysis can be replicated in other regions of the world with similar geopolitical situations. However, it would be worth extending the research to analyze whether investors price such risk factors for a cross-section of stock returns. We look forward to addressing this issue in the future.

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Table 1
Summary statistics for daily returns

	KSE 100	BSE 30	MSCI-World
Mean	0.0251	0.0248	0.0037
Maximum	12.7910	9.0162	9.0967
Minimum	-13.1884	-11.9071	-7.3250
Standard Deviation	1.7806	1.7972	1.0243
Skewness	-0.4505	-0.3566	-0.3615
Kurtosis	8.9011	6.9743	12.0434
Jarque-Bera	4647.42	2126.28	10733.92
Probability	0.0000	0.0000	0.0000
AC return (1	0.0700	0.0760	0.1380
AC squared ret (1	0.1850	0.2680	0.2510
Observations	3130	3130	3130

Table 2
Cross-Correlations of daily returns

	KSE 100	Sensex 30	MSCI-World
KSE 100	1.00		
Sensex 30	0.10	1.00	
MSCI-World	0.04	0.30	1.00

Table 3

Estimates from Bivariate VAR-EGARCH with MSCI World as an exogenous variable

Pakistan				**India**			
	Coefficient	*T-stat*	*Significance*		*Coefficient*	*T-stat*	*Significance*
β_{10}	0.1238***	5.5675	0.0000	β_{20}	0.0746***	3.2281	0.0012
β_{11}	0.0506***	2.8274	0.0047	β_{21}	0.0130	0.9024	0.3669
β_{12}	0.0204*	1.7284	0.0839	β_{22}	0.0648***	3.5575	0.0004
β_{13}	0.0764***	4.1218	0.0000	β_{23}	0.2570***	9.5121	0.0000
γ_{10}	0.0981***	12.8301	0.0000	γ_{20}	0.0622***	7.7738	0.0000
γ_{12}	0.0148	1.2007	0.2299	γ_{21}	0.0112	0.9285	0.3531
γ_{13}	0.0049	1.6273	0.1037	γ_{23}	0.0051*	1.8887	0.0589
$\emptyset_1$	-0.1978***	-6.0210	0.0000	$\emptyset_2$	-0.4123***	-9.5320	0.0000
γ_{11}	0.9228***	216.7716	0.0000	γ_{22}	0.9548***	233.4278	0.0000
ρ_{12}	0.0805***	4.6593	0.0000	ρ_{21}	0.0805***	4.6593	0.0000
Residual Diagnostics							
AC(12 Residual			0.0477		AC(12 Residual		0.0026
AC(12 Squared Residual			0.0081		AC(12 Squared Residual		0.0051

Notes: This table reports the estimates from the following VAR-EGARCH model:

$$R_{P.t} = \beta_{10} + \beta_{10}R_{P.t-1} + \beta_{12}R_{I.t-1} + \beta_{13}R_{W.t-1} + \varepsilon_{P.t}$$

$$R_{I.t} = \beta_{20} + \beta_{21}R_{P.t-1} + \beta_{22}R_{I.t-1} + \beta_{23}R_{W.t-1} + \varepsilon_{I.t}$$

$$\log h_{Pt} = \gamma_{10} + \gamma_{11}\log h_{Pt-1} + \gamma_{12}\log h_{It-1} + g(Z_{Pt-1}) + \gamma_{13}\log R^2_{W.t-1}$$

$$\log h_{It} = \gamma_{20} + \gamma_{21}\log h_{Pt-1} + \gamma_{22}\log h_{It-1} + g(Z_{It-1}) + \gamma_{23}\log R^2_{W.t-1}$$

We report the estimates and respective t-stats for bivariate return and volatility spillovers for Indian and Pakistani stock markets. The coefficients measuring the effect of MSCI-World index and a dummy variable used as a proxy for the confidence building measures on both Indian and Pakistani stock markets' returns and volatilities are also reported. Significant coefficients are denoted with***, **, * on 1%, 5 %, and 10 % significance level respectively. Residual autocorrelation coefficients at 12th lag AC (12 for both simple and squared standardized residuals are also reported.

Table 4

Estimates from Bivariate VAR-EGARCH with MSCI-World and Confidence Shaking news (dummy as exogenous variables

Pakistan				**India**			
	Coefficient	*T-stat*	*Significance*		*Coefficient*	*T-stat*	*Significance*
β_{10}	0.1300***	6.3558	0.0000	β_{20}	0.0724***	3.0649	0.0022
β_{11}	0.0452**	2.4960	0.0126	β_{21}	0.0187	1.3169	0.1879
β_{12}	0.0079	0.6450	0.5189	β_{22}	0.0615***	3.3905	0.0007
β_{13}	0.0461**	2.2172	0.0266	β_{23}	0.2615***	9.4600	0.0000
β_{14}	-0.3416	-1.2821	0.1998	β_{24}	-0.1420	-0.8277	0.4079
γ_{10}	0.0529***	7.4552	0.0000	γ_{20}	0.0859***	7.9073	0.0000
γ_{12}	0.0237**	2.1457	0.0319	γ_{21}	0.0120	0.8902	0.3733
γ_{13}	-0.0050	-1.5874	0.1124	γ_{23}	0.0094***	2.7102	0.0067
γ_{14}	1.2271***	6.6287	0.0000	γ_{24}	-0.1542	-1.5316	0.1256
$\emptyset_1$	-0.1617***	-5.2910	0.0000	$\emptyset_2$	-0.5187***	-8.7469	0.0000
γ_{11}	0.9428***	284.2864	0.0000	γ_{22}	0.9322***	140.5132	0.0000
ρ_{12}	0.0866***	5.0172	0.0000	ρ_{21}	0.0866***	5.0172	0.0000
Residual Diagnostics							
AC(12 Residual		0.0471			AC(12 Residual		0.0020
AC(12 Squared Residual		0.0077			AC(12 Squared Residual		0.0025

Notes: This table reports the estimates from the following VAR-EGARCH model:

$$R_{P,t} = \beta_{10} + \beta_{10}R_{P,t-1} + \beta_{12}R_{I,t-1} + \beta_{13}R_{W,t-1} + \beta_{14}\text{Dummy} + \varepsilon_{P,t}$$

$$R_{I,t} = \beta_{20} + \beta_{21}R_{P,t-1} + \beta_{22}R_{I,t-1} + \beta_{23}R_{W,t-1} + \beta_{24}\text{Dummy} + \varepsilon_{I,t}$$

$$\text{logh}_{Pt} = \gamma_{10} + \gamma_{11}\text{logh}_{Pt-1} + \gamma_{12}\text{logh}_{It-1} + g(Z_{Pt-1}) + \gamma_{13}\log R^2_{W,t-1} + \gamma_{14}\text{Dummy}$$

$$\text{logh}_{It} = \gamma_{20} + \gamma_{21}\text{logh}_{Pt-1} + \gamma_{22}\text{logh}_{It-1} + g(Z_{It-1}) + \gamma_{23}\log R^2_{W,t-1} + \gamma_{24}\text{Dummy}$$

We report the estimates and respective t-stats for bivariate return and volatility spillovers for Indian and Pakistani stock markets. The coefficients measuring the effect of MSCI-World index and a dummy variable used as a proxy for the confidence building measures on both Indian and Pakistani stock markets' returns and volatilities are also reported. Significant coefficients are denoted with***, **, * on 1%, 5 % and 10 % significance level respectively. Residual autocorrelation coefficients at 12th lag AC (12 for both simple and squared standardized residuals are also reported.

Table 5

Estimates from Bivariate VAR-EGARCH with MSCI-World and Confidence Building Measures (dummy as exogenous variables

Pakistan				**India**			
	Coefficient	*T-stat*	*Significance*		*Coefficient*	*T-stat*	*Significance*
β_{10}	0.1302***	5.5953	0.0000	β_{20}	0.0601**	2.4218	0.0154
β_{11}	0.0460**	2.4807	0.0131	β_{21}	0.0170	1.2155	0.2242
β_{12}	0.0251**	2.0003	0.0455	β_{22}	0.0624***	3.4185	0.0006
β_{13}	0.0692***	3.5725	0.0004	β_{23}	0.2632***	9.4739	0.0000
β_{14}	-0.0280	-0.3319	0.7400	β_{24}	0.1453	1.2955	0.1952
γ_{10}	0.0976***	12.1356	0.0000	γ_{20}	0.0874***	8.0297	0.0000
γ_{12}	0.0260**	2.3032	0.0213	γ_{21}	0.0094	0.6887	0.4910
γ_{13}	-0.0002	-0.0737	0.9413	γ_{23}	0.0093***	2.6869	0.0072
γ_{14}	-0.1696***	-5.1577	0.0000	γ_{24}	-0.0446	-0.7612	0.4465
$\emptyset_1$	-0.1861***	-5.4377	0.0000	$\emptyset_2$	-0.5171***	-8.8515	0.0000
γ_{11}	0.9178***	189.0637	0.0000	γ_{22}	0.9303***	134.7173	0.0000
ρ_{12}	0.0837***	4.7424	0.0000	ρ_{21}	0.0837***	4.7424	0.0000
AC(12 Residual		0.0536	0.0471		AC(12 Residual		0.0016
AC(12 Squared Residual		0.0110	0.0077		AC(12 Squared Residual		0.0031

Notes: This table reports the estimates from the following VAR-EGARCH model:

$$R_{P.t} = \beta_{10} + \beta_{10}R_{P.t-1} + \beta_{12}R_{I.t-1} + \beta_{13}R_{W.t-1} + \beta_{14}\text{Dummy} + \varepsilon_{P.t}$$

$$R_{I.t} = \beta_{20} + \beta_{21}R_{P.t-1} + \beta_{22}R_{I.t-1} + \beta_{23}R_{W.t-1} + \beta_{24}\text{Dummy} + \varepsilon_{I.t}$$

$$\text{logh}_{Pt} = \gamma_{10} + \gamma_{11}\text{logh}_{Pt-1} + \gamma_{12}\text{logh}_{It-1} + g(Z_{Pt-1}) + \gamma_{13}\log R^2_{W.t-1} + \gamma_{14}\text{Dummy}$$

$$\text{logh}_{It} = \gamma_{20} + \gamma_{21}\text{logh}_{Pt-1} + \gamma_{22}\text{logh}_{It-1} + g(Z_{It-1}) + \gamma_{23}\log R^2_{W.t-1} + \gamma_{24}\text{Dummy}$$

We report the estimates and respective t-stats for bivariate return and volatility spillovers for Indian and Pakistani stock markets. The coefficients measuring the effect of MSCI-World index and a dummy variable used as a proxy for the confidence building measures on both Indian and Pakistani stock markets' returns and volatilities are also reported. Significant coefficients are denoted with***, **, * on 1%, 5 %, and 10 % significance level respectively. Residual autocorrelation coefficients at 12^{th} lag AC (12 for both simple and squared standardized residuals are also reported.

Table 6

Estimates from Bivariate VAR-EGARCH with MSCI-World and Military news from India (dummy as exogenous variables

Pakistan				**India**			
	Coefficient	*T-stat*	*Significance*		*Coefficient*	*T-stat*	*Significance*
β_{10}	0.1197***	5.6584	0.0000	β_{20}	0.0676***	2.8678	0.0041
β_{11}	0.0420**	2.3474	0.0189	β_{21}	0.0171	1.2443	0.2134
β_{12}	0.0064	0.5279	0.5976	β_{22}	0.0618***	3.3997	0.0007
β_{13}	0.0325	1.5203	0.1284	β_{23}	0.2574***	9.2354	0.0000
β_{14}	-0.7926	-1.4796	0.1390	β_{24}	-0.2590	-0.5148	0.6067
γ_{10}	0.0548***	8.0432	0.0000	γ_{20}	0.0833***	8.0447	0.0000
γ_{12}	0.0217**	2.0338	0.0420	γ_{21}	0.0056	0.4200	0.6745
γ_{13}	-0.0091***	-2.9093	0.0036	γ_{23}	0.0089***	2.5991	0.0093
γ_{14}	2.3856***	3.0308	0.0024	γ_{24}	-0.1735	-0.4298	0.6673
$\emptyset_1$	-0.1495***	-4.6666	0.0000	$\emptyset_2$	-0.5246***	-8.9658	0.0000
γ_{11}	0.9395***	282.2927	0.0000	γ_{22}	0.9328***	144.2225	0.0000
ρ_{12}	0.0856***	4.8942	0.0000	ρ_{21}	0.0856***	4.8942	0.0000
Residual Diagnostics							
AC(12 Residual		0.0538			AC(12 Residual		0.0019
AC(12 Squared Residual		0.0079			AC(12 Squared Residual		0.0027

Notes: This table reports the estimates from the following VAR-EGARCH model:

$$R_{P.t} = \beta_{10} + \beta_{10}R_{P.t-1} + \beta_{12}R_{I.t-1} + \beta_{13}R_{W.t-1} + \beta_{14}\text{Dummy} + \varepsilon_{P.t}$$

$$R_{I.t} = \beta_{20} + \beta_{21}R_{P.t-1} + \beta_{22}R_{I.t-1} + \beta_{23}R_{W.t-1} + \beta_{24}\text{Dummy} + \varepsilon_{I.t}$$

$$\log h_{Pt} = \gamma_{10} + \gamma_{11}\log h_{Pt-1} + \gamma_{12}\log h_{It-1} + g(Z_{Pt-1}) + \gamma_{13}\log R^2_{W.t-1} + \gamma_{14}\text{Dummy}$$

$$\log h_{It} = \gamma_{20} + \gamma_{21}\log h_{Pt-1} + \gamma_{22}\log h_{It-1} + g(Z_{It-1}) + \gamma_{23}\log R^2_{W.t-1} + \gamma_{24}\text{Dummy}$$

We report the estimates and respective t-stats for bivariate return and volatility spillovers for Indian and Pakistani stock markets. The coefficients measuring the effect of MSCI-World index and a dummy variable used as a proxy for the confidence building measures on both Indian and Pakistani stock markets' returns and volatilities are also reported. Significant coefficients are denoted with***, **, * on 1%, 5 %, and 10 % significance level respectively. Residual autocorrelation coefficients at 12^{th} lag AC (12 for both simple and squared standardized residuals are also reported.

Table 7

Estimates from Bivariate VAR-EGARCH with MSCI-World and Military news from Pakistan (dummy as exogenous variables

Pakistan				**India**			
	Coefficient	*T-stat*	*Significance*		*Coefficient*	*T-stat*	*Significance*
β_{10}	0.1312***	6.1385	0.0000	β_{20}	0.0684***	2.9083	0.0036
β_{11}	0.0491***	2.6148	0.0089	β_{21}	0.0215	1.5063	0.1320
β_{12}	0.0254**	2.1240	0.0337	β_{22}	0.0608***	3.3600	0.0008
β_{13}	0.0680***	3.5174	0.0004	β_{23}	0.2609***	9.3977	0.0000
β_{14}	0.2301	1.0970	0.2727	β_{24}	0.2460	0.6767	0.4986
γ_{10}	0.1084***	12.8712	0.0000	γ_{20}	0.0810***	7.6262	0.0000
γ_{12}	0.0278**	2.4851	0.0130	γ_{21}	0.0148	1.0898	0.2758
γ_{13}	0.0009	0.2684	0.7884	γ_{23}	0.0100***	2.9008	0.0037
γ_{14}	-0.6816***	-13.5888	0.0000	γ_{24}	0.8466**	2.2963	0.0217
$\emptyset_{1}$	-0.1907***	-5.9883	0.0000	$\emptyset_{2}$	-0.5140***	-8.9474	0.0000
γ_{11}	0.9087***	183.1194	0.0000	γ_{22}	0.9351***	143.0323	0.0000
ρ_{12}	0.0830***	4.7580	0.0000	ρ_{21}	0.0830***	4.7580	0.0000
Residual Diagnostics							
AC(12 Residual		0.0474			AC(12 Residual		0.0036
AC(12 Squared Residual		0.0076			AC(12 Squared Residual		0.0057

Notes: This table reports the estimates from the following VAR-EGARCH model:

$$R_{P.t} = \beta_{10} + \beta_{10}R_{P.t-1} + \beta_{12}R_{I.t-1} + \beta_{13}R_{W.t-1} + \beta_{14}\text{Dummy} + \varepsilon_{P.t}$$

$$R_{I.t} = \beta_{20} + \beta_{21}R_{P.t-1} + \beta_{22}R_{I.t-1} + \beta_{23}R_{W.t-1} + \beta_{24}\text{Dummy} + \varepsilon_{I.t}$$

$$\text{logh}_{Pt} = \gamma_{10} + \gamma_{11}\text{logh}_{Pt-1} + \gamma_{12}\text{logh}_{It-1} + g(Z_{Pt-1}) + \gamma_{13}\log R^2_{W.t-1} + \gamma_{14}\text{Dummy}$$

$$\text{logh}_{It} = \gamma_{20} + \gamma_{21}\text{logh}_{Pt-1} + \gamma_{22}\text{logh}_{It-1} + g(Z_{It-1}) + \gamma_{23}\log R^2_{W.t-1} + \gamma_{24}\text{Dummy}$$

We report the estimates and respective t-stats for bivariate return and volatility spillovers for Indian and Pakistani stock markets. The coefficients measuring the effect of MSCI-World index and a dummy variable used as a proxy for the confidence building measures on both Indian and Pakistani stock markets' returns and volatilities are also reported. Significant coefficients are denoted with***, **, * on 1%, 5 %, and 10 % significance level respectively. Residual autocorrelation coefficients at 12^{th} lag AC (12 for both simple and squared standardized residuals are also reported.

Appendix A

Date	Confidence Building Measures (CBM's
23-May-1997	Pakistani prime minister, Nawaz Sharif, and Indian prime minister, Inder Kumar Gujral, meet in the Maldives for the highest level talks between the two nations in four years.
June 23, 1997	India and Pakistan vow to resolve long-standing disputes through dialogue and agree to set up a working group on Kashmir.
January 15, 1998	Prime ministers of India, Pakistan and Bangladesh meet in Dhaka to discuss trade.
July 29, 1998	Prime ministers of India and Pakistan meet at seven-member South Asian Association for Regional Cooperation conference in Colombo to discuss tensions in Kashmir.
September 23, 1998	Indian and Pakistani prime ministers meet at United Nations in New York to discuss nuclear tests.
October 16, 1998	Negotiators from India and Pakistan begin a series of meetings to discuss Kashmir.
February 22, 1999	First bus service between India and Pakistan in 50 years arrives in Pakistan with Indian Prime Minister A.B. Vajpayee a passenger.
July 12, 1999	Indian and Pakistani military officials agree on withdrawal of Muslim guerrillas from Kashmir.
July 24, 2000	Pakistani-backed Hizbul Mujahideen declare 3-month unilateral ceasefire in Kashmir.
August 3, 2000	Commanders of Kashmiri separatist Hizbul Mujahideen begin peace talks with Indian government.
November 27, 2000	India begins unilateral ceasefire in Kashmir during Ramadan.
December 18, 2000	23 Kashmiri pro-independence groups welcome Indian ceasefire during Ramadan, offer peace talks with Indian government.
December 20, 2000	Indian Prime Minister Vajpayee extends unilateral ceasefire in Kashmir by one month.
May 23, 2001	Pakistan's ruler Gen. Musharraf invited to New Delhi for talks.
May 29, 2001	Pakistan's military ruler, General Musharraf, formally accepts New Delhi's invitation to visit India for peace talks.
June 18, 2001	Pakistan announces defense spending freeze.
July 16, 2001	Pakistan President Musharraf and Indian Prime Minister Vajpayee hold talks in Agra, India.
December 24, 2001	Pakistan freezes assets of two Kashmiri militant groups.
May 27, 2002	Pakistan Pres. Pervez Musharraf, speaking on TV, pledges to stop militant incursions into Indian-administered Kashmir.
June 4, 2002	Russia's Vladimir Putin and China's Jiang Zemin hold individual meetings with leaders of India and Pakistan.
June 11, 2002	US Defense Secretary, Donald Rumsfeld, visits India and Pakistan.
June 17, 2002	Bangladeshi Foreign Minister, Morshed Khan, holds talks in Delhi to help defuse tensions between India and Pakistan.
June 19, 2002	Indian defense minister acknowledges Pakistani efforts to rein in militants.
June 28, 2002	Indian PM Atal Behari Vajpayee rules out war with Pakistan over disputed Kashmir.
October 16, 2002	India announces plans to withdraw 300,000-400,000 troops from Kashmir.
October 17, 2002	Pakistan responds to India by announcing plans to withdraw 400,000-500,000 troops from Kashmir border.
December 30, 2002	India promises Kashmir peace talks.
February 5, 2003	India announces willingness to hold talks with Pakistan over Kashmir.
February 18, 2003	India and Pakistan permit senior diplomats back into each other's capital after tit-for-tat expulsions.
February 20, 2003	Pakistan states readiness to engage in dialogue with India on Kashmir and other issues.
April 18, 2003	Indian PM Vajpayee states willingness to talk with Pakistan as he addresses rally in Kashmir - first PM to visit in 16 years.
May 2, 2003	India, Pakistan announce intention to restore full diplomatic relations.
May 6, 2003	Pakistan announces transport links with India to be restored.
May 14, 2003	Indian FM Yashwant Sinha, US Secretary of State Colin Powell hold talks in Moscow on India-Pakistan peace moves.
May 16, 2003	Pakistan bans Jaish-e-Mohammad leader from entering Pakistani Kashmir; India welcomes

	move.
May 27, 2003	India announces resumption of bus service to Pakistan, intention to free Pakistani prisoners.
July 10, 2003	India agrees to attend SAARC meeting in Pakistan in Jan.
July 11, 2003	India, Pakistan restore direct bus service, severed since Dec. 2001.
July 25, 2003	New Delhi eases visa restrictions on Pakistani children seeking medical treatment in India.
August 11, 2003	MPs from India, Pakistan attend informal peace conference in Islamabad.
October 22, 2003	India agrees to meet Kashmir separatists for first time; announces proposals to improve ties with Pakistan.
October 29, 2003	Pakistan accepts Indian offer to resume air and rail links severed following Dec. 2001 attacks on India's parliament.
November 21, 2003	Alliance of Kashmiri separatists says it has drafted peace plan; Indian Deputy PM Advani nominated to talk with separatists.
November 24, 2003	Pakistani PM Jamali announces ceasefire on Line of Control in Kashmir at end of Ramadan.
November 25, 2003	Pakistan implements unilateral ceasefire along Line of Control in Kashmir.
November 26, 2003	India, Pakistan begin ceasefire in Kashmir.
December 1, 2003	India, Pakistan agrees to resume direct air links, Jan. 1, 2004.
December 2, 2003	Pakistani Pres. Musharraf offers to withdraw troops from Pakistan-administered Kashmir if India reciprocates.
December 18, 2003	Pakistan offers to drop demand for referendum in Kashmir; India responds positively.
January 5, 2004	The Indian and Pakistani prime ministers held their first direct talks for more than two years.
January 15, 2004	India and Pakistan resume train link
January 27, 2004	Pakistan and India announced that bilateral "composite dialogue" talks agreed to earlier in January will commence for three days from February
February 16, 2004	India quashed rumors that it would postpone the March tour of Pakistan by formally agreeing to the trip.
March 10, 2004	Indian Cricket Team starts its tour of Pakistan
June 4, 2004	Indian Foreign Minister said that senior diplomats from the two countries would hold talks in Delhi on 27 and 28 June.
June 7, 2004	Pakistan says that Pakistani Foreign Minister will host India's Foreign Minister in Islamabad.
June 21, 2004	India and Pakistan renew a ban on nuclear weapons tests and set up a hotline to alert each other to potential nuclear risks.
August 6, 2004	India, Pakistan hold talks on Sir Creek dispute
August 10, 2004	India-Pakistan trade grew 100 percent
August 12, 2004	India and Pakistan have concluded their first round of composite dialogue, which has yielded positive results and is likely to make the peace process gain momentum
September 6, 2004	India and Pakistan agreed Saturday to widen peace talks that focus on eight festering issues, including the decades-old dispute over the Himalayan region of Kashmir.
September 9, 2004	India, Pakistan agree on 13 proposals to strengthen CBM
September 20, 2004	India announced new rules on Saturday to enable several categories of visitors from Pakistan, including journalists and senior
November 23, 2004	PM Shaukat Aziz arrives New Delhi for a significant visit
November 25, 2004	Time for peace with India, Pakistan's PM says
December 6, 2004	India and Pakistan have agreed to begin the train service between Munnabao in Rajasthan and Kokhrapar
January 3, 2005	India and Pakistan exchange list of nuclear facilities
January 18, 2005	Indian CEOs reach Pak on a two-day visit
February 14, 2005	Indian FM arrives Islamabad for peace talks
February 17, 2005	India and Pakistan agree on Kashmir bus link: a major breakthrough
March 9, 2005	India-Pakistan trade soared by 146 % from april-nov 2004
March 10, 2005	India and Pakistan signed a deal requiring them to notify each other of plans for ballistic missile tests
April 18, 2005	In what may be viewed as a historic step towards strengthening the bilateral trade and

	economic ties, India and Pakistan on Sunday decided to set up a Joint Business Council
May 9, 2005	India and Pakistan hold nuclear confidence talks to improve CBMs
May 26, 2005	India and Pakistan hold talks to resolve siachen issue
June 6, 2005	Pakistan, India begin talks on proposed pipeline to get gas from Iran
July 8, 2005	Nuclear rivals India and Pakistan have agreed to set up a telephone hotline to reduce the risk of a nuclear accident.
July 26, 2005	India begins exports by road to Pakistan
August 3, 2005	In a significant move towards improvement of trade ties with India, Pakistan on Tuesday lifted a four-year ban on sugar imports from India.
August 8, 2005	India, Pakistan reach pact on informing about missile tests; nuclear hot line
August 9, 2005	India and Pakistan have agreed to continue a nearly two-year-old cease-fire in disputed Kashmir
August 24, 2005	Bilateral trade between India and Pakistan registered an impressive growth of 74 percent last fiscal year
August 30, 2005	India and Pakistan agreed Tuesday to release hundreds of fishermen and other civilians in each other's jails
September 12, 2005	Petroleum ministry officials from India and Pakistan said that work on a $6 billion, 1620-mile gas pipeline connecting Iran, Pakistan, and India will begin in mid-2007.
September 15, 2005	India, Pakistan leaders vow to pursue peace in New York
October 31, 2005	India and Pakistan agreed early today to open the heavily militarized frontier in the disputed Kashmir region to speed help for victims of the devastating South Asia earthquake, the Pakistani Foreign minister said
November 21, 2005	Pushing forward the Confidence Building Measures, India and Pakistan have agreed on a series of measures to stop trans border crimes, including narcotics trafficking, by conducting joint patrolling and sharing intelligence.
December 2, 2005	India, Pakistan resume bus service after the earthquake
December 9, 2005	India and Pakistan has begun exchanging more than 500 prisoners as part of their peace process, just days before a meeting of their leaders in New York.
December 12, 2005	The Amritsar-Lahore trial bus carrying nine officials and technical experts of the relevant departments of India's Punjab arrived here on Sunday
January 2, 2006	Pakistan, India exchange list of nuclear installations
January 17, 2006	Bilateral trade between Pakistan and India is likely to touch US$1 billion
January 20, 2006	Pakistan, India launch new Bus service between lahore and Amritsar
February 20, 2006	Pakistan, India launch new rail service - Thar express
February 21, 2006	India will join the Turkmenistan-Afghanistan-Pakistan natural gas pipeline to meet its fuel needs.
March 29, 2006	Pakistan India decide to have cross border bank branches
April 24, 2006	Pakistan-India officials hold talks on confidence-building measures on Nuclear issues
April 27, 2006	Pakistan, India agree on 4-point CBMs to avoid conflict
May 25, 2006	India and Pakistan on Wednesday agreed to continue the discussions to resolve the Siachen issue as a part of Composite Dialogue Process in a peaceful manner
May 29, 2006	Pakistan-India discuss Sir Creek Issue one of the eight issues encompassed under Composite Dialogue
June 20, 2006	Pakistan India start second bus service across the borders
July 3, 2006	Pakistan India exchange 57 prisoners mutually
September 18, 2006	Pakistan and India agreed to restart peace talks suspended since train bombings in Mumbai in July
November 14, 2006	Pakistan India resume peace talks after July bombings
November 28, 2006	Indian Foreign minister to visit Pakistan
January 1, 2007	India and Pakistan exchanged lists of nuclear facilities on Monday in keeping with an accord both have signed promising not to attack each other's nuclear installations, India's Foreign Ministry said.
January 15, 2007	India and Pakistan have confirmed that the peace process between the two countries has resumed. India's Foreign Minister Pranab Mukherjee

January 26, 2007	After two days of hectic parleys, representatives from India, Pakistan and Iran have narrowed down differences on the price of natural gas that Iran plans to sell to the two countries
February 19, 2007	India and Pakistan have resumed the Thar Express train service after the rail link was suspended last year following floods in a bordering Indian state
March 7, 2007	Pakistan and India pledged Wednesday to share information and help each other prevent terrorism in their countries.
March 13, 2007	Fourth round of India-Pakistan composite dialogue opens in Islamabad.
April 4, 2007	India, Pakistan renew commitment to Iran pipeline
April 10, 2007	Pak approves gas sharing arrangement with India
May 18, 2007	In a significant step towards a solution to the boundary dispute at Sir Creek, India and Pakistan exchanged maps after "successful completion" of joint survey of the area
May 29, 2007	India, Pakistan hold talks on common rivers
June 4, 2007	After decades of distrust and blaming each other for fuelling militancy, Indian and Pakistani officials began their first ever talks on Tuesday on how to fight terrorism together
July 2, 2007	As a confidence building measure ahead of the Indo-Pak Home Secretary level talks next week, India decided to release 40 Pakistani prisoners
October 2, 2007	India, Pakistan Open First Trucking Link
October 19, 2007	India, Pakistan to continue with nuclear CBMs
October 22, 2007	India, Pakistan trade terrorist data
February 15, 2008	India-Pakistan flights to double
February 20, 2008	India welcomes Pakistan polls, ready for dialogue
March 31, 2008	Gillani gets vote of confidence unanimously (reiterate talks with India
May 21, 2008	India Pakistan resume talks on CBMs
May 26, 2008	Pakistan repatriate 99 Indian prisoners
June 27, 2008	FM Qureshi visits India to talk with Indian counterpart about CBMs
July 21, 2008	India Pak high level trade talks went smooth with many CBMs agreements including increasing trade across borders
September 1, 2008	Pakistan's cabinet approves Iran-Pak-Ind gas pipeline project
September 8, 2008	India's Manmohan Singh Seeks Close Partnership With Pakistan
September 24, 2008	Zardari and Manmohan singh meet at the UN assembly and agree to resume composite dialogue
October 22, 2008	India, Pakistan open historic Kashmir trade route.
October 27, 2008	Pakistan, India exchange terror suspects' names
November 24, 2008	Zardari says that Pak will not use nuclear weapons against India first
December 29, 2008	India says No plan to attack Pakistan
Confidence shaking news	
October 12, 1999	Pakistan army, led by General Pervez Musharraf, ousts Prime Minister Nawaz Sharif and civilian government.
August 9, 2001	India introduces sweeping emergency powers in Jammu and Kashmir.
October 1, 2001	Suicide bomb attack on Srinagar legislature in Indian-administered Kashmir kills 38 people.
December 13, 2001	Terrorists attack India's parliament, killing 12 people. Kashmiri militants blamed.
December 21, 2001	India recalls high commissioner to Pakistan.
December 27, 2001	India and Pakistan announce tit-for-tat sanctions against one another, including travel ban from 1 January.
February 27, 2002	Muslim mob sets fire to train carrying Hindu nationalists in India.
March 15, 2002	Fundamentalist Hindu protest in Ayodhya, India, goes ahead peacefully.
May 14, 2002	Islamic militants attack Indian army camp in Kashmir.
May 18, 2002	India expels Pakistan High Commissioner.
May 21, 2002	Abdul Ghani Lone, moderate Kashmiri separatist leader, shot dead in Indian-administered Kashmir, as Indian PM Atal Behari Vajpayee begins visit.
May 23, 2002	Indian PM Atal Behari Vajpayee rules out talks with Pakistan on Kashmir crisis.

June 5, 2002	Britain, US advise nationals to leave India and Pakistan.
July 10, 2002	Indian Foreign Ministry rejects resumption of bilateral talks with Pakistan.
August 23, 2002	Pakistan accuses India of assault on Pakistan army post inside Kashmir, allegation denied by India.
October 29, 2002	India rejects Pakistan's call for talks at UN on Kashmir.
December 9, 2002	SAARC postpones January 11-13 meeting in Pakistan indefinitely due to India's lack of commitment.
December 31, 2002	Indian PM Vajpayee renews calls for Pakistan to accept Indian rule in Kashmir.
January 7, 2003	Indian Defence Min. George Fernandes warns Pakistan will be “wiped out” in a nuclear conflict in response to Pres. Musharraf’s threat of “non-conventional war” if attacked.
January 21, 2003	India expels Pakistani High Commissioner.
January 22, 2003	Pakistan expels Indian High Commissioner.
April 29, 2003	Indian PM Vajpayee declines invitation to visit Islamabad.
July 30, 2004	Talks between India and Pakistan ends on the building of a controversial dam without any success
December 16, 2004	India, Pakistan fail to finalize nuclear steps
December 29, 2004	Pakistan and India have ended two days of talks, but made no significant breakthrough
January 8, 2005	India Pakistan talks on hydro power project break down
February 23, 2005	Trade talks between India and Pakistan end without any deal
July 19, 2005	India on Tuesday accused Pakistan of violating twice the 20-month old cease-fire in Poonch sector of Indian-controlled Kashmir
July 21, 2005	Indian Prime Minister Manmohan Singh has warned that rising violence in Kashmir could jeopardize peace talks with Pakistan.
October 18, 2005	India, Pakistan Fail To Agree On Quake Relief amid the death toll rises
December 22, 2005	India, Pakistan talks on Sir Creek fail
April 17, 2006	The two-day talks between Pakistan and India over the construction of a controversial barrage have been postponed
July 11, 2006	Mumbai Train attacks kill 257 people
July 24, 2006	India arrests 4th suspect of Mumbai Train attacks has links with Islamic militants group operating in Pakistan
August 5, 2006	Pakistan and India expel one of others diplomats from their countries to cast a dark shadow on confidence building measures
September 30, 2006	India Blames Pakistan for July Train Bombings
October 22, 2006	A spying row has erupted between Pakistan and India after a Pakistani diplomatic driver was detained in Delhi for allegedly receiving secret files
November 16, 2006	Talks by India and Pakistan make no gains
April 17, 2007	India accuses Pakistan of backing terror
June 13, 2007	A high-level meeting between India and Pakistan to resolve differences on construction of a barrage on Wullar Lake in Jammu and Kashmir has been postponed
August 13, 2007	India said Monday talks with Pakistan on terrorism have been put on hold due to political trouble in Pakistan. India said Pakistan had not committed to a date for the next meeting of the anti-terror mechanism
August 31, 2007	India and Pakistan have failed to resolve a dispute over India's plans to build a dam on a river in its side of Kashmir, the countries said on Friday after two days of talks
September 18, 2007	Pakistan Monday strongly protested with India over start of tourist activities in Siachin, claiming that it was illegally occupied by India in 1984
September 26, 2007	India has not joined this week's meeting over a project to build a gas pipeline from Iran via Pakistan, saying it has to resolve issues with Islamabad before attending tri-nation talks
January 21, 2008	India launches Israeli satellite
July 9, 2008	India postpones talks with Pakistan to be held on July 10 after the attack on Indian embassy in Kabul.
November 27, 2008	Mumbai terrorists attack kill 160 people in Mumbai, India
December 8, 2008	Pakistan, India suspend talks indefinitely
December 13, 2008	India violated Pakistani airspace after Mumbai attacks

Military news from India	
May 11, 1998	India tests five nuclear warheads in the Rajasthan desert.
April 11, 1999	India test-fires long-range ballistic missile capable of carrying nuclear warhead.
May 26, 1999	India begins air strikes in bid to drive 600 Pakistan-backed fighters out of Kashmir.
August 10, 1999	India shoots down Pakistani aircraft, killing all 16 people on board.
February 29, 2000	India announces budget for 2000, with 28% increase in defense spending.
April 11, 2000	India test-fires 8.56-meter, short-range, Dhanush naval, surface-to-surface missile, off the coast of Orissa.
May 5, 2001	India holds largest military exercise in more than 10 years near the Pakistan border.
October 15, 2001	India attacks Pakistani army posts on Kashmiri cease-fire line in retaliation for suicide bomb attack in Srinagar on Oct. 1.
May 21, 2002	Indian Army begins withdrawing troops from Gujarat, redeploys them along border with Pakistan.
January 9, 2003	India successfully tests nuclear-capable Agni-1 missile with range of 800 km.
December 13. 2008	India violated Pakistani airspace after Mumbai attacks
February 26, 2008	India test-fires sea-based nuclear-capable...
November 20, 2006	India tests missile
September 27, 2008	India, Pak troops exchange fire
Military news from Pakistan	
April 6, 1998	Pakistan tests medium-range missile capable of carrying nuclear warhead.
May 28, 1998	Pakistan tests six nuclear weapons in underground explosions in Baluchistan province.
May 19, 1999	Pakistani-backed guerillas capture Indian bases in Kashmir, begin shelling town of Kargil.
February 7, 2000	Pakistan test-fires new short range, surface-to-surface missile.
May 25, 2002	First of three test-firings of Pakistani medium-range missiles.
January 8, 2003	Pakistan's Ghauri missile system handed to army's Strategic Force Command.
October 12, 2004	Pakistan said today that it successfully test-fired a medium-range, nuclear-capable missile that could hit most cities in neighboring India
November 29, 2004	Pakistan test-fired a short-range nuclear capable missile
August 12, 2005	Pakistan tested a ground-launched cruise missile Thursday for the first time, officials said, just days after it reached an agreement with India over missile tests.
November 16, 2006	Pakistan tests nuclear capable missile
December 9, 2006	Pakistan tests ballistic missile
March 2, 2007	Pakistan Test-Fires Short-Range Missile
March 22, 2007	Pakistan tests nuclear-capable cruise missile
July 26, 2007	Pakistan said it successfully test-fired a cruise missile Thursday capable of delivering nuclear warheads deep into India.
January 25, 2008	Pakistan Test Fires Nuke-Capable Missile
February 5, 2008	Pakistan conducts new missile test
February 13, 2008	Pakistan Test-Fires Short-Range Missile Capable
September 27, 2008	India, Pak troops exchange fire