

## **CIRPÉE**

Centre interuniversitaire sur le risque, les politiques économiques et l'emploi

Cahier de recherche/Working Paper **02-08**

### **The Impact of Political Risk on the Volatility of Stock Returns: the Case of Canada<sup>1</sup>**

Marie-Claude Beaulieu  
Jean-Claude Cosset  
Naceur Essaddam

Novembre/November 2002

---

Beaulieu : CIRPÉE, faculté des Sciences de l'Administration, Université Laval

[marie-claude.beaulieu@fas.ulaval.ca](mailto:marie-claude.beaulieu@fas.ulaval.ca); tél. (418) 656-2926 fax (418) 656-2624

Cosset : CIRPÉE, faculté des Sciences de l'Administration, Université Laval

[jean-claude.cosset@fas.ulaval.ca](mailto:jean-claude.cosset@fas.ulaval.ca); tél. (418) 656-2131 ext. 3380 fax (418) 656-2624

Essaddam : Department of Business Administration, Royal Military College of Canada

[nassen.essaddam@rmc.ca](mailto:nassen.essaddam@rmc.ca); tél. (613) 541-6000 ext. 6259 fax (613) 541-6315

<sup>1</sup> The authors appreciate helpful comments and suggestions made by Guy Bellemare, Milton Boyd, Klaus Fischer, Taeho Kim, Lucie Samson and seminar participants at the Université Laval, the Annual Meetings of the Academy of International Business, the Administrative Sciences Association of Canada and the Northern Finance Association. Special thanks to Ieuan G. Morgan for his insightful remarks. The authors gratefully acknowledge financial support from the Social Sciences and Humanities Research Council of Canada, le Fonds Québécois de la Recherche sur la Société et la Culture (FQRSC), l'Institut de Finance Mathématique de Montréal (IFM2), le CIRPÉE and la Chaire en Assurance L'Industrielle-Alliance (Université Laval).

**Abstract** : This paper examines the impact of political risk in Canada on the volatility of stock returns. Our results suggest that political news associated with a possible separation of Quebec from Canada plays an important role in the volatility of stock returns. We also show that the volatility of stock returns varies with the degree of a firm's exposure to political risk, namely, the structure of assets and the extent of foreign involvement.

# **THE IMPACT OF POLITICAL RISK ON THE VOLATILITY OF STOCK RETURNS: THE CASE OF CANADA**

## **I. INTRODUCTION**

Several studies suggest that political risk should be taken into account when analyzing the volatility of stock market returns. For example, Schwert (1989) notes that the volatility of stock market returns in the United States during the Great Depression (1929-1939) could be attributed to political uncertainty regarding the survival of the capitalist system in the United States. Chan and Wei (1996) measure political risk based on political news and note a significant relationship between this news and the volatility of stock returns in Hong Kong. Along the same lines, Bittlingmayer (1998) contends that political risk was an important source of the variation in the volatility of stock market returns in Germany from 1880 to 1940. Finally, according to Aggarwal, Inclan and Leal (1999), variations in emerging stock market returns are, for the most part, country specific and associated with political events.

The objective of this paper is to examine the impact of the political risk associated with a possible Quebec independence on the volatility of stock returns. Several facts argue in favor of such a study. First, the presence of political risk is a worldwide phenomenon that affected most national stock markets in the twentieth century. Jorion and Goetzmann (1999) report that events of a political nature have led to market transaction interruptions in twenty-five countries, including Chile, France, Germany, Japan and Portugal. Second, our study involves a developed financial market in which financial information is easily available for most enterprises. Furthermore, variations in Canadian political risk are "pure" events that are unrelated, for

example, to episodes of market liberalization, as is often the case in emerging markets. Thus, our study makes it possible to more accurately assess how variations in political risk affect the volatility of stock returns. Third, the focus of this study, Canada, is well suited for an examination of the impact of political risk on the volatility of stock returns. As discussed below, Canadian political risk is of the most common type faced by firms since the beginnings of the 1980s, that is a risk that affects the operations of firms rather than the ownership of assets (Minor, 1994; Wells, 1998). Fourth, very few studies (Phillips-Patrick, 1989; Bailey and Chung, 1995, Chan and Wei, 1996) have examined the impact of political risk on the stock market at the microeconomic level. The existing empirical literature has generally focused on the country as a whole and has implicitly assumed that political risk affects all firms identically. Finally, forecasting financial market volatility is important for portfolio selection and asset management as well as for pricing primary and derivative securities.

For the purpose of this study, we consider that Quebec firms are not equally exposed to political risk. In doing so, we follow the political risk literature which argues that the vulnerability to political risk is firm-specific (see, for example, Kobrin (1982)). We construct different firm portfolios on the basis of two components of firms' exposure to political risk : the structure of assets (assets in place versus growth options) and the degree of foreign involvement. Furthermore, in addition to an analysis of its impact on the volatility of stock returns, we shall investigate whether political risk has a bearing on investors' required returns. Providing evidence that investors require (do not require) a political risk premium would mean that political risk is nondiversifiable (diversifiable) (Butler and Joaquim, 1998).

Our study contributes to the existing literature in three ways. First, we consider an operational measure of firms' exposure to political risk and we examine the importance of

political news on different portfolios that account for different levels of exposure to political risk. Second, we compare our results from a matched sample of Canadian (apart from Quebec) and American firms to assess the specificity of our results to the Quebec or Canadian market. Third, we propose the use of a statistical model that allows us to look for the impact of political risk at three different levels, namely, the mean of our portfolio returns, its time-varying risk premium and the conditional variance of our portfolios.

The remainder of the paper is organized as follows. In section II, we present the theoretical framework, discussing the relationship between political risk and stock return volatility. Section III presents the hypotheses and the methodology for testing the relationship between Quebec political risk and stock market volatility. In section IV, we describe our sample. In section V, we present results while Section VI concludes.

## **II. THEORETICAL FRAMEWORK**

### *A. The political context*

Following Wells (1998, p. 15) and Henisz (2002, p. 5), political risks can be defined as “risks [to a firm’s profitability] that are principally the results of forces external to the industry and which involve some sort of government action or, occasionally, inaction”. These government actions which could change the business environment of firms are expropriation, policy shifts in taxation or regulation, imposition of capital and foreign exchange controls. In Canada, political risk is associated with the possible separation of the Province of Quebec from the Canadian federation and is traced to the creation of the Parti Quebecois in 1968, a political party dedicated to Quebec sovereignty. Following defeats in the provincial elections of 1970 and 1973, the Parti Quebecois won the 1976 elections and formed Quebec’s government. This led to

the first episode of political uncertainty, which ended in 1980 with a defeat in a referendum on sovereignty. The second episode of political uncertainty began in the 1990s with the failed efforts of the Canadian and provincial governments to solve the “Quebec problem”. A new referendum on sovereignty held in 1995 was defeated by 50.6 % of voters. This very small margin has led the Parti Quebecois, reelected in 1998, to contemplate the possibility of an other referendum on Quebec’s political future. Thus the political uncertainty in Canada has not yet been put to rest.

### *B. Political risk and stock returns*

The impact of political risk on the volatility of stock returns is based on the premise that the value of a firm is equal to the present value of its expected cash flows, whereas the discount rate represents investors’ required rate of return. If there is uncertainty regarding the possible separation of Quebec, the range of realizations for expected cash flows and discount rates for individual Quebec firms should be wider and the variance of firms’ returns should grow accordingly. We now discuss the impact of a possible separation of Quebec on the two components of the value of a firm.

A Quebec separation could lead to changes in the cash flows of Quebec-based firms through the uncertainty associated with the fiscal, trade and investment policies. On the fiscal front, Quebec’s independence could lead to a tax increase to finance transition costs. On the international front, the renegotiation of several international treaties, such as NAFTA, are likely to create a climate of uncertainty. The waiting period related to this renegotiation of NAFTA could cause a loss of revenues for local firms exporting to the United States and Mexico, affecting the future cash flows of these firms. Finally, the political uncertainty associated with a

possible independence of Quebec could lead to a reduction in investments in Quebec and a decrease in the cash flows of Quebec-based firms (Altug, Demers and Demers, 2000).

Quebec separation could also lead to changes in discount rates through the uncertainty associated with monetary policy. Separation from the Canadian federation would be costly for Quebec, which could well face a financial crisis (Altug, Demers and Demers, 2000). First, Quebec would suffer from a large current account deficit. Second, it would have a large debt problem amounting to over 120% of its GDP. Third, a possible capital flight could lead to a fall in the value of the Canadian dollar and a rise in interest rates. This would mean an increase of the cost of capital of Quebec-based firms.

### **III. HYPOTHESES AND METHODOLOGY**

#### *A. Measures of Political Risk*

We propose to study the relationship between political risk and stock return volatility. To do so, we assess the response of Quebec-based firms' stock returns to political news associated with Quebec independence and released in the press. We distinguish the impact of favorable and unfavorable political news on the volatility of stock returns of Quebec-based firms. Favorable (unfavorable) news will decrease (increase) the uncertainty about future cash flows and stock prices. Thus, we expect favorable political news to decrease stock return volatility while unfavorable political news should increase stock return volatility. In our empirical analysis, we also include two matched samples to the Quebec firm portfolios. The first one contains Canadian firms (excluding Quebec firms) in order to assess whether political risk is relevant for the rest of the Canadian market. Finally, we use a matched sample of American firms. This also allows us to determine whether our choice of political risk proxy is fortuitous.

### *B. Measures of Exposure to Political Risk and Hypotheses*

We use two measures to assess the degree of exposure to political risk for Quebec firms. The first measure evaluates the firm's degree of mobility based on growth options. Myers (1977) breaks the value of a firm down to two components: the assets in place (the value of which does not depend on the firm's future investments) and growth options. Growth options play an important role in decreasing the exposure of a firm to political risk (Phillips-Patrick, 1989). Firms whose value is mainly determined by opportunities for growth are less affected by political risk since they can easily move their operations to another region without incurring excessive costs. Conversely, firms whose value is mainly determined by assets in place should be more affected by political risk, given the high cost of moving these assets. This leads us to formulate the following hypothesis:

**H1:** A Quebec firm whose value is mainly determined by growth options will be less affected by Quebec political risk than would a Quebec firm whose value is mainly determined by assets in place.

The second measure of exposure to political risk uses the firm's degree of internationalization based on the number of countries in which it owns subsidiaries. International foreign investment could create new risk factors such as political risk and foreign exchange risk. However, several studies maintain that these new risks are diversifiable (e.g., Goldberg and Heflin, 1995). In fact, multinational companies are present in a number of domestic markets from which they can minimize the impact of fluctuations in interest rates, cost of input and salaries by transferring their operations from one market to another. For instance, a multinational firm which is headquartered in Quebec but has operations in other countries can

diversify political risk away and will be less affected by a possible Quebec independence than a company conducting business solely at the local level.<sup>1</sup> This hypothesis can be formulated as follows:

**H2:** A multinational Quebec firm will be less sensitive to Quebec political risk than would be a purely domestic Quebec firm.

### *C. Presentation of the Empirical Model*

To assess the response of Quebec-based firms' stock returns to political news associated with Quebec independence, we use a bivariate modified GARCH (Generalized Autoregressive Conditional Heteroscedasticity) model (Engle, 1982; Bollerslev, 1986), proposed by Glosten, Jagannathan and Runkle (1993), using Engle and Kroner (1995) parameterization (hereafter BEKK). Interestingly, this model accounts for overtime changes in the volatility of stock returns.

Let us define

$R_{mt}$  : the rate of return on the benchmark portfolio from time t-1 to t,

$r_{ft}$  : the riskless rate of return from time t-1 to t,

$l_t$  : an indicator variable that takes the value of one when t is the first trading day of the week and zero otherwise,

$H_t$  : the conditional variance-covariance matrix of the system of mean equations with asymmetric components,

$h_{mt}$  : the conditional variance of the benchmark return on the  $H_t$  matrix,

$h_{imt}$  : the conditional covariance of the benchmark return and portfolio i,

$u_t$  : a vector with components  $(\varepsilon_{mt}, \varepsilon_{it})'$ ,

$\eta_t$  : a vector with components  $(\eta_{mt}, \eta_{it})'$ , with  $\eta_{mt} = \max[0, -\varepsilon_{mt}]$  and  $\eta_{it} = \max[0, -\varepsilon_{it}]$ ,

FN : a vector with components  $(0, fn_i)'$ ,

UN : a vector with components  $(0, un_i)'$ ,

$fn_i$  : a parameter which assesses the impact of favorable news on the volatility of stock returns of portfolio  $i$ ,

$un_i$  : a parameter which assesses the impact of unfavorable news on the volatility of stock returns of portfolio  $i$ ,

$D_{1t}$  : a vector with components  $(0, d_{1t})$ ,

$D_{2t}$  : a vector with components  $(0, d_{2t})$ ,

$d_{1t}$  : a dummy variable taking the value of one for favorable news and zero otherwise,

$d_{2t}$  : a dummy variable taking the value of one for unfavorable news and zero otherwise.

The bivariate model we estimate is:

$$R_{mt} - r_{ft} = \gamma_{0m} + \gamma_{1m}l_t + \gamma_{2m}(R_{m,t-1} - r_{f,t-1}) + \varepsilon_{mt} \quad (1)$$

$$R_{it} - r_{ft} = \gamma_{0i} + \frac{h_{imt}}{h_{mt}}(\gamma_{0m} + \gamma_{1m}l_t + \gamma_{2m}(R_{m,t-1} - r_{f,t-1})) + \gamma_{1i}l_t + \gamma_{2i}(R_{i,t-1} - r_{f,t-1}) + \varepsilon_{it} \quad (2)$$

$$H_t = \Gamma + BH_{t-1}B' + Au_{t-1}u'_{t-1}A' + G\eta_{t-1}\eta'_{t-1}G' + FN D_{1t} + UN D_{2t} \quad (3)$$

The conditional bivariate model (equations (1), (2), and (3)) allows us to examine the response of the volatility of Quebec firm portfolios based upon the level of exposure to Canadian political risk. Equation (1) is the market excess return equation. Equation (2) is the excess return equation on one of four portfolios. Equation (3) is a GARCH representation of the variance-covariance matrix resulting from equations (1) and (2). Estimated jointly, equations (1), (2) and (3) represent a conditional CAPM version of the return of one of our four portfolios for which the risk premium in (2) is time-varying. The interest of this modeling is that it allows for the presence of political risk through a political news dummy.

We use two variables to predict the excess return of these portfolios and the market portfolio. First, we use a dummy variable for the first trading day of the week for the weekend effect (French, 1980). Second, we assume that the excess return follows an autoregressive process of order one. This last variable allows for consideration of the autocorrelation problems

related to the non-synchronous trading of returns (Lo and MacKinlay, 1990) or bid-ask spreads for portfolios consisting of few traded assets (Stoll and Whaley, 1990).

In order to assess the impact of political news on the volatility of stock returns, we use a two-step approach. First, we identify and classify the political news regarding the separation of Quebec from the Canadian federation. Then, we assess the impact of the news on the volatility of stock returns for portfolios based upon both measures of exposure to political risk. A description of the sample of political news and portfolios follows.

## IV. DATA

### *A. The Sample of News*

Our study covers the period from January 1990 to December 1996. We choose this period of analysis for two reasons. First, it includes the four following major events of the second episode of political uncertainty in Quebec: the rejection of the Meech Lake Accord in 1990, the referendum on the Charlottetown Accord in 1992, the re-election of the Parti Quebecois in 1994 and the second referendum on Quebec independence in 1995. Second, relevant political news following the October 1995 referendum is rare. For example, in 1997, we identify only one item of political news associated with the possible independence of Quebec.

To test our hypotheses we begin by identifying the days on which political news items regarding the possible independence of Quebec are released. We examine the *Wall Street Journal (WSJ) Index* and the cited articles appearing in the *WSJ* to determine the public announcement date of all events regarding Quebec's political future. We classify each event as being unfavorable or favorable. An unfavorable event describes a situation with high political risk: for example, the Quebec government's announcement that a referendum on sovereignty

would take place on October 30<sup>th</sup>, 1995. On the contrary, a favorable event describes a situation with low political risk such as the news that there are signs of a lull in the confrontation between the Canadian and Quebec governments. Since the interpretation of a political risk event, as provided in the *WSJ*, is usually inseparable from the stock price movement, we separate classification and choice of news and proceed as follows. Two observers (graduate students) are asked to place each event into one of three categories: favorable, ambiguous or unfavorable. In case of disagreement, a third observer breaks the tie. If the third observer cannot place it in one of the two categories already chosen, the event is considered unclassified. In addition to the list of news, the observers are provided with a written note describing the goals of the research and defining political risk. Using these selection criteria, we obtain a sample of sixty-seven political news items likely to affect the perception of political risk associated with Quebec's independence over the period from 1990 to 1996. Out of sixty-seven political news items, thirty-eight are deemed unfavorable (bad), twenty-four favorable (good) and five ambiguous. Thus our empirical investigation involves sixty-two political news items since we disregard the five items deemed ambiguous. An appendix gives the list of news dates, headlines and the classification of political news.

### *B. The Sample of Quebec Firms*

Our initial sample consists of 102 firms, headquartered in the Province of Quebec and listed on the *Montreal Stock Exchange* and/or on the *Toronto Stock Exchange*. The data source for stock returns is *Datastream*. The accounting data used to measure growth options are taken from *Stock Guide*, a publication that provides financial information on Canadian firms. The final sample for which we have both common stock prices and accounting data consists of seventy-one Quebec firms. The sampled firms are then subdivided into two sets of portfolios according

to our measures of political risk exposure: (1) growth options versus assets in place; (2) domestic versus multinational operations. The first subdivision creates two portfolios of Quebec firms: (1) firms with high growth options and (2) firms with low growth options. To classify a Quebec firm as having high growth options, the market value to book value ratio must be greater than the median of the sample. This ratio measures the growth opportunities of a firm because its market value is the value of both assets in place and growth options while its book value reflects only the assets in place. The second subdivision creates two portfolios of Quebec firms according to the level of foreign activities: the first consists of forty-five purely domestic companies and the second of twenty-six multinational companies that operate in at least one foreign country.<sup>2</sup> We draw information regarding the number of foreign subsidiaries from *Who Owns Whom 1989*, a Dun and Bradstreet publication. The year 1989 (the year preceding the period of analysis) is used to measure the two criteria for political risk exposure. The portfolios are then kept fixed over the time period covered by our study. The weights are chosen according to the market value of each firm in the overall value of the portfolio in 1989. Rebalancing only occurs if firms drop out during our sampling period.<sup>3</sup>

Panel A of Table 1 shows the size distribution of Quebec firm portfolios, with size measured as the book value of total assets. As expected, Quebec multinational firms are large whereas purely domestic Quebec-based firms are either small or medium-sized. As for the two portfolios of Quebec firms exhibiting different levels of growth options, we find that the percentage of small firms with low growth options is slightly larger than the percentage of firms with high growth options. Stock return volatility could vary with the industry (Campbell and Lettau, 1999). Our Quebec firm portfolios are spread over a wide range of industries, as shown in Panel B of Table 1. Most industries are represented in the four portfolios of Quebec firms.

Table 2 shows the distribution of our samples according to the levels of growth options and foreign operations. Most Quebec multinational firms are characterized by a high level of growth options while most domestic firms operating in Quebec are characterized by a low level of growth options. Finally, 96% of Quebec multinational firms operate in at least two foreign countries and 50% of the multinational firms in our sample operate in at least seven foreign countries.

### *C. The Matching Sample of Canadian and American Firms*

We create a control sample of Canadian (apart from Quebec) and American firms as follows. First, to control for the industry in which the Quebec firms belong, we match each Quebec firm to all Canadian (U.S.) firms in the same four-digit SIC code. Second, among these, we select the firm whose total assets, value of growth options (measured by the ratio of market to book value of assets) and degree of internationalization (measured by the number of foreign countries in which the firm owns subsidiaries) are between 70 and 130 per cent of the size, the value of growth options and the degree of internationalization of the Quebec-based firm at the end of 1989. If several Canadian (U.S.) firms meet this criterion, we choose the firm for which the value of growth options and the degree of internationalization are closest to those of the Quebec firm. In the absence of Canadian (U.S.) firms which have both the same four-digit SIC code and meet the matching criteria (the value of growth options and the degree of internationalization), we consider Canadian (U.S.) firms with the same three-digit or two-digit SIC codes. Information on the matching sample of Canadian (U.S.) firms is taken from *Compustat* and *Who Owns Whom*. The data sources for stock returns of Canadian and American firm, are *TSE-Western* and *Datastream*, respectively.

## V. RESULTS

### *A. Descriptive Statistics*

Table 3 reports descriptive statistics on the distribution of stock returns for the market portfolio and the Quebec firm portfolios.  $Q(12)$  ( $Q^2(12)$ ) is the Ljung-Box (1978) test statistic for the first 12 lags of the autocorrelation function for the (squared) standardized residuals of the pseudo-maximum likelihood estimation of the different portfolios with constant variance. The results suggest that for both the reference market portfolio and the four Quebec firm portfolios the null hypothesis of the absence of autocorrelation and heteroscedasticity in the residuals is rejected. This justifies the use of GARCH models to describe the behavior of the stock returns of Quebec firm portfolios.

### *B. Political News and Stock Return Volatility*

Table 4 reports the results of the estimation of the model we used to test the relationship between political news and the stock return volatility of Quebec-based firms. For the sake of conciseness, we present results for the most relevant parameters for our analysis but full results are available from the authors upon request. First, we find that the coefficient associated with the autoregressive term of order one is significantly different from zero for the market portfolio ( $\gamma_{2m}$ ) and the Quebec firm portfolios ( $\gamma_{2i}$ ). This result is consistent with non-synchronous trading (Lo and MacKinlay, 1990). In the case of the portfolio of purely domestic Quebec firms, the coefficient associated with the autoregressive term of order one is negative. This result is consistent with large bid-ask spreads of the component stocks of a portfolio consisting of few stocks (Stoll and Whaley, 1990). Second, the results of the model suggest that ARCH and GARCH effects (coefficients  $\alpha$  and  $\beta$ ) are statistically significant for the market portfolio and the

Quebec firm portfolios. We also find that the coefficient for asymmetric volatility for the market index ( $g_m$ ) is positive and statistically significant.

The results, shown in Table 4, suggest that political news affects mainly Quebec-based firms that we hypothesized would be more exposed to political risk, that is, purely domestic firms or low growth option firms. The coefficients associated with favorable ( $fn_i$ ) and unfavorable ( $un_i$ ) political news are not statistically significant for the portfolios of multinational and high growth option firms. Furthermore, favorable and unfavorable political news does not seem to affect the volatility of stock returns identically. Generally speaking, unfavorable (favorable) political news increases (decreases) the total conditional variance of portfolios of firms more exposed to political risk.

We find an asymmetric response to positive (favorable) versus negative (unfavorable) political news, with unfavorable news resulting in a larger volatility response than favorable news. Two explanations could be provided for this result. Firstly, we have shown that purely domestic firms and low-growth-option firms are small-sized firms. According to McQueen, Pinegar and Thorley (1996), the asymmetrical response of the stock market could be traced to a size effect. These authors argue that the stock market reacts quickly to the announcement of unfavorable news while it reacts slowly to the announcement of favorable news. This difference prevails in particular for small firms. This delay in reaction time could reduce and dilute the impact of favorable political news on the volatility of stock returns. Secondly, it can be argued that unfavorable news has more information content (Michaely, Thaler and Womack, 1995) and there is more media coverage (Dielman and Oppenheimer, 1984) than for favorable news. This could amplify the impact of such news on the volatility of stock returns.

Table 5 gives the diagnostic checks for the model of different portfolios. Report results of diagnostic checks for the valuation model of stock returns. We consider conditional moment (CM) tests (Newey, 1985). The results of our tests suggest that CM tests for the presence of political news in the conditional mean of our portfolios as well as in the conditional covariance of each of these portfolios with the market return are rejected. Our results show that there may be no role in the mean or in the covariance of portfolio returns for a given exogenous variable while this variable appears important in the variance of the portfolios. In our case, the fact that portfolios contain a small number of firms and that firms are chosen according to shared characteristics, it is possible that the variance of our portfolios contains some non systematic risk.

Other specification tests developed by Kroner and Ng (1998) are not presented here but they show that our model is reasonably well specified. The fact that we find no role for political news in the conditional mean or covariance of the different portfolios formed in this study suggests (whether we include news in the variance or not) that political risk is diversified away. Such a result corroborates Butler and Joaquim's (1995) argument that for global investors local political risk is diversifiable and does not affect investors' required returns. However, the overall conditional variance of the portfolios of both domestic firms and firms with low growth options is increased. We also calculated the unconditional variance of our model and show that is larger (smaller) in presence of unfavorable (favorable) news. Given that our measure of unconditional variance is very close to that of a bivariate model without a risk premium, we infer that the total variance of the firm is increased (decreased) in presence of unfavorable (favorable) news. This implies that political risk affects the total risk born by firms exposed to it.<sup>4</sup>

*C. Political News and the Stock Return Volatility of Matching Samples of Canadian and American Firms*

The objective of these additional tests is to show that the results shown in the preceding section are specific to Quebec-based firms. We do not expect Canadian political risk to be important for American firms and therefore to influence the behavior of the stock return volatility of these firms for at least two reasons. First, in the 1990s and particularly during the 1995 referendum campaign, Canadian political risk was not covered by the United States media. This could reflect the fact that the activities and therefore the stakes of American firms in Quebec are limited. Second, there is not a significant transmission of stock market return volatility from Canada to the United States (Karolyi, 1995). In contrast, uncertainty about the independence of Quebec could affect stock return of Canadian firms, headquartered outside Quebec, via the different channels discussed in Section II.B, such as changes in the Canadian interest rates and tax rates.

Table 6 reports the results of our estimation for the four matched portfolios of Canadian firms. As in our Quebec sample, political news associated with Quebec independence affects the volatility of the Canadian firm portfolios. The coefficients for the favorable and unfavorable news are significant for the same two portfolios of Canadian firms. These results indicate that political news associated with a possible Quebec independence is an important factor in explaining the stock return volatility of Canadian firms with purely domestic operations or with low growth options. Contrary to our domestic firm portfolios in our Quebec sample which exhibits a negative AR(1), the coefficient associated with the autoregressive term of order one for the four portfolios in the matched sample of Canadian firms is always positive. This suggests

that our Quebec result cannot be attributed to larger bid-ask spreads for the component firms of the portfolios more exposed to political risk.

The results for the sample of American firms are not presented here but are available from the authors upon request. They suggest that political news plays no role in explaining the stock return volatility of the matched American portfolios. This implies that the choice of political news is not fortuitous.<sup>5</sup>

#### *D. Robustness Tests*

This section briefly discusses the results of two robustness tests that we performed. First, we consider another proxy for growth options, namely Tobin's Q. This measure is equal to the ratio of the firm's market value to the replacement value of its assets. Tobin's Q differs from the ratio of the market value to the firm's accounting value in two ways: (1) the addition of the debt value to the common stock value and (2) the use of the replacement value for all the elements of the asset instead of the historical value of the asset. The results on the impact of political news on the stock return volatility do not change with this alternative measure of growth options. Second, we use the TSE 300 index as a proxy for the market index. The substitution of this index for the MSCI does not change our results markedly. In particular, we find that political news affects only the stock return volatility of portfolios made up of Quebec firms with low growth options or with purely domestic activities.

## **VI. CONCLUSION**

This paper studies the impact of political risk on the stock return volatility of Quebec-based firms. To do so, we assess the volatility response of Quebec-based firms' stock returns to political news associated with Quebec's separation from the Canadian federation. The results of

our study suggest that the political risk associated with a possible independence of Quebec plays an important role in the conditional volatility of stock returns but none in the returns or risk premiums of our portfolios. We also show that the stock return volatility varies with the degree of a firm's exposure to political risk. Specifically, we find that political news affects the stock return volatility of firms that are either mainly characterized by assets in place or purely domestic while they do not affect the stock return volatility of firms that have a large degree of either growth options or international operations. Finally, the results of our study suggest that unfavorable political risk news has a more significant impact on the volatility of stock returns than favorable political risk news. Our results are complemented with two matched samples of Canadian (excluding Quebec firms) and American portfolios. The Canadian sample indicates that political risk is important in the conditional variance of the same portfolios as the Quebec sample while the American sample shows no effect. This implies that the Canadian market outside of Quebec is also affected by political risk but that the American firms are not.

Our paper complements the evidence documented in Aggarwal, Inclan and Leal (1999) on the impact of political events on the stock return volatility of emerging markets. We bring to light the importance of political events in determining stock return volatility in a major developed market that offers long and reliable time series, the Canadian stock market. We contribute to the political risk literature by showing that the exposure to political risk varies with two characteristics of firms, that is, the nature of their assets and the level of their international activities. These results are in agreement with the international business literature which argues (e.g., Kobrin, 1982) that the vulnerability to political risk is firm-specific. Our evidence also suggests that unfavorable political news has a greater impact on stock return volatility than favorable political news. Finally, we find no role for political news in the conditional mean or

covariance of the different portfolios formed in this study. This suggests that political risk can be diversified away and does not affect investors' required returns. We also find an increase in total variance. However, there is only a compensation for systematic risk. Investors who naturally hold large amounts of this risk incur accrued costs by diversifying or holding it.

The results of this paper have two important implications. First, the evidence that political risk news contributes to stock market volatility suggests that political risk news should be considered when modeling stock market volatility. This is all the more important since events of a political nature are a worldwide phenomenon that affects most national stock markets (Jorion and Goetzmann, 1999). Second, the exposure to political risk varies with two characteristics of firms, that is, the nature of their assets and the level of their international activities. We believe that some possible extensions of this work deserve to be considered. First, using the approach developed here, we could examine the impact of political risk on the volatility of other stock markets, for example, emerging markets that are often viewed as the stock markets of politically risky countries. Second, further research could investigate the impact of Canadian political risk on the stock market volatility of foreign firms operating in Canada. From an international business perspective, it would be interesting to assess whether the exposure of foreign firms to political risk varies with the structure of assets (assets in place versus growth options) and to contrast the volatility of stock returns of domestic and foreign firms operating in Canada. Finally, we could investigate the stock market reaction to Canadian political risk news items using an event study methodology that allows for overtime changes in stock return volatility.

## NOTES

1. An alternative measure of internationalization would be the percentage of foreign sales in relation to total sales. We did not consider this measure for two reasons. First, the effect of a possible Quebec independence on Quebec exporting firms is ambiguous. On one hand, Quebec exporting firms could benefit from the fall in the value of the Canadian dollar associated with the political uncertainty in Canada. On the other hand, Quebec export firms will be faced with the business uncertainty related to the renegotiation of international treaties with the rest of Canada and the United States. Second, data on export sales are not available for most Quebec firms.
2. Note that we do not count Canadian (out of Quebec) subsidiaries as foreign. Further evidence, presented below, suggests that the volatility of stock returns of Canadian domestic firms reflects the political news associated with a possible independence of Quebec.
3. Note that the results are qualitatively similar with equally weighted portfolios.
4. We can draw a parallel between our results and those provided in Burnie (1994). Burnie shows that the incidence of separation news around the sale of Quebec debt issues is associated with a specific increase to issuers' costs. These costs are additional fees that are paid to the investment banking syndicate but not an increase in the market yield.
5. Similar to the tests performed for the Quebec firm portfolios, shown in Table 5, we carried out diagnostic tests for the sample of Canadian and American firms. The results, show that our estimation models are well specified.

## REFERENCES

- Altug Sumru., Fanny S. Demers and Michel Demers. 2000. Political Risk and Irreversible Investment: Theory and an Application to Quebec. Discussion Paper No. 2405. Center for Economic Policy Research
- Aggarwal, Reena., Carla Inclan et Ricardo Leal. 1999. Volatility in Emerging Stock Markets. *Journal of Financial and Quantitative Analysis*, 34: 33-55.
- Bailey, Warren & Y. Peter Chung. 1995. Exchange Rate Fluctuations, Political Risk, and Stock Returns: Some Evidence from an Emerging Market. *Journal of Financial and Quantitative Analysis*, 30: 541-561.
- Bittlingmayer, George. 1998. Output, Stock Volatility and Political Uncertainty in a Natural Experiment: Germany, 1880-1940. *Journal of Finance*, 53 : 2243-2257.
- Bollerslev, Tim. 1986. Generalized Autoregressive Conditional Heteroscedasticity. *Journal of Econometrics*, 31 : 307-327.
- Burnie, David A, 1994, Sovereignty, Separation and Risk Premiums. *Journal of International Financial Management and Accounting* 5, 1-24.
- Butler, Kirt C. and Domingo Castelo Joaquin. 1998. A Note on Political Risk and the Required Return on Foreign Direct Investment. *Journal of International Business Studies* 29, Third Quarter, 599-608.
- Campbell, John. Y. & Martin Lettau, 1999. *Dispersion and volatility in stock returns : an empirical investigation*. NBER Working Paper 7144.
- Chan, Yue-Cheong. and John K. C. Wei. 1996. Political Risk and Stock Price Volatility: The Case of Hong Kong. *Pacific-Basin Finance Journal*, 4 : 259-275.
- Dielman, Terry E. & Henry R. Oppenheimer. 1984. An Examination of Investor Behavior During Periods of Large Dividend Changes. *Journal of Financial and Quantitative Analysis*, 19:197-216.
- Engle, Robert. F. 1982. Autoregressive Conditional Heteroskedasticity with Estimates of the Variances of U.K. Inflation. *Econometrica*, 50: 987-1008.
- Engle, Robert & Kenneth Kroner. 1995. Multivariate Simultaneous Generalized ARCH. *Econometric Theory*, 11: 122-150.
- French, Kenneth R. 1980. Stock Returns and the Weekend Effect. *Journal of Financial Economics*, 8: 55-69.
- Glosten, Lawrence R., Ravi Jagannathan & David Runkle. 1993. On the Relation Between The Expected Value and the Volatility of the Nominal Excess Return on Stocks. *Journal of Finance*, 48 : 1779-1801.
- Goldberg, Stephen. R & Frank. L. Heflin. 1995. The Association between the Level of International Diversification and Risk. *Journal of International Financial Management and Accounting*, 1-25.

- Henisz, Witold. J. 2002. *Politics and International Investment*, Edward Elgar Publishing Limited, Cheltenham, UK.
- Jorion, Philippe & William N. Goetzmann. 1999. Global Stock Markets in the Twentieth Century. *Journal of Finance*, 54 : 953-980.
- Karolyi, Andrew G. 1995. A Multivariate Garch Model International Transmission of Stock Returns and Volatility : The case of United States and Canada. *Journal of Business and Economic Statistics*, 13 : 11-25.
- Kobrin, Sthphen J. 1982. *Managing Political Risk Assessment : Strategic Response to Environmental Change*. California, U.S.: University of California Press.
- Kroner, Kenneth F. & Victor K. Ng. 1998. Modeling Asymmetric Comovements of Asset Returns. *Review of Financial Studies*, 11: 817-844.
- Lo, Andrew W. Craig A. MacKinlay. 1990. An Econometric Analysis of Nonsynchronous Trading. *Journal of Econometrics*, 45 : 181-211.
- McQueen, Grant M., Michael Pinegar & Steven Thorley. 1996. Delayed Reaction to Good News and the Cross-Autocorrelation of Portfolio Returns. *Journal of Finance*, 51: 889-919.
- Michaely Roni, Richard H. Thaler & Kent L. Womack. 1995. Price Reactions to Dividend Initiations and Omissions: Overreaction or Drift. *Journal of Finance*, 50: 573-608.
- Minor, Michael. S. 1994. The Demise of Expropriation as an Instrument of LDC Policy, 1980-1992. *Journal of International Business Studies* 25, First Quarter, 177-188.
- Myers, Stewart. 1977. Determinants of Corporate Borrowing. *Journal of Financial Economics*, 147-175.
- Newey, Whitney K. 1985. Maximum Likelihood Specification Testing and Conditional Moment Tests. *Econometrica*, 53 : 1047-1070.
- Phillips-Patrick, Frederick J. 1989. The Effect of Asset and Ownership Structure on Political Risk : Some Evidence from Mitterrand's Election in France. *Journal of Banking and Finance*, 13:651-671.
- Schwert, G. William. 1989. Why Does Stock Market Volatility Change Over Time? *Journal of Finance*, 44 : 1115-1153.
- Stoll, Hans R. & Robert E. Whaley. 1990. The Dynamics of Stock Index and Stock Index Futures Returns. *Journal of Financial and Quantitative Analysis*, 25: 444-468.
- Wells, Louis T. 1998. Theodore H. Moran editors. *God and Fair Competition: Does the Foreign Direct Investor Face Still Other Risks in Emerging Markets?* Managing International Political Risk , Blackwell Publishers, Oxford.

**Table 1****Panel A : Size and industry distributions of Quebec Firm Portfolios**

<b>Asset size In dollars</b>	<b>LGO</b>	<b>HGO</b>	<b>DF</b>	<b>MF</b>
1000-25000	35%	22%	40%	8%
25000-50000	29%	25%	44%	0%
50000-300000	12%	17%	11%	19%
300000-1500000	3%	17%	4%	19%
>1500000	21%	19%	0%	54%
Total number of firms per portfolio	36	35	45	26

**Panel B : Industry Distribution of Quebec Firm Portfolios**

<b>Industry</b>	<b>LGO</b>	<b>HGO</b>	<b>DF</b>	<b>MF</b>
Mining	0%	6%	4%	4%
Products and services	11%	9%	9%	12%
Furniture	3%	3%	4%	0%
Engineering	3%	9%	4%	8%
Mining, and oil exploitation, and metallic and chemical industry	6%	9%	2%	15%
Forestry and printing	11%	9%	7%	15%
Technology hardware and software	9%	14%	11%	12%
Transportation, equipment and services	9%	17%	13%	12%
Wholesale trading	14%	3%	13%	0%
Detail trading	14%	9%	18%	0%
Banking and financial services	20%	14%	13%	23%
Total number of firms per portfolio	36	35	45	26

Panel A and B show the size distribution (expressed in 000s of dollars) and the industry distribution of Quebec firm portfolios, respectively. LGO is the portfolio of Quebec firms with low growth options, HGO is the portfolio of Quebec firms with high growth options, DF is the portfolio of purely domestic Quebec firms and MF is the portfolio of multinational Quebec firms.

**Table 2**

**Growth Option and International Exposure Distribution of Quebec Firm Portfolios**

<b>Portfolio</b>	<b>LGO</b>	<b>HGO</b>	<b>Total</b>
DF	57%	43%	100%
MF	38%	62%	100%

For portfolio definitions see notes to Table 1.

**Table 3**  
**Descriptive Statistics**

Portfolios	Mean $\times 10^2$	Standard Deviation $\times 10^2$	Q(12)	Q <sup>2</sup> (12)	Minimum $\times 10^2$	Maximum $\times 10^2$
M	0.023	0.699	61.10 [0.00]	163.04 [0.00]	-5.354	5.569
LGO	0.011	0.950	56.92 [0.00]	72.70 [0.00]	-3.803	3.578
HGO	0.039	0.649	85.28 [0.00]	79.06 [0.00]	-3.919	2.935
DF	0.002	0.716	39.82 [0.00]	183.44 [0.00]	-3.930	5.595
MF	0.032	0.681	83.93 [0.00]	72.52 [0.00]	-3.817	3.177

Q(12) and  $(Q(12))^2$  are the Ljung-Box (1978) test statistics for the first 12 lags of the autocorrelation function for the standardized residuals of the maximum likelihood estimation of the different portfolios with constant variance. The p-values, presented in squared parentheses, are for the  $\chi^2(12)$  distribution. M represents returns on the MSCI benchmark portfolio. For portfolio definitions, see notes to Table 1. The sample period goes from January 1990 to December 1996.

**Table 4**

### Estimation Results of the Model using Quebec Firm Portfolios

$$R_{mt} - r_{ft} = \gamma_{0m} + \gamma_{1m}l_t + \gamma_{2m}(R_{mt-1} - r_{ft-1}) + \varepsilon_{mt} \quad (1)$$

$$R_{it} - r_{ft} = \gamma_{0i} + \frac{h_{imt}}{h_{mt}} (\gamma_{0m} + \gamma_{1m}l_t + \gamma_{2m}(R_{mt-1} - r_{ft-1})) + \gamma_{1i}l_t + \gamma_{2i}(R_{it-1} - r_{ft-1}) + \varepsilon_{it} \quad (2)$$

$$H_t = \Gamma + BH_{t-1}B' + Au_{t-1}u'_{t-1}A' + G\eta_{t-1}\eta'_{t-1}G' + FN_{t-1}FN' + UN_{t-1}UN' \quad (3)$$

	LGO		HGO		DF		MF	
	Coefficient	Standard error						
$\gamma_{2m}$	0.161*	0.026	0.151*	0.026	0.159*	0.025	0.154*	0.026
$\gamma_{2i}$	0.099*	0.024	0.158*	0.024	-0.108*	0.026	0.138*	0.023
$a_m$	-0.092*	0.037	0.162*	0.030	-0.343*	0.009	0.219*	0.018
$g_m$	0.371*	0.018	0.343*	0.014	0.192*	0.017	0.302*	0.011
$b_m$	0.897*	0.005	0.884*	0.004	0.886*	0.002	0.890*	0.002
$a_i$	0.155*	0.010	0.322*	0.019	0.028	0.020	0.297*	0.020
$g_i$	0.204*	0.015	0.049	0.029	0.271*	0.011	-0.012	0.019
$b_i$	0.916*	0.003	0.840*	0.007	0.912*	0.002	0.878*	0.008
$fn_i$	-0.023	0.053	-0.014	0.032	-0.066*	0.022	-0.009	0.035
$un_i$	0.126*	0.064	0.114	0.066	0.109*	0.055	0.090	0.054

\* represents significant coefficients under robust standard errors (Bollerslev and Wooldridge (1992)) at the 5% level of significance. M represents returns on the MSCI benchmark portfolio. For portfolio definitions see notes to Table 1. The sample period goes from January 1990 to December 1996.

**Table 5**  
**Diagnostic Checks of the Model using Quebec Firm Portfolios**

	LGO	HGO	DF	MF
$nf_i$ (mean)	0.04 [0.89]	0.06 [0.80]	0.06 [0.81]	0.19 [0.65]
$nd_i$ (mean)	0.25 [0.61]	0.11 [0.74]	0.02 [0.89]	0.17 [0.68]
$nf_i$ (covariance)	0.93 [0.33]	1.41 [0.23]	1.88 [0.17]	1.21 [0.27]
$nd_i$ (covariance)	0.03 [0.87]	0.46 [0.50]	0.05 [0.29]	0.31 [0.58]

Conditional moment tests (Newey, 1985) for the presence of favorable and unfavorable news in the mean and covariance of each portfolio. P-values in squared parentheses are for the  $\chi^2(1)$  distribution. For portfolio definitions see notes to Table 1. The sample period goes from January 1990 to December 1996.

**Table 6**

**Estimation Results of the Model using Matching Canadian Firm Portfolios**

$$R_{mt} - r_{ft} = \gamma_{0m} + \gamma_{1m}l_t + \gamma_{2m}(R_{mt-1} - r_{ft-1}) + \varepsilon_{mt} \quad (1)$$

$$R_{it} - r_{ft} = \gamma_{0i} + \frac{h_{imt}}{h_{mt}} (\gamma_{0m} + \gamma_{1m}l_t + \gamma_{2m}(R_{mt-1} - r_{ft-1})) + \gamma_{1i}l_t + \gamma_{2i}(R_{it-1} - r_{ft-1}) + \varepsilon_{it} \quad (2)$$

$$H_t = \Gamma + BH_{t-1}B' + Au_{t-1}u'_{t-1}A' + G\eta_{t-1}\eta'_{t-1}G' + FN_{t-1}FN' + UN_{t-1}UN' \quad (3)$$

	OPF		OPE		ED		EMN	
	Coefficient	Standard Error						
$\gamma_{2m}$	0,155*	0,025	0,153*	0,025	0,156*	0,026	0,152*	0,025
$\gamma_{2i}$	0,148*	0,025	0,094*	0,025	0,046*	0,024	0,123*	0,023
$a_m$	0,375*	0,013	0,186*	0,032	0,381*	0,066	0,348*	0,012
$g_m$	0,103*	0,029	0,301*	0,018	0,012	0,113	0,122*	0,021
$b_m$	0,873*	0,003	0,904*	0,005	0,879*	0,038	0,893*	0,002
$a_i$	0,092*	0,020	0,268*	0,011	0,094	0,058	0,222*	0,010
$g_i$	-0,381*	0,021	0,052*	0,020	-0,239*	0,045	-0,217*	0,018
$b_i$	0,808*	0,006	0,938*	0,002	0,856*	0,033	0,927*	0,002
$fn_i$	-0,088*	0,022	-0,024	0,032	-0,061*	0,030	-0,006	0,028
$un_i$	0,159*	0,077	-0,013	0,035	0,110*	0,053	-0,004	0,037

\* represents significant coefficients under robust standard errors (Bollerslev and Wooldridge (1992)) at the 5% level of significance. M represents returns on the MSCI benchmark portfolio. For portfolio definitions see notes to Table 1. The sample period goes from January 1990 to December 1996.

## APPENDIX

### LIST OF POLITICAL NEWS

<b>Date*</b>	<b>Headline</b>	<b>Expected Effect on</b>
March 15 <sup>th</sup> , 1990	Speculation about Quebec seeking independence has many investors worried; concern over separation has added 0,15% to 0,20% to yield spread of Quebec bonds.	Unfavorable
March 23 <sup>rd</sup> , 1990	Newfoundland introduced a legislative resolution to rescind the province's ratification of proposed constitutional changes demanded by Quebec.	Unfavorable
March 26 <sup>th</sup> , 1990	Mulroney accepted a New Brunswick government initiative intended to overcome Canada's constitutional impasse that has revived independence talk in Quebec.	Favorable
June 1 <sup>st</sup> , 1990	Mulroney called the country's 10 provincial premiers to an emergency meeting in a effort to end a constitutional deadlock over granting Quebec special status.	Favorable
June 4 <sup>th</sup> , 1990	Mulroney held emergency talks in Ottawa with the 10 provincial premiers in a effort to break a constitutional impasse over granting Quebec special status.	Favorable
June 6 <sup>th</sup> , 1990	Mulroney held closed-door negotiations in a bid to win over 2 holdout provinces and prevent the collapse of talks aimed at resolving the constitutional impasse.	Favorable
June 8 <sup>th</sup> , 1990	Talks in Canada over the recognition of Quebec as a distinct society stalled as the 10 provincial leaders sought to resolve constitutional differences.	Unfavorable
June 11 <sup>th</sup> , 1990	Canada's leaders have patched together an agreement that would give Quebec special status and end a bitter constitutional impasse that has revived talks of independence in Quebec.	Favorable
June 22 <sup>nd</sup> , 1990	Mulroney asked Newfoundlanders to help rescue a constitutional amendment that is aimed at keeping French-speaking Quebec in Canada's federation.	Favorable
June 25 <sup>th</sup> , 1990	Quebec's leaders said that the province will draw up its own terms and conditions for staying in Canada after the collapse of the Meech Lake accord.	Unfavorable
August 17 <sup>th</sup> , 1990	Robert Bourassa, in response to questions from editors of the Wall Street Journal, explains the reasons behind Quebec's push to change its place in Canada's federation.	Unfavorable
January 30 <sup>th</sup> , 1991	Quebec's Liberal Party said the rest of Canada must agree to a radical constitutional makeover or Quebec will hold a referendum on independence on 1992.	Unfavorable
February 13 <sup>th</sup> , 1991	Mulroney said that he is prepared to rewrite the constitution to prevent the country's breakup.	Favorable
March 11 <sup>th</sup> , 1991	Bourassa said staying in Canada is still Quebec's first choice after his Liberal Party adopted a radical new platform.	Favorable
March 14 <sup>th</sup> , 1991	Canadian Bond Rating Service Inc. put Quebec government securities and Hydro-Quebec on credit watch, citing uncertainty over Quebec's political future.	Unfavorable

March 27 <sup>th</sup> , 1991	A bipartisan commission studying Quebec's political future will recommend that the provincial government hold a referendum on sovereignty in October 1992.	Unfavorable
April 22 <sup>nd</sup> , 1991	Mulroney restructured his cabinet to try to deal more effectively with Canada's more serious problems, principally the renewed threat of secession of Quebec.	Favorable
July 19 <sup>th</sup> , 1991	A survey found 60,2% of Quebecers were willing to negotiate a new deal with Canada.	Favorable
September 24 <sup>th</sup> , 1991	The Canadian government intends to announce proposals to rewrite the country's constitution, an initiative expected to provoke fights among parties.	Unfavorable
March 2 <sup>nd</sup> , 1992	Canada's major political parties plan to rewrite the constitution to address the issues; independence-seekers in Quebec called the plan an insult.	Unfavorable
May 18 <sup>th</sup> , 1992	The Canadian government introduced legislation in Parliament to hold a national vote on the constitutional changes needed to keep Quebec in Canada.	Favorable
June 12 <sup>th</sup> , 1992	Negotiations among Canada's provinces over efforts to accommodate French-speaking Quebec's demands for greater autonomy appear to be close to collapse.	Unfavorable
July 6 <sup>th</sup> , 1992	Negotiators trying to rewrite Canada's constitution and keep Quebec in Canada appear to have made a breakthrough in their efforts, which reached an impasse in June 1992.	favorable
July 9 <sup>th</sup> , 1992	A plan to alter Canada's constitution was agreed upon by the federal government, 9 other provinces (except Quebec) and native leaders after months of intense negotiations.	Unfavorable
July 10 <sup>th</sup> , 1992	Robert Bourassa said the Quebec government will study a constitutional plan agreed to in July by the federal government and 9 other provinces; Bourassa wouldn't say if the plan is acceptable, though.	Favorable
August 5 <sup>th</sup> , 1992	A two-year boycott of Canadian political talks by Bourassa ended with his meeting with Mulroney and provincial leaders who are trying to resolve a dispute that could keep Quebec from separation.	Favorable
August 20 <sup>th</sup> , 1992	Canadian political leaders approved a plan to restructure the federal Parliament, clearing a major hurdle in their efforts to settle constitutional grievances that have threatened national unity.	Favorable
August 27 <sup>th</sup> , 1992	Mulroney is expected to propose on August 27 <sup>th</sup> that Canada hold a national vote on a constitutional agreement that was reached on August 22 <sup>nd</sup> .	Favorable
August 31 <sup>st</sup> , 1992	At a convention on August 29 <sup>th</sup> , the Quebec government approved the package of Canadian constitutional amendments devised by the provincial Premiers and Brian Mulroney.	Favorable
September 4 <sup>th</sup> , 1992	Mulroney called for an October 26 <sup>th</sup> vote on a Canadian constitutional agreement that would keep Quebec within Canada. It would be the first national referendum since 1942.	Favorable
September 16 <sup>th</sup> , 1992	Canada's French speakers are dwindling, as birth rates drop and immigration brings in other tongues. French speakers fell to 24,9% of the population but still remain a majority in Quebec with 81,2%.	Ambiguous
September 30 <sup>th</sup> , 1992	Canadian financial markets were upset on September 29 <sup>th</sup> after Mulroney warned that Canada's future was at risk in the next referendum. The harsh words triggered sales of Canadian dollars and securities.	Unfavorable

October 23 <sup>rd</sup> , 1992	With Canadians confused and angry, the outcome of the October 26 <sup>th</sup> referendum on an agreement to amend the Canadian constitution is in doubt.	Unfavorable
October 27 <sup>th</sup> , 1992	A package of changes to Canada's constitution was rejected by Canadian voters; the outcome is expected to strengthen the Parti Québécois, which led the campaign against the referendum.	Unfavorable
October 28 <sup>th</sup> , 1992	A day after Canadian voters rejected a constitutional plan intended to persuade Quebec to stay in Canada, separatists in Quebec renewed their campaign for greater autonomy.	Unfavorable
October 28 <sup>th</sup> , 1992	Following the rejection of a constitutional plan intended to persuade Quebec to stay in Canada, exhilarated separatists in Quebec renewed their campaign for independence.	Unfavorable
March 4 <sup>th</sup> , 1993	Few Canadians were more gratified to see the resignation of Brian Mulroney than Quebec's separatists, especially Lucien Bouchard, who quit his cabinet post in 1990 to form the Bloc Québécois.	Unfavorable
September 15 <sup>th</sup> , 1993	Robert Bourassa said he won't seek another term. The announcement came after months of speculation that the Quebec Premier, diagnosed with cancer in 1990, would step down.	Unfavorable
October 11 <sup>th</sup> , 1993	The Bloc Québécois appears to have eliminated any chance for the ruling Conservative Party to remain in power in Quebec in Canada's national elections on October 25 <sup>th</sup> , 1993.	Unfavorable
March 1 <sup>st</sup> , 1994	Bouchard will visit Washington DC on Mar.2 to tell Americans not to worry about his campaign to break up Canada.	Unfavorable
June 7 <sup>th</sup> , 1994	The Parti Québécois, favoured to win in the 1994 Quebec elections, is warning financial institutions they may lose business in the province if their economic analysts issue negative forecasts.	Unfavorable
July 26 <sup>th</sup> , 1994	Opinion polls show that the Parti Québécois is carrying a solid lead in the general election campaign. Parizeau vows to stage a referendum on Quebec's independence 8 to 10 months after winning power.	Unfavorable
September 9 <sup>th</sup> , 1994	Although it seems that the Parti Québécois will win Quebec's general election on September 12 <sup>th</sup> , it will not be a mandate for independence. Fewer than 40% of Quebecers would vote yes in a referendum.	Favorable
September 13 <sup>th</sup> , 1994	The unexpectedly slim margin of victory for the Parti Québécois in Sept.12 provincial elections underscores how far the separatists are from their goal of independence in Quebec.	Favorable
October 28 <sup>th</sup> , 1994	Jean Chrétien said that Quebec will vote to stay in Canada when the province holds a referendum in 1995.	Favorable
December 5 <sup>th</sup> , 1994	Lucien Bouchard developed a flesh-eating infection during the week of Nov.28 that required amputation of his left leg. He is expected to resume his public activities in 3 to 4 months.	Ambiguous
December 7 <sup>th</sup> , 1994	Parizeau unveiled his separatist government's proposals for turning the primarily French-speaking Canadian province into an independent country within the next two years.	Unfavorable
February 22 <sup>nd</sup> , 1995	Following a poll showing public support for independence stuck at 40%, some advocates for Quebec's independence are urging changes in the ruling Parti Québécois strategy.	Favorable
September 8 <sup>th</sup> , 1995	The Quebec government announced the wording of the long-awaited referendum for independence. The date, while as yet not set, is expected to be Oct.30, 1995.	Unfavorable

September 27 <sup>th</sup> , 1995	The Canadian finance minister ruled out any economic union between Canada and a separate Quebec, saying Canadians would have too much to lose.	Unfavorable
October 23 <sup>rd</sup> , 1995	With Quebec's referendum on independence due on October 30 <sup>th</sup> , there are growing indications that separatists could pull off a narrow upset victory.	Unfavorable
October 25 <sup>th</sup> , 1995	A few days away from the October 30 <sup>th</sup> referendum, opinion polls say that half the citizens of Quebec are prepared to cast a vote that could tear the country apart.	Unfavorable
October 26 <sup>th</sup> , 1995	The Cree Indians of northern Quebec, in a separate vote ahead of the provincial referendum, voted 96% in favor of remaining a part of Canada if a majority of Quebec residents vote to secede.	Ambiguous
October 27 <sup>th</sup> , 1995	New opinion polls in Quebec indicated that the vote in the referendum on independence will be close. Ten thousand Canadians were converging on Montreal for a rally in support of a united Canada.	Unfavorable
October 27 <sup>th</sup> , 1995	A polling firm found 44,5% of Quebecers support the independence proposition, with 42,2% opposed and 13,2% undecided or declining to state a preference.	Unfavorable
October 31 <sup>st</sup> , 1995	With 99% of the ballots counted, Quebec voted narrowly against independence, averting a potential breakup of Canada. The tight vote means the federal government will be under pressure to pursue major changes.	Ambiguous
November 1 <sup>st</sup> , 1995	In the long run, the vote in the referendum could not have been worse for Canada because the narrowest of margins has resolved nothing and only exacerbated the problems.	Unfavorable
November 2 <sup>nd</sup> , 1995	After the referendum, Moody's said the strong separatist showing has negative implications for Canada's medium-term ratings outlook.	Unfavorable
November 22 <sup>nd</sup> , 1995	Lucien Bouchard said he will seek to succeed Jacques Parizeau as premier of Quebec.	Unfavorable
November 24 <sup>th</sup> , 1995	Jean Chrétien said he hopes a ministerial committee will report to him in Dec. on suggestions for changing Quebec's status; critics say Chrétien isn't acting quickly enough to grant Quebec new powers.	Ambiguous
November 28 <sup>th</sup> , 1995	The Canadian government proposed that the federal Parliament approve legislation recognizing the province of Quebec as a distinct society in Canada.	Favorable
January 26 <sup>th</sup> , 1996	Chrétien overhauled his cabinet to help combat the Quebec separatist threat and prepare for elections. Chrétien appointed two Quebec commentators to strengthen his hand in the session battle.	Unfavorable
February 1 <sup>st</sup> , 1996	While Bouchard, Quebec's new premier, prepares to lead the province out of Canada, a growing number of Montreal activists are drawing up plan to secede from Quebec and become a city-state.	Favorable
May 13 <sup>th</sup> , 1996	On May 10, 1996, Canada's federal government and Quebec clashed over a court case challenging the province's right to secede unilaterally. The developments, concerning the federal government's decision to intervene in the case, raised the possibility of snap elections in Quebec, rattling Canadian bond and currency markets.	Unfavorable
May 13 <sup>th</sup> , 1996	Quebec's separatist leaders backed away from a threat to call an early election, but took steps to show their fury at Canada's federal government for challenging their right to secede.	Unfavorable

August 22 <sup>nd</sup> , 1996	Quebec Canada's French vs English language feud, relatively quiet in recent years, is flaring up again in the summer of 1996, and government officials fear the ruckus may spook US investors and further weaken the provincial economy.	Unfavorable
September 27 <sup>th</sup> , 1996	The Canadian government has decided to challenge the Canadian supreme court. The Quebec government claims that Quebec can automatically separate from Canada if Quebec residents vote in favor of independence.	Unfavorable

\* The *Wall Street Journal* report date.