

Foreign Ownership and Strike Activity in Canada

J.-M. Cousineau, R. Lacroix et D. Vachon

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Résumé de l'article

Il existe plusieurs études sur l'activité de grève au Canada. La plupart d'entre elles tentent d'expliquer l'évolution temporelle et les disparités interindustrielles dans l'activité de grève. À venir jusqu'à tout récemment (Ng and Maki 1988), aucune n'avait pris en considération l'impact possible du contrôle étranger sur l'importance de l'activité de grève au Canada. Or, il faut se rappeler que le Canada est toujours un

cas unique à cet égard parmi les pays industrialisés. En effet, dans ce pays, quelque 54 % des actifs des compagnies privées des secteurs primaire et secondaire sont propriétés étrangères. Il est alors tout à fait pertinent de se demander si cette caractéristique particulière de l'économie n'expliquerait pas partiellement une autre de ses caractéristiques, à savoir une activité de grève très élevée selon les standards internationaux.

Ng et Maki (1988) ont étudié empiriquement la relation possible entre le contrôle étranger et l'activité de grève au Canada pour en conclure que les filiales canadiennes de compagnies ne semblaient pas avoir des taux de grève plus élevés que les compagnies canadiennes. Toutefois, les auteurs soulignent qu'il faudrait une étude faite à l'aide de microdonnées pour pouvoir répondre avec davantage de précision à la question de savoir si le contrôle étranger affecte l'activité de grève.

Nous avons à notre disposition de telles microdonnées pour la période 1969-1982 et c'est pourquoi nous avons décidé de réexaminer l'incidence possible du contrôle étranger sur l'activité de grève au Canada. Pour ce faire, nous avons utilisé un modèle empirique de grève déjà éprouvé et diffusé dans la communauté scientifique (Cousineau et Lacroix 1986) et qui repose sur l'approche théorique et Siebert et Addison (1981) qui veut que les grèves soient des accidents se produisant dans le cours des négociations. Ces accidents sont évidemment plus probables lorsque la qualité de l'information disponible aux parties se détériore. C'est le cas, par exemple, dans des périodes de perturbations économiques majeures où la valeur prospective d'indicateurs tels l'inflation, le chômage, la production, devient très faible. Dès lors, des interprétations divergentes des mêmes indicateurs peuvent entraîner des erreurs d'évaluation des rapports de force en présence, cause première des grèves.

Nous avons analysé, à l'aide de cette approche, la question du contrôle étranger et son incidence possible sur l'activité de grève. Nous avons alors réalisé qu'un grand nombre de facteurs ayant des effets opposés jouaient sur la relation possible entre le contrôle étranger et l'activité de grève. Tant et si bien qu'aucune attente précise ne pouvait logiquement être inférée quant au sens de la relation. La question devenait donc une question empirique.

Nous avons intégré alternativement deux variables d'approximation du contrôle étranger dans une équation générale de grève, prenant en compte un ensemble d'autres facteurs pouvant expliquer l'activité de grève. La première variable (FOREG 1), prenait la valeur 1 si 50 % ou plus des droits de vote de la compagnie où la convention collective avait été signée étaient détenus à l'étranger et la valeur 0 s'il en était autrement. L'autre variable (FOREG 2), était plus restrictive puisqu'elle prenait la valeur 1 si 90 % et plus des droits de vote étaient détenus à l'étranger. Les résultats que nous avons obtenus pour ces deux variables sont les suivants. La variable FOREG 1 a un coefficient estimé négatif et statistiquement significatif au niveau de 0,10. Ce résultat nous dit que, toutes autres choses étant égales par ailleurs, la détention étrangère diminue la probabilité de grève de cinq points de pourcentage. En utilisant FOREG 2, nous avons trouvé une augmentation de la valeur du coefficient estimé qui devient significatif au niveau de 0,05. En fait, dans ce cas, la détention étrangère diminue la probabilité de grève de quelque sept points de pourcentage.

En somme, tous les résultats que nous avons obtenus pointent dans la même direction. Au Canada, il semble que le contrôle étranger a un effet négatif sur l'activité de grève. Ces résultats vont à l'encontre d'une opinion généralement acceptée mais sont tout à fait compatibles avec les conclusions que l'on peut tirer d'un modèle informationnel de grève.

Foreign Ownership and Strike Activity in Canada

J.-M. Cousineau

R. Lacroix

D. Vachon

This microeconomic study of strike activity adds to an already tested empirical strike model, variables that are related to foreign-owned firms in Canada. All results converge to the same and unique conclusion: foreign-owned firms in Canada show a lower strike propensity, everything else being constant. Such a result suggests that multinational firms may well develop bargaining "protocoles" that overcompensate problems of credibility and information expected to be associated with foreign-owned property.

Several studies have been made on strike activity in Canada. On the one side, most of these studies attempted to explain the evolution of strike activity over time. A few were concerned with the interindustrial disparities, while some raised the question of the high level of strike activity in Canada compared with that of other industrialized countries¹. On the other side, the problem of the impact of foreign control on Research and Development activity, on technological advances, on international trade and even on cultural progress has been debated at length but few studies have suggested

* J.-M. COUSINEAU, Professor, School of Industrial Relations, and researcher at the CRDE (Université de Montréal).

R. LACROIX, Professor, Department of Economics, and researcher at the CRDE (Université de Montréal).

D. VACHON, Research assistant at the CRDE at the time of the writing of this article.

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¹ Both a synthesis and a critical analysis of these studies will be found in Lacroix (1987).

a possible link between the high level of strike activity and foreign ownership in Canada. In fact, foreign ownership of Canadian companies is so great it makes Canada stand out as a special and particularly interesting case among the main industrialized countries for testing such a hypothesis². Let us simply recall that in 1985, 54,6 % of the assets of private companies in the primary and secondary sectors were foreign-owned. A similar percentage of 41,7 % was reached in the manufacturing sector, with percentages as high as 99,8 % in the tobacco-products industry and as low as 10,6 % in the clothing industry³.

In a recent work, Lacroix (1987) questions whether such a link between foreign ownership and strike activities does not actually exist and proposes that the large number of foreign-owned firms might well be one of the reasons for the unusually high level of strike activity in the Canadian economy. Ng and Maki (1988) have tried to account empirically for this assumption. While they conclude that U.S.-based firms operating in Canada do not seem to be subject to more strikes than Canadian companies, the authors emphasize that it was necessary to use microeconomic data in order to test conclusively the proposed hypotheses.

Given the availability of such microdata for the period 1969 to 1982, this paper goes a step further in the analysis of foreign ownerships and industrial relations climate.

First, we reconsider the theoretical reasons for assessing or expecting to have a positive impact of foreign control on strike activity. Second, the data and the model used to estimate the impact of foreign ownership upon strike activity is presented and estimated. Third, the results are given and discussed. Our final section briefly summarizes our main results and conclusions.

POSSIBLE INFLUENCE OF FOREIGN INVESTMENT UPON STRIKE ACTIVITY

For operational purposes, foreign ownership is here defined as the control of more than 50 % of the property of a national company held by a foreign company⁴. Such foreign ownership implies, in most cases, a sharing

2 Ireland also offers similar advantages. (See Forsyth 1973, Creigh and Makeham 1978 and Kelly and Brannick 1988).

3 *Corporation and Labour Union Relations Act 1985 Report*, Statistics Canada, cat. 61-201, Tables 5 and 9.

4 Lower percentages might be sufficient to secure the actual control of a company. However, when the percentage is greater than 50 %, the actual extent leaves little room for confusion.

of responsibilities between the head office and its subsidiaries. Since the settlement of a collective labour agreement is a major decision, one may well expect the head office to play a significant role in it. The first question to ask therefore is whether the intervention of a third party, influences the probability of strikes.

Based on Siebert and Addison's (S&A) strike model (1981), this section first explores some inferences about the potential impact of foreign ownership on strike activities.

The first principle of the S&A model is that it is in the parties interest to negotiate. Negotiation consists in an exchange of information on the union-management relative bargaining power and market conditions. By increasing the information available to both parties, negotiations reduce the probability of an error, that is the probability of faulty interpretations of bargaining power and market conditions. The authors contend that if there were no limits set to the time devoted to negotiations, the probability of a strike would be very low if not zero. Nevertheless, as Cousineau and Lacroix have argued (1986), some factors prevent there being an unlimited time for negotiations.

On the one hand, data needed to assess the bargaining power and market conditions change through time in a manner such that it is not in the parties' interest to negotiate too far in advance of the end of the contracts⁵. On the other hand, negotiations can hardly drag on interminably after the expiration date of a collective agreement since the workers' labour conditions are "frozen" and no longer correspond to the changes in the cost of living. Finally, the threat of a work stoppage prevents workers from making decisions regarding consumption and investments.

These same factors, also, help to explain why the employer cannot allow himself lengthy negotiations. He too is subject to a whole array of costs related to the negotiation of a new labour contract. Moreover, the unknown costs of the future agreement prevent him from making a number of decisions while maintaining a climate of uncertainty in some areas of daily management.

In summary, it is in both parties' interest to negotiate. First, negotiations are effective means of avoiding a costly strike. Second, they enable the workers to achieve better labour conditions than the ones the employer originally proposed. And third, they may make it possible for the employer to reach a collective agreement less costly than the one initially demanded

⁵ In Canada collective agreements have a fixed and predetermined length.

by the workers. However, given the costs involved in negotiations, the parties must choose an optimal time span for the negotiations, one which will equalize the marginal benefits to the marginal costs involved in the negotiation process. The chosen period, however, by restricting the duration of the negotiations, implies that the parties, implicitly accept a certain probability of a strike being called. Should a strike occur, it will result from an error by one and/or the other party. It will come as an accident in the negotiation process. The parties did not, initially, opt for a strike, they have nevertheless accepted the probability of a strike by choosing a term for the negotiations which maximizes their net expected benefits.

A whole set of factors which alter either the quality or the quantity of information required to evaluate bargaining power and market conditions can affect the optimal term of the negotiations as well as the probability of a strike. As Lacroix (1987) has shown variations in these factors may well explain the intertemporal as well as the interindustrial and international variations in strike activity. Any deterioration in the quality or any increase in the quantity of data to be processed increases simultaneously the length of the negotiations and the strike probability.

In the context of foreign ownership, the intervention of a third party may complicate the negotiations and increase the delays in the employers' reaction time. Local representatives of the firm must not only negotiate with the union but also with the head office every time an important modification in their mandate has to be secured. It is also expected that the information regarding the firm's ability to pay and its future prospects, is less credible to the union when it applies to a subsidiary of a foreign company. Given the financial transfers possible at the head office, the data on the ability of the subsidiary to pay may not be convincing to the union. For both these reasons, one may consider that converging views on the part of both employer and union will require more time in the case of a foreign-owned firm than a national one. In terms of the Siebert and Addison's model, this means that for each period of negotiations there will be a correspondingly greater probability of strike as well as an increase in the optimal duration for the negotiation. So, if we accept Siebert and Addison's framework, a first conclusion is that there might be a positive relationship between foreign ownership and strike activity.

This last conclusion does not, however, take into account other specificities of foreign companies. The cost of a strike is expected greater in the case of subsidiaries of foreign companies since they must, more so than other firms, appear to be good corporate citizens. A strike may therefore be quickly interpreted as an attempt by a large and powerful foreign firm to exploit local workers. This renders the subsidiaries of foreign-owned firms

more vulnerable than national firms. Moreover, when a firm decides to set up a subsidiary in a foreign country, it is either because there are no local producers, or because the quality of its products and/or the efficiency of its production methods give it a competitive advantage. The subsidiary will therefore generally have an ability to pay greater than that of national firms.

Thus, usually, it is in the interest of the subsidiaries of foreign-owned companies to develop negotiation protocols to reduce strike risks by determining beforehand programs of actions and decisions which precede or take place during the negotiation of a labour contract (Reder and Neumann 1980). In the framework of Siebert and Addison's model, these protocols, aimed essentially at reducing the communication problems and the uncertainties surrounding some clauses in the collective agreements decrease the probability of strikes for each and every given duration of negotiations. Still, setting up and applying these protocols involve costs, both for the workers (and the union), as well as for the employers. Since in the present case, it is in the firm's interest to set up protocols, it will also be its responsibility to compensate the workers in the form of higher wages for the costs they will incur. Given its competitive edge, the subsidiary of a foreign-owned firm will generally, more so than other firms, have the means necessary to finance the workers' compensation. We can therefore expect a greater use of the negotiation protocols by foreign-owned subsidiaries, a situation which will in turn lead to a negative impact upon strike incidence. In this way the reduction of the strike probability will compensate, in full or in part, for the negative effect of foreign ownership upon the quality and the quantity of information provided.

We realize therefore that there are no net expectations possible in the case of the impact of foreign ownership upon strike activity. A whole set of factors operate in opposite directions. The problem then becomes purely empirical.

THE EMPIRICAL MODEL

The strike equation we used to estimate the impact of foreign ownership on strike activity is, given a few modifications, that of Cousineau and Lacroix (1986). The dependent variable is the incidence of strikes at the level of each bargaining unit through time. Independent variables are proxies measuring intertemporal variations in the quality of information available to negotiating parties and interindustrial disparities in the quantity of information needed by both parties to assess relative bargaining power.

During negotiations, each party tries to assess its relative bargaining power by using the different economic indicators at its disposal. It is not the level of these indicators as such that will change the strike probability, however, but the uncertainty about their exact value. Should modifications in the economic environment, as shown by the evolution of different economic indicators, change the relative bargaining power of the parties involved in wage negotiations, and if both parties have perfect information, the effect of such changes should be reflected in the wages that are agreed upon rather than in strike behaviour. A reduction in the quality of information resulting from an increase in the variability of the indicators used by the negotiating parties to assess their relative bargaining power will raise the difficulty of reaching an agreement. In summary, we expect that the more strike-prone periods will be those in which there is high variability around the observed values of relevant economic indicators.

Five empirical proxies have been chosen to explain intertemporal variations in strike activity. Three of these represent indicators used by the different parties to evaluate bargaining power and ability to pay: 1) expected inflation, 2) the rate of capacity utilization and 3) an index of the vacancy rate in the labour market. Since the Siebert and Addison model emphasizes the role of uncertainty surrounding the relative bargaining power, the three above-mentioned indicators were integrated into the strike equation in the form of coefficients of variation. These are respectively: CUR⁶ the coefficient of variation of the capacity utilization rate at the industry level; INFLC, the coefficient of variation of expected inflation, and CVR, the coefficient of variation of the index of the vacancy rate. We expect strike activity to vary positively with each of these three indicators. The others are (INFL) inflation at the time of the negotiation of the labour contract and (CONTR) for the period of wage and price control in Canada from October 1975 to April 1978. On the one side, the inflation variable is expected to reflect the increase in cost for both parties. By reducing the chosen negotiation duration, the increase in the costs of negotiation will have a positive effect upon the strike probability. On the other hand, since controls reduce short-term uncertainty, it is expected that it has a negative impact on strike activity.

Four proxy variables are used to explain interindustry or inter-firm differences in strike activity. First, the degree of exposure of an industry to international competition (*s*) is considered. We expect that the greater the firm exposure to international competition, the greater the quantity of data

⁶ See Appendix for a precise definition of the variables and the various sources of the data used.

required to assess bargaining power and ability to pay, and the more difficult these data are to process. This leads consequently to an increase in the risk of faulty negotiations and of strike probability. Second, we expect strike activity to increase with the number of employees (NEMPL). This might be understood in two ways: 1) any increase in the number of employees usually corresponds to a greater heterogeneity in the workers' characteristics and demands, resulting in labour contracts which are far more complex, and more difficult to negotiate; 2) the larger the number of employees, the greater the difficulties in communication between union leaders and the rank and file.

Third, the length of the previous contract (LDUR) is expected to have a positive influence upon the probability of a strike, since the longer the previous contract, the more numerous might be both the grievances and discontents of workers in relation to their initially-held expectations.

Fourth, since it is in industries with a large concentration of buyers and sellers that losses resulting from strikes are lowest (competitors cannot fill the increased needs in the short term), it is expected that strike activity will be greater in this particular type of industry (HB).

Finally, we included two alternative foreign ownership variables: (FOREG1) takes on a value of 1 if 50 % and more of a company's voting rights are held outside the country and a value of 0 otherwise; the second variable (FOREG2) is more restrictive, taking on a value of 1 only if 90 % and more of voting rights are in foreign hands and a value of 0 in all other cases. As it has been already explained, it is impossible to have an expectation on the sign of the coefficient of FOREG1 and FOREG2 because many factors are playing in opposite directions in the relationship between foreign ownership and strike activity. Thus, it becomes an empirical question.

Our strike equation is therefore as follows:

$$\begin{aligned} \text{D STRIKE} = & B_0 + B_1\text{CUR} + B_2\text{INFLC} + B_3\text{CVR} + B_4\text{INFL} \\ & + B_5\text{CONTR} + B_6\text{S} + B_7\text{NEMPL} + B_8\text{LDUR} + B_9\text{HB} \\ & + B_{10}\text{FOREG1 (or FOREG2)} + u \end{aligned}$$

The data used in the estimation of the model are drawn from a Labour Canada microdata bank dealing with all the collective agreements affecting 500 or more workers, signed in Canada between 1967 and 1982. In order to properly identify the degree of foreign ownership of the companies under consideration, we have had to limit our sample to the manufacturing sector and to firms in which collective agreements involved 600 or more workers.

We have consequently obtained a sample of 859 collective agreements signed between 1969 and 1982 in firms of which 40 % and more were foreign-owned. Moreover, 24,2 % of these collective agreements were signed following a strike.

EMPIRICAL RESULTS

Given the dichotomous nature of our dependent variable (equal to 1 if the contract was signed following a strike and to 0 if the contract was signed without a strike) we have used a PROBIT estimation procedure. The estimation results with FOREG1 variable are shown in Table 1.

TABLE 1
Estimated Parameters for the Equation Using FOREG1

<i>Variables</i>	<i>Estimated Coefficient</i>	<i>Transformed Coefficient</i>
CONSTANT	-2,8450 (-7,3690)**	-0,7590 (-7,3690)**
CUR	14,2330 (2,8580)**	0,04460 (2,8580)**
INFLC	9,9060 (1,9690)*	0,04340 (1,9690)*
CVR	4,0590 (1,3710)	0,0223 (1,3710)
INFL	0,0693 (2,2950)*	0,06666 (2,2950)*
CONTR	-0,0693 (0,2950)	-0,06666 (0,2950)
S	0,2940 (2,3730)**	0,0834 (2,3730)**
NEMPL	0,000053 (1,9430)*	0,0164 (1,9450)*
LDUR	0,0254 (4,1210)**	0,0471 (4,1210)**
HB	11,6780 (1,1910)	0,0178 (1,1910)
FOREG1	-0,1730 (-1,7440)*	-0,0515 (1,7440)*

* : significant at a level of 0,10.

** : significant at a level of 0,05.

Number of observations: 859.

Ratio of the maximum likelihood function: 84,377.

The three variables which reflect the uncertainty in the evolution of the indicators used by the parties to assess their relative bargaining power (CUR, CVR, INFLC) all have the correct sign and two of them, namely CUR and INFLC, are statistically significant. In the case of the other two variables used to explain the intertemporal evolution of strike activity (INFL, CONTR) both have the correct sign and (INFL) is statistically significant.

All the variables used to explain the inter industry or inter-firm disparities in strike activity (NEMPL, LDUR, HB) have the correct sign and only one has a non-significant coefficient (HB). On the whole therefore, the results of the basic model are in accordance with those previously arrived at by Cousineau and Lacroix (1986).

If we now concentrate on the foreign ownership variables, it first appears that the coefficient for the FOREG1 variable is negative and significant at the 0,10 level. *Ceteris paribus*, foreign ownership would decrease strike probability by more than 5 percentage points (table 1).

Table 2 provides the estimation results with the FOREG2 variable. While the coefficients for the basic model more or less stay the same, the coefficient of the foreign ownership variable under its new definition, increases and becomes significant at 0,05. The estimated impact is that the strike probability would be almost seven percentage points lower in foreign-owned companies.

Given these results, we have questioned whether the location of the national headquarters of foreign-owned firms did not have an influence upon strike probability. In other words, whether the foreign-owned company with national headquarters located in the same province as the one where the collective agreement was signed has a different strike probability than the foreign-owned firm with national headquarters located in a different province from that in which the labour contract was signed. We have therefore noted for every company with 50 % or more foreign ownership the location of the national headquarters and defined two new variables. The first of these (FCHIP) takes on a value equal to 1 if a company is 50 % or more foreign-owned and its head office is located in the same province in which it operates. The second variable (FCHOP) takes on a value of 1 if the company is 50 % or more foreign-owned, and its national head office is located outside the province in which the labour contract was signed.

These new results are shown in Table 3.

We first notice that the coefficients of the basic model variables remain stable. However, the split in our foreign-owned variable according to the

location of the national headquarters adds yet another element to the influence of foreign ownership upon strike activity. In fact, it is mainly in the case where foreign ownership is combined with a national head office located in another province that the effect of foreign ownership has a negative and significant influence upon strike probability.

TABLE 2
Estimated Parameters for the Equation Using FOREG2

<i>Variables</i>	<i>Estimated Coefficient</i>	<i>Transformed Coefficient</i>
CONSTANT	-3,8330 (-7,3290)**	-0,7560 (-7,3290)**
CUR	14,2700 (2,8640)**	0,04500 (-2,8640)**
INFLC	10,0090 (1,9890)*	0,04410 (1,9900)*
IRVC	4,0220 (1,3570)	0,0223 (1,3570)
INFL	0,0689 (2,2790)**	0,06650 (2,2790)**
CONTR	-0,0532 (-0,3930)	-0,0158 (-0,3930)
S	0,2850 (2,2950)*	0,0816 (2,2950)*
NEMPL	0,000054 (1,9890)*	0,0165 (1,9890)*
LDUR	0,0259 (4,1810)**	0,0492 (4,1810)**
HB	11,8490 (1,2120)	0,0181 (1,2120)
FOREG2	-0,2260 (-2,2650)*	-0,0673 (-2,2650)*

* : significant at a level of 0,10.

** : significant at a level of 0,05.

Number of observations: 859.

Ratio of the maximum likelihood function: 86,489.

TABLE 3
Estimated Parameters for the Equation Using FCHIP and FCHOP

<i>Variables</i>	<i>Estimated Coefficient</i>	<i>Transformed Coefficient</i>
CONSTANT	-2,8270 (-7,3180)**	-0,7490 (-7,3180)**
CUR	14,6090 (2,9230)**	0,04700 (2,9230)**
INFLC	10,0410 (1,9990)*	0,04510 (1,9900)*
CVR	3,8930 (1,3110)	0,0220 (1,3110)
INFL	0,0679 (2,2490)*	0,06670 (2,2490)*
CONTR	-0,0577 (-0,4260)	-0,01780 (-0,4260)
S	0,2860 (2,3040)*	0,0836 (2,3040)*
NEMPL	0,000050 (1,8410)*	0,0157 (1,8410)*
LDUR	0,0253 (4,1040)**	0,0489 (4,1040)**
HB	12,7610 (1,2950)	0,0200 (1,2950)
FCHIP	-0,1290 (-1,2020)	-0,0389 (-1,2020)
FCHOP	-0,3110 (-1,9090)*	-0,0867 (-1,9090)*

* : significant at a level of 0,10.

** : significant at a level of 0,05.

Number of observations: 859.

Ratio of the maximum likelihood function: 85,558.

CONCLUSION

One would be tempted to assume, *a priori*, that foreign ownership of national companies has a positive influence upon strike activity. The few empirical studies on the subject found either a positive impact or none at all.

Siebert and Addison's model (1981) shows that we cannot hold any definite expectations on the matter. A whole array of factors or influences, not all acting in the same direction, lead us to the conclusion that the impact of foreign ownership upon strike activity may be positive, null or negative. In the Canadian context, and with interindustrial aggregated data, Ng and Maki (1988) found no such evidence. They nevertheless stress the need to reassess the hypotheses by using microdata. We have done this by adding to a previously estimated empirical strike model, variables that were likely to represent different facets of foreign ownership.

All our results point in the same direction. In Canada, it seems that foreign ownership has a negative influence upon strike activity. This leads us to conclude that, in accordance with our theoretical approach, the positive impact upon strike probability regarding problems of transmission and credibility of information brought about by the introduction of a third party (the head office) in the negotiations for a collective agreement, were not tantamount. Attempts by multinational firms to develop negotiation "protocols" would seem to more than make up for problems in the quality and the credibility of information. These conclusions would have to be confirmed by other empirical researches before being definitive. Indeed, we must acknowledge that only one particular measure of strike activity has been analyzed and that foreign owned firms are far from a homogeneous group.

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APPENDIX DEFINITIONS OF THE VARIABLES

- NEMPL : Number of employees covered by the collective agreement at the time of its termination, for each observation i ($i = 1, \dots, 859$).
- S : Dummy variable, = 1 if observation j belongs to a sector exposed to international competition; = 0 otherwise. Sectors in which at least 25 % of the production of the main good is exported or for which the Canadian market represent less than 75 % of national demand, fall into the industrial sector category exposed to international competition.
Source: F. Dussault and R. Lacroix, "Les modèles scandinaves et la détermination des ententes salariales des industries manufacturières canadiennes: une analyse micro-économique", *Canadian Journal of Economics* 3, August, 1982, 395-404.
- LDUR : Duration of the previous labour contract for each observation j ($j = 1, \dots, 859$).
Source: Data bank provided by Labour Canada.
- FOREG : Dummy variable = 1 for each firm j ($j = 1, \dots, 859$) of which 50 % and more of its voting rights are held in foreign hands or else belong to one or several Canadian firms whose control is in foreign hands; = 0 otherwise.
- FOREG1 : Dummy variable = 1 for each firm j ($j = 1, \dots, 859$) of which 90 % and more of its voting rights are held in foreign hands or which belong to one or several Canadian companies under foreign control; = 0 otherwise.
Source: (FOREG, FOREG1)
Statistics Canada, "Liens de parenté entre corporations" cat. nos. 61-513, 61-517, over several years.

- HB : = the product of the two following variables:
 H = concentration of producers, Herfindhal index,
Source: Statistics Canada, cat. no. 30-01.
 B = concentration of buyers, index calculated by A. Hollander, 1981,
 "Concentration, Unionization and Distribution of Income in the
 Canadian Manufacturing Industry", Département de sciences
 économiques, Université de Montréal.
- INFLC : Coefficient of variation of the consumer price index (C.P.I.),
 calculated on the basis of the eight quarters prior to the signing of the
 collective agreement.
Source: Statistics Canada, "L'indice des prix à la consommation",
 cat. no. 62-001.
- CUR : Coefficient of variation of the capacity utilisation rate for each major
 group M of the manufacturing sector. ($M = 1, \dots, 20$), calculated on
 the basis of the eight quarters prior to the signing of the collective
 agreement.
Source: Statistics Canada, "Taux d'utilisation de la capacité dans les
industries manufacturières", cat. no. 31-003.
- CVR : Coefficient of variation of the vacancy rate calculated on the basis of
 the eight quarters prior to the signing of the collective agreement.
Source: Statistics Canada, "La population active", cat. no. 71-001.
- INFL : Annual rate of inflation at the time of the collective negotiations.
Source: Statistics Canada, "L'indice des prix à la consommation",
 cat. no. 62-001.
- CONTR : Variable indicating the application of the wage-control policy at the
 time of the signing of the collective agreement;
 = 0,25 if the collective agreement was signed in 1975 — IV;
 = 0,50 if it was signed in 1976 — I;
 = 0,75 if it was signed in 1976 — II;
 = 1 if the collective agreement was signed between 1976 (III) and 1978
 (I);
 = 0 otherwise.
Source: Data bank provided by Labour Canada.
- FCHIP : Dummy variable = 1 for any firm j ($j = 1, \dots, 859$) of which 50 %
 and more of voting rights are held in foreign hands or belong to one or
 several Canadian companies under foreign control and whose head
 office is located in the same province as the one in which the actual
 firm is established.
- FCHOP : Dummy variable = 1 for any firm j ($j = 1, \dots, 859$) of which 50 %
 and more of voting rights are held in foreign hands or which belong to

one or more Canadian firms under foreign control and whose head office is located outside the province in which the actual firm is established.

Source: (FCHIP, FCHOP)

Statistics Canada, "Liens de parenté entre corporations", cat. nos. 61-513, 61-517, over several year.

Propriété étrangère et activité de grève au Canada

Il existe plusieurs études sur l'activité de grève au Canada. La plupart d'entre elles tentent d'expliquer l'évolution temporelle et les disparités interindustrielles dans l'activité de grève. À venir jusqu'à tout récemment (Ng and Maki 1988), aucune n'avait pris en considération l'impact possible du contrôle étranger sur l'importance de l'activité de grève au Canada. Or, il faut se rappeler que le Canada est toujours un cas unique à cet égard parmi les pays industrialisés. En effet, dans ce pays, quelque 54 % des actifs des compagnies privées des secteurs primaire et secondaire sont propriétés étrangères. Il est alors tout à fait pertinent de se demander si cette caractéristique particulière de l'économie n'expliquerait pas partiellement une autre de ses caractéristiques, à savoir une activité de grève très élevée selon les standards internationaux.

Ng et Maki (1988) ont étudié empiriquement la relation possible entre le contrôle étranger et l'activité de grève au Canada pour en conclure que les filiales canadiennes de compagnies ne semblaient pas avoir des taux de grève plus élevés que les compagnies canadiennes. Toutefois, les auteurs soulignent qu'il faudrait une étude faite à l'aide de microdonnées pour pouvoir répondre avec davantage de précision à la question de savoir si le contrôle étranger affecte l'activité de grève.

Nous avons à notre disposition de telles microdonnées pour la période 1969-1982 et c'est pourquoi nous avons décidé de réexaminer l'incidence possible du contrôle étranger sur l'activité de grève au Canada. Pour ce faire, nous avons utilisé un modèle empirique de grève déjà éprouvé et diffusé dans la communauté scientifique (Cousineau et Lacroix 1986) et qui repose sur l'approche théorique et Siebert et Addison (1981) qui veut que les grèves soient des accidents se produisant dans le cours des négociations. Ces accidents sont évidemment plus probables lorsque la qualité de l'information disponible aux parties se détériore. C'est le cas, par exemple, dans des périodes de perturbations économiques majeures où la valeur prospective d'indicateurs tels l'inflation, le chômage, la production, devient très faible. Dès lors, des interprétations divergentes des mêmes indicateurs peuvent entraîner des erreurs d'évaluation des rapports de force en présence, cause première des grèves.

Nous avons analysé, à l'aide de cette approche, la question du contrôle étranger et son incidence possible sur l'activité de grève. Nous avons alors réalisé qu'un grand

nombre de facteurs ayant des effets opposés jouaient sur la relation possible entre le contrôle étranger et l'activité de grève. Tant et si bien qu'aucune attente précise ne pouvait logiquement être inférée quant au sens de la relation. La question devenait donc une question empirique.

Nous avons intégré alternativement deux variables d'approximation du contrôle étranger dans une équation générale de grève, prenant en compte un ensemble d'autres facteurs pouvant expliquer l'activité de grève. La première variable (FOREG 1), prenait la valeur 1 si 50 % ou plus des droits de vote de la compagnie où la convention collective avait été signée étaient détenus à l'étranger et la valeur 0 s'il en était autrement. L'autre variable (FOREG 2), était plus restrictive puisqu'elle prenait la valeur 1 si 90 % et plus des droits de vote étaient détenus à l'étranger.

Les résultats que nous avons obtenus pour ces deux variables sont les suivants. La variable FOREG 1 a un coefficient estimé négatif et statistiquement significatif au niveau de 0,10. Ce résultat nous dit que, toutes autres choses étant égales par ailleurs, la détention étrangère diminue la probabilité de grève de cinq points de pourcentage. En utilisant FOREG 2, nous avons trouvé une augmentation de la valeur du coefficient estimé qui devient significatif au niveau de 0,05. En fait, dans ce cas, la détention étrangère diminue la probabilité de grève de quelque sept points de pourcentage.

En somme, tous les résultats que nous avons obtenus pointent dans la même direction. Au Canada, il semble que le contrôle étranger a un effet négatif sur l'activité de grève. Ces résultats vont à l'encontre d'une opinion généralement acceptée mais sont tout à fait compatibles avec les conclusions que l'on peut tirer d'un modèle informationnel de grève.

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TEACHING AND RESEARCH IN INDUSTRIAL RELATIONS**

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