CANADIAN GOVERNMENT
POLICIES TOWARD INWARD
FOREIGN DIRECT INVESTMENT

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1. INTRODUCTION

Host governments are rarely neutral toward inward foreign direct investment (FDI). Virtually all host governments have barriers to inward FDI of greater or lesser formality, and greater or lesser transparency. At the same time, many governments offer explicit and implicit incentives to foreign-owned multinational companies (MNCs) to establish affiliates in their host markets. Numerous theoretical arguments have been offered for and against barriers to inward FDI; however, the empirical evidence on the impacts of such barriers, as well as their removal, is surprisingly limited and inconclusive given the voluminous literature on the determinants of FDI.1

The policy direction taken by host governments over the past two decades has generally been to liberalize restrictions or barriers to inward FDI. Some observers argue that, while investment-rule liberalization has been popular since the 1980s, there has really been little change in foreign investment accessibility. The reason is twofold: (i) the liberalization of formal rules has not necessarily led to an increase in the transparency of investment regimes, and this lack of transparency is a significant barrier to inward FDI; and (ii) informal investment barriers are now relatively more important than formal barriers.2

Whether investment rule liberalization has had a significant impact on inward FDI is ultimately an empirical question, and we shall consider some evidence on this issue for specific Canadian industrial sectors. Perhaps a more fundamental question for public policy is whether host countries should be even more enthusiastic in eliminating the indirect and informal barriers that some observers claim are still important factors discouraging inward FDI. Recently, Canada’s Industry Minister called for a new debate on whether existing restrictions on inward FDI in Canada should be retained.

Obviously, any position on this issue is conditioned by the importance of such restrictions to foreign investors; we shall examine their importance for Canada. It will also be conditioned by whether there are net benefits to the host country in continuing to selectively restrict inward FDI. We shall examine this question as well.

The first section of this report, “A Typology of Government Policies toward Inward FDI,” identifies and discusses the range of policies that governments can implement to directly or indirectly influence inward FDI, as well as the behaviour of MNCs in the host market. The primary message is that there are many ways in which governments can affect the behaviour of MNCs, and the relative importance of specific policies is likely to vary from case to case.

The following section, “The Policy Context,” sets out public policy criteria against which to evaluate the consequences of Canadian government policies toward inward FDI. The goal of promoting higher per capita (real) income levels is obviously of major importance. In this regard, policies restricting inward FDI have two potential impacts. First, they may decrease the quantity of FDI, thereby probably decreasing real income levels in the host country, all other things being constant. Second, they may increase the “quality” of inward FDI. Specifically, to the extent that foreign investors expect to earn economic rent on their investments in the host country, that country’s government could potentially “tax away” the rent for redistribution to domestic factors of production. In this context taxes are implicit rather than explicit, taking the form of commitments that investors undertake only because they are required to do so. Examples include substituting more expensive domestically produced inputs for imports that could be more cheaply sourced from other countries, or performing more research and development (R&D) in the host country rather than importing technology from the parent company affiliate. The impacts of FDI policies on the quantity and quality of inward FDI are a focus of this study.

The next section, “Determinants of Inward FDI,” reviews the determinants of inward FDI drawing upon the existing economic and international business literature. The review provides
background to our own original economic modelling of inward FDI described in our analysis of public policy. “An Overview of FDI in Canada” provides a broad overview of inward FDI patterns to Canada over the postwar period and draws some preliminary inferences about the influence of public policies on inward FDI flows. “Foreign Ownership Policies in Canada” discusses significant Canadian government policy initiatives directed at influencing either the quantity or quality of inward FDI. They include the Foreign Investment Review Act (FIRA), the Investment Canada Act, the Canada–U.S. Free Trade Agreement, the North American Free Trade Agreement (NAFTA) and the World Trade Organization (WTO). Specifically, we describe the main features of these initiatives as they apply to inward FDI, and we consider how they might influence the magnitude and nature of FDI inflows to Canada.

The following section, “Sectoral Policies,” identifies Canadian government policies directed at restricting inward FDI at the sectoral level. The sectors concerned are financial services, oil and gas, and telecommunications. The section also provides a theoretical consideration of the welfare economics arguments for and against sectoral foreign ownership restrictions. “TheEffects of Public Policy on Foreign Investment” discusses original econometric models of inward (and outward) FDI for Canada. Two sets of models are presented: one for total FDI flows and manufacturing sector flows, and another for financial services and energy. “Foreign Investment in the Oil and Gas Sector” provides a case study analysis of foreign ownership and the effects of foreign ownership policies. The following two sections offer similar case studies of the consequences of foreign ownership and the impacts of foreign ownership policies in the financial services and communications sectors, respectively.

Finally, the last section concludes the paper with a summary and a set of policy recommendations. Our main conclusion is that welfare economics arguments for restricting inward FDI are weak, both at the aggregate level and at the sectoral level. Specifically, inward FDI brings net benefits to the host economy, and it is difficult (for both conceptual and practical reasons) for host governments to extract greater benefits from inward direct investment through screening, the imposition of undertakings or other policies. The most substantial consequence is likely to be a decrease in inward FDI; however, it is easy to exaggerate the effects of direct government policies per se on FDI flows. The overall investment environment seems to be a substantially more important influence on inward FDI patterns, particularly since it reflects the consequences of many government policies not specifically addressing FDI.
2. A TYPOLOGY OF GOVERNMENT POLICIES TOWARD INWARD FDI

While there are various ways to classify government policies toward inward FDI, one broad method of distinguishing between the relevant policies is according to whether they are formal or informal.

**Formal Investment Barriers**

Formal investment barriers may be defined as the set of controls on inward FDI introduced through legislation and government regulation. Informal investment barriers may be defined as an array of impediments to FDI in a host country; they may arise from administrative procedures and unpublished policies, structural rigidities in the host market, or political, cultural and social institutions that work to discourage inward FDI.  

Formal investment barriers are relatively obvious and generally reflect a primary, if not exclusive, focus on inward FDI. Major manifestations of formal investment barriers include: broad legislation governing terms and conditions under which foreign-owned businesses can be established and operated; screening and monitoring of investors for purposes of approval; legislative or regulatory restrictions on the extent of foreign ownership and control in specific sectors; trade-related investment requirements, such as minimum export volumes; and other requirements, such as minimum levels of domestic R&D.

**Absolute versus Non-Absolute Restrictions**

It is probably relevant to distinguish further between formal policies that impose absolute barriers or restrictions on the amount of foreign ownership and control permitted, and policies that constrain the structure and/or behaviour of foreign investors, such as requirements to hire local managers, perform R&D in the host country, grant world product mandates to host country affiliates and so forth. Absolute restrictions on foreign ownership and/or control are equivalent to absolute quotas on imports. While the “mix” of inward FDI can presumably vary, the relative (if not absolute) volume of FDI is fixed by the ceiling placed on ownership or control.

In contrast, “non-absolute” restrictions may discourage inward FDI by increasing the costs of establishing and/or operating foreign affiliates in the host country. In this respect they are analogous to tariffs. To the extent that non-absolute restrictions still leave inward FDI a profitable proposition in the home country, at the margin, they are not barriers to inward FDI in any meaningful sense. Rather, they are instruments for transferring “economic rent” from foreign investors to the host country. On the other hand, non-absolute restrictions may increase the costs to foreign investors who were just on the margin of finding host country investments profitable. In this case, they will discourage and act as barriers to inward FDI, at least for some investments.

**Informal Investment Barriers**

Informal investment barriers are not always obvious and indeed may not be readily identifiable as influencing inward FDI. This is particularly true if one resists classifying as an informal investment barrier any government-inspired change in economic, political and cultural institutions that influences the prospective profitability of inward FDI.

Informal investment barriers might be seen as policies that, while not specifically concerned with inward FDI, have an especially strong impact on foreign investors. For example, regulations that restrict
cross-ownership of financial institutions implicitly penalize firms capable of exploiting synergies across different financial activities. These may well be foreign-owned firms used to operating in jurisdictions in which cross-ownership restrictions are much weaker than in the host country. To the extent that the cross-ownership restrictions are at least partially intended to impede the ability of foreign-owned firms to compete in the host country, they are legitimately viewed as being a manifestation of foreign ownership policies. On the other hand, the restrictions may entirely reflect competition policy concerns on the part of host country officials — concerns that are not necessarily shared by home country officials.

The point to be emphasized here is that even when host government policies are partially intended to be discriminatory (i.e., directed against foreign investors), any decision about the extent to which indirect policies are classifiable as foreign investment policies will inevitably be arbitrary. Hence it seems prudent to emphasize direct policies in examining specific host government policies toward inward foreign direct investment. While it may be imprudent to ignore all indirect policies, in this report we restrict our consideration of such policies to those that are likely a priori to have a significant impact on the activities of foreign investors.
3. THE POLICY CONTEXT

Any evaluation of government policy should be undertaken in accordance with one or more public policy criteria. Hence, if a goal of public policy is to restrict the economic influence that foreign investors have in the host economy, policies that reduce or restrain foreign ownership and control might be considered as successful per se. On the other hand, if the overriding public policy goal is to promote domestic economic growth, policies that reduce or restrain foreign investment might be considered as perverse, especially if inward FDI has significant productivity spillovers for the host country.⁶

In fact, the de facto public policy goals of any government are likely to be complex and contradictory. Nevertheless, promoting a higher per capita (real) income level can be presumed to constitute one major goal of any host government. A second broad (but less easily defined) goal is promoting national sovereignty. Achieving the first goal may involve accepting higher levels of foreign ownership and control, while achieving the second may require higher levels of domestic ownership and control; thus the two goals can be incompatible. The public policy objective function is then best defined in terms of a Lagrangian expression — e.g., maximize the growth of real per capita income while ensuring minimally acceptable levels of national sovereignty.

Promoting Increased Real Per capita Income

Given a goal of promoting higher real income levels for domestic residents, the challenge for the host country government is to formulate and implement policies ensuring that the growth-promoting benefits of inward foreign direct investment are maximized, at the margin. There are several margins at which such policies can potentially be directed, as follows.

Improved Economic Efficiency

Government policies should presumably encourage inward direct investment with expected net positive impacts on the growth of domestic real per capita income. Similarly, they should discourage inward direct investment with expected net negative impacts on the growth of domestic real per capita income. In this context, domestic real per capita income should be thought of as that of host country citizens (or residents), since increased real income accruing to foreign investors (e.g., in the form of dividends and fees remitted to the parent company) are presumably not in the welfare function of the host country government.

There is substantial literature identifying and evaluating the linkages between real income levels in the host country and inward FDI.⁷ Within the industrial organization paradigm, inward FDI can encourage higher real income levels in the host country by promoting a more efficient use of domestic resources. There are, in turn, a number of potential channels for achieving this result:

- More efficient foreign-owned firms displace less efficient domestically owned firms. The associated re-allocation of domestic resources from less efficient to more efficient producers should contribute to a higher average level of productivity (and income) in the host country. To the extent that foreign investors do not capture all of the associated increase in productivity in the form of higher profits, host country residents will enjoy higher average income levels as a result of inward FDI.

The available evidence is quite consistent in showing that foreign-owned establishments in Canada have higher average labour productivity levels than do domestically owned establishments.⁸ There are two primary reasons for this phenomenon: (i) foreign-owned establishments operate with higher capital-to-labour ratios, which directly contribute to higher
labour productivity levels; and (ii) foreign-owned establishments are larger than their domestically owned counterparts, and this size advantage contributes to higher labour productivity levels through economies of scale and scope. Available evidence also indicates that average wage levels are higher in foreign-owned establishments; this suggests that some portion of the higher average productivity associated with inward FDI is passed through to domestic factors of production.

- The competition from foreign-owned firms promotes increased efficiency among domestically owned firms. Similarly, the presence of foreign-owned firms promotes more rapid adoption of new technology and best-practice management techniques on the part of domestically owned firms through “demonstration” effects, vertical linkages and so forth. The productivity-enhancing effects of inward FDI on domestically owned firms are broadly identified as “spillover” effects. The available evidence indicates that these spillover effects are generally positive and significant.¹

On the other hand, some of the early literature dealing with the economic effects of inward FDI noted the potential for foreign ownership to reduce domestic productivity levels. In Canada, the relevant phenomenon was identified as the “miniature replica effect.” The argument was that foreign-owned affiliates would tend to duplicate the product lines of their parent affiliates while making minimal efforts to innovate and exploit innovations from the host country market. As a result, the displacement of domestically owned firms by foreign-owned firms could reduce overall rates of domestic innovation and lead to a lower overall productivity growth rate for the host economy.¹⁰

As primary evidence to support the miniature replica effect, observers cite the lower average levels of research and development performed by foreign-owned affiliates compared to their domestically owned counterparts. However, R&D expenditures are acknowledged to be a potentially poor measure of innovation performance, especially for foreign-owned firms, which directly or indirectly import technology from their parent affiliates. Nevertheless, policy makers have been concerned about the relatively low levels of R&D performance shown by foreign-owned firms; and their concern has contributed to scepticism about the benefits of inward FDI in high-technology industries, especially in cases where entry by the foreign investor is accomplished by the takeover of a domestically owned firm.¹¹

**Capturing Rent Earned By MNCs**

Models of inward FDI associated with Hymer, Dunning and others recognize that foreign-owned firms must enjoy certain competitive advantages in order to compensate for the sunk cost investments they must make to enter foreign markets. Empirical models identify these firm-level advantages primarily with intangible assets, such as proprietary technologies, brand names and trademarks. The firm-level advantages, in turn, may enable foreign investors to earn “economic rents” on the assets they own in the host country. In this case, higher real income levels for domestic residents might be realized by “appropriating” some or all of the rents through host government intervention. Successful government policies in this context would transfer economic rent from foreign investors to domestic factors of production without reducing the inflow of beneficial foreign direct investment.

Successful rent appropriation on the part of any host country government presupposes at least two things: (i) foreign investors expect to earn economic rent on investments made in the host country; (ii) host government bureaucrats can successfully identify those investors (investments) that expect to earn economic rent, and can then implement policies that reduce the foreign investor’s expected rate of return without discouraging the investment(s) concerned. Whether and where these conditions exist are ultimately empirical questions.¹²
What might be stressed here is that, in an era when national governments are competing to attract foreign investors, the supply of inward FDI facing any individual country is likely to be quite elastic, except perhaps for investments in sectors where the host country enjoys marked country-specific advantages (e.g., relatively large deposits of natural resources). The more elastic the foreign investor’s supply curve, the more limited the opportunity for the host government to extract economic rent from the foreign investor.\(^\text{13}\)

Another point to stress is that private investors in the host country may be as aware as (or more aware than) host government bureaucrats of the opportunities for foreign investors to earn economic rent in the host country. Accordingly, they can be expected to charge foreign investors prices (for foreign takeovers and acquisitions) that reflect the economic value of assets to the foreign investor. If there is significant competition between foreign investors for domestically owned assets, much (if not all) of the economic rent that foreign investors are capable of earning may be appropriated in the purchase prices paid by those investors.

### Preventing Market Failures

The economic rent earned by foreign investors might imperfectly reflect competitive conditions in host country markets which, in turn, are exacerbated by the relevant foreign investments. That is, inward FDI might contribute to reduced domestic competition. For example, mergers and acquisitions initiated by foreign investors might contribute to increases in domestic industrial concentration ratios.

The fact that sellers of domestic assets appropriate a significant share of the prospective monopoly rents in the form of higher acquisition prices does not mitigate the undesirability of anti-competitive business combinations; however, there is no particular reason to discriminate against anti-competitive mergers or acquisitions initiated by foreign investors. Merger policies should presumably identify and assess all relatively large mergers having potentially significant anti-competitive consequences. Similarly, abuses of dominant position and other anti-competitive acts should be addressed by competition policy authorities regardless of the ownership status of the dominant firms.

External costs associated with inward foreign direct investment would seem to offer a more compelling basis for host government intervention into the foreign investment process. The main cost that has been identified by economic nationalists is the “loss of sovereignty” associated with significant levels of foreign ownership, either in specific industries or in the economy more generally. The precise meaning of sovereignty in this context is rarely, if ever, enunciated clearly, nor is the linkage of sovereignty to foreign ownership. In broad terms, the concerns seem to be that foreign investors are less likely than domestic investors to identify with the host government’s public policy goals, and they are also less likely to tolerate reduced corporate profits in pursuit or support of those goals.

In fact, there is little reliable empirical evidence of which we are aware to support nationalists’ concerns about a loss of sovereignty associated with foreign ownership. Moreover, restricting or prohibiting inward FDI is not necessarily an efficient policy response to sovereignty concerns associated with foreign investment. This observation is illustrated by the example of the telecommunications industry. The telecommunications systems of most countries embody pricing cross-subsidies designed, at least in principle, to assure universal telephone service. Several countries that recently privatized their national telephone systems opened up the bidding process to foreign investors. A continuing government “say” in the maintenance of pricing cross-subsidies and other key social objectives was assured by the host government’s maintaining a so-called golden share: this gave it effective voting control if preconditions to foreign ownership were not met.
Summary

In summary, theoretical arguments can be made for host government interventions into the inward FDI process to increase the real incomes of domestic residents. While no theoretical position clearly dominates the debate, empirical evidence suggests that policies (directly or indirectly) discouraging inward FDI are likely to have net economic costs. The reason is not necessarily that overall capital investment will be higher in the host country with unrestricted inward FDI, although this is usually the primary issue raised by policy makers. The more significant reason is that inward FDI improves economic efficiency in the host economy.

This is not to suggest that host governments should actively subsidize inward FDI or favour foreign ownership at the expense of domestic ownership. Host governments will face the challenge of having to identify the required subsidy that, at the margin, is just sufficient to encourage investment which would otherwise not take place. In many cases, the host government may wind up offering subsidies that exceed the net benefits of the inward FDI.

In the next section of the report, we review evidence on the determinants of inward FDI. The evidence indicates that government policies promoting the growth of key factor inputs such as a skilled and educated labour force are far more important long-run inducements to inward FDI than tax holidays, low-interest loans and other financial subsidies to foreign investors. Since such policies are also inducements to investment by domestic residents, they are not foreign investment policies per se.

Notwithstanding the strong case against broad restrictions on inward FDI or the regulation of MNCs, the complete elimination of such restrictions or regulations may not be optimal. Specifically, there may well be individual cases where foreign investment threatens certain non-economic goals, such as an R&D presence in a “sensitive” industry, and where the associated net economic benefits of the investment fail to justify the need for government to achieve its goals in ways other than by discouraging the investment (or constraining the behaviour of the foreign investor as a precondition for allowing the investment). However, these instances are likely to be limited in number and case-specific. Hence they are unlikely to be efficiently addressed by broad-based and relatively inflexible discriminatory policies toward foreign investors.
4. DETERMINANTS OF INWARD FDI

The potential influence of public policy on inward FDI flows should be considered in the context of the general literature on the determinants of FDI. In order to isolate the role of public policies, it is necessary to hold constant the various factors that might influence FDI flows. We therefore undertake a survey of the empirical literature on the determinants of FDI. We do this with two purposes in mind: (i) to identify the various general factors that condition FDI flows, and (ii) to identify the specific ways in which public policies have affected FDI flows.

Theory

Empirical studies are best understood in the context of the theory of foreign direct investment, a theory that has been evolving. Early studies reflected the roots of the theory in the international trade literature. Accordingly, primary attention was paid to the role of comparative advantage (resource endowments, factor costs) and trade barriers in determining FDI flows across countries. The empirical literature provided some evidence that host country tariffs were a factor encouraging inward FDI; however, tariffs and non-tariff barriers (including transportation costs) provided only a limited explanation of the ubiquity of the multinational enterprise, and they could not explain the accelerated growth of worldwide FDI flows during repeated GATT rounds of trade liberalization.

If FDI flows are based on the home countries’ comparative advantage, this raises the question of why home country firms exploit that advantage through FDI rather than exports. As noted above, host country barriers to trade offer a partial explanation; however, another approach melding insights from industrial organization and international trade emphasizes the firm- and industry-specific advantages that create opportunities and incentives for FDI. The essential argument is that FDI emerges from specific assets created in the home country and transferred to the host country. These assets are difficult to imitate and enable the foreign-owned firm to overcome sunk cost barriers to entry into the host country market. Moreover, the relevant assets are typically intangible and hence are difficult to exploit on an arm’s-length basis, for instance through licensing arrangements with host country firms.

Models emphasizing the exploitation of intangible assets through FDI do not explain why MNCs choose to exploit the relevant assets in some countries but not in others. In this regard, Dunning’s eclectic model (Dunning, 1980) gave locational issues explicit importance by combining them with firm-specific advantages and transaction cost elements. The international business literature inspired by this model emphasized the locational advantages of the host country as conditioned by non-economic factors such as political risk.14

Specific characteristics of the demand and supply sides of host country markets are more or less relevant influences on inward FDI depending upon the specific nature of the FDI in question. For example, incentives to lower costs through outward FDI would emphasize the host country’s resource endowments, physical infrastructure and productivity levels as determinants of where foreign investment will take place. Productivity levels of different host countries, in turn, will depend upon market size (if economies of scale and scope are important), the education and skills level of the local work force, and so on.

Obviously, the relative importance of individual factors will vary from activity to activity. For example, the host country’s resource endowments will presumably be the dominant influence on MNC decisions involving the location of primary resource extraction activities, whereas the education and skills level of the local work force will likely be the dominant influence on MNC location decisions in technology-intensive industries.
On the demand side of the market, the prospective profitability of FDI will presumably depend upon factors such as the real income level of the host country and its economic growth prospects. Cultural similarities between the home and host countries should also enhance the attractiveness of specific host countries to home country investors, since the costs of adapting products to unique host country conditions will be mitigated.

Government policies can indirectly influence the attractiveness of the host country to foreign investors by conditioning key supply- and demand-side factors. Virtually all the factors we have mentioned are susceptible to host government influence. For example, public investments in infrastructure could help promote FDI across a range of industries by reducing transportation costs within the host country as well as between the host country and potential export markets. Productivity levels in host country industries are potentially affected by a wide array of government policies — including expenditures on education and training, enforcement of antitrust laws, and sensible monetary and fiscal policies.

Government policies can also influence the attractiveness of the host country to foreign investors more directly through tax and regulatory initiatives. The a priori expectation is that, other things being equal, higher host government taxes will discourage inward FDI, and that increased business regulations will have the same effect by increasing the costs of doing business in the host country. Indirect policies such as screening agencies to review foreign direct investment proposals can be seen as forms of business regulation directed specifically at foreigners, thereby discouraging inward FDI.

**Determinants of FDI: A Selective Survey**

Empirical investigation of the factors determining foreign direct investment flows has a fairly long academic history. Surveys of the literature up to the early 1990s may be found in Caves (1996), the United Nations Centre on Transnational Corporations (UNCTC, 1992), Dunning (1993a) and Pearce (1993). In assessing the empirical literature, it is important to distinguish between motives for undertaking outward FDI per se and motives to locate in one region rather than another. Literature examining the former is concerned with identifying the unique firm- and industry-specific assets that lead a firm to invest abroad. Literature examining the latter is concerned with location-specific factors that determine where the investment will take place. We are interested in the locational aspects, although it is not always possible to separate the two. We identify three strands in the literature.

The first strand focusses on inter-industry or inter-product differences in foreign ownership within a given host country. This type of study investigates the question of why production occurs in the host country and not the home country, and thus compares relative locational and ownership advantages of the two, but it also includes industry-specific variables that reflect advantages held by the investing firm. The seminal study of this type is Caves (1974); a more recent variant is Campa (1993). Many of these studies have examined U.S. investment in Canadian industries, by looking at industry characteristics that attract FDI. Pearce (1993) provides a useful summary of these studies, which suggest that firm- or industry-specific factors can be important determinants of FDI flows. These studies tend to find that market size is consistently important and that industries characterized by high levels of asset specificity in the home country, e.g., advertising and R&D intensities, are characterized by relatively high levels of foreign ownership in the host country.

To be sure, some studies of inter-industry differences in foreign ownership include host country industry characteristics as explanatory variables. For example, Caves (1982) includes in his analysis certain characteristics of Canadian industries such as cost differentials and levels of tariff protection, while Shapiro (1983) expands the list and by including variables accounting for industrial structure (market size, concentration, barriers to entry, economies of scale) in the host country. Industrial structure
in the host country has been found particularly important; less certain is the role of factor cost conditions and tariff levels (Caves, 1982; Dunning, 1980).

Locational factors, firm-specific characteristics and strategic interactions are combined in an important recent study by Hennart and Park (1994). They analyse Japanese FDI by product in the United States using a binomial logit estimation technique, with the dependent variable equal to 1 if the product is produced in the United States and 0 otherwise. The explanatory variables include scale economies, transport costs, tariff and non-tariff barriers, and relative production costs. They find that firm-specific characteristics (e.g., R&D) are important, as are scale economies and tariff/non-tariff barriers, but transport costs and relative production costs are not important.

A second strand of the literature examines locational decisions as the choice between a number of countries with different locational attributes. In this approach, the problem is to explain the distribution of FDI inflows across countries. Until recently, this has been accomplished by using either aggregated data or industry-level data. A recent example is the analysis by Moore (1993) of the locational determinants of German FDI. Using pooled industry- and country-level data, he regresses FDI flows on a variety of variables including relative wages, strike activity, tariffs, gross domestic product (GDP), and the difference between German and host-market growth rates. The results are not particularly strong, but it is found that GDP levels are important positive determinants, wage levels at times are negative determinants and tariff levels are not important. Strong country effects are found, indicating that a wider variety of factors must be considered in estimating such equations.

More comprehensive models have been estimated by Coughlin et al. (1991), Woodward (1992) and Woodward and Rolfe (1993). These papers are distinguished by their use of firm-level data, by the wide range of locational factors considered, and by their use of a conditional logit model (CLM) as a basis for estimation. Collectively they employ a lengthy list of explanatory variables, including market size, manufacturing density, land area (a proxy for the number of available sites), unionization, wage rates, tax rates and structure (unitary or not), and state promotion efforts. It is typically found that some measure of market size or income is the major determinant of FDI, with the importance of other factors differing from study to study.

The final strand of the literature, and the one most relevant for our purposes, uses time-series (or pooled time-series, cross-section) analysis to examine the determinants of aggregate FDI inflows (outflows), normally into (out of) a specific country. The UNCTC (1992) summarizes the importance of these models as follows: “Firstly, they have verified the key importance of market size among the determinants of foreign direct investment. Secondly, they provide the potential to analyse the effects on foreign direct investment of crucial changes in the environment, or of periods of abnormal economic or political conditions” (p. 32).

The explanatory variables are typically macro-economic in nature (e.g., GDP or GDP per capita, currency stability). The earliest empirical studies of FDI flows were of this type, often focussing on U.S. FDI in Europe. These studies, and those that followed, consistently identified host country market size (but not necessarily market growth rates) as the most important determinant of FDI inflows.

Graham and Krugman (1995) have given the name of “cost of capital theories” to variants of this approach focussing specifically on factors that produce investment cost differentials across countries. Perhaps the most influential of these is Froot and Stein (1991), who argue that FDI flows are explained by exchange rate fluctuations. Caves (1989) and Klein and Rosengren (1994) both find that exchange rates are important determinants of FDI in the United States.

As noted by the UNCTC (1992), time-series analysis offers the potential for analysing policy events, although few studies have yet attempted to do so. A number of early studies introduced several public policy–related variables, most notably the formation of the European Economic Community (EEC) and the effects of the U.S. capital control program (in effect from 1965 to 1972). As regards the
former, the consensus appears to be that the formation of the EEC did increase U.S. FDI, while the effect of the U.S. capital controls program is ambiguous (UNCTC, 1992). More recently, Dunning (1997) has summarized the effects of the first phase of the European integration (1958–85) on FDI flows as follows: integration was accompanied by a substantial net increase in both EEC-related intra- and extra-FDI and trade flows; however, the largest increases in FDI were from countries outside the EEC, and the evidence strongly suggests that U.S. (and later Japanese) MNCs did better than their EEC equivalents in taking advantage of the removal of tariff barriers.

On balance, there have been almost no attempts to analyse the effect of other public policies, particularly those directed specifically at foreign investment, on aggregate FDI flows. One prominent exception is Kudrle (1995) who analyses U.S. FDI in Canada over time, with specific reference to the role of the Foreign Investment Review Act. He finds that the Act had minimal impact on FDI inflows from the United States to Canada.

Over the years, this strand of literature has developed through the addition of a range of explanatory variables capturing other macro-economic factors as well as socio-political-cultural factors. The most general of these studies models FDI in the United States by country of origin, using a time-series, cross-section analysis (Grosse and Trevino, 1996). The model includes variables reflecting the amount of existing trade between the source country and the United States, the size of the source country market, the degree of political risk in the source country, the geographical and cultural distance from the United States, differentials in the cost of borrowing and rates of return on capital, and relative currency values (exchange rates). The results suggest that existing levels of trade (negative for imports, positive for exports), source-country gross national product (positive), geographic distance (negative), cultural distance (negative), exchange rates (negative) and political risk in the home country (positive) are all significant determinants of FDI inflows to the United States.

Despite the strong results reported by Grosse and Trevino (1996), it is probably fair to conclude that, beyond market size and exchange rates, the time-series literature as a whole provides few other consistently important determinants of FDI.

Summary of the Empirical Evidence

Perhaps because of the diversity of methodologies and data samples across studies, empirical findings bearing upon the locational determinants of inward FDI are somewhat conflicting. Nevertheless, virtually all studies show that there is a positive correlation between host and/or home country GDP or GDP per capita and inward FDI flows, and that other location-specific factors can be important. From study to study, the evidence varies on the effects of cost differentials, tariff and non-tariff barriers, natural resources, exchange rate stability, tax rates and political stability. The tendency is for these latter factors to be more important when the host countries are developing rather than developed economies. Perhaps most important to note is that very few studies have attempted to analyse the role of FDI-specific public policy variables in the context of a well-specified model.

In both home and host countries, therefore, the literature suggests a range of variables that might determine FDI flows; however, the results to date are mixed and offer limited public policy insights. Specifically, the factors generally have little to do with foreign investment policies per se, and more to do with overall macro-economic and geographical conditions. Trade agreements, including investment provisions, may have significant influences on inward FDI but it is difficult to isolate the role of specific provisions.

The available evidence does suggest that there are relatively strong market forces influencing FDI flows, but that these are relatively resistant to influence from any but the strongest of policy instruments (such as outright prohibition). For example, the importance of firm- and industry-specific
assets as motivators of FDI plus the consistent role of market size as a locational determinant both suggest that public policies aimed at either promoting or restricting FDI must be quite powerful in order to affect or offset these types of factors.

Somewhat surprising is the relative absence of empirical studies examining the effects of public policy on foreign investment flows. Dunning (1993a) has also noted that there is in fact limited evidence regarding the role of government in shaping FDI flows.

One likely explanation for the relative paucity of such studies is the fact that many public policy measures directly affect FDI (Industry Canada, 1994; Safarian, 1993). These measures range from formal review procedures and/or restrictions applied on either an economy-wide or a sectoral basis to informal restrictions imbedded either in related laws (such as competition laws), in financial institutions (such as securities exchanges) or in other less formal social institutions. It is difficult to compile a list of these policies and yet more difficult to determine their impacts.

In addition, a large number of factors determine FDI flows. Many of these factors are probably beyond the reach of any public policy; others may be affected by policies not specifically targeted at FDI (such as monetary policy). Thus it is possible that public policies either have minimal impact on FDI or have indirect effects that are difficult to measure.
5. AN OVERVIEW OF FDI IN CANADA

Before discussing broad government policies toward inward FDI and assessing the impacts of those policies, it is useful to present a brief overview of inward FDI patterns for Canada. Since the focus of this study is on the determinants and effects of inward FDI, and since government FDI initiatives were largely implemented in the post-1970 period, our overview of inward FDI patterns focusses primarily on that period.

Measures of FDI

Economists measure inward FDI in a number of ways. The most commonly cited statistic is the book value of foreign direct investment. This represents the balance sheet value of foreign direct investment for which foreign investors enjoy some minimum threshold level of ownership.\(^21\) Table 1 reports the current book value of inward FDI in Canada for various years covering the period from 1950 to 1995. By way of background, the current value of GDP is also reported.

Kudrle (1995) criticizes the use of the book value of FDI on grounds that it understates the real (inflation-adjusted) value of FDI over time. He documents this tendency using U.S. outward FDI data, with the book value of U.S. FDI in Canada adjusted by a capital cost price deflator. On the other hand, it can be argued that accounting depreciation rates for capital equipment understate the rate of economic depreciation, especially in sectors where the capital stock increasingly consists of computer and computer-related equipment. Also, a portion of the capital stock consists of assets whose value does not necessarily increase as a function of general inflation, e.g., cash and accounts receivable.

A second measure of inward FDI sometimes used is total foreign ownership of long-term capital regardless of the percentage ownership of long-term capital. This would obviously provide a higher measure of foreign ownership than the measure cited in Table 1, since there is no minimum ownership threshold for identification of foreign ownership status. A third measure is foreign control in which the total assets of a company are identified as being foreign investment if foreigners are considered to control those assets. The conventional threshold for control is 50-per-cent ownership, although control may be identified with lower levels of ownership as a result of judgment calls.

In fact, the three measures of the stock of inward FDI discussed above provide very similar profiles of Canada’s inward direct investment experience. Specifically, over the 1970s and 1980s, the paired correlation coefficients for the three measures are around 0.99. Hence, while the foreign ownership measure reported in Table 1 is generally lower than the other two measures, the overall behaviour of foreign ownership over time is insensitive to the ownership measure employed.

Behaviour of Inward FDI

From Table 1, it can be seen that the stock of inward FDI has grown consistently (in absolute current Canadian dollar values) over time. The year-to-year rate of growth has obviously varied but, in general, was substantially slower in the post-1980 period than in the earlier postwar period.\(^22\) However, given the very low base from which the FDI series started in 1950, relatively fast rates of growth could be expected in the early postwar years. What is interesting to note is that the growth of FDI closely parallels the growth of GDP, especially in the later postwar period. In 1950, for example, the ratio of FDI to GDP equalled 0.214. That ratio was 0.21 in 1976 and 0.215 in 1995.
Certainly, two broadly defined time series such as FDI and GDP can be expected to increase as a function of time even if they are causally unrelated, although one might not expect such relative stability of the relationship between the two purely as a statistical coincidence. In fact, as discussed in the earlier section, one would expect to find a strong statistical linkage between the two series given the theoretically and empirically documented role that economic growth plays as an attractor of inward FDI. High levels of real income and the prospect of increasing real income levels over time attract FDI by creating a larger potential market for foreign products.

A higher real income level in the host country also arguably reflects higher productivity levels in that country, and these in turn reflect higher average levels of human capital, physical infrastructure and the like. These latter factors have also been found to attract inward FDI by making the host country in question a relatively low-cost site for production facilities.

A tentative conclusion one might draw from Table 1 is that government policies directly aimed at encouraging or discouraging inward FDI may have much less overall influence on inward FDI than has the general macro-economic health of the host country. Obviously, formal limitations on foreign ownership levels will have a strong influence on inward FDI, but these types of limitations have been quite sector-specific in Canada. On the basis of Table 1, one might argue that more general foreign ownership policies discussed in the next section, such as the Foreign Investment Review Act, have had a relatively muted impact on inward FDI. Specifically, there is no evidence of an acceleration of inward FDI in the post-1986 period. Indeed, over the past 10 years Canada has attracted a decreasing share of global foreign direct investment, despite Canadian government policies (described below) to encourage

Table 1
Book value of FDI and GDP, selected years
(Millions of current Canadian dollars)

<table>
<thead>
<tr>
<th>Year</th>
<th>FDI</th>
<th>GDP</th>
<th>FDI/GDP x 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950</td>
<td>4098</td>
<td>19125</td>
<td>21.4</td>
</tr>
<tr>
<td>1960</td>
<td>13583</td>
<td>39448</td>
<td>34.4</td>
</tr>
<tr>
<td>1970</td>
<td>27374</td>
<td>89116</td>
<td>30.7</td>
</tr>
<tr>
<td>1972</td>
<td>30563</td>
<td>108629</td>
<td>28.1</td>
</tr>
<tr>
<td>1974</td>
<td>37557</td>
<td>152111</td>
<td>24.7</td>
</tr>
<tr>
<td>1976</td>
<td>41623</td>
<td>197924</td>
<td>21.0</td>
</tr>
<tr>
<td>1978</td>
<td>50089</td>
<td>241604</td>
<td>20.7</td>
</tr>
<tr>
<td>1980</td>
<td>64708</td>
<td>309891</td>
<td>20.9</td>
</tr>
<tr>
<td>1982</td>
<td>72814</td>
<td>374442</td>
<td>19.4</td>
</tr>
<tr>
<td>1984</td>
<td>85964</td>
<td>444735</td>
<td>19.3</td>
</tr>
<tr>
<td>1986</td>
<td>96054</td>
<td>505666</td>
<td>19.0</td>
</tr>
<tr>
<td>1988</td>
<td>114480</td>
<td>605906</td>
<td>18.9</td>
</tr>
<tr>
<td>1990</td>
<td>131131</td>
<td>669467</td>
<td>19.6</td>
</tr>
<tr>
<td>1992</td>
<td>138696</td>
<td>690122</td>
<td>20.1</td>
</tr>
<tr>
<td>1994</td>
<td>152784</td>
<td>750053</td>
<td>20.4</td>
</tr>
<tr>
<td>1995</td>
<td>168077</td>
<td>780309</td>
<td>21.5</td>
</tr>
</tbody>
</table>

Source: Statistics Canada, Canada’s International Investment Position, various issues.
more inward FDI; however, statistical evidence discussed in a later section suggests that more generic macro-economic policies, specifically trade liberalization, have had an effect on both inward and outward FDI for Canada.

Table 2 reports the distribution of the book value of FDI by industrial sector for selected years. Changes in the statistical classification of industries make it impossible to provide a consistent and more detailed industrial description of inward FDI. Nevertheless, the limited information provided offers some insights. One is that specific host country industries become significantly more or less attractive to foreign investors (at least in relative terms) over time. The importance of host government policies in this context will be considered in the case studies covered in this report. A second insight is that the resource sectors have become relatively less important over time from the perspective of foreign direct investment, while specific manufacturing and service sectors have become relatively more important. This latter trend might reflect changes in the relative sizes of these sectors, as the relative size of the resource sector has declined over time compared to that of the service sector. In this context, economic growth patterns will influence the sectoral distribution of inward FDI, as well as the overall growth of foreign ownership.

Finally, Table 3 reports foreign direct investment in Canada attributable to U.S.-based companies relative to overall foreign direct investment in Canada. Quite clearly, foreign direct investment attributable to U.S.-based investors declined substantially relative to foreign direct investment attributable to other foreigners. This trend has been fairly consistent over the postwar period, although the U.S. share of overall inward FDI appears to have levelled out in the 1990s. The declining relative importance of U.S. FDI is intriguing in light of investment provisions in the Canada–U.S. Free Trade Agreement (implemented in 1988) making investment regulations less restrictive for U.S. investors relative to non-U.S. investors.

The series reported in Table 3 offers yet another insight into the relative importance of government policies as an influence on overall FDI. Specifically, since Canadian government policies toward inward FDI, at least prior to regional trade agreements, tended to be non-discriminatory with respect to the home countries of the foreign investors, changes in the geographical origin of inward FDI are unlikely to be major reflections of changes in government policies. 23

### Table 2

<table>
<thead>
<tr>
<th>Year</th>
<th>Food &amp; beverages</th>
<th>Wood &amp; paper</th>
<th>Chemicals</th>
<th>Oil &amp; gas</th>
<th>Finance</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>1974</td>
<td>5.6</td>
<td>7.3</td>
<td>7.1</td>
<td>23.6</td>
<td>12.1</td>
<td>44.3</td>
</tr>
<tr>
<td>1980</td>
<td>5.5</td>
<td>6.2</td>
<td>7.2</td>
<td>26.0</td>
<td>4.4</td>
<td>50.7</td>
</tr>
<tr>
<td>1986</td>
<td>7.5</td>
<td>3.7</td>
<td>9.2</td>
<td>21.0</td>
<td>16.7</td>
<td>41.9</td>
</tr>
<tr>
<td>1990</td>
<td>7.0</td>
<td>5.8</td>
<td>10.4</td>
<td>16.4</td>
<td>18.9</td>
<td>41.5</td>
</tr>
<tr>
<td>1992</td>
<td>8.4</td>
<td>6.4</td>
<td>10.9</td>
<td>14.6</td>
<td>19.2</td>
<td>40.5</td>
</tr>
<tr>
<td>1995</td>
<td>9.5</td>
<td>4.7</td>
<td>10.9</td>
<td>11.7</td>
<td>18.0</td>
<td>45.2</td>
</tr>
</tbody>
</table>

Note: From 1986 to 1995, the oil and gas sector has been redefined as the energy sector.
### Table 3

**Book value of U.S. FDI, selected years**

(Millions of current Canadian dollars)

<table>
<thead>
<tr>
<th>Year</th>
<th>U.S. FDI</th>
<th>Total FDI</th>
<th>U.S./total x 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950</td>
<td>3 549</td>
<td>4 098</td>
<td>87</td>
</tr>
<tr>
<td>1960</td>
<td>11 210</td>
<td>13 583</td>
<td>83</td>
</tr>
<tr>
<td>1970</td>
<td>22 054</td>
<td>27 374</td>
<td>81</td>
</tr>
<tr>
<td>1976</td>
<td>32 726</td>
<td>41 623</td>
<td>79</td>
</tr>
<tr>
<td>1980</td>
<td>50 368</td>
<td>64 708</td>
<td>78</td>
</tr>
<tr>
<td>1984</td>
<td>63 355</td>
<td>85 964</td>
<td>74</td>
</tr>
<tr>
<td>1988</td>
<td>76 345</td>
<td>114 480</td>
<td>67</td>
</tr>
<tr>
<td>1990</td>
<td>84 353</td>
<td>131 131</td>
<td>64</td>
</tr>
<tr>
<td>1992</td>
<td>89 115</td>
<td>138 696</td>
<td>64</td>
</tr>
<tr>
<td>1994</td>
<td>101 514</td>
<td>152 784</td>
<td>66</td>
</tr>
<tr>
<td>1995</td>
<td>113 092</td>
<td>168 077</td>
<td>67</td>
</tr>
</tbody>
</table>

6. FOREIGN OWNERSHIP POLICIES IN CANADA

In this section, we review significant Canadian government policy initiatives directed toward foreign investors, excluding the three specific industrial sectors on which this report focuses: oil and gas, communications, and finance. Foreign investment initiatives in these sectors will be discussed separately in a later section. A chronological summary of major government policy initiatives directed at foreign investors is provided in the Appendix.

The Foreign Investment Review Act

The Foreign Investment Review Act became law in December 1973. The first phase, relating to acquisitions of control of Canadian businesses, took effect in April 1974, while the sections of the Act dealing with new businesses took effect in October 1975. Review was necessary under FIRA for all acquisitions and for every establishment of a new business in Canada by foreign-controlled entities, except in the cases of: (i) an acquired business in a field related to that of an established Canadian business of the acquirer, with gross assets not exceeding $250,000 and gross revenues not exceeding $3 million (these limits were raised in 1982); and (ii) a new business in a field related to that of an established Canadian business. FIRA did not review the major activity of foreign-owned firms — that is, their expansion in existing lines of business — except when mergers occurred involving sums beyond the limits noted when ownership of the foreign parent company changed. The application passed automatically after 60 days unless it was denied by Cabinet.

In order to receive approval, the foreign investor had to satisfy the government that the investment would be of significant benefit to Canada. Applications to the Foreign Investment Review Agency had to contain detailed undertakings that were negotiated as part of the review process, and that contributed to the realization of significant benefits. Such undertakings essentially were commitments to specific actions such as increasing domestic R&D expenditures or increasing exports from Canada. These commitments were expected to be fulfilled by the investor barring any significant changes in underlying business conditions.

Significant benefit was determined on the basis of five factors specified in the Act: (i) the effect of the investment on the level and nature of economic activity in Canada, including employment, resource processing, domestic sourcing and exports; (ii) the degree and significance of Canadian participation in the business enterprise and in the industry sector to which the enterprise belonged; (iii) the effect on productivity, industrial efficiency, technological development, innovation and product variety in Canada; (iv) the effect on competition in Canada; and (v) the compatibility of the investment with national industrial and economic policies, taking into consideration the industrial and economic policy objectives of the province(s) likely to be significantly affected by the investment.

The FIRA process was certainly specific in terms of setting out procedures and penalties. It was also formal and highly consultative; however, it was criticized for its relatively high degree of confidentiality. Specifically, the Foreign Investment Review Agency did not have to report publicly its grounds for rejecting a proposal, nor publicly describe the perceived benefits of approved investments. It reported aggregate numbers of applications and how those applications were dispensed with, but did not give detailed breakdowns of industrial sectors and nationalities of investors in order to enable researchers to evaluate what biases, if any, characterized the agency’s review process.

The agency’s review process was also criticized for imposing onerous transactions costs on foreign investors — costs that, as a percentage of the value of the relevant transactions, were potentially quite significant for smaller investors. To address this concern, a short-form procedure was implemented in 1977 to speed up the review of relatively small business cases. In 1982, the ceilings for the expedited
small business review were raised to $5 million and 200 employees for acquisitions and new business proposals, and three times that in cases where the control changed from one foreign parent to another.

In terms of the policy framework identified above, the FIRA process might be seen as an instrument to redistribute economic rents from foreign investors to domestic factors of production. Its stated mission was certainly not to discourage inward direct investment but to ensure significant benefits from the investments. The negotiations surrounding the review process were ostensibly used by the government to try to leverage from foreign investors undertakings that would constitute benefits to Canada without necessarily making the investment unprofitable. Indeed, to the extent that information about the FIRA process became widely disseminated among potential investors, the amount of bargaining during negotiations would presumably decline as each side better understood the “equilibrium bid and ask prices” for an approved investment.

As discussed in the preceding section, the criteria against which FIRA should presumably be evaluated are: (i) Did it succeed in transferring economic rent from foreign investors to domestic residents? (ii) Did it discourage a significant number of investment proposals that would have provided net benefits to Canada?

There is no study of which we are aware that identifies whether, and to what extent, FIRA increased the benefits of inward FDI from the perspective of domestic factors of production or domestic consumers. While the attainment of benefits was certainly reported by government, it is unclear whether investors merely shifted the emphasis in their proposals away from expenditures that were less favoured by the Foreign Investment Review Agency toward those apparently more favoured, such as domestic R&D. In this case, the gain in incomes enjoyed by certain domestic factors of production (e.g., scientists and engineers) would presumably be offset by losses suffered by other factors of production.

There is some suggestive evidence that, on average, foreign investors in Canada did not expect to earn economic rent. For example, Grubel (1974) found that after-tax rates of return earned by foreign affiliates of U.S.-based MNCs were below after-tax rates of return earned by the parent company. As another example, owners of small Canadian businesses complained that the prices foreign investors were willing to pay for such businesses decreased after the implementation of FIRA (Globerman, 1979b).

There is also evidence that FIRA may have discouraged some inward FDI, but that the impact was relatively modest. The actual disposition of review cases is relevant in this regard. Specifically, disallowed investments are presumably prima facie evidence that foreign investors did not believe that the expected returns from their Canadian investments offered sufficient surplus to justify the undertakings being sought by the Foreign Investment Review Agency. In effect, they constitute a lower bound estimate of the adverse impact of FIRA on inward direct investment. Over the period from 1975 to 1984, FIRA’s disallowance rate was 7.0 per cent (Safarian, 1993, p.130). While seemingly modest in its absolute value, Canada’s rejection rate was relatively high compared to that of Australia over the same period (2.7 per cent).26

In evaluating data from the FIRA regime, the difficult question arises about how to treat withdrawals of investment applications. On the one hand, one might view withdrawals as being equivalent to rejections. Specifically, in the course of the review negotiations, foreign investors may have realized that they would not earn profit surpluses sufficient to justify the undertakings sought by the agency. On the other hand, withdrawals may have been precipitated by other developments in the business environment unrelated to FIRA. Most likely, withdrawals are explained as a mix of the two. In this regard, it is reported that around 40 per cent of withdrawals in FIRA’s early years were made in expectation of a disallowance.

Actual rejection rates might further understate the adverse impact of FIRA on inward FDI if the flow of investments coming forward for review was reduced by FIRA. One available econometric study (Kudrle, 1995) examines the impact of FIRA on foreign direct investment into Canada from the United
States. It finds weak evidence of a deterrent effect. It more strongly rejects the notion that the Foreign Investment Review Agency used its discretion successfully to reduce the profitability of U.S. investment.

**The Investment Canada Act and the Canada-U.S. Free Trade Agreement**

The passage of the Investment Canada Act in June 1985 signaled a major shift in policy toward inward FDI in Canada. In particular, “greenfield” investments by foreign investors in exempt sectors were no longer subject to review by the government. Specifically, notification rather than review was required when non-residents sought to establish new Canadian businesses or make direct acquisitions of Canadian businesses with assets under $5 million. Further, no review was required for most indirect acquisitions of Canadian businesses with assets under $50 million. 27

Hence the main subject of review under the Investment Canada Act was the direct acquisition of control of a Canadian business with assets of $5 million or more. The detailed criteria enunciated by FIRA were virtually unchanged except for the addition of the impact of the investment on Canada’s ability to compete in world markets; however, the test of “significant benefit” was changed to one of “net benefit.” 28

Review of new businesses and acquisitions can occur regardless of size in a range of activities related to Canada’s cultural heritage or national identity. The activities specified when FIRA came into effect included the production, distribution, sale or exhibition of books, magazines, periodicals and newspapers, film and video products, audio and video music recordings, and music in print or machine-readable form. After the implementation of the Act, the Minister of Energy announced that upstream oil and gas production assets in excess of $5 million would be available for acquisition by non-residents only if the firms were “in clear financial difficulties” (Safarian, 1993, pp. 134–35).

The Canada–U.S. Free Trade Agreement (FTA, implemented in 1989) distinguishes between U.S. and non-U.S. investments insofar as the Investment Canada Act is concerned. Most notably, following FTA implementation, review was required only of direct acquisitions by U.S. investors that are valued at C$150 million. The North American Free Trade Agreement (NAFTA) resulted in an extension of these thresholds to Mexico. Investors must submit business plans as part of the review process. Undertakings, or performance requirements, have apparently been negotiated with foreign investors in somewhat over 10 per cent of the cases (Safarian, 1993, p. 135).

Under the FTA, American companies are entitled to national treatment once they have established facilities in Canada; however, they are prohibited from investing in Canada’s cultural industries, although the U.S. government is authorized to “take measures of equivalent commercial effect” to compensate for this loss of access. Moreover, existing ownership restrictions in Canada’s energy, transportation and financial sectors were grandfathered by the FTA. 29

The evaluation criteria applied to FIRA also presumably apply to the Investment Canada regime. While the Investment Canada Act was, in principle, meant to be more encouraging for inward FDI than FIRA, it too may be seen as a policy regime designed to ensure that economic rents are transferred, to the extent possible, to Canada. Hence the requirement for undertakings imposed upon specific investment proposals. To be sure, restrictions on investment in sensitive areas such as the cultural industries are designed to discourage inward FDI in those sectors and should be evaluated on a different basis, as discussed further in a later section; however, in most cases of reviewable acquisitions, government officials are ostensibly trying to promote the benefits to Canadians of those acquisitions without discouraging them.

While no comprehensive review has been performed of the impacts of the Investment Canada regime separate from the FIRA regime, to our knowledge, there have been few complaints about Investment Canada discouraging inward FDI either directly, by rejecting reviewable proposals, or
indirectly by reducing the perceived profitability of investing in Canada for foreign investors. Indeed, one available econometric study provides some indirect evidence that the replacement of FIRA by Investment Canada did contribute to a marginal increase in inward FDI, all other things held constant (Kudrle, 1995). Of course, this does not imply that Investment Canada’s review procedures had no negative overall impact on inward FDI; it simply indicates that the impact was less negative than that of FIRA.

To the extent that Investment Canada interventions did succeed in transferring some economic rent from foreign investors to Canadians without significantly discouraging inward FDI promising significant net benefits for Canada, the policy initiative would be deemed a success by the policy criteria outlined above. The fact that most proposals have been treated fairly routinely suggests that Investment Canada officials have seen little economic rent, on average, to appropriate. The relatively few proposals that have been subjected to fairly protracted negotiations have involved book publishing and distribution (for which the rent extraction motive is presumably not the main issue for policy makers) and foreign acquisitions of high-technology companies.

As noted earlier, when intervening in the acquisition of high-technology companies, host country officials are frequently motivated by concerns that existing innovation activities in their country will be reduced by foreign takeovers. One available study examines a number of case studies of foreign acquisitions of Canadian high-technology companies (Globerman, in McFetridge, 1991). The study concludes that foreign acquirers generally paid a “fair” price for the acquired assets, which can be interpreted as a price relatively close to the foreign investor’s reservation price. In several cases, specific undertakings were agreed to by the foreign investor and publicly announced. For example, Institut Mérieux agreed to spend $15 million over 10 years on research in Canada as a condition for approval of its merger with Toronto-based Connaught BioSciences. In one high-profile case, the federal government was criticized for selling the Crown-owned de Havilland company to Boeing at “too low” a price. In fact, de Havilland apparently never made money for Boeing, and Boeing subsequently sold its de Havilland investment.

Conclusions Regarding FIRA and Investment Canada

Several tentative conclusions can be drawn from the broad foreign investment policies reviewed above. One is that rent-capture motivations for reviewing inward FDI are not compelling, because economic rent is difficult to identify for the typical foreign investment, and also because private sellers of domestic assets are probably in a better position than government officials to capture any such rent. A second conclusion is that government efforts to leverage increased economic benefits from inward FDI through screening or review processes can discourage inward FDI, at the margin. Obviously, the magnitude of this effect will depend upon the specific policies implemented. The relatively flexible administrative approaches exemplified by FIRA and Investment Canada arguably had only small (negative) impacts on inward FDI, on the margin. The implication is that liberalization or elimination of the review criteria should not be expected to encourage a substantial increase in inward FDI.

Impacts of the Canada–U.S. Free Trade Agreement

In this section, we consider whether the investment liberalization provisions of the FTA affected U.S. FDI into Canada. The FTA potentially exerted a number of direct and indirect effects on FDI flows. As described earlier, FTA provisions raised the dollar-value threshold for reviewable acquisitions made by U.S. investors. The agreement also extended rights of establishment and national treatment provisions to U.S. investors in non-exempt sectors. These changes should have increased inflows of U.S. FDI to Canada, all other things being equal, both in absolute terms and relative to other countries.
Obviously, tariff reductions can exert an influence on FDI which might confound efforts to identify the impacts of investment provisions. A priori, how the tariff reductions implemented under the FTA should have affected inward FDI is ambiguous. In principle, if inward FDI is a substitute for exporting, and tariffs constitute a significant cost of exporting, a movement toward free trade should lead to reductions in inward FDI, other things being equal. On the other hand, inward FDI may be a complement to trade for vertically or horizontally integrated multinational companies; in that case, by lowering the costs of intra-firm exchanges, free trade could stimulate additional inward FDI (MacCharles, 1987). Obviously, the nature and magnitude of the relationship between trade and FDI will vary across industries. Unfortunately, available data are not sufficiently disaggregated to permit analysis of the impacts of the FTA on inward FDI at the industry level.

In fact, given the relatively low average Canadian tariff levels facing U.S. exporters prior to the implementation of FTA, it is arguable that the investment provisions in the agreement exerted a stronger influence on investment incentives than did the trade provisions. We attempted to estimate the impact of the FTA on direct investment flows, and our analysis is described in detail in the section entitled “The Effects of Public Policy on Foreign Investment: An Empirical Analysis.” Our basic conclusion is that the FTA encouraged a net outflow of investment from Canada. That is, the inflows of direct investment capital were exceeded by the outflows. One possible explanation is that direct investment from outside North America was diverted to the United States rather than going to Canada. It should be noted that we were not able to separate the impacts of the FTA from the impacts of the Investment Canada Act.

The NAFTA and the WTO

It may be argued that the North American Free Trade Agreement (NAFTA) further liberalized the Canadian environment for inward direct investment in several ways (Graham, 1994). The national treatment provisions of the NAFTA embody a right of establishment and obligate the signing parties to accord investors (and investments of investors) of other signing parties treatment “no less favourable than it accords, in like circumstances, to its own investors (investments) with respect to the establishment, acquisition, expansion, management, conduct, operation and sale or other disposition of investments.” In contrast to the National Treatment Instrument of the Organization for Economic Co-operation and Development (OECD), it is significant that the relevant NAFTA provision (Article 1102) forces states and provinces to grant national treatment also to investors (and investments of investors) of the same signing parties.

National treatment under the NAFTA is further strengthened by Most Favoured Nation or MFN (Articles 1103 and 1104) and minimum standard of treatment (Article 1105) provisions, whereby signing parties must grant investors and investments of other signing parties treatment no less favourable than that granted to investors and investments of non-signing countries and that provided for under international law.

The national treatment provisions apply only to the investors and investments of countries that are parties to the NAFTA. Such investors and investments of investors include, however, members of a party that are under the control of investors of a non-party — although with important exceptions that are spelled out in Article 1113. For example, if a U.S. firm under the control of a Japanese firm were to hold a subsidiary in Mexico or Canada, that subsidiary and its immediate parent (the U.S. firm) would be accorded national treatment by Canada and Mexico unless exceptions applied.

A section of NAFTA Chapter 11 on investment establishes a set of procedures for resolving investment disputes. The most striking feature of this section (encompassing Articles 1115 through 1138) is a mechanism by which an investor may seek arbitration of a dispute against a government that is party to the NAFTA. In other international dispute settlement mechanisms, such as the FTA and the GATT, the only parties that have standing are governments. Under the procedures established by the relevant
articles, an effort must be made to solve the dispute first by means of consultation and negotiation; but if this fails, the dispute can be submitted to binding arbitration under the rules of the World Bank or the United Nations.

While the United States have long objected to the investment screening activities of the Canadian and Mexican governments, the latter two countries are given a green light to continue with such screening under the NAFTA. Specifically, decisions taken by Canada under the Investment Canada Act with respect to whether an acquisition should be allowed to proceed are not subject to the dispute settlement mechanism. The Canadian investment review process applies special criteria in a few limited sectors, such as cultural industries. Otherwise, only acquisitions worth more than $150 million can be reviewed.

The NAFTA contains many reservations and exceptions to the provisions of Chapter 11, and these are spelled out in annexes. The full lists of reservations, exceptions and sectors reserved for the state are contained in NAFTA Annexes 1 to 4; excluding explanations, they run to almost 200 pages. The reservations can deal with any combination of the following five provisions: national treatment, Most Favoured Nation, local presence, performance requirements and nationality requirements. Canada’s sectoral reservations are concentrated in three areas: natural resources, social services and transportation. The NAFTA provision for the use of negative lists (i.e., existing measures or laws that run counter to one or more provisions of the investment, services or financial services chapters) might be seen as a significant derogation from the principle of investment liberalization; however, it has been argued that greater transparency has been introduced into each nation’s rules regime by making the relevant reservations explicit, and that increased transparency itself promotes increased foreign investment (Gestrin and Rugman, 1993).

The relevant investment provisions of the WTO agreement are contained in the General Agreement on Trade in Services (GATS). The core principle of the GATS is non-discrimination, as reflected in Most Favoured Nation and national treatment rules. Although MFN is a general obligation, the GATS contains an annex allowing countries to invoke exemptions to MFN. The coverage of MFN for each GATS member is therefore determined by a so-called negative list: it applies to all services except those listed in the annex by each member. The sectoral coverage of national treatment is determined by a positive list: it applies only to sectors listed in a member’s schedule of commitments, and then only insofar as existing measures are not exempted.

The WTO provisions are considered to be less transparent than those of the NAFTA. Indeed, as long as a member’s investment policies do not lead to discrimination in trade, the member can pursue any policies it pleases. While limitations on foreign equity participation may be seen as discriminatory in many circumstances, the non-discriminatory market access rule is likely to be an imprecise and contentious investment guarantee for foreign investors. In short, the investment liberalization extended by Canada to U.S. and Mexican investors is of greater importance than the liberalization provided by the WTO agreement.
7. SECTORAL POLICIES

To this point, we have discussed the major, broadly based Canadian government policies toward inward FDI and reviewed some available evidence on their effects. In the rest of the report, we shall look at determinants of inward FDI (including government policies) and the effects of inward FDI in the three sectors covered by the case studies.

Financial Institutions

The main sectors considered in this section include banking, trust companies, insurance companies and securities firms.

Banking

The 1821 act incorporating the Bank of Montreal, Canada’s first bank, allowed foreigners to hold shares but prohibited them from being directors of the bank. Directors had to be British subjects resident in Montreal. The British-subject clause appeared in the legislation incorporating subsequent banks in Lower and Upper Canada, and became part of the first comprehensive banking legislation of the new Dominion in 1871. Major revisions in 1890 relaxed the requirement: instead of all the directors, only a majority had to be British subjects. This clause (later changed to require that directors be Canadian citizens) survived through later banking changes.35

Before 1967, there were no overt restrictions on foreign banks in Canada. The 1963 takeover by Citicorp (then First National City Bank) of a Canadian chartered bank led to new restrictions in the Bank Act of 1967; these effectively prevented foreign banks from establishing branches or subsidiaries, although they could still incorporate federally or provincially. Specifically, no resident or non-resident could own more than 10 per cent of the shares of a chartered bank, and non-resident shareholding could not exceed 25 per cent.

Prior to the revision of the Bank Act in 1980, foreign banks operating in Canada did so in one of two ways. They could incorporate federally or provincially under appropriate corporate legislation but could not refer to themselves as banks or carry on the business of banking. Alternatively, they could establish representative offices in Canada that merely referred business back to their head offices. Lending or accepting deposits was not allowed (Paterson, 1986).

The Bank Act revision of 1980 was intended to bring under federal government control the activities of foreign banks operating in Canada under various non-bank guises. It did so by allowing foreign banks to establish Canadian bank subsidiaries and by placing certain restrictions on their operations if they did not reform their activities into such subsidiaries. While the 1980 act granted right of establishment to foreign bank subsidiaries, it reserved at least 85 per cent of the banking market to Canadian banks by restricting the maximum total assets of all foreign bank subsidiaries to no more than 15 per cent of the commercial financing in Canada by all banks, and by limiting the total assets of each foreign bank subsidiary to no more than 20 times its authorized capital. Since the Minister of Finance and Cabinet were required to refuse to incorporate new foreign bank subsidiaries or to increase the authorized capital of existing ones when either action would push the allowable (not the actual) total assets of all foreign bank subsidiaries beyond 15 per cent of commercial financing, the impact of foreign investment on Canada’s chartered banking sector was severely constrained.36

The operations of foreign banking subsidiaries were further restricted by other features of the 1980 act. For example, foreign bank subsidiaries were prohibited unless the Minister of Finance determined, in each case, that the foreign bank subsidiary could make a contribution to competitive banking (an adjective not defined explicitly). Further, foreign bank subsidiaries could not have more than
six offices in Canada and each foreign bank subsidiary’s assets in Canada were required to exceed its liabilities to residents of Canada. Canadian citizens residing in Canada must compose at least half of each foreign bank subsidiary’s board of directors, a majority of the directors at each board meeting and a majority of the executive committee of the board. Finally, in the case of banks other than foreign bank subsidiaries, no more than 25 per cent of the shares could be acquired by non-residents as a whole.

Under current regulations, foreign direct investment in banking activity falls outside the purview of the Investment Canada Act and is covered by other statutes (Industry Canada, 1994). In particular, the Bank Act regulates certain acquisitions of control and new business establishments by banks and foreign bank subsidiaries in Canada. The Act restricts any person (domestic or foreign) and any shareholder associated with such a person from owning more than 10 per cent of the shares of a Schedule A bank (whose shares are widely held). In addition, foreign ownership of Schedule A banks is limited to 25 per cent of the outstanding shares.

Foreign banks operating in Canada through their subsidiaries may do so as Schedule B banks (whose shares are narrowly held). The Bank Act governs the incorporation of wholly owned subsidiaries by one or more banks. The domestic assets of foreign bank subsidiaries are not permitted to exceed 12 per cent of the total domestic assets of banks in Canada. They must have authorized capital of at least $5 million, of which at least 50 per cent must be deposited with the central bank. At least half the directors must be Canadian citizens normally resident in Canada. Foreign bank subsidiaries and other domestic Schedule B banks are restricted from owning more than 10 per cent of the voting shares of a non-bank corporation incorporated in Canada. Finally, the Bank Act governs the acquisition of control of a foreign bank subsidiary, subject to review and approval by the Minister of Finance. The Bank Act is administered through the Office of the Superintendent of Financial Institutions.

Under the Canada–U.S. Free Trade Agreement and the North American Free Trade Agreement, U.S. and Mexican investors in banking receive national treatment in Canada. Investors from these countries are permitted collectively to own more than 25 per cent of the shares of a Schedule A Canadian bank; however, the 10-per-cent limit on individual shareholders means that foreign banks cannot control a Canadian Schedule A bank. In addition, U.S. and Mexican bank subsidiaries operating as Schedule B banks in Canada may have assets valued in excess of 12 per cent of the total domestic assets of banks in Canada.

Recently, the chairman of Bank of America Canada emphasized the wish of U.S. foreign-owned banks in Canada to be allowed to operate as branches of their corporate parents instead of as separately capitalized subsidiaries. Being able to operate as branches would give them access to their foreign parents’ much larger capital bases. This would allow them to lend more and also to be bigger players in securities and foreign exchange brokerage and trading (Partridge, 1996).

Subsequently, two parliamentary committees recommended that foreign banks be allowed to operate as branches of their parent companies and lend on the strength of their parent’s capital. The chair of the House of Commons Finance Committee stated that the change would encourage more financial institutions to come into Canada and provide more competition to existing banks (Toulin, 1996). However, the Secretary of State for Finance has indicated that the government will not let foreign banks set up direct branches without rules spelling out how they will operate (Blackwell, 1996).

As noted earlier, an important focus of these case studies is identifying the impacts of foreign direct investment policies on direct investment flows, as well as the consequences of the policies for the host country economy. Unfortunately, reliable time-series data are unavailable to evaluate the precise impact of foreign investment policies on individual sectors of the finance industry, such as banking; however, the restrictive policies in place for much of the postwar period have undoubtedly severely constrained foreign ownership in the Canadian banking sector.
Given the fairly extensive and binding restrictions on the activities of foreign-owned banks in Canada, it would be surprising if the federal government’s foreign investment policies had not significantly discouraged inward direct investment in the banking sector. Available evidence suggests that the number of foreign banks operating in Canada has actually decreased in recent years. For example, it has been estimated that there were around 70 foreign bank subsidiaries operating in Canada at the end of 1977. In 1996, there were only around 46 foreign banks operating in Canada (Toulin, 1996).

Partial data also suggest that inward foreign direct investment in banking has significantly lagged behind investment in other financial sectors. For example, it is estimated that foreign banks’ total assets on October 31, 1987, were around $32 billion or 7.5 per cent of all bank assets (Euromoney, May 1987). In contrast, foreign-owned assets in the finance and insurance sector as a whole were around 15.5 per cent of total assets in that sector in 1987.

There have been continual complaints about the lack of competition in the Canadian banking sector. It is alleged that this phenomenon has contributed to, among other things, a shortage of venture capital and higher-than-competitive loan rates for small and medium-sized businesses. As we shall discuss later, some available studies deny these contentions and offer evidence that the Canadian banking sector has been workably competitive.

It is not possible for us to evaluate the competing claims surrounding the competitiveness and efficiency of the Canadian banking sector. In any case, competitiveness problems in the sector will arguably reflect other policies aside from those specifically addressing foreign ownership levels. For example, it may be argued that the 10-per-cent limit on individual or group ownership of a Schedule A bank restricts entry by domestic as well as foreign investors, since it makes it impossible for a company in another financial sector to “cross over” into the banking sector while maintaining a significant ownership interest in the bank. Recently the chair of Canada’s second-biggest bank, the Canadian Imperial Bank of Commerce (CIBC), argued that the 10-per-cent ownership limit is preventing mergers between Canadian banks that would improve the efficiency of the banking sector. At the same time he pleaded for Ottawa to forestall an “otherwise inevitable foreign takeover” of the banking sector by preserving the Competition Bureau’s mandate to review takeovers in the sector and the discretionary power of the Minister of Finance to vet individual transactions.37

Other Financial Activities

Any discussion of foreign investment policies affecting financial activities other than banking is complicated by the fact that, unlike banking, other financial activities are governed by both provincial as well as federal government laws and regulations. In some cases, the provincial laws are similar to federal legislation governing foreign ownership. For example, federal law prohibits any single non-resident from buying more than 10 per cent of the shares of federally regulated, Canadian-controlled loan, trust and insurance companies. It also limits non-resident ownership of such companies to a maximum of 25 per cent.38 In the provinces of Alberta, Ontario and Manitoba, non-Canadians cannot own more than 10 per cent individually, or 25 per cent collectively, of trust companies operating under provincial charters granted by these provinces.39 In Quebec, non-residents can acquire, without authorization, 30 per cent of the voting shares of a Canadian-controlled, provincially chartered insurance company or up to 50 per cent of the voting shares with authorization from the relevant provincial ministry (Industry Canada, 1994).

The transfer of control of Canadian-owned insurance companies to non-residents is prohibited, although no provisions exist that place any limitation on the acquisition of shares of life insurance companies by residents. Similar conditions apply for federally incorporated trust and loan companies. Federal government provisions on share ownership do not apply to the establishment of new insurance, trust and loan companies. In this respect, foreign entry into non-banking financial sectors is significantly easier than entry into the banking sector.
The most unrestricted sector of the Canadian financial industry for foreign investors is securities. Securities legislation is primarily a provincial government matter. On December 3, 1986, the Ontario government announced that beginning on June 30 of the following year, Canadian financial institutions would be permitted to own up to 100 per cent of a securities firm. In addition, regulations concerning foreign entry into the Canadian securities market were relaxed: again after June 30, 1987, foreign financial institutions would be allowed to purchase up to 50 per cent of the capital stock of a Canadian securities firm. This limit was to be increased to 100 per cent after June 30, 1988.

Soon after Ontario’s announcement, the federal government proclaimed that it would alter the Bank Act to accommodate the changes in Ontario’s legislation, and later in December 1986 it established its own policies for financial regulation in a Blue Paper. Specifically, federally regulated chartered banks, trust companies and insurance companies would be allowed to establish wholly owned subsidiaries which could operate in all areas of the securities business. This initiative further increased competition in the securities sector.

Any foreign firm may now participate in all aspects of securities transactions in Canada after registration as a foreign dealer; however, a foreign securities firm may be denied entry if its home country restricts the entry of Canadian firms into its securities market. In the year following June 30, 1988, nearly all applications by foreign institutions to enter the Canadian securities market were approved. Many of the applicants were from nations which allow easy entry for Canadian financial institutions, although applicants from the United States and Japan, where entry into financial markets is less open than in Canada, also received approval.

A Closer Look at the Little Bang

Since barriers were also reduced for domestically owned financial institutions to enter the securities sector, it is very difficult to isolate the impact of easing entry conditions for foreign investors. That is, the potential competitiveness of this sector increased because of easier entry for both Canadian and foreign firms. Moreover, for most sectors of the financial industry, changes in foreign direct investment policies have been relatively subtle and continuous over time; as a result, it is difficult to do “event-type” studies to identify the impacts of government policies on inward direct investment.

The securities sector of the industry constitutes a prominent exception to the continuity of foreign investment policies. Canada’s “Little Bang” provides a relatively discrete and important benchmark against which to assess changes in foreign investment and the performance of the securities sector.

While it is not possible to quantify inward direct investment in the securities sector, available information suggests that there was a significant response to liberalized entry rules on the part of foreign investors. For example, in the two years after July 1987, five Schedule II (foreign) banks purchased all or part of five Canadian securities firms. Within the same period, nine foreign-owned chartered banks set up their own investment houses. By the end of 1989, an additional two dozen foreign securities firms had set up operations in Canada. These included all of Japan’s “Big Five” securities houses and the largest of the American and British investment bankers. In Ontario, a number of U.S.-controlled brokerage companies had been grandfathered into the sector when new restrictive securities regulations had been established in 1971; these continued to operate in the Canadian securities market after deregulation.

While the Little Bang clearly resulted in a significantly greater overall foreign presence in the securities sector, foreign firms disappeared completely from the retail side of the business. For example, the grandfathered American firms, which had long histories in the retail side of the sector, all sold their retail operations to Canadian-owned firms. The foreign-owned investment dealers chose to focus on capital market deals and institutional clients. This focus presumably reflects the comparative advantage
that large, international investment dealers have in providing financial services to multinational
companies with headquarters in Canada, as well as to large affiliates of foreign-owned multinationals. At
the same time, Canadian-based companies presumably have a comparative advantage in retail activities
where local market knowledge and personal reputation are at a premium.

The securities business experience suggests that the impacts of liberalizing foreign investment
restrictions may vary within sectors, even when they are defined as specifically as investment dealing and
securities. Foreign-owned firms in the financial services industries are likely to be drawn toward serving
firms at the wholesale level rather than clients at the retail level. The benefits of competition from
foreign entry are correspondingly more likely to be experienced (at least directly) at the wholesale
instead of the retail level. The experience of the securities sector therefore suggests that liberalizing
restrictions on foreign entry into banking and trust services may have little direct impact on borrowing
and lending rates at the retail level.

We were unable to identify any studies of the impact of foreign investment on the performance
of the Canadian securities industry. What evidence is available suggests that retail customers in Canada
pay higher brokerage fees than retail customers in the United States. Canadian investors also pay higher
percentage fees to managers of mutual funds than do U.S. investors. Whether Canadian fees would be
even higher without foreign competition is difficult to assess.

Oil and Gas

The earliest intervention of the Canadian government into foreign investment in the oil and gas sector
was the 1914 ordinance requiring that a company at all times be and remain a British company registered
in Great Britain or Canada, having its place of business within His Majesty’s dominions, and with the
chair of the company and a majority of the board of directors being at all times British subjects. The
company should not at any time be or become, directly or indirectly, controlled by foreigners or by a
foreign corporation (Laxer, 1989).

The United States pressured Canada to revoke the ordinance and retaliated against the British
Empire with its Mineral-Leasing Law of 1920, which denied ownership rights in the United States to
citizens or corporations of countries with laws restricting ownership by Americans. Additional pressure
came from provincial governments demanding provincial control over natural resources. In 1920, the
ordinance was scrapped and replaced by a requirement that the Canadian government be given notice of
any alteration in the “British character” of a company. Foreign takeovers of Canadian companies could
be cancelled at the discretion of the government, although it never acted on its discretionary powers
(Laxer, 1989).

Canadian energy policies from the 1920s through the 1960s tended to emphasize resource
development as the key issue. Virtually the only government policy addressing itself to foreign
ownership in the energy sector during this period came in 1961, with the new land regulations for the
Canadian North and Atlantic and Pacific offshore regions. While there were few restrictions on who
could hold exploration permits, only Canadian-owned companies or foreign-controlled companies in
which Canadians would have a chance to invest would be granted production leases.

Nevertheless, foreign ownership was not ignored as a policy issue. For example, in 1966 the
federal government sent all multinationals a letter setting out guidelines of good corporate citizenship. In
matters of procurement, these included searching out and developing economic sources of supply in
Canada, and developing technical research and design capability enabling the Canadian affiliate to
pursue product development programs so as to take advantage of both foreign and domestic sales
opportunities. The oil and gas sector was identified as failing to meet these guidelines. In 1973, for
example, the Energy Minister said, “The onus will be on pipeline companies to buy Canadian or show
why they can’t” (Crane, 1982). Special emphasis would be placed on maximum Canadian engineering and design. In 1972, Cabinet approved a directive stressing that there must be Canadian content in any major development project on Canada’s lands in the far North and Atlantic offshore.

The 1970s saw other discriminatory initiatives toward foreign investors in the energy sector. In the early 1970s, the federal government blocked two important takeovers in the resources sector, and created the Canada Development Corporation and Petro-Canada to increase Canadian ownership in that sector. In August 1977, the Canada Oil and Gas Land Regulations were amended to give effect to the government’s previously announced policy that authority would be granted for production of petroleum from federal public lands only if Canadian-equity interests in the undertaking amounted to at least 25 per cent.

Arguably the most dramatic government initiative on foreign ownership in the energy sector was the National Energy Program (NEP), announced on October 28, 1980. Three goals were identified for the NEP: (i) at least 50-per-cent Canadian ownership of oil and gas production by 1990; (ii) Canadian control of a significant number of larger oil and gas firms; and (iii) an early increase in the share of the oil and gas sector owned by the Government of Canada (Crane, 1982).

The major features of the NEP include the following: (i) some tax write-offs such as depletion allowances were replaced by direct grants (the Petroleum Incentives Program) weighted in favour of Canadian-controlled companies; (ii) land rules were changed in the frontier regions making Petro-Canada or another Crown agency a 25-per-cent partner in all oil and gas developments, while a minimum of 50-per-cent Canadian participation would be required in any production from Canada Lands; (iii) a new petroleum and gas revenue tax was introduced; and (iv) Petro-Canada was instructed to begin discussions with industry to negotiate the takeover of several foreign-controlled firms.

The federal government officially altered the NEP several times after its introduction in 1980. The first alterations took place in May 1981 and dealt primarily with the 25-per-cent back-in clause. The government offered to pay some of the exploration costs of the projects it was backing into from the money it would receive once production began. In addition, it agreed to pay 25 per cent of exploration expenditures for wells started before December 31, 1980, and for “declared significant” discoveries within two years of that date (Jenkins, 1986). Other alterations affected the pricing system; these distinguished between “new oil” eligible to receive world prices in domestic markets and “old oil” eligible to receive less than world oil prices.

Most industry executives interviewed at the time agreed that the most significant derogations from the NEP came not from broad amendments of the policy but from case-by-case concessions. A good example of this sort of concession is the agreement reached between the federal and provincial governments and Imperial Oil on the Cold Lake tar sands project in Alberta. In the face of federal-provincial quibbling, Cold Lake was cancelled in 1980 because, according to Arden Haynes, president of Imperial Oil, “The economics of the tar sands were absolutely creamed by the NEP.” In September 1983, Imperial was granted a tax holiday until pay-out of the project. Combined with an increase in the kinds of oil sellable at world prices, and a decrease in royalties owed to Alberta, the project became viable from Imperial Oil’s perspective (Jenkins, 1986).

After the Progressive Conservative government came to power in 1984, many of the energy programs put in place by the preceding government were abolished or modified. For example, Petroleum Incentives Program grants were replaced by an exploration tax credit available to both foreign and Canadian firms. Exploration licences were auctioned with no preferential treatment for Petro-Canada, the Crown corporation. While the 50-per-cent domestic ownership guideline no longer was applicable retroactively, foreign-owned companies were expected to submit plans to reach that level by reasonable commercial means. If a company did not abide by its plan, the Energy Minister could require an auction of a suitable portion of the company’s production licence in order for it to attain the minimum level of Canadian ownership (Rugman and Warner, 1988).
In November 1986, the Minister of Energy, Mines and Resources outlined government policy for the upstream oil and gas sector. By this policy Investment Canada was bound not to approve the acquisition of a healthy Canadian-controlled company valued in excess of $5 million. This restriction did not apply to indirect acquisitions or to those involving Canadian firms in clear financial difficulty. Under the FTA, while the national treatment principle was extended to investment, the existing Canadian ownership restrictions were grandfathered. Precluded were direct foreign acquisitions of healthy Canadian oil and gas firms with sales of over C$5 million. Unhealthy firms could be sold to foreign interests but were subject to performance requirements and the net-benefit test of Investment Canada. New investment was not subject to review by Investment Canada. In the frontier lands, the 50-per-cent Canadian ownership rule continued to be strictly applied (Rugman and Warner, 1988).

A significant liberalization of foreign investment regulations in the energy sector took place in 1992. Under the new rules established, Investment Canada would continue to review Canadian oil and gas acquisitions of more than $150 million by U.S. investors to make sure they were in the public interest. Ottawa’s policy goal of 50-per-cent domestic ownership of the Canadian oil- and gas-producing industry was scrapped. Foreign investors would no longer be excluded from deals to purchase healthy Canadian oil and gas producers or their properties. Oil and gas were to be treated exactly the same as any other sector under the Investment Canada review process (Carlisle, 1992). Further, the Investment Canada Act was to be modified to extend to U.S. investors the same review thresholds for oil and gas investments as applied in other sectors of the economy under the Canada–U.S. Free Trade Agreement. The policy change also put an end to the previous requirement that non-Canadians acquiring foreign-owned upstream businesses in Canada make satisfactory commitments to the government regarding future Canadianization efforts and increased investment spending.

In addition, the government undertook to remove legislative restrictions on foreign ownership of frontier oil and gas properties, mainly on the east coast and in the Arctic region. The Hibernia megaproject had already been exempted from that provision; the exemption was designed to allow consortium members to find an equity partner to assume a 25-per-cent stake being sold by an existing partner.41

Communications

The communications sector has traditionally been segmented into two broad sub-sectors: telephony and broadcasting. The Broadcasting Act of 1958 set a limit of 25 per cent on foreign ownership of any broadcasting undertaking, excluding cable television. The Act also permitted exemption of existing undertakings from the foreign ownership limit by Order-in-Council. By regulation issued under the Radio Act, cable television was placed on the same basis in 1964.

The new Broadcasting Act of 1968 placed conventional broadcasting and cable television under the regulatory auspices of the Canadian Radio, Television and Telecommunications Commission (CRTC). Licences could not be issued or renewals granted except to Canadian citizens and eligible Canadian corporations. An eligible Canadian corporation was defined as a corporation incorporated under the laws of Canada or a province. The chair and each of the directors were required to be Canadian citizens, and at least four fifths of the paid-up capital had to be beneficially owned by Canadian citizens or Canadian corporations. The Act also provided that if a corporation met the foregoing conditions but, in the opinion of the Commission, was nevertheless effectively controlled from outside the country, the Commission should not issue a licence to that corporation (Information Canada, 1972).

Broadcasting ownership restrictions were relaxed in 1995. Canadian cable and broadcasting companies are now allowed to sell an unlimited number of non-voting shares to foreign investors. While the 20-per-cent foreign ownership limit remains in place for voting share ownership of the actual Canadian broadcast licensee, the new rules raise the foreign ownership limit to 33 per cent for cable and
broadcasting holding companies. Most publicly held broadcasters use a holding company structure and raise equity at that level.

The 1968 directions to the Commission concerning eligible Canadian holding companies were amended to eliminate the requirement that the chair, president, CEO and other presiding officers be Canadian. Also removed was the 20-per-cent limit on the number of non-Canadians allowed to serve as directors; however, the holding company may not influence programming decisions of the broadcasting licensee (Enchin, 1995).

Foreign investors are also prohibited from owning more than one third of the voting equity of the holding companies of facilities-based telecommunications carriers. Similarly, they cannot own more than 20 per cent of the voting equity of operating telephone companies. Regardless of the amount of formal foreign ownership, effective control of telecommunications companies is expected to remain in Canada. Under the Canada–U.S. Free Trade Agreement and the North American Free Trade Agreement, basic telephony is an exempt sector; however, value-added communications is an included sector, and there is no limit on foreign ownership from included countries in this sector (which covers data networking, Internet access and on-line data bases).

The recently completed (February 1997) WTO agreement further modified the investment environment in Canada’s telecommunications sector. Canada was one of 69 signatories to the agreement. The commitments of individual countries varied both with respect to the extent and scope of the investment liberalization pledged, as well as the time period for implementation of the pledged liberalization. 42 Canada’s liberalization commitment covers all telecommunications services. It restricts direct foreign ownership of facilities-based suppliers to 20 per cent of equity, and total (direct and indirect) ownership to 46.7 per cent. Foreigners face no ownership restrictions with respect to reselling services acquired from facilities-based carriers. By contrast, the sole U.S. restriction is a 20-per-cent direct foreign ownership limitation for radio licences. Mexico allows up to 49-per-cent foreign ownership, and over 49 per cent for cellular telephony (with authorization).

As in the case of the financial sector, it would be surprising if the absolute restrictions on foreign ownership in the telephony and broadcasting sectors did not limit inward FDI; however, it is unclear how much of a binding constraint such restrictions impose. For example, foreign investors owned approximately 10 per cent of total assets in the telecommunications sector in 1988. By 1994, foreign investors accounted for only 9 per cent of total assets. Arguably, something other than foreign ownership restrictions are discouraging inward direct investment in this sector, since the actual foreign ownership share is well below the threshold restriction.

The share of U.S. ownership is a further indication that inward FDI in the sector is influenced by factors other than foreign ownership restrictions. In principle, the FTA gave Americans an advantage over other potential foreign investors in acquiring Canadian communications assets; however, the U.S. share of total foreign investment in the sector actually declined from around 88 per cent in 1988 to 87 per cent in 1994.

Ostensible Motivations for Sectoral Foreign Ownership Restrictions

In the oil and gas sector, an important motivation for implementing tighter foreign ownership restrictions was the perception that rising oil prices would generate ever-larger economic rents, which would flow to foreign investors rather than to domestic residents. Foreign investors were seen as re-investing a smaller share of retained earnings in Canada than their domestic counterparts. 43 They were also seen as being less likely to hire Canadian suppliers of inputs such as engineering services. Hence the ability of Canadians to benefit from higher oil prices was seen as being enhanced by a transfer of ownership from foreign to domestically owned companies.
The rationale for foreign ownership restrictions in telecommunications is also partly grounded in industrial strategy considerations. Specifically, telecommunications is seen as an essential component of a country’s industrial infrastructure and as the source of industrial spinoff benefits. Such benefits may be more fully appropriated if that infrastructure is domestically owned. For example, domestically owned telecommunications carriers may be more likely to buy equipment from domestic suppliers than are foreign-owned carriers (Globerman, 1995).

The convergence between telephony and broadcasting (manifested in major developments such as multimedia capabilities of the Internet and the World Wide Web) has been viewed as a reason for continuing to limit foreign ownership in broadcasting. Specifically, it has been argued that the distribution of software will be limited by foreign ownership of the broadcasting distribution network, although no precise reasons are articulated explaining why foreign owners of distribution networks would be biased against domestically produced software. To the extent that any such bias exists, it would presumably discourage the domestic production of broadcasting software.

Foreign ownership restrictions in broadcasting have traditionally been justified on non-economic grounds. In particular, cultural and political sovereignty have been linked to domestic ownership of the broadcasting media. Again, the precise nature of this linkage has never been made clear. Moreover, it is unclear why content regulation would be any less effective if the owners of broadcast media were foreign. Canadian economists rationalize foreign ownership restrictions in broadcasting as being motivated by rent creation and rent transfer. That is, if foreign companies are barred from competition, domestic broadcasters should be able to earn some economic rent which the regulator can then divert, in part or whole, to the production of domestically produced broadcast content.43

The “economic” arguments for foreign ownership restrictions in the financial sector are again similar to those made for oil and gas and for communications. In the case of the financial sector, the concern is that foreign-owned financial intermediaries will be less likely than their domestically owned counterparts to make financial capital available to domestic companies. The rationale for this bias is again largely unexplained; however, to the extent that foreign-owned intermediaries raise capital in Canada but disproportionately finance non-Canadian businesses, the overall impact on the Canadian economy is likely to be negative. This would be true if Canadian investors earned no higher rates of return investing in foreign-owned financial intermediaries at the same time as Canadian borrowers faced higher costs of capital.

Summary of Sectoral Policies

In summary, the broad economic argument for restricting foreign ownership in these three key sectors is that foreign-owned firms will behave differently from domestically owned ones. In particular, foreign-owned firms may be predisposed to buy fewer inputs in Canada, or to make less capital available to the domestic economy, than similarly situated domestically owned firms. As a result, economic growth in specific sectors, or in the economy generally, may be slower than it would otherwise be.

Even if true, the dissimilar behaviour argument may be insufficient to justify restrictions on foreign ownership. This is because foreign-owned firms may still be more productive than domestically owned firms. Indeed, foreign affiliates’ enhanced ability to purchase key inputs in international markets may contribute to their greater efficiency. If so, imposing policies that encourage domestically owned firms to displace foreign-owned firms will lower average industry productivity (below its potential), as well as real incomes in the sectors. Further, the additional competition provided by foreign-owned firms has been found to stimulate productivity improvement in domestically owned firms.45 Reducing or constraining such competition will further constrain attained productivity and income levels in domestic industries.
The potential economic trade-offs described above suggest that the optimal public policy toward inward foreign direct investment is, in theory, to encourage foreign-owned firms to behave more like domestically owned firms without either discouraging inward direct investment or reducing the productivity levels and growth rates of foreign subsidiaries. In effect, the optimal theoretical policy is a rent-capture policy. This policy attempt can fail, either because there is little or no economic rent to extract from foreign investors or because the measures implemented are either too weak or too strong. That is, they either undershoot or overshoot their target.

In principle, the arguments for encouraging inward foreign direct investment are symmetrical to those for restricting inward direct investment. Such investment should be encouraged when there is economic rent to be gained by the host country. Such investment should be discouraged when inward direct investment imposes net costs on the host country. As a practical matter, policies may have asymmetrical effectiveness. In particular, inward direct investment may be more responsive to tightened restrictions than to relaxed regulations. This may be especially true if the easier investment environment was preceded by a highly restrictive environment, thus raising doubts about the credibility of the liberalized investment regime.

Just as the theoretical case for restricting inward foreign direct investment is a narrow one, so is the case for stimulating inward direct investment. Such investment should be encouraged when there is economic rent to be gained by the host country. Such investment should be discouraged when inward direct investment imposes net costs on the host country. As a practical matter, policies may have asymmetrical effectiveness. In particular, inward direct investment may be more responsive to tightened restrictions than to relaxed regulations. This may be especially true if the easier investment environment was preceded by a highly restrictive environment, thus raising doubts about the credibility of the liberalized investment regime.

As in the case of other public policies, foreign investment policies may be socially undesirable, either because there is no valid economic case for the policies or because they are difficult and costly to implement in practice. Even when a theoretical case exists for policies to regulate or encourage inward foreign direct investment, policy makers may be thwarted by a lack of information necessary to calibrate the relevant policy instruments. For example, policies designed to extract economic rent from foreign investors may instead result in a substantial decrease in inward foreign direct investment, because policy makers may overestimate the economic rent being earned by foreign investors.

In summary, theoretical arguments offer a tenuous basis for active intervention to alter inward direct investment flows or to regulate the behaviour of foreign-owned subsidiaries. Where policies are in place to constrain foreign ownership levels, the relevant policy issue is whether the foregone social benefits of inward foreign direct investment exceed the relevant social costs. Where policies are in place to regulate the behaviour of foreign-owned subsidiaries, the relevant policy issue is whether the regulations unintentionally discourage inward foreign direct investments promising net benefits for the host economy. The industry case studies discussed in the next section attempt to offer additional empirical insights into the experience of foreign investment policies of the Canadian government.
In this section, we specify and estimate models of foreign investment inflows into Canada (FDI) and foreign investment outflows from Canada (CDI) in order to identify the effects, if any, of foreign investment–related policies. We examine these flows over the years 1950 to 1995, a period during which Canada experimented with a broad range of foreign investment policies.

Although there is an extensive literature on the determinants of foreign investment, there has generally been little focus on the way in which public policies have altered capital flows across nations. While there is some evidence that the creation of free trade areas increases foreign investment flows, there is little empirical evidence regarding the effects of policies targeted specifically at foreign investment.

Our approach differs from the existing literature in a number of ways. First, we examine both capital inflows and capital outflows from a single country. Foreign investment policies are typically directed at inward flows, either through restrictions or measures to encourage them. However, these policies may create an investment climate that simultaneously either encourages or discourages investment at home. They thus may have unintended consequences that are typically not analysed.

Second, we examine economy-wide policies as well as those directed at specific sectors (manufacturing, energy and financial services). This approach allows us to compare the relative impacts of a variety of policy measures. It would not be appropriate to use the same model to analyse all types of foreign investment flows, and to do so would potentially bias the estimates of the effects of public policies.

Finally, we are careful to test the time-series data for evidence of stationarity, the existence of which is required for unbiased estimates. New time-series methods are applied to ensure that the data employed are in fact stationary.

Models

In order to evaluate the effects of public policy on foreign investment flows, models of these flows had to be constructed so that policy effects could be separated from other determinants of foreign investment flows. Since we are concerned with both inflows (FDI) and outflows (CDI) of foreign investment in total and for specific sectors, a number of models had to specified and estimated. For the most part, previous empirical models of FDI and CDI have been applied to aggregate flows, and they implicitly assume that the same explanatory factors are operative in all sectors.

We specify and estimate four models, each of which contains both an FDI and a CDI equation: total, manufacturing, energy and financial services. The total equations use as the dependent variable all (aggregate) foreign investment inflows and outflows, while the other three are restricted to inflows and outflows from the relevant sector. In practice, only three models are specified because we use the same explanatory variables to model total and manufacturing flows. This is justified in part because the latter accounts for the majority of foreign investment, but also because most models of aggregate FDI are implicitly based on the manufacturing sector.

The models described below are general in the sense that we do not always specifically define how a variable is measured. For example, we refer to foreign GDP or the exchange rate without clearly indicating what “foreign” means, or which exchange rate is being referred to. The actual variables employed, their measurement and the sources of the data are discussed below.
**Total and Manufacturing FDI and CDI**

We begin with the model for total and manufacturing FDI and CDI flows. We assume that FDI and CDI respond to differences in expected profitability between investments in Canada and investments elsewhere. The model must therefore account for factors that determine profitability both in Canada and abroad. Many previous studies tend to rely on data from either the home country or the host country (or countries), but not both. We shall use both Canadian and non-Canadian data.

We begin by specifying the non-policy or economic variables that determine relative profitability, and then introduce the policy variables. The variables included in the model are summarized in Table 4 for both CDI and FDI.

The literature is consistent in arguing (with consistent empirical support) that FDI flows depend on the GDP (or the rate of growth of GDP) in both the home and host countries. GDP in the host country (Canada) is expected to attract FDI both because it suggests profitable investment opportunities and because the domestic funds for financing the investment are more readily available (Caves, 1989). GDP in the home country is also important, but the direction of the effect is not as clear. A positive relationship to FDI might be expected for two reasons: the larger the GDP, the greater is the potential number of firms that can engage in FDI; and high GDP creates the liquidity to finance FDI (Grosse and Trevino, 1996). A negative relationship might be expected because high (or rising) GDP makes domestic investment more attractive relative to foreign investments (Caves, 1989).

Accordingly, we expect that higher Canadian GDP will attract foreign investment (FDI), and that high foreign GDP will attract Canadian investment (CDI); but the relationship of Canadian and foreign GDP to CDI and FDI, respectively, could be positive or negative.

Relative factor costs are obvious determinants of relative profitability. Relative factor cost differentials are created by differences in productivity growth and differences in factor prices. When factor costs in Canada rise relative to those abroad, we expect that FDI becomes less attractive, while CDI becomes more attractive. For reasons discussed below, the only consistent measure of relative factor costs which we were able to obtain over this period is wages (Canada–United States; Canada–United

<table>
<thead>
<tr>
<th>Variable</th>
<th>Expected sign (FDI)</th>
<th>Expected sign (CDI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP in Canada</td>
<td>+</td>
<td>+ or -</td>
</tr>
<tr>
<td>GDP abroad</td>
<td>+ or -</td>
<td>+</td>
</tr>
<tr>
<td>Relative costs</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Exchange rates</td>
<td>+ or -</td>
<td>+ or -</td>
</tr>
<tr>
<td>Investment climate</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Imports</td>
<td>+ or -</td>
<td>+ or -</td>
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<tr>
<td>Exports</td>
<td></td>
<td>+ or -</td>
</tr>
<tr>
<td>Auto Pact</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>FIRA</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>NEP</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>FTA/NAFTA</td>
<td>+</td>
<td>+ or -</td>
</tr>
</tbody>
</table>
Kingdom), a variable commonly used to measure relative cost differences. Thus we expect that when wages in Canada rise relative to those in the United States or the United Kingdom, FDI is discouraged (negative sign) and CDI is encouraged (positive sign). Despite the widespread use of this measure (Pearce, 1993), we note that the empirical evidence for Canada provides only mixed support for its role in explaining foreign investment flows (Gupta, 1983; Owen, 1982; Caves, 1974).

Recent literature (Froot and Stein, 1991; Caves, 1989) has emphasized the importance of exchange rate movements in determining FDI flows. However, there is no particular consensus as to whether currency appreciations/depreciations inhibit or attract FDI. The conclusion depends on whether the investment is thought to be de novo and also on its purpose.

For example, Caves (1989) suggests that there is no unambiguous a priori relationship between exchange rate movements and FDI flows, although he suggests that the relationship is more likely to be negative for the United States, and his results support this view. Caves considers three cases: one in which the investor sources its inputs and sells all of its outputs in the host country, one in which the investor sells in the host country but purchases its inputs at home (forward vertical integration), and one in which the investor purchases inputs in the host country and sells its output abroad (backward integration). In the first case, the effect of a host-country currency depreciation is neutral so long as the change is thought to be permanent. Assets in the host market are cheaper but repatriated profits are devalued, and these effects offset one another. Since inputs and outputs are sold in the host country, they are not affected. In the case of forward vertical integration, inputs are made more expensive by the devaluation and outputs are not affected, so the devaluation lowers profitability and therefore should decrease FDI. The reverse is true in the case of backward integration. The results are therefore ambiguous, depending on the form of the investment.

Caves suggests that if there is uncertainty about future currency values, the case for a negative relationship becomes stronger. Others (UNCTAD, 1993) suggest that expectations regarding future movements of a currency may produce a positive relationship between host-country currency values and FDI, because firms fear a long-run devaluation of their assets. A positive relationship between currency values and FDI was found by Hultman and McGee (1988).

Froot and Stein (1991) use a somewhat different line of reasoning in suggesting that low values of the host country currency encourage FDI. They focus on entry by acquisition and argue that currency depreciations make acquisitions by foreign firms more profitable by creating undervalued assets. Graham and Krugman (1995) suggest that this argument is true only if the assets in the host country are made cheaper relative to other available assets. In essence, this would indicate at least that a variety of exchange rates must be considered. Nevertheless, Froot and Stein (1991), Klein and Rosengren (1994), and Grosse and Trevino (1996) all provide evidence of a negative relationship between currency values and FDI.

Graham and Krugman also point out that, in general, a currency devaluation by the host country will result in an expansion of the tradeable goods sector. Existing foreign firms will expand or contract depending on whether they produce tradeable goods or not. Much like the analysis of Caves (1989), this produces an ambiguous relationship between currency value and FDI.

We conclude that the relationship between FDI/CDI flows and the value of the Canadian dollar is ambiguous. Moreover, since Caves (1989) suggests that the direction of the effect depends on the nature of the investment, there is no reason to believe that the signs will be either the same or different in the FDI and CDI equations.

The United Nations Conference on Trade and Development, or UNCTAD (1993) has suggested that the share of investment in GDP may provide an indication of a country’s investment climate. Kudrle (1995) provides some supporting evidence. We therefore employ this variable with the expectation that it will be positively (negatively) related to FDI (CDI).
Trade variables have been found to be related to FDI flows (Grosse and Trevino, 1996), but the way they are related is ambiguous. Trade and FDI may be substitutes or complements. Where trade is restricted because of tariff protection, FDI may emerge as a substitute. In this case, trade variables are acting as proxies for the level of tariff protection. Of course, tariffs can in principle be measured directly, although cross-section studies that have done so have met with limited success (Pearce, 1993, surveys this evidence). On the other hand, trade and FDI may be viewed as complements, in part because foreign affiliates regularly engage in trade with their parents.

Accordingly, we include the imports-to-GDP ratio in the FDI equation and the exports-to-GDP ratio in the CDI equation. If FDI (CDI) and imports (exports) are substitutes, the expected signs are negative; if they are complements, the expected signs are positive. 47

At the policy level, we focus only on policy events that were likely to affect all FDI, or those that were sector-specific but involved either a very large sector or might be expected to produce spillover effects. Two general policy events are included: the years in which the Foreign Investment Review Agency was in place and the years in which Canada was signatory to free trade agreements (both the FTA and NAFTA). The latter are combined because they overlap so considerably that statistical discrimination between them was not possible. Moreover, the FTA overlaps considerably with the implementation of the Investment Canada Act, and once again statistical discrimination was not possible. As a consequence, no Investment Canada variable was included.

Under the Foreign Investment Review Act, review was required of all acquisitions by foreign-controlled firms as well as the establishment of new businesses by such firms if certain thresholds were met. We therefore expect that FIRA should have reduced FDI inflows, both because of the actual applications rejected as well as the potential applications discouraged. In effect, we expect that FIRA acted as a barrier to entry by imposing additional costs on potential foreign entrants. It is true that the number of actual rejections was small (Kudrle, 1995), and that foreign firms are less disadvantaged by entry barriers (Khemani and Shapiro, 1988), with the result that the effect on inflows may be small.

A question that has never been addressed is whether FIRA had any impact on capital outflows from Canada. To the extent that FIRA did in fact act as a barrier to foreign entry, it will have insulated domestic firms from foreign competition in the Canadian market, thus making investments in Canada relatively more attractive, other things being equal. As a consequence, we hypothesize that FIRA has discouraged CDI. As with the FDI equation, this hypothesis should be regarded with some caution since it relies for its validity on the effectiveness of FIRA in restricting FDI.

The second general policy event is the enactment of the Canada–US Free Trade Agreement in 1989 and its subsequent expansion to include Mexico in the NAFTA. As with FIRA, the effects of the FTA/NAFTA on FDI and CDI may be ambiguous. The creation of large, tariff-free markets may be expected to promote new FDI from countries that are outside the agreement but that seek access to the larger market; this phenomenon was well-documented in the case of U.S. FDI in Europe at the time of the formation of the EEC (surveyed in UNCTC, 1992). Also to be expected is a rationalization of production by firms from countries within the agreement. This may involve either an increase or decrease in the amount of FDI in a given country. On balance, we expect that the net effect would be positive, as indicated in Table 4.

The effects on CDI, however, are restricted to rationalization effects. If Canadian firms can serve U.S. and Mexican markets more profitably from Canada, then CDI may decrease; if the entire market can be served more profitably from outside Canada, CDI will increase. In addition, to the extent that freer trade increases inward FDI, it may provoke a defensive response by Canadian firms who react by entering rivals’ markets abroad. We therefore record the effect of FTA/NAFTA on CDI as ambiguous. We note, however, that there may be confounding events that will affect the CDI equation. At just about the same time that Canada was embarking on a policy of liberalized trade, so were Europe, parts of Latin
America and Asia. These events were accompanied by a general liberalization of other economies, most notably in Eastern Europe. All these events would tend to attract foreign investors, including Canadian investors. Accordingly, CDI may well have increased in this period as a result of events other than the FTA/NAFTA.

We identify two sector-specific policies as having the potential to affect all FDI and CDI. The first is the U.S.–Canada Automotive Products Trade Agreement of 1965 (the Auto Pact), an agreement that effectively created free trade in automobiles and parts. Given the size of the auto industry and its importance in all FDI as well as in manufacturing, we include it in both the total and the manufacturing equations. The Auto Pact obliged U.S. carmakers to maintain production capacity in Canada and to increase it with sales in the Canadian market. The effect of the Auto Pact on FDI is therefore expected to be positive. The Pact also covered auto parts, an area where Canadian firms play a significant role. To the extent that the agreement permitted Canadian firms to serve the U.S. market without locating there, CDI is discouraged and we expect that the effect is negative.

Finally, we include the National Energy Program of 1980 in the total and manufacturing equations. NEP provisions strongly favoured Canadian-controlled firms in the petroleum and natural gas sectors. If effective, NEP would have restricted FDI in the energy sector; and by making that sector more profitable for Canadian firms, it would have reduced CDI. Because the NEP involved a highly strategic sector and was accorded significant publicity, it may well have affected the investment climate in other industries. We therefore expect that the NEP reduced FDI in general (and in manufacturing). We do not expect that the general effect on CDI would be as strong, unless it affected the expectations of Canadian business regarding the relative attractiveness of Canada as a whole. Although this is possible, we expect that the effect is restricted to the energy sector and will therefore be (weakly) negative in relation to total or manufacturing FDI.

**Financial Services**

Financial services include banking, insurance, securities and trust companies. In building the FDI and CDI models for this sector, we essentially augment the general model to account for both economic and policy factors specific to the sector.

The elements of the model are summarized in Table 5. We included in this model GDP in Canada and abroad, wages in Canada relative to those abroad, and the investment-to-GDP ratio as a proxy for general investment conditions. These variables are included for the same reasons noted earlier, and their signs are also expected to be the same.

For sector-specific variables, we searched the empirical literature on foreign investment in financial services. While very little has been written on the sector as a whole, there is a substantial empirical literature on foreign investment in banking. We used this literature to augment the basic model. The following discussion therefore relies on Nigh et al. (1986), Hultman and McGee (1989), Goldberg and Johnson (1990), Grosse and Goldberg (1991), and Goldberg and Grosse (1994).

Most models contain some variable that accounts for economic activity in the host market, either for the economy as a whole or for the banking sector itself. However, since financial service activity is related to aggregate economic output, our use of host-country GDP serves this purpose. Similarly, some models (Grosse and Goldberg, 1991) contain a variable measuring market size in the home country. Goldberg and Johnson (1990) and Hultman and McGee (1989) include the exchange rate in their models. None of these studies uses a term for factor costs, but we chose to include this variable as a potentially important determinant of FDI and CDI flows.
Table 5  
The financial services FDI and CDI models

<table>
<thead>
<tr>
<th>Variable</th>
<th>Expected sign (FDI)</th>
<th>Expected sign (CDI)</th>
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</thead>
<tbody>
<tr>
<td>GDP in Canada</td>
<td>+</td>
<td>+ or -</td>
</tr>
<tr>
<td>GDP abroad</td>
<td>+ or -</td>
<td>+</td>
</tr>
<tr>
<td>Relative costs</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Exchange rates</td>
<td>+ or -</td>
<td>+ or -</td>
</tr>
<tr>
<td>Investment climate</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Trade</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Total FDI</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Total CDI</td>
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<td></td>
</tr>
<tr>
<td>FIRA</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>FTA/NAFTA</td>
<td>+ or -</td>
<td>+ or -</td>
</tr>
<tr>
<td>Bank Act (1967)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Bank Act (1980)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Little Bang (1986)</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>

All the studies argue that banking activity follows the degree of international involvement of the home country. The essential argument is that banks move abroad to service their domestic clients having extensive international exposure, either because the clients invest abroad or because they are engaged in international trade. For example, each of the studies noted above includes as an explanatory variable the total amount of FDI emanating from the home country, and some (Grosse and Goldberg, 1991; Goldberg and Grosse, 1994; Goldberg and Johnson, 1990) include some measure of international trade.

We extend the argument to financial services as a whole and suggest that all such firms have an incentive to locate abroad in order to continue to serve domestic clients. Accordingly, we include total FDI in the financial services FDI equation, and total CDI in the corresponding CDI equation. We expect that both are positive determinants of FDI and CDI in financial services. Similarly, we include a variable to account for international trade activity, defined as (exports + imports) / GDP. This specification is used by Grosse and Goldberg (1991) and Goldberg and Grosse (1994), who argue that all international activities (exports and imports) require financial services. We expect the sign of this term to be positive in both the FDI and CDI equations.

Finally, we introduce the public policy variables. We include FIRA and the FTA/NAFTA because they are general policy events that are expected to affect all sectors. The expected signs are negative for FIRA in both equations and positive for the FTA/NAFTA in the FDI equation, but uncertain in the CDI equation, for the same reasons as those developed above.

As noted earlier, the Bank Act was revised in 1967 to restrict foreign ownership of banks, and we include this event in the FDI and CDI equations. Similarly, we include the 1980 Bank Act revisions, which introduced a new and possibly less restrictive regime. We therefore expect that the 1967 revisions will have restricted FDI inflows, but that the effect of the 1980 revisions have been small. Canada’s “Little Bang,” represented by the deregulation of securities in Ontario in late 1986, is also accounted for and is expected to have a positive impact on FDI.

We have included each of the sector-specific reforms noted above in the CDI equation in order to examine the effects of such policies on foreign investment outflows. As discussed above, restrictions on
FDI may reduce CDI by making the Canadian market relatively more attractive. Removing restrictions on FDI will make the Canadian market relatively less profitable, and it may encourage Canadian firms to enter foreign markets as a defensive action. Accordingly, it might be expected that the 1967 Bank Act revisions would discourage CDI, the 1980 revisions would have little impact and the 1986 Little Bang would encourage CDI.

The effects of Canadian policies on CDI are not independent of policy changes in other countries. While it is beyond the scope of this analysis to fully model such events, we note that the 1980 Bank Act revisions came soon after the United States passed the International Banking Act (IBA) in 1978. The IBA provided for national treatment of foreign banks but it also restricted their interstate activities. Hultman and McGee (1989) therefore suggest that the a priori effect on foreign investment could be positive or negative. In fact, they find that the IBA encouraged capital inflows. This is why around this time we may observe an increase in CDI attributable to the IBA.

Similarly, the 1986 Little Bang nearly coincided with the British “Big Bang,” with possible effects on both FDI and CDI equations. The Big Bang could well have diverted FDI from Canada to the United Kingdom, while encouraging CDI in the United Kingdom. The predicted positive effect of the Little Bang on FDI could thus have been weaker, while the predicted positive effect on CDI could well have been stronger.

Energy

The energy sector comprises oil and gas exploration and extraction, but excludes components classified as manufacturing activity (e.g., petroleum refining). The energy model follows the pattern of the financial services model in that sector-specific variables are added to a general model.

In contrast to the financial services sector, we could find no empirical literature on the determinants of foreign investment in the energy sector. We therefore relied on basic theory (mainly Adelman, 1993) to build the energy model. The model is summarized in Table 6.

We expect that GDP in Canada will attract FDI in energy since market growth implies greater energy usage. Growth in foreign GDP may have the same effect if Canada’s energy can be exported. However, we do not expect that foreign GDP will have a strong effect on FDI in Canada, since Canada’s export capacity relative to world demand is limited. Accordingly, we expect that Canadian GDP growth will increase FDI in Canada, while foreign GDP growth may have a positive but weak effect.

Table 6
The energy FDI and CDI models

<table>
<thead>
<tr>
<th>Variable</th>
<th>Expected sign (FDI)</th>
<th>Expected sign (CDI)</th>
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<td>GDP in Canada</td>
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</tr>
<tr>
<td>Energy prices</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Exploration</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>FIRA</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>FTA/NAFTA</td>
<td>+</td>
<td>+ or -</td>
</tr>
<tr>
<td>NEP</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Takeover restrictions (1992)</td>
<td>+</td>
<td>0</td>
</tr>
</tbody>
</table>
As regards CDI, we expect that foreign GDP growth will encourage CDI by increasing energy demand, while Canadian GDP growth will have the opposite effect. We therefore expect foreign GDP to affect CDI positively, while Canadian GDP will be negatively related to CDI.

Exchange rates may affect foreign investment flows in energy for the same reasons that they affect other foreign investment flows. Exchange rates are therefore included with the same sign expectations as in the other models.

According to Adelman (1993), extraction costs are U-shaped, so that higher prices are typically required to call forth greater supply. We therefore expect that energy prices are a critical determinant of foreign investment (indeed, all investment) flows. Higher energy prices should be associated with both higher FDI and higher CDI. We expect this positive relationship to hold for any energy price measure, of which there are many. The measures actually employed are discussed later in this text.

Adelman also notes that exploration expenditures are somewhat more random, in part because the discovery of energy deposits is random. It is clear that any investment in energy exploration will depend on estimates of future costs and benefits, which Adelman suggests are not to be taken very seriously. It is unlikely that the investment climate in energy can be proxied by the investment rate for the economy as a whole. As a measure of the investment climate in energy, we therefore employ expenditures on oil and gas exploration. We expect that, when these expenditures are high, so are expectations regarding the sector, thereby encouraging FDI and discouraging CDI.

We also include in the energy model the policy effects of FIRA and the FTA/NAFTA because these are general policy initiatives that could affect any sector. Given energy-sector foreign investment restrictions, which existed apart from FIRA, the marginal influence of FIRA on FDI in the energy sector may be weaker than for other sectors. Similarly, the FTA did not eliminate major restrictions on FDI in energy, although the FTA regime overlaps the liberalization that took place in 1992.

The previous discussion of public policies with respect to foreign investment in the energy sector suggests that, while there were various such policies, the most important by far was the National Energy Program. The program is therefore included in the model, with the expectation that it restricted both inflows and outflows of foreign investment. It is important to recall that NEP not only restricted the actions of foreign companies but also favoured Canadian firms. Thus we expect that the relative profitability of FDI declined while the relative profitability of CDI (relative to investing in Canada) also declined for Canadian companies. Note that while all FDI emanated from foreign firms, not all CDI necessarily emanated from Canadian firms; as a result, the CDI effect may have been weaker.

We also include in this model the 1992 relaxation of restrictions governing foreign acquisitions in the energy sector. We expect that these revisions had a positive impact on FDI in this sector, but that the effects on CDI are ambiguous and likely to be small.

**Variables and Data**

In this section we describe the specific variables used in the estimation of the four models. The variables, their definitions and their sources are summarized in Table 7.

We use Canadian data for all FDI and CDI, the dependent variables in our regression equations. Specifically, we use as measures the (nominal) book value of foreign investment in Canada and Canadian investment abroad, obtained from Statistics Canada’s *Canada’s International Investment Position*. There are various problems with these data, which we discuss below, but they are the only source of disaggregated data by broad industry for both FDI and CDI allowing us to test the impact of sector-specific policies on both inflows and outflows.
Table 7
Variables, definitions and data sources

<table>
<thead>
<tr>
<th>Variable</th>
<th>Definition</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDI</td>
<td>Total foreign direct investment in Canada, book value</td>
<td>CANSIM, <em>Canada’s International Investment Position</em></td>
</tr>
<tr>
<td>CDI</td>
<td>Total Canadian direct investment abroad, book value</td>
<td>CANSIM</td>
</tr>
<tr>
<td>FDIMAN</td>
<td>FDI in manufacturing</td>
<td>CANSIM</td>
</tr>
<tr>
<td>CDIMAN</td>
<td>CDI in manufacturing</td>
<td>CANSIM</td>
</tr>
<tr>
<td>FDIFIN</td>
<td>FDI in financial services</td>
<td>CANSIM</td>
</tr>
<tr>
<td>CDIFIN</td>
<td>CDI in financial services</td>
<td>CANSIM</td>
</tr>
<tr>
<td>FDIEN</td>
<td>FDI in energy</td>
<td>CANSIM</td>
</tr>
<tr>
<td>CDIEN</td>
<td>CDI in energy</td>
<td>CANSIM</td>
</tr>
<tr>
<td>GDPCAN</td>
<td>Canadian GDP</td>
<td>CANSIM</td>
</tr>
<tr>
<td>GDPUS</td>
<td>U.S. GDP</td>
<td>OECD, <em>Main Economic Indicators</em></td>
</tr>
<tr>
<td>GDPUK</td>
<td>U.K. GDP</td>
<td></td>
</tr>
<tr>
<td>GDPEUR</td>
<td>OECD-Europe GDP</td>
<td></td>
</tr>
<tr>
<td>EXRUS</td>
<td>Exchange rate — U.S. price of Canadian dollar</td>
<td>CANSIM</td>
</tr>
<tr>
<td>EXRUK</td>
<td>Exchange rate — U.K. price of Canadian dollar</td>
<td></td>
</tr>
<tr>
<td>EXRGER</td>
<td>Exchange rate — German price of Canadian dollar</td>
<td></td>
</tr>
<tr>
<td>WAGECUK</td>
<td>Relative wages, Canada–U.K.</td>
<td></td>
</tr>
<tr>
<td>INVGDP</td>
<td>Investment-to-GDP ratio, Canada</td>
<td>CANSIM</td>
</tr>
<tr>
<td>IMPGDG</td>
<td>Import-to-GDP ratio</td>
<td>CANSIM</td>
</tr>
<tr>
<td>EXPGDP</td>
<td>Export-to-GDP ratio</td>
<td>CANSIM</td>
</tr>
<tr>
<td>TRADE</td>
<td>Sum of IMPGDG and EXPGDP</td>
<td></td>
</tr>
<tr>
<td>POILCAN</td>
<td>Canadian oil price</td>
<td>Canadian Association of Petroleum Producers, BP <em>Statistical Review of World Energy</em></td>
</tr>
<tr>
<td>POILW</td>
<td>World oil price</td>
<td></td>
</tr>
<tr>
<td>PGAS</td>
<td>Canadian price of natural gas</td>
<td>CANSIM</td>
</tr>
<tr>
<td>EXPLORATION</td>
<td>Exploration and development expenditures in oil and natural gas</td>
<td></td>
</tr>
<tr>
<td>AUTOPACT</td>
<td>Canada–U.S. Automobile Pact, dummy variable 1965–95</td>
<td>See text</td>
</tr>
<tr>
<td>FIRA</td>
<td>Foreign Investment Review Act, dummy variable 1974–86</td>
<td>See text</td>
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<tr>
<td>NEP</td>
<td>National Energy Program, dummy variable 1981–85</td>
<td>See text</td>
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<tr>
<td>BANK ACT (1967)</td>
<td>Bank Act revisions restricting foreign investment, dummy variable 1967–80</td>
<td>See text</td>
</tr>
<tr>
<td>LITTLE BANG</td>
<td>Deregulation of Canadian securities markets, dummy variable 1987–95</td>
<td>See text</td>
</tr>
<tr>
<td>TKOV92</td>
<td>Easing of restrictions on foreign acquisitions in the energy sector, dummy variable 1992–95</td>
<td>See text</td>
</tr>
</tbody>
</table>
As noted by Kudrle (1995), these data are suspect in that they may underestimate the real value of capital in inflationary periods. No specific deflator is available in Canada to solve this problem. We had available to us both the Implicit GDP price deflator and the GDP Investment deflator but chose not to use them because neither is a necessarily accurate deflator for FDI and CDI flows, and because other data (discussed below) were also difficult to deflate. We therefore chose to work with nominal data but we have been careful to compare real and nominal variables where possible, and to eliminate any trends in the data and, presumably, the effects of inflation. We also note that there is no necessary reason for all variables to be expressed in real terms. For example, Caves (1989) finds that nominal exchange rates perform much the same as real exchange rates, and that nominal rates are more important than differential price movements between countries.

In order to assess the effects of public policies, it was necessary to construct as long a time series as possible. Most of the variables required were available as of 1950, and that year was chosen as the starting date for the study. Most data were available until 1995 so our analysis covers 46 years.

A unique feature of this study is the use of disaggregated, sector-specific models to analyse public policy. In addition to total FDI and CDI, we constructed six other series: FDI and CDI in manufacturing, financial services and energy. These categories were defined by Statistics Canada prior to 1986, and consistent data are available until that date. Beginning in 1987, changes in the definition of industry groups affected the disaggregated data (but not the totals). Statistics Canada provided us with the necessary data to compile a series for the energy and financial services sectors based on the pre-1986 industry definitions. This could not be done for the manufacturing sector, which is defined in this study as the difference between total FDI (CDI) and the sum of financial services and energy FDI (CDI).

Most of the remaining data were obtained from CANSIM. This was the source for Canadian GDP; the value of the Canadian dollar vis-à-vis the U.S. dollar, the British pound and the German mark; imports and exports; and investment expenditures (private-sector investment in plant and equipment).

Our specifications require some measure of foreign GDP and comparative costs. In principle, the weighted GDPS of the countries that invest in Canada (or in which Canada invests) would be desirable, but they were not available. Nor is there a consistent measure of world GDP. The OECD does provide data on GDP for its entire membership, but since the number of members has changed, the series is not consistent. As measures of foreign GDP, we therefore took the GDP of the United States, the United Kingdom, and the OECD-Europe (European members of the OECD). These data are all available in current U.S. dollars. No consistent series is available for all of them in constant dollars. As it turns out, OECD-Europe GDP is never statistically significant in any equation and is not included in any reported results.

Relative costs can be measured in a variety of ways and preferably over a number of countries. For this period, the only consistent measure that could be obtained is the index of wages for Canada, the United Kingdom and the United States published by the U.S. Bureau of Labor Statistics (BLS). The BLS also publishes comparative data on productivity and unit labour costs, but these were not available for the United States over the entire period. For this reason we measured relative costs by wages in Canada relative to those in the United States and the United Kingdom.

Our reliance on the United States and the United Kingdom is justified on the grounds that the United States is by far Canada’s largest trading and investment partner and remained so over the entire period (although its share of FDI decreased), while the United Kingdom stood second in these categories over most of the period. In fact, the GDPS of these two countries as well as Europe (which includes the United Kingdom) are very highly correlated, with pairwise correlation coefficients exceeding 0.9.

The energy model requires data on oil and gas prices. This is not a simple matter since there are a number of such prices. Gas prices are somewhat more straightforward since Canadian prices are of primary importance, gas being traded only to a limited degree. As a result, gas prices were measured as the Canadian prices reported by the Canadian Association of Petroleum Producers (CAPP). From the
same source we obtained Canadian oil prices. However, since Canadian prices for oil are not necessarily the relevant ones for FDI and CDI, we also obtained a measure of world prices from the BP Statutical Review of World Energy. Regulations have often led to divergences between Canadian and world oil prices.

Finally, our models include a number of dummy variables to account for the policy events discussed above. These events are summarized in Table 7 and have been discussed in other parts of this report.

**Research Design and Estimation**

In order to estimate the FDI and CDI models, we employed the following methodology. First, the data were tested for the presence of unit roots to determine whether they were stationary. Dicky-Fuller (DF), Weighted Symmetry (WS) and Phillips-Peron (PP) tests were all applied, in both augmented and non-augmented forms. All tests decisively rejected stationarity for all variables, real and nominal, thus suggesting that the data should be differenced in order to remove the possibility of spurious correlations arising from non-stationary data. The first-differenced data were subjected to the same tests to confirm that stationarity was achieved.

Since we are using nominal data, it is critical that the data be made stationary, thus in part removing the effects of inflation. We note, however, that not only nominal data tend to be non-stationary, as other studies have found. We were able to measure Canadian GDP and Canadian exports and imports in real terms, and we also deflated FDI and CDI flows by both the Implicit GDP deflator and the GDP Investment deflator. These series were also found to be non-stationary and required differencing. Thus measuring variables in real terms does not remove the possibility of spurious correlations caused by non-stationary data. Moreover, all variables measured in real terms were highly correlated with their nominal counterparts, with correlation coefficients in excess of 0.90.

Preliminary specifications of the equations were tested for co-integration using the Engle-Granger (1987) statistic and the method of MacKinnon (1994). If two series are of the same order of integration (which is the case for our data), a linear combination of them may still be stationary, and this is referred to as co-integration. Co-integration was rejected for all models, thus confirming that the data must be differenced in all cases.

Each equation was estimated by ordinary least squares in differenced form, using two basic lag structures: explanatory variables were either unlagged or lagged by one period (year). The Durbin-Watson statistic was examined for evidence of serial correlation in the error terms. Where that was detected, the equation was re-estimated as an AR1 process using the Beach-MacKinnon (1978) maximum likelihood method. In general (but not always), a one-period lag specification tended to outperform the unlagged version. A one-period lag minimizes the possibility of simultaneous equations bias. Such bias is potentially present because of the possible causal relationships between FDI, GDP and trade measures, and is more likely in the total FDI and CDI equations than in the sectoral equations. In general, however, the choice of lag structure does not affect the conclusions of this study.

The correlation matrices were examined for evidence of multi-collinearity. Although differencing reduced the degree of correlation between most variables, some collinearity did persist. In general we did not remove collinear variables unless there was some evidence that their presence affected some other variable. For example, differenced U.S. and U.K. nominal GDP were quite highly correlated (r = 0.68). We eliminated nominal U.K. GDP from an equation only when its presence made U.S. GDP not significant, or when its presence did not contribute to the explanatory power of the equation.

We had available to us a number of measures of foreign GDP (United States, United Kingdom, OECD-Europe), as well as a number of exchange rates (United States, United Kingdom, Japan, Germany). These measures were typically collinear and some (GDP of the United Kingdom and OECD-Europe) were substitutes. We found that OECD-Europe GDP, and German and Japanese exchange rates, were almost never statistically significant in addition to being collinear with other variables. Their
deletion did not affect other variables, and so a more parsimonious specification was adopted using only U.S. and U.K. variables. It would appear that U.S. and U.K. variables represent adequately the movement of similar variables for other developed countries.

For the most part, our choices regarding specification do not alter the basic results in any way. In particular, the policy variables were typically not sensitive to our choices. When the chosen specification produces results not observed in other specifications, these are noted in the text.53

We estimated the FDI and CDI equations simultaneously using the method of Seemingly Unrelated Regressions (SUR) to account for the possibility that the error terms were related through the effects of common, unobserved determinants of foreign investment. For each model (total, manufacturing, energy and financial services), we thus estimated both separate FDI and CDI equations as well as simultaneous SUR equations.

Results

The results are presented in Tables 8 to 19, all of them in the same way: first the FDI equation estimated as a single equation (either OLSQ or AR1), then the CDI equation estimated as a single equation, then FDI and CDI equations estimated as a system of seemingly unrelated equations (SUR). All variables are differenced, and most equations are estimated with a one-period lag.

Foreign variables are restricted to the United States and the United Kingdom. We found that OECD-Europe GDP, and German and Japanese exchange rates were almost never statistically significant and were typically collinear with other variables. As indicated, it would appear that U.S. and U.K. variables adequately represent the movement of similar variables for other developed countries.

The tables do not indicate variables that are statistically significant, but they provide t-statistics. The critical t-values differ from equation to equation because the degrees of freedom differ. However, for the most part t-values in excess of 1.31 and 1.69 indicate statistical significance at the 90-per-cent and 95-per-cent levels (respectively) for a one-tailed test. For a two-tailed test, the critical values are 1.69 and 2.03. Where we offered unambiguous hypotheses regarding the sign, we applied one-tailed tests in describing the results; otherwise, we relied on two-tailed tests.

The reported equations are chosen on the basis of best fit. That is, they are the equations which had the greatest explanatory power (as measured by R2 or standard error of regression) from among those estimated. If other equations produced conflicting results, these are reported.

As noted, all variables are differenced. Undifferenced equations were also estimated, and these typically produced equations with greater explanatory power and more coefficients that were statistically significant. However, the unit root tests suggest that these correlations are spurious.

Total FDI and CDI

The results for total FDI and CDI are presented in Tables 8 to 10. We found that the best specification for the FDI equation included only U.S. variables as measures of foreign GDP, wages and exchange rates, while the CDI equation performed best when it included both U.S. and U.K. variables. Although all GDP and exchange rate variables are collinear to some degree, the effect on the FDI equation was much greater in that inclusion of U.K. variables rendered most other variables not significant.

U.S. variables are probably of decisive importance in determining FDI in Canada. Aside from the obvious fact that most of the FDI emanates from the United States, there is another reason: the United States represents a major competitor for FDI flows from other countries. Given that these funds will flow to North America, the choice of location will depend on the performance of Canada relative to the United States.
Table 8
Total FDI equation, differenced and lagged once

Method of estimation: Ordinary least squares  
Dependent variable: DFDI  
Current sample: 1952 to 1995  
Number of observations: 44  
Mean of dependent variable = 3 714.45  
Sum of squared residuals = 0.111 041 E + 09  
Std. error of regression = 1 834.36  
Adjusted R-squared = 0.699 636  
Durbin-Watson statistic = 1.866 21

<table>
<thead>
<tr>
<th>Variable</th>
<th>Estimated coefficient</th>
<th>Standard error</th>
<th>t-statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSTANT</td>
<td>554.741</td>
<td>523.621</td>
<td>1.059 43</td>
</tr>
<tr>
<td>DGDPCAN (-1)</td>
<td>0.130 944</td>
<td>0.032 027</td>
<td>4.088 58</td>
</tr>
<tr>
<td>DIMPGDP (-1)</td>
<td>-25.278.1</td>
<td>25.736.4</td>
<td>-0.982 190</td>
</tr>
<tr>
<td>DEXRUS (-1)</td>
<td>46.057.5</td>
<td>26.366.9</td>
<td>1.746 79</td>
</tr>
<tr>
<td>DWAGECUS (-1)</td>
<td>-40.282.6</td>
<td>19.244.9</td>
<td>-2.093 15</td>
</tr>
<tr>
<td>DGDPUSC (-1)</td>
<td>4.428.66</td>
<td>2.002 08</td>
<td>2.212 02</td>
</tr>
<tr>
<td>DINVGDP (-1)</td>
<td>-15.546.5</td>
<td>34.624.6</td>
<td>-0.449 002</td>
</tr>
<tr>
<td>AUTOPACT</td>
<td>683.537</td>
<td>827.629</td>
<td>0.825 898</td>
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<tr>
<td>FIRA</td>
<td>248.697</td>
<td>935.857</td>
<td>0.265 743</td>
</tr>
<tr>
<td>NEP</td>
<td>-1.489.89</td>
<td>1.165.28</td>
<td>-1.278 56</td>
</tr>
<tr>
<td>FTA/NAFTA</td>
<td>667.925</td>
<td>1 140.09</td>
<td>0.585 854</td>
</tr>
</tbody>
</table>

The FDI equation is estimated by ordinary least squares, as the differencing eliminated the serial correlation found in the undifferenced equations. Differencing, however, reduces the explanatory power of the equations (relative to undifferenced ones). In the case of the total FDI equation, the effect on individual variables was small.

Statistically significant effects (at significance levels exceeding 90 per cent) on total FDI are produced by Canadian GDP, U.S. exchange rates and U.S. GDP (all positive), and by wages in Canada relative to those in the United States (negative). The effect of Canadian GDP and relative wages are both as predicted (see Table 1), while the effects of U.S. GDP and U.S. exchange rates were predicted to be ambiguous. Rising GDP levels in Canada and the United States lead to more FDI in Canada. The finding regarding exchange rates, while theoretically possible, is nevertheless somewhat unusual in the empirical literature. FDI in Canada is associated with high values of the Canadian dollar, and the effect is quite strong and robust to alternative specifications. Either a stronger Canadian dollar minimizes fears of depreciating asset values or much FDI in Canada is for the purpose of forward integration (Caves, 1989), or both.

For the purposes of this report, the important finding is that none of the policy variables is statistically significant; we therefore find that such policies had little effect on FDI flows. We note that the NEP variable is negative with a t-value in excess of 1, and that the free-trade variable is statistically significant and positive in the unlagged version of the FDI equation (not reported). In addition, the free-trade variable is positive and nearly statistically significant when the sector-specific variables (Auto Pact and NEP) are omitted. The finding that FIRA had a minimal impact on total FDI flows is consistent with Kudrle (1995), despite the differences in specification and data sources.
### Table 9
Total CDI equation, differenced and lagged once

Method of estimation: Ordinary least squares  
Dependent variable: DCDI  
Current sample: 1952 to 1995  
Number of observations: 44  
Mean of dependent variable = 3 208.66  
Sum of squared residuals = 0.570 517 E + 08  
Std. error of regression = 1 379.03  
Adjusted R-squared = 0.877 939  
Durbin-Watson statistic = 2.073 72

<table>
<thead>
<tr>
<th>Variable</th>
<th>Estimated coefficient</th>
<th>Standard error</th>
<th>t-statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSTANT</td>
<td>-120.225</td>
<td>405.108</td>
<td>-0.296 773</td>
</tr>
<tr>
<td>DGDP CAN (-1)</td>
<td>0.057 528</td>
<td>0.025 395</td>
<td>2.265 36</td>
</tr>
<tr>
<td>DEXP GD (-1)</td>
<td>-17 418.2</td>
<td>21 589.9</td>
<td>-0.806 774</td>
</tr>
<tr>
<td>DEXRUS (-1)</td>
<td>36 134.4</td>
<td>23 274.5</td>
<td>1.552 53</td>
</tr>
<tr>
<td>DWAGECUS (-1)</td>
<td>-31 206.5</td>
<td>17 569.0</td>
<td>-1.776 23</td>
</tr>
<tr>
<td>DGDP US (-1)</td>
<td>1.917 58</td>
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<td>0.890 044</td>
</tr>
<tr>
<td>DINV GD (-1)</td>
<td>-63 566.3</td>
<td>25 790.5</td>
<td>-2.464 72</td>
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<tr>
<td>DEXR UK (-1)</td>
<td>27 431.9</td>
<td>13 690.2</td>
<td>2.003 76</td>
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<td>DWAGE CUSK (-1)</td>
<td>-1 520.40</td>
<td>2 911.85</td>
<td>-0.522 143</td>
</tr>
<tr>
<td>DGDPUK (-1)</td>
<td>31.381 2</td>
<td>8.333 33</td>
<td>3.765 74</td>
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<td>AUTOPACT</td>
<td>425.821</td>
<td>645.421</td>
<td>0.659 756</td>
</tr>
<tr>
<td>FIRA</td>
<td>-471.350</td>
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<td>-0.631 040</td>
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<tr>
<td>NEP</td>
<td>2 186.44</td>
<td>922.649</td>
<td>2.369 74</td>
</tr>
<tr>
<td>FTA/NAFTA</td>
<td>2 794.82</td>
<td>891.734</td>
<td>3.134 14</td>
</tr>
</tbody>
</table>

The CDI equation includes both U.S. and U.K. variables as indicators of foreign GDP, wages and exchange rates. The results indicate that Canadian investment abroad is positively and significantly associated with GDP changes in Canada and the United Kingdom and with higher values of the Canadian dollar vis-à-vis the pound sterling. The U.S. exchange rate is also positive, and nearly statistically significant at the 90-per-cent level. U.S. GDP is not statistically significant but the sign of the coefficient is positive, and it becomes significant when U.K. GDP is dropped from the equation. CDI tends to rise with higher values of both Canadian and foreign GDP, and it is higher when the Canadian dollar is stronger. These results are consistent with a priori expectations and are very similar to those reported for FDI.

The similarity extends to relative wages: higher wages in Canada relative to the United States tend to reduce CDI. This result was not expected but is similar to the FDI results. It is possible that there is a measurement problem and that wages do not fully capture labour costs because factors such as health premiums are omitted.  

An additional statistically significant negative effect is provided by the investment-to-GDP ratio, a proxy for the investment climate. This coefficient has the predicted sign; it suggests that when investment opportunities in Canada are scarce, foreign sources are found to replace them. From the domestic point of view, foreign and domestic investments are substitutes.
Table 10
Seemingly unrelated regression results, differenced and lagged once, total FDI and CDI

EQUATION 1: TOTAL FDI
Dependent variable: DFDI
Mean of dependent variable = 3,714.45
Std. error of regression = 1,592.60
R-squared = 0.768 346
Sum of squared residuals = 0.111 600 E + 09

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Estimated coefficient</th>
<th>Standard error</th>
<th>t-statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSTANT</td>
<td>537.349</td>
<td>453.369</td>
<td>1.185 24</td>
</tr>
<tr>
<td>DGDPCAN (-1)</td>
<td>0.129 893</td>
<td>0.027 730</td>
<td>4.684 21</td>
</tr>
<tr>
<td>DIMPGDP (-1)</td>
<td>-35 772.5</td>
<td>21 530.1</td>
<td>-1.661 51</td>
</tr>
<tr>
<td>DEXRUS (-1)</td>
<td>45 269.7</td>
<td>22 830.3</td>
<td>1.982 87</td>
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<td>DWAGECUS (-1)</td>
<td>-40 478.4</td>
<td>16 666.3</td>
<td>-2.428 76</td>
</tr>
<tr>
<td>DGDPUS (-1)</td>
<td>4.632 85</td>
<td>1.730 22</td>
<td>2.677 60</td>
</tr>
<tr>
<td>DINVGDP (-1)</td>
<td>-10 064.1</td>
<td>29 834.2</td>
<td>-0.337 335</td>
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<tr>
<td>FIRA</td>
<td>206.576</td>
<td>810.145</td>
<td>0.254 987</td>
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<tr>
<td>FTA/NAFTA</td>
<td>699.084</td>
<td>987.198</td>
<td>0.708 150</td>
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<tr>
<td>NEP</td>
<td>-1 511.31</td>
<td>1 009.10</td>
<td>-1.497 69</td>
</tr>
<tr>
<td>AUTOPACT</td>
<td>726.718</td>
<td>716.355</td>
<td>1.014 47</td>
</tr>
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</table>

EQUATION 2: TOTAL CDI
Dependent variable: DCDI
Mean of dependent variable = 3,208.66
Std. error of regression = 974.175
R-squared = 0.937 752
Sum of squared residuals = 0.417 567 E + 08

<table>
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<th>Parameter</th>
<th>Estimated coefficient</th>
<th>Standard error</th>
<th>t-statistic</th>
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<td>0.060 469</td>
<td>0.018 275</td>
<td>3.308 92</td>
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<td>DEXPGDP (-1)</td>
<td>-42 717.5</td>
<td>14 564.4</td>
<td>-2.933 01</td>
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<td>DEXRUS (-1)</td>
<td>40 075.1</td>
<td>15 939.3</td>
<td>2.514 23</td>
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<td>DWAGECUS (-1)</td>
<td>-28 054.2</td>
<td>11 930.2</td>
<td>-2.351 53</td>
</tr>
<tr>
<td>DGDPUS (-1)</td>
<td>0.277 896</td>
<td>1.500 44</td>
<td>0.185 210</td>
</tr>
<tr>
<td>DINVGDP (-1)</td>
<td>-67 467.8</td>
<td>16 905.8</td>
<td>-3.990 81</td>
</tr>
<tr>
<td>DGDPUK (-1)</td>
<td>34 322.1</td>
<td>5.822 00</td>
<td>5.895 25</td>
</tr>
<tr>
<td>DWAGECUK (-1)</td>
<td>-232.361</td>
<td>56.257 3</td>
<td>-4.130 32</td>
</tr>
<tr>
<td>DEXRUK (-1)</td>
<td>-11 768.8</td>
<td>4 417.40</td>
<td>-2.664 19</td>
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<td>FIRA</td>
<td>80.060 2</td>
<td>504.558</td>
<td>0.158 674</td>
</tr>
<tr>
<td>FTA/NAFTA</td>
<td>3 945.07</td>
<td>624.998</td>
<td>6.312 13</td>
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<tr>
<td>NEP</td>
<td>3 042.28</td>
<td>690.602</td>
<td>4.405 26</td>
</tr>
<tr>
<td>AUTOPACT</td>
<td>1 139.62</td>
<td>445.803</td>
<td>2.556 33</td>
</tr>
</tbody>
</table>
It would appear that FDI and CDI flows are symmetrical with respect to underlying economic forces, a point we take up later. The symmetry, however, does not extend to policy variables. The years in which the NEP was in place were associated with statistically significant higher outflows of capital, while the free trade agreements had similar effects. The positive effect of the NEP suggests that any protection it afforded Canadian energy companies (which would be expected to reduce CDI) were offset by its effect on the general business climate. As regards free trade, the strong positive effects are consistent with expectations, but the results suggest that free trade led to net outflows of capital (since the corresponding term in the FDI equations is not statistically significant, and is in any event of much lower magnitude). However, the large outflows of capital observed in this period may be due to global events, and not simply to the FTA/NAFTA.

With the exception of the policy variables, the other coefficients in the CDI and FDI equations are basically of the same sign. In most cases, this does not raise any serious theoretical issues, because the signs of many coefficients were expected to be either the same or were ambiguous a priori. However, the common signs on the wage coefficients were not expected and suggest an unusual degree of symmetry between the equations.

At the theoretical level, one possible explanation is that the interpenetration of markets is the result of oligopolistic rivalry (Graham, 1989). The resulting equilibrium is one in which firms invade each other’s markets, producing in aggregate a positive correlation between FDI and CDI (as we in fact observe). At the empirical level, this analysis would suggest that the two equations are not independent and should be estimated as a system. We therefore turn to the SUR estimates in Table 10.

The SUR estimates yield a few changes. For the most part, the economic variables are unchanged. The import and export terms become negative and statistically significant, suggesting that imports and FDI, on one hand, and exports and CDI, on the other, are substitutes. The greater the difficulty in importing into Canada, the higher is FDI; the more difficult it is to export, the higher is CDI.

The policy terms in the FDI equation remain statistically insignificant, although the t-statistic on the NEP term increases somewhat and approaches significance. The Auto Pact term in the CDI equation becomes positive and significant. Free trade in automobiles is found to have resulted in net outflows of capital, as has free trade in general.

**Manufacturing**

The results for the manufacturing sector are found in Tables 11, 12, 13 and 13a. A consistent series for FDI and CDI data exists only up to 1986, and it was not possible to create a consistent series through 1995. As a consequence, we measure manufacturing FDI and CDI as the difference between total FDI (CDI) and the sum of financial services and energy FDI (CDI). This remainder is primarily, although not exclusively, FDI and CDI in manufacturing.

The specifications for the manufacturing sector are somewhat different from those used in the total FDI/CDI equations. The major difference is that the best-fitting specification in manufacturing was one without lags. The difference in performance between the lagged and unlagged versions was not great in terms of statistical indicators (R2, standard error of regression, etc.) but there were differences in the performance of the policy variables. We first present the unlagged results for individual FDI and CDI equations, and then present both lagged and unlagged results for the SUR system.

The manufacturing FDI equation is found in Table 11. The same explanatory variables are employed as in the total FDI equation. However, the manufacturing equation exhibited serial correlation of the error terms and is therefore estimated with a correction for first-order serial correlation.

In terms of economic variables, this equation is not very different from the equation describing total FDI flows. Manufacturing FDI is positively and significantly affected by Canadian GDP, the U.S.
Table 11
Manufacturing FDI equation, differenced and unlagged

<table>
<thead>
<tr>
<th>Variable</th>
<th>Estimated coefficient</th>
<th>Standard error</th>
<th>t-statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSTANT</td>
<td>219.918</td>
<td>162.533</td>
<td>1.353 06</td>
</tr>
<tr>
<td>DGDP CAN</td>
<td>0.108 728</td>
<td>0.011 683</td>
<td>9.306 54</td>
</tr>
<tr>
<td>DEX RUS</td>
<td>23 552.2</td>
<td>11 640.2</td>
<td>2.023 35</td>
</tr>
<tr>
<td>DWAGE CUS</td>
<td>-19 229.8</td>
<td>9 220.89</td>
<td>-2.085 46</td>
</tr>
<tr>
<td>DINV GDP</td>
<td>-10 550.2</td>
<td>12 836.2</td>
<td>-0.821 909</td>
</tr>
<tr>
<td>DGDP US C</td>
<td>3.038 32</td>
<td>1.505 41</td>
<td>2.018 27</td>
</tr>
<tr>
<td>DIMP GDP</td>
<td>-7 860.84</td>
<td>11 487.3</td>
<td>-0.684 306</td>
</tr>
<tr>
<td>AUTO Pact</td>
<td>281.866</td>
<td>295.332</td>
<td>0.954 403</td>
</tr>
<tr>
<td>FIRA</td>
<td>-1 040.05</td>
<td>350.651</td>
<td>-2.966 05</td>
</tr>
<tr>
<td>NEP</td>
<td>-1 137.94</td>
<td>467.896</td>
<td>-2.432 03</td>
</tr>
<tr>
<td>FTA/NAFTA</td>
<td>1 432.46</td>
<td>453.314</td>
<td>3.159 98</td>
</tr>
</tbody>
</table>

exchange rate and U.S. GDP, and negatively and significantly affected by wages in Canada relative to those in the United States. These findings are consistent with those reported for total FDI and with our a priori expectations.

The policy variables suggest that FIRA had a significantly negative impact on FDI inflows, as did the NEP, while the FTA had a significant and positive impact. The Auto Pact did not affect FDI flows in this specification.

The CDI results are found in Table 12, again using the same explanatory variables as in the total CDI equation but without the one-period lag. In this case, however, there are some differences between the two sets of results.

CDI flows respond positively and significantly to changes in Canadian and foreign GDP. Although U.S. GDP is not quite significant at conventional levels, it becomes so when U.K. GDP is dropped from the equation. No other economic variables are statistically significant but we observe that wages in Canada relative to the United States exhibit a positive sign, as expected, with a t-value in excess of 1, while the exchange rate of the U.S. to the Canadian dollars carries a negative sign.

In terms of policy, the results suggest that FIRA in fact reduced outflows, as expected, while the NEP and the FTA/NAFTA encouraged them, also as expected. Again, the Auto Pact was found to have had little effect on outflows.
Table 12
Manufacturing CDI equation, differenced and unlagged

FIRST-ORDER SERIAL CORRELATION OF THE ERROR
MAXIMUM LIKELIHOOD ITERATIVE TECHNIQUE
Dependent variable: DCDIMAN
Current sample: 1955 to 1995
Number of observations: 41

(Statistics based on transformed data)
Mean of dependent variable = 2609.13
Sum of squared residuals = 0.262 482 E + 08
Std. error of regression = 985.979
Adjusted R-squared = 0.911 503
Rho (autocorrelation coef.) = -0.630359
t-statistic for rho = -3.757 77
Log of likelihood function = -332.505

<table>
<thead>
<tr>
<th>Variable</th>
<th>Estimated coefficient</th>
<th>Standard error</th>
<th>t-statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSTANT</td>
<td>-243.378</td>
<td>185.170</td>
<td>-1.314 35</td>
</tr>
<tr>
<td>DGDPCAN</td>
<td>0.057 511</td>
<td>0.018 233</td>
<td>3.154 26</td>
</tr>
<tr>
<td>DEXRUS</td>
<td>-21 253.4</td>
<td>15 977.4</td>
<td>-1.330 21</td>
</tr>
<tr>
<td>DWAGECUS</td>
<td>18 434.8</td>
<td>14 058.0</td>
<td>1.311 34</td>
</tr>
<tr>
<td>DINVGDP</td>
<td>-12 171.2</td>
<td>14 839.5</td>
<td>-0.820 188</td>
</tr>
<tr>
<td>DGDPUSC</td>
<td>2.732 68</td>
<td>1.799 86</td>
<td>1.518 27</td>
</tr>
<tr>
<td>DEXPGBP</td>
<td>-13 632.0</td>
<td>15 151.9</td>
<td>-0.899 695</td>
</tr>
<tr>
<td>DWAGECUK</td>
<td>404.014</td>
<td>1 797.68</td>
<td>0.224 742</td>
</tr>
<tr>
<td>DGDPUKC</td>
<td>26.798 9</td>
<td>8.052 85</td>
<td>3.327 88</td>
</tr>
<tr>
<td>DEXRUK</td>
<td>9 985.57</td>
<td>13 715.6</td>
<td>0.728 043</td>
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<tr>
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<td>381.781</td>
<td>-0.999 684</td>
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<tr>
<td>FIRA</td>
<td>-1 783.50</td>
<td>427.396</td>
<td>-4.172 93</td>
</tr>
<tr>
<td>NEP</td>
<td>1 351.37</td>
<td>612.571</td>
<td>2.206 07</td>
</tr>
<tr>
<td>FTA/NAFTA</td>
<td>2 167.63</td>
<td>531.855</td>
<td>4.075 60</td>
</tr>
</tbody>
</table>

Before drawing any conclusions from these results, we present the SUR estimates, first with a one-period lag (Table 13) and then without any lag (Table 13a). The variables included in the FDI and CDI equations are, for the most part, the same as those included above. The FDI equation is identical but U.K. exchange rates and relative wages, never statistically significant, are deleted from the CDI equations.

These results illustrate the differences between the lagged and unlagged specifications. The unlagged version is marginally superior on the basis of the reported statistics. In terms of the economic variables, the results are very similar for the FDI equations but somewhat different for the CDI equations. Specifically, in the CDI equation there is far less symmetry with the FDI equation in the unlagged version. In the lagged version, CDI is positively affected by the U.S. exchange rate and negatively by relative wages; this tallies with the results found in the FDI equations (lagged or unlagged). In the unlagged version of the CDI equation, the signs on the exchange rate and wage terms are reversed, although they are not quite statistically significant.

However, the major difference is in the performance of the policy variables. In the unlagged version, the results are as reported above for the single equation versions. FIRA was effective in reducing both FDI and CDI (with reductions in CDI being greater than reductions in FDI); the NEP discouraged inflows (but at marginal levels of statistical significance); and the FTA/NAFTA encouraged both inflows and outflows (with the impact on outflows being greater). The Auto Pact is not found to be important.
Table 13
Seemingly unrelated regression results, differenced and lagged once, manufacturing FDI and CDI

EQUATION 1: MANUFACTURING FDI
Dependent variable: DFDIMAN
Mean of dependent variable = 2 126.20
Std. error of regression = 881.585
R-squared = 0.791 920
Sum of squared residuals = 0.310 877 E + 08

<table>
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<tr>
<th>Parameter</th>
<th>Estimated coefficient</th>
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<th>t-statistic</th>
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<td>340.299</td>
<td>252.067</td>
<td>1.350 04</td>
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<td>DGDPCAN (-1)</td>
<td>0.101 340</td>
<td>0.021 446</td>
<td>4.725 35</td>
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<tr>
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<td>-2.446.49</td>
<td>10 960.3</td>
<td>-0.223 215</td>
</tr>
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<td>DEXRUS (-1)</td>
<td>41.029.9</td>
<td>13 660.9</td>
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<td>DWAGECUS (-1)</td>
<td>-37 816.9</td>
<td>9 785.65</td>
<td>-3.864 52</td>
</tr>
<tr>
<td>DGDPUS (-1)</td>
<td>1.755 41</td>
<td>1.810 00</td>
<td>0.969 839</td>
</tr>
<tr>
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<td>-34 713.4</td>
<td>16 739.4</td>
<td>-2.073 75</td>
</tr>
<tr>
<td>AUTOPACT</td>
<td>787.448</td>
<td>411.930</td>
<td>1.911 60</td>
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<td>FIRA</td>
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<td>-0.953 812</td>
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<td>-1 226.72</td>
<td>582.468</td>
<td>-2.106 07</td>
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<td>FTA/NAFTA</td>
<td>-16.048 2</td>
<td>798.075</td>
<td>-0.020 109</td>
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EQUATION 2: MANUFACTURING CDI
Dependent variable: DCDIMAN
Mean of dependent variable = 1 699.45
Std. error of regression = 925.042
R-squared = 0.826 706
Sum of squared residuals = 0.342 281 E + 08

<table>
<thead>
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<td>0.037 762</td>
<td>0.023 615</td>
<td>1.599 07</td>
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<td>-1.175 97</td>
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<td>15 325.6</td>
<td>3.251 60</td>
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<td>DWAGECUS (-1)</td>
<td>-32 094.1</td>
<td>11 690.2</td>
<td>-2.745 38</td>
</tr>
<tr>
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<td>2.726 99</td>
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<td>16 275.0</td>
<td>-2.681 36</td>
</tr>
<tr>
<td>DGDPUK (-1)</td>
<td>12.777 6</td>
<td>3.397 79</td>
<td>3.760 55</td>
</tr>
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<td>AUTOPACT</td>
<td>518.077</td>
<td>433.017</td>
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<td>1 676.78</td>
<td>827.673</td>
<td>2.025 90</td>
</tr>
</tbody>
</table>
Table 13a
Seemingly unrelated regression results, differenced and unlagged, manufacturing FDI and CDI

EQUATION 1: MANUFACTURING FDI
Dependent variable: DFDIMAN
Mean of dependent variable = 2 126.20
Std. error of regression = 718.400
R-squared = 0.861 824
Sum of squared residuals = 0.206 439 E + 08

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<td>-16 187.9</td>
<td>7 961.95</td>
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<td>287.585</td>
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<td>511.857</td>
<td>3.346 68</td>
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EQUATION 2: MANUFACTURING CDI
Dependent variable: DCDIMAN
Mean of dependent variable = 1 699.45
Std. error of regression = 914.751
R-squared = 0.830 371
Sum of squared residuals = 0.334 707 E + 08

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<td>0.018 628</td>
<td>4.278 70</td>
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<td>-17 777.8</td>
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<tr>
<td>DWAGECUS</td>
<td>19 409.3</td>
<td>12 029.2</td>
<td>1.613 52</td>
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<td>1.990 94</td>
<td>1.639 26</td>
</tr>
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<td>10.012 4</td>
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<td>2.622 29</td>
</tr>
<tr>
<td>AUTOPACT</td>
<td>-275.194</td>
<td>440.488</td>
<td>-0.624 748</td>
</tr>
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<td>-1 609.24</td>
<td>498.007</td>
<td>-3.231 35</td>
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<td>862.143</td>
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<td>FTA/NAFTA</td>
<td>2 923.96</td>
<td>665.043</td>
<td>4.396 64</td>
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</tbody>
</table>
In the lagged version, however, the Auto Pact is found to significantly increase inflows and have no effect on outflows, FIRA is found to have no effect, the NEP discouraged inflows and the FTA/NAFTA affected only outflows.

Thus it is difficult to draw totally unequivocal conclusions regarding the effect of public policy on manufacturing FDI and CDI. However, some results seem to be robust.

All results seem to suggest that the NEP discouraged capital inflows, although it is not clear whether it provoked capital outflows. Nevertheless, we have some evidence to suggest that there are public policy spillovers. The NEP, a policy directed at the energy sector, apparently created a climate sufficiently negative to affect inflows in manufacturing. This is not implausible given that important components of the manufacturing sector (refining, chemicals) are linked to the energy sector.

The results are also consistent in suggesting that the FTA and NAFTA were associated with a net outflow of capital in manufacturing, although it is not clear whether this results from changes in the relative values of FDI and CDI, or from increases in CDI alone.

The Auto Pact results are ambiguous, and this is somewhat surprising in that we expected them to become stronger as we moved from total to manufacturing FDI/CDI. The FIRA results are also ambiguous, although a bit stronger than were found in the total FDI/CDI equations.

Financial Services

The results for the financial services sector are found in Tables 14, 15 and 16, in the same order as was followed previously. For this sector, the specification chosen is one with all variables lagged once. In this case, the choice of specification does not affect the conclusions regarding the effects of public policies.

The FDI equation is presented in Table 14. No evidence of serial correlation was found, so the equation is estimated by ordinary least squares. This equation differs from the total and manufacturing ones in that a total trade variable has replaced imports and total FDI has been added to the equation, as have the sector-specific policy variables.

In some respects these results parallel those reported earlier. In the financial services sector, FDI is significantly affected by Canadian GDP (positive), the U.S. exchange rate (positive) and the relative wage rate (negative). Unlike the case of the previous results, foreign GDP (in this case U.S. GDP) is not an important factor.

The performance of the sector-specific economic variables is disappointing. The total FDI term, so important in other studies, carries the expected positive sign but is not statistically significant. The trade term is statistically significant but of the wrong sign. When the latter term is dropped from the equation, total FDI does become significant and positive.

Of the sector-specific variables, only the Little Bang is of statistical significance, with the expected positive effect on FDI. FIRA had no impact on this sector. Given the strict limitations on inward FDI imposed by other legislation, this result is unsurprising. However, we find that the FTA/NAFTA discouraged inflows in this sector, although the coefficient is not quite statistically significant. The statistical insignificance here is also unsurprising, as major restrictions against U.S. branch bank establishments in Canada remain in place today.

The CDI equation for financial services (Table 15), while providing a reasonable statistical fit to the data, is nevertheless disappointing. Only two of the economic variables are statistically significant, and one of them (total CDI) has the wrong sign. Perhaps these results are explained by the possibility that Canadian investment in this sector is often in developing countries with GDPs not accounted for, and by the fact that most total CDI is in developed countries. As a result, the total CDI term does not reflect the need to service clients who move abroad.
Some policy effects may be observed in the CDI equation. The 1980 revisions to the Bank Act are associated with investment outflows, a result that would normally not be expected. As noted earlier, however, these revisions came at around the same time as the U.S. International Banking Act (1978). Hultmann and McGee (1989) found that the IBA led to capital inflows to the United States, and our results support their findings. We also find that the FTA/NAFTA is associated with capital outflows, a fairly familiar result.

The SUR results (Table 16) mirror the single-equation estimates. The CDI equation still performs poorly, and the policy effects are unchanged.

We may therefore conclude that deregulation of the securities sector encouraged an inflow of foreign capital, as expected. Changes to the Bank Act probably had no impact and free trade again was associated with a net outflow of capital, caused in this case by an increase in outflows.

Table 14
Financial services FDI equation, differenced and lagged once

<table>
<thead>
<tr>
<th>Variable</th>
<th>Estimated coefficient</th>
<th>Standard error</th>
<th>t-statistic</th>
</tr>
</thead>
<tbody>
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<td>7.089 76</td>
<td>77.406 1</td>
<td>0.091 592</td>
</tr>
<tr>
<td>DGDPCAN (-1)</td>
<td>0.031 141</td>
<td>0.757 191 E - 02</td>
<td>4.112 66</td>
</tr>
<tr>
<td>DTRADE (-1)</td>
<td>-8 290.00</td>
<td>2 561.50</td>
<td>-3.236 39</td>
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<tr>
<td>DEXRUS (-1)</td>
<td>10 350.3</td>
<td>3 881.38</td>
<td>2.666 64</td>
</tr>
<tr>
<td>DWAGECUS (-1)</td>
<td>-11 210.2</td>
<td>2 878.00</td>
<td>-3.895 13</td>
</tr>
<tr>
<td>DGDPUSC (-1)</td>
<td>0.096 819</td>
<td>0.329 068</td>
<td>0.294 223</td>
</tr>
<tr>
<td>DINVGDP (-1)</td>
<td>295.875</td>
<td>4 845.42</td>
<td>0.061 063</td>
</tr>
<tr>
<td>DFDI (-1)</td>
<td>0.041 143</td>
<td>0.039 912</td>
<td>1.030 83</td>
</tr>
<tr>
<td>BNKACT67</td>
<td>141.273</td>
<td>127.184</td>
<td>1.110 77</td>
</tr>
<tr>
<td>BNKACT80</td>
<td>182.854</td>
<td>247.694</td>
<td>0.738 227</td>
</tr>
<tr>
<td>LITLBANG</td>
<td>545.072</td>
<td>259.798</td>
<td>2.098 06</td>
</tr>
<tr>
<td>FIRA</td>
<td>-133.901</td>
<td>140.981</td>
<td>-0.949 781</td>
</tr>
<tr>
<td>FTA/NAFTA</td>
<td>-380.469</td>
<td>234.831</td>
<td>-1.620 18</td>
</tr>
</tbody>
</table>

Method of estimation: Ordinary least squares
Dependent variable: DFDIFIN
Current sample: 1952 to 1995
Number of observations: 44
Mean of dependent variable = 682.818
Sum of squared residuals = 0.210 688 E + 07
Std. error of regression = 260.699
Adjusted R-squared = 0.873 774
Durbin-Watson statistic = 2.129 32
Table 15

Financial services CDI equation, differenced and lagged once

Method of estimation: Ordinary least squares
Dependent variable: DCDIFIN
Current sample: 1952 to 1995
Number of observations: 44
Mean of dependent variable = 772.227
Sum of squared residuals = 0.890 089 E + 07
Std. error of regression = 535.841
Adjusted R-squared = 0.766 262
Durbin-Watson statistic = 2.335 88

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<thead>
<tr>
<th>Variable</th>
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<td>31.948 9</td>
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<td>0.220 313</td>
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<td>DGDPCAN (-1)</td>
<td>0.420 948 E - 02</td>
<td>0.012 611</td>
<td>0.333 794</td>
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<td>DTRADE (-1)</td>
<td>-3.621.74</td>
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<td>-0.146 914</td>
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<td>DWAGECUS (-1)</td>
<td>-231.930</td>
<td>6.183.58</td>
<td>-0.037 507</td>
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<td>DGDPSUC (-1)</td>
<td>0.103 228</td>
<td>0.658 873</td>
<td>0.156 674</td>
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<tr>
<td>DINVGDP (-1)</td>
<td>-21 719.9</td>
<td>9.844.17</td>
<td>-2.206 37</td>
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<tr>
<td>DCDI (-1)</td>
<td>-0.149 167</td>
<td>0.055 517</td>
<td>-2.686 88</td>
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<td>BNKACT67</td>
<td>189.356</td>
<td>261.540</td>
<td>0.724 004</td>
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<td>BNKACT80</td>
<td>2 137.44</td>
<td>529.599</td>
<td>4.035 95</td>
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<tr>
<td>LITLBANG</td>
<td>421.626</td>
<td>507.238</td>
<td>0.831 219</td>
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<tr>
<td>FIRA</td>
<td>160.208</td>
<td>288.958</td>
<td>0.554 435</td>
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<tr>
<td>FTA/NAFTA</td>
<td>860.548</td>
<td>483.748</td>
<td>1.778 92</td>
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</table>
Table 16
Seemingly unrelated regression results, differenced and lagged once, financial services FDI and CDI

EQUATION 1: Financial Services FDI
Dependent variable: DFDIFIN
Mean of dependent variable = 682.818
Std. error of regression = 218.823
R-squared = 0.909 000
Sum of squared residuals = 0.210 688 E + 07

<table>
<thead>
<tr>
<th>Parameter</th>
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<th>Standard error</th>
<th>t-statistic</th>
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<td>64.972 4</td>
<td>0.111 236</td>
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<td>0.031 160</td>
<td>0.635 564 E - 02</td>
<td>4.902 75</td>
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<tr>
<td>DTRADE (-1)</td>
<td>-8.285 52</td>
<td>2.150 05</td>
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<tr>
<td>DEXRUS (-1)</td>
<td>10.350 8</td>
<td>3.257 92</td>
<td>3.177 13</td>
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<td>-11.210 6</td>
<td>2.415 71</td>
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<td>DGDP US (-1)</td>
<td>0.096 379</td>
<td>0.276 210</td>
<td>0.348 933</td>
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<tr>
<td>DINV GDP (-1)</td>
<td>292.670 4</td>
<td>4.067 11</td>
<td>0.071 960</td>
</tr>
<tr>
<td>DFDI (-1)</td>
<td>0.040 971</td>
<td>0.033 501</td>
<td>1.222 97</td>
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<tr>
<td>BANK ACT 67</td>
<td>141.275</td>
<td>106.755</td>
<td>1.323 36</td>
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<td>BANK ACT 80</td>
<td>183.152</td>
<td>207.907</td>
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<tr>
<td>LITTLE BANG</td>
<td>545.466</td>
<td>218.067</td>
<td>2.501 37</td>
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<tr>
<td>FIRA</td>
<td>-133.824</td>
<td>118.336</td>
<td>-1.130 89</td>
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<tr>
<td>FTA/NAFTA</td>
<td>-380.582</td>
<td>197.110</td>
<td>-1.930 81</td>
</tr>
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</table>

EQUATION 2: Financial Services CDI
Dependent variable: DCDIFIN
Mean of dependent variable = 772.227
Std. error of regression = 449.770
R-squared = 0.831 491
Sum of squared residuals = 0.890 089 E + 07

<table>
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<th>Parameter</th>
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<td>DGDP CAN (-1)</td>
<td>0.421 099 E - 02</td>
<td>0.010 585</td>
<td>0.397 813</td>
</tr>
<tr>
<td>DTRADE (-1)</td>
<td>-3.620 85</td>
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<td>-0.879 225</td>
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<tr>
<td>DEXRUS (-1)</td>
<td>-1.214 87</td>
<td>6.929 77</td>
<td>-0.175 311</td>
</tr>
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<td>DWAGECUS (-1)</td>
<td>-230.274</td>
<td>5.190 32</td>
<td>-0.044 366</td>
</tr>
<tr>
<td>DGDPUS (-1)</td>
<td>0.103 360</td>
<td>0.553 040</td>
<td>0.186 894</td>
</tr>
<tr>
<td>DINV GDP (-1)</td>
<td>-21.719 7</td>
<td>8.262 92</td>
<td>-2.628 57</td>
</tr>
<tr>
<td>DCDI (-1)</td>
<td>-0.149 218</td>
<td>0.046 599</td>
<td>-3.202 17</td>
</tr>
<tr>
<td>BANK ACT 67</td>
<td>189.349</td>
<td>219.530</td>
<td>0.862 521</td>
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<tr>
<td>BANK ACT 80</td>
<td>2.137 62</td>
<td>444.530</td>
<td>4.808 72</td>
</tr>
<tr>
<td>LITTLE BANG</td>
<td>421.704</td>
<td>425.761</td>
<td>0.990 471</td>
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<tr>
<td>FIRA</td>
<td>160.182</td>
<td>242.543</td>
<td>0.660 425</td>
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<tr>
<td>FTA/NAFTA</td>
<td>860.605</td>
<td>406.045</td>
<td>2.119 48</td>
</tr>
</tbody>
</table>
Energy

The energy equations are reported in Tables 17, 18 and 19. It was found that the best FDI equation was unlagged, while the best CDI equation required a one-period lag. The insertion of a lag does not affect the conclusions regarding the policy variables. In addition, the CDI series for energy did not start until 1954, and so the number of observations differs for the single-equation FDI and CDI estimates. For the SUR estimates, the number of observations is the same as that for the CDI equation. This change affected the results slightly, as discussed later.

In the process of estimating the energy equations, considerable collinearity was uncovered between the three energy prices available (world price of oil, Canadian price of oil, and Canadian price of natural gas). As a result, we observed sign and significance changes in these variables across specifications. We consequently applied principal component analysis to the three prices and discovered that the first principal component explained 97 per cent of the variation in these variables. We therefore used that component, denoted as PEN1, as a single index of energy prices.

The dummy variable measuring the effect of the 1992 easing of takeover restrictions was too collinear with the FTA/NAFTA and could not be included in the analysis.

The FDI equation in Table 17 is estimated by ordinary least squares, there being no evidence of serial correlation. FDI in energy is positively and significantly related to energy prices and energy exploration expenditures, as hypothesized. Canadian GDP does not affect these flows, nor does any foreign GDP (dropped from the equation). The sign on the exchange rate coefficient is positive, as has been the case for all FDI equations, but it is not statistically significant at conventional levels.

We find that FIRA is associated with an inflow of FDI. This is hardly what one would expect. It is doubtless related to the fact that FIRA was launched just after the energy crisis of 1973, which sparked intensive efforts to find substitutes for Middle Eastern oil. We do not believe that the result can be ascribed to public policy.

However, we find that the NEP caused a reduction in FDI in energy, as predicted. The coefficient is negative and is statistically significant at the 95 per cent level on a one-tailed test. Here we have a case where a sector-specific policy seems to have had an impact. We find no evidence that the FTA/NAFTA had any impact on FDI flows in energy.

The CDI equation (Table 18) does not perform well in terms of the economic variables, although if only PEN1 and OILEXP are included, the former is significant and positive. However, the policy variables are all positive and statistically significant (at least at the 90-per-cent level for a two-tailed test). The FIRA results may be suspect for the same reasons as were discussed in the FDI case. However, both the NEP and the FTA/NAFTA are associated with capital outflows.

For the most part, the SUR equations (Table 19) are similar to the single-equation estimates. One exception is the energy price term, which becomes negative and statistically significant in the CDI equation, a result we cannot explain. The same term is positive and statistically significant when the equation is run unlagged.

Most of the policy variables behave in the same way in the SUR equations, if anything with strengthened statistical significance. We find that FIRA is associated with capital inflows/outflows that were higher than average, a result we attribute to the energy shortages during that period. Free trade resulted in a net outflow of investment from this sector, as was the case with other sectors.

The major difference between the SUR results and the single-equation results concerns the effect of the NEP in the FDI equation. In the SUR equation, the NEP coefficient is not significant (and positive), whereas it was previously negative and significant. The NEP coefficient in the CDI equation remains positive and significant. In either case, our estimates suggest that the NEP also resulted in a net outflow of investment. The difference between the SUR and single-equation results for FDI may be attributed to the difference in sample size.
Table 17
Energy FDI equation, differenced

Method of estimation: Ordinary least squares
Dependent variable: DFDIEN
Current sample: 1957 to 1995
Number of observations: 39
Mean of dependent variable = 537.231
Sum of squared residuals = 0.129 548 E + 08
Std. error of regression = 646.450
Adjusted R-squared = 0.403 676
Durbin-Watson statistic = 1.839 74

<table>
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<th>t-statistic</th>
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<tr>
<td>DGDPCAN</td>
<td>0.252 972 E - 02</td>
<td>0.807 631 E - 02</td>
<td>0.313 227</td>
</tr>
<tr>
<td>DEXRUS</td>
<td>5 019.64</td>
<td>4 177.60</td>
<td>1.201 56</td>
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<tr>
<td>DPEN1</td>
<td>1 844.39</td>
<td>490.928</td>
<td>3.756 94</td>
</tr>
<tr>
<td>DOIEXP</td>
<td>0.880 046</td>
<td>0.298 176</td>
<td>2.951 43</td>
</tr>
<tr>
<td>FIRA</td>
<td>1 201.86</td>
<td>424.664</td>
<td>2.830 14</td>
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<tr>
<td>NEP</td>
<td>-667.811</td>
<td>368.026</td>
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<tr>
<td>FTA/NAFTA</td>
<td>-204.431</td>
<td>359.920</td>
<td>-0.567 990</td>
</tr>
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</table>

Table 18
Energy CDI equation, differenced and lagged once

Method of estimation: Ordinary least squares
Dependent variable: DCDIEN
Current sample: 1959 to 1995
Number of observations: 37
Mean of dependent variable = 191.289
Sum of squared residuals = eH + 07
Std. error of regression = 448.066
Adjusted R-squared = 0.398 492
Durbin-Watson statistic = 1.973 10

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<tr>
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<td>DGDPUSC (-1)</td>
<td>-1.297 88</td>
<td>0.993 299</td>
<td>-1.306 63</td>
</tr>
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<td>DEXRUS (-1)</td>
<td>-2 814.13</td>
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<tr>
<td>DPEN1 (-1)</td>
<td>180.000</td>
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<td>0.067 055</td>
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<tr>
<td>FIRA</td>
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<td>709.501</td>
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Table 19
Seemingly unrelated regression results, differenced, energy FDI (unlagged) and CDI (lagged once)

EQUATION 1: Energy FDI
Dependent variable: DFDIEN
Mean of dependent variable = 528.865
Std. error of regression = 669.413
R-squared = 0.364 094
Sum of squared residuals = 0.165 802 E + 08

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<td>7 364.45</td>
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<td>-0.104 498</td>
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<td>FIRA</td>
<td>1 136.63</td>
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<td>62.568 7</td>
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EQUATION 2: Energy CDI
Dependent variable: DCDIEN
Mean of dependent variable = 191.289
Std. error of regression = 347.734
R-squared = 0.638 269
Sum of squared residuals = 0.447 399 E + 07

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<td>-1 493.48</td>
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<td>DGDP US (-1)</td>
<td>0.487 999</td>
<td>0.698 797</td>
<td>0.698 342</td>
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<td>117.365</td>
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<tr>
<td>DOILEXP (-1)</td>
<td>-0.012 232</td>
<td>0.054 751</td>
<td>-0.223 415</td>
</tr>
<tr>
<td>FIRA</td>
<td>489.074</td>
<td>170.798</td>
<td>2.863 46</td>
</tr>
<tr>
<td>NEP</td>
<td>1 198.29</td>
<td>260.281</td>
<td>4.603 85</td>
</tr>
<tr>
<td>FTA/NAFTA</td>
<td>1 072.00</td>
<td>282.175</td>
<td>3.799 06</td>
</tr>
</tbody>
</table>

Conclusions

There are strong economic forces driving the inflows and outflows of capital across countries, although not all studies are consistent in identifying the most important among them. In this study, we confirm that total foreign direct investment in Canada and total Canadian direct investment abroad respond to economic signals, the most important of which are GDP in Canada and abroad, exchange rate variations, and relative wages. These findings are generally consistent with a priori expectations and with other
studies. However, we also find that the factors determining total FDI and CDI are not necessarily equally important in determining the flows to and from specific sub-sectors.

Given the strength of these economic factors, it would not be surprising to discover that public policies are relatively less important in determining foreign investment flows. In fact, we find that public policies have (to some degree) been influential in determining these flows, but the effects are not uniform.

The most consistent result that we obtain is that the Canada–U.S. Free Trade Agreement and its extension, the NAFTA, are associated with foreign investment flows, mainly out of Canada. Our evidence indicates that there was a net outflow of capital in total and in every sub-sector. The net outflow resulted from movements of Canadian capital abroad. In general, the FTA/NAFTA was not associated with net foreign investment in Canada, although there is some evidence that there was a free trade–induced increase in FDI in manufacturing. However, the inflow in manufacturing was not sufficient to offset the flow of Canadian investment abroad.

We do not conclude that the FTA/NAFTA caused a net outflow of capital. The direct investment data for Canada indicate that (in the post-1989 period) Canadian outward direct investment increased especially for destinations other than the United States (Blomstrom et al., 1996). It is unclear theoretically why the FTA/NAFTA would stimulate Canadian outward investment to non-U.S. destinations. It is possible that U.S. affiliates in Canada relocated “tariff factories” to lower-cost areas while retaining enough value-added activities in North America to qualify for North American content requirements under the relevant agreements. Another possible explanation is that the further reduction of trade barriers within the European Union in 1992 and the other global events noted above were strong inducements for Canadian and Canadian-based foreign-owned affiliates to invest in Europe and elsewhere.

We found only limited and contradictory evidence regarding the impact of the Auto Pact, the sectoral free-trade agreement in automobiles and parts. We expected that any impacts would be stronger in the manufacturing equations but found only limited evidence to this effect. Only in one specification (manufacturing) could we detect any significant impact of the Auto Pact, in this case an increase in FDI. We also found evidence in one equation for total CDI of a positive effect on outflows resulting from the Auto Pact. Overall, we cannot draw any strong conclusions regarding the effects of the Auto Pact.

Free trade agreements are not directed exclusively or even primarily at foreign investment flows. We also examined the effects of a number of policies whose major goal was to restrict, or at least to alter, the nature of foreign investment in Canada. The policies ranged from those directed at all foreign investment, such as FIRA, to those directed at specific sectors, such as the NEP or the foreign investment provisions of revisions to the Bank Act.

We found evidence that FIRA had an effect on both capital inflows and outflows, but only in the manufacturing sector and only in one specification of the manufacturing equation. In the unlagged specification, we found that FIRA restricted both capital inflows and capital outflows in manufacturing. By imposing entry costs on foreign firms and protecting domestic firms, FIRA may well have made the Canadian market relatively less profitable for foreign firms and relatively more profitable for Canadian firms, at least in manufacturing.

We found no evidence that FIRA affected capital flows in the aggregate. In part this is because the aggregate flows include the energy sector, where we found that the FIRA years were associated with higher inflows and outflows of capital. We attribute this finding to the increased demand for alternative energy sources following the 1973 Arab-Israeli war, which occurred very shortly before the formation of FIRA in 1974. These positive effects, attributed to FIRA, will reduce FIRA’s negative impact on investment flows when total FDI and CDI are examined.
Of the sectoral policies examined, the most controversial and widely publicized is certainly the National Energy Program. We found evidence that the NEP reduced FDI inflows in the energy sector, although the evidence is not as strong as might be expected. In our single-equation estimates of FDI in energy, the effect of the NEP was found to be negative, but this result did not persist when the equation was estimated simultaneously with the CDI equation.

However, the effect of the NEP on capital outflows in energy was unambiguous: the program was associated with outflows of capital from the energy sector. We thus confirm the view that the NEP had a negative impact on the investment climate in Canada in the energy sector.

But the NEP also had an impact on other sectors, particularly manufacturing. We find that the NEP is associated with a net reduction in capital inflows in manufacturing. All specifications suggest that the NEP reduced FDI in manufacturing, while there is less decisive evidence suggesting that it was also associated with outflows of capital. The data are not sufficiently disaggregated to permit us to conclude that the NEP’s effect on the general business climate was negative enough to induce a reduction in investment in Canada. The decrease in FDI could well have been caused by petroleum and chemical firms that are associated with the energy sector but are classified as belonging to the manufacturing sector.

Finally, we find that the Bank Act Revisions of 1967 and 1980 had no impact on FDI in the financial services sector, but the deregulation of the Ontario securities markets in 1986 (the Little Bang) may have increased FDI. In terms of CDI, we find that only the revisions to the Bank Act of 1980 seem to have had an effect, inducing an increase in Canadian investment abroad. We believe that this result is probably confounded with the U.S. International Banking Act of 1978, which provided national treatment for foreign banks.
9. FOREIGN INVESTMENT IN THE OIL AND GAS SECTOR

The percentages of foreign ownership and control in the Canadian petroleum industry are provided in Table 20. The percentages shown are based upon revenues, as the revenue series offered the only consistent long-run estimate of foreign ownership and control in the petroleum sector. As might be expected, estimated foreign control is consistently higher than estimated foreign ownership; however, both percentages move quite closely together.

The data presented in Table 20 provide a clear picture of the behaviour of foreign ownership in the petroleum sector. Specifically, foreign ownership declined consistently from 1971 through 1985. The decrease seems to have accelerated in the first half of the 1980s, perhaps reflecting the implementation of the National Energy Program. There was a modest increase in the relative share of foreign ownership from 1985 to 1987, perhaps related to the election of the Progressive Conservative government in 1984 on a platform of free trade with the United States and repeal of the most onerous features of the NEP; however, there was very little change in relative foreign ownership over the full period from 1986 through 1994, which encompassed an easing of restrictions on both foreign investment and the activities of foreign-owned affiliates.

<table>
<thead>
<tr>
<th>Year</th>
<th>Foreign ownership (%)</th>
<th>Foreign control (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1971</td>
<td>79.5</td>
<td>94.4</td>
</tr>
<tr>
<td>1973</td>
<td>78.7</td>
<td>94.0</td>
</tr>
<tr>
<td>1975</td>
<td>76.1</td>
<td>92.9</td>
</tr>
<tr>
<td>1977</td>
<td>73.2</td>
<td>87.0</td>
</tr>
<tr>
<td>1979</td>
<td>72.0</td>
<td>81.7</td>
</tr>
<tr>
<td>1980</td>
<td>73.9</td>
<td>81.3</td>
</tr>
<tr>
<td>1981</td>
<td>67.2</td>
<td>74.1</td>
</tr>
<tr>
<td>1983</td>
<td>61.1</td>
<td>70.4</td>
</tr>
<tr>
<td>1985</td>
<td>51.8</td>
<td>57.3</td>
</tr>
<tr>
<td>1987</td>
<td>56.2</td>
<td>62.6</td>
</tr>
<tr>
<td>1989</td>
<td>55.2</td>
<td>63.9</td>
</tr>
<tr>
<td>1990</td>
<td>54.3</td>
<td>61.9</td>
</tr>
<tr>
<td>1991</td>
<td>54.5</td>
<td>62.0</td>
</tr>
<tr>
<td>1992</td>
<td>53.2</td>
<td>61.2</td>
</tr>
<tr>
<td>1993</td>
<td>53.0</td>
<td>59.3</td>
</tr>
<tr>
<td>1994</td>
<td>53.7</td>
<td>59.4</td>
</tr>
</tbody>
</table>

Source: *Canadian Petroleum Industry Monitoring Surveys*, various issues.
### Table 21

**Gross flows of foreign direct investment in the petroleum and natural gas sector**

(Millions of Canadian dollars)

<table>
<thead>
<tr>
<th>Year</th>
<th>Gross inflows</th>
<th>Gross outflows</th>
</tr>
</thead>
<tbody>
<tr>
<td>1975</td>
<td>395</td>
<td>389</td>
</tr>
<tr>
<td>1976</td>
<td>379</td>
<td>837</td>
</tr>
<tr>
<td>1977</td>
<td>505</td>
<td>225</td>
</tr>
<tr>
<td>1978</td>
<td>653</td>
<td>1,377</td>
</tr>
<tr>
<td>1979</td>
<td>1,019</td>
<td>941</td>
</tr>
<tr>
<td>1980</td>
<td>1,395</td>
<td>1,167</td>
</tr>
<tr>
<td>1981</td>
<td>1,123</td>
<td>6,291</td>
</tr>
<tr>
<td>1982</td>
<td>651</td>
<td>1,720</td>
</tr>
<tr>
<td>1983</td>
<td>744</td>
<td>1,236</td>
</tr>
<tr>
<td>1984</td>
<td>422</td>
<td>533</td>
</tr>
<tr>
<td>1985</td>
<td>678</td>
<td>4,864</td>
</tr>
<tr>
<td>1986</td>
<td>1,605</td>
<td>3,866</td>
</tr>
<tr>
<td>1987</td>
<td>2,439</td>
<td>1,815</td>
</tr>
<tr>
<td>1988</td>
<td>1,793</td>
<td>614</td>
</tr>
<tr>
<td>1989</td>
<td>1,895</td>
<td>4,371</td>
</tr>
<tr>
<td>1990</td>
<td>1,869</td>
<td>194</td>
</tr>
<tr>
<td>1991</td>
<td>1,164</td>
<td>190</td>
</tr>
</tbody>
</table>

*Source: Canada’s Balance of International Payments, historical statistics.*

In a very broad sense, the data in Table 20 are consistent with the increasingly hostile stance taken by the federal government toward foreign investment in the energy sector, commencing in the early 1970s. Prior to the NEP, the primary ostensible intention of the federal government was to encourage foreign-owned companies to purchase a greater share of inputs and services from Canadian companies. Nevertheless, as noted above, there was also a policy emphasis on encouraging increased Canadian ownership, for example, through the establishment of Petro-Canada. Therefore, taking the data in Table 20 at face value, it seems that the Canadian government was successful in increasing domestic ownership of the petroleum sector.

Further insight into the impacts of foreign ownership policies is provided in Table 21, which reports gross inflows and outflows of foreign direct investment in the petroleum and natural gas sector. Despite the policies of the 1970s, gross inflows exceeded gross outflows in three of the six years from 1975 to 1980; however, after the introduction of the NEP in 1980, gross outflows dwarfed gross inflows from 1980 to 1986. These data support Safarian’s (1993) assessment that the NEP encouraged foreign-owned energy companies to withdraw capital from Canada, and they are consistent with the econometric evidence presented above. After 1986, gross inflows generally exceeded gross outflows of foreign investment. It thus appears that the relaxation of some of the pre-1986 restrictions stemmed the large net outflow of foreign investment from 1980 to 1986.
Implications of Foreign Ownership Policies

To the extent that government policies successfully encouraged a transfer of ownership from foreign to Canadian investors, did this transfer influence the performance of the Canadian oil and gas industry? As noted earlier, there are two questions to examine in considering this issue: (i) Were foreign-owned firms more efficient than domestically owned firms, on average, with the result that a change in relative ownership brought a decline in the overall productivity of the industry? (ii) Would any reduction in potential competition from foreign-owned firms adversely affect the performance of Canadian-owned firms?

We had intended to use the Compact Disclosure Data base to generate a performance comparison between foreign-owned and domestically owned oil and gas companies. Unfortunately, even for a relatively well-defined sector of the industry — the exploration sector — the Compact Disclosure Data base’s classification is unreliable. Firms are identified as exploration companies even though most of their activities are in other sectors of the industry. Moreover, we had strong concerns about the accuracy of the identification of foreign versus domestically owned entities. The relatively small number of Canadian-owned companies in the sample was also of concern given the fairly atomistic nature of the upstream sector of the industry, and it also heightened the potential importance of a misclassification bias.

Data available from the Canadian Petroleum Industry Monitoring Surveys provide a basis for some comparisons between foreign-owned and domestically owned companies. For example, it is possible to calculate total revenues as a share of total capital employed in both the upstream and downstream sectors. Since both foreign and domestically owned firms in the upstream oil and gas sector are “price takers,” revenue as a share of capital employed is a rough, but perhaps not unacceptable, measure of capital productivity. 58 The assumption of price-taking behaviour is less reliable for the downstream sector; however, petroleum products are relatively homogeneous. Hence there is no a priori reason to believe that prices received by domestically owned firms will differ from those for foreign-owned firms.

It was possible to calculate this ratio for the years 1986 to 1993. Given the volatility of the measure from year to year, an average value was calculated for the entire period. For the upstream sector, the calculated ratio was 0.32 for Canadian-controlled firms and 0.39 for foreign-controlled firms. For the downstream sector, the calculated ratio was 1.51 for Canadian-controlled firms and 2.00 for foreign-controlled firms. Hence, by this measure of productivity, the policies designed to promote an increase in domestic ownership came at the expense of a reduction in average industry productivity.

Data are also available to describe the nature of capital expenditures made by foreign and domestically owned petroleum companies. To the extent that Canadian-owned companies are willing to invest in more risky activities (e.g., exploration as compared to production), efficiency measures might offer an incomplete picture of the changes in industry performance that arise from changes in relative foreign ownership.

For the period from 1984 to 1993, information is available on capital expenditures by foreign and domestically controlled firms by activity. For example, total upstream capital expenditures are segmented into the following activities: exploration, development, production and oil sands. Exploration is considered a more risky activity than development or production, while oil sands development is a highly sophisticated, expensive and technology-intensive activity. Over this period, Canadian-controlled companies spent around 51 per cent of their capital budget on exploration, around 41 per cent on development and production, and 8 per cent on oil sands. Foreign-controlled firms spent around 36 per cent of their capital budget on exploration, about 50 per cent on development and production, and 14 per cent on oil sands.
The data suggest that Canadian-controlled companies emphasized exploration activities in “conventional” petroleum activities — perhaps because exploration is less scale-intensive than development and production, and also because Petro-Canada had a mandate to focus on offshore exploration. At the same time, foreign-controlled companies were more heavily involved in oil sands production — perhaps because those companies are better endowed with the financial capital and the technical expertise to cope with the relevant financial and technical risks.

There was also a modest difference in the distribution of capital expenditures between upstream and downstream activities. Specifically, Canadian-controlled companies spent approximately 88 per cent of their collective capital budget on exploration, development and production (including oil sands). The residual was for downstream activities, primarily refining and marketing. Foreign-controlled companies spent approximately 83 per cent of their collective capital budget on upstream activities.

Unfortunately, we could find no reliable direct information concerning the impact of foreign competition on the activities of Canadian-controlled firms. The indirect evidence, specifically the exemptions to the NEP discussed earlier, suggests that the expertise of foreign-owned firms was critical to the development of deep-water exploration and oil sands projects. Given the highly atomistic nature of conventional oil and gas exploration and production activities, the impact of foreign ownership on this segment of the industry is arguably less important.
10. FOREIGN INVESTMENT IN THE FINANCIAL SECTOR

Table 22 reports foreign control of assets in the finance and insurance sector. The relevant data source (CALURA) reports two series, one historical and the other current. The current series defines the sector somewhat more broadly than the historical series; however, the change in the industry definition is unlikely to alter the basic conclusions suggested by Table 22. In particular, while there may have been a small increase in the share of foreign control in the finance and insurance sector in the mid-1980s, the overall foreign ownership in the sector has been quite modest.

The relatively small and constant share of foreign control in the finance and insurance sector is unsurprising in light of the strong foreign ownership restrictions for deposit-taking institutions and the relatively large size of such institutions. For example, the percentage of foreign control of deposit-taking institutions was around 13 per cent in 1991, while it was approximately 27 per cent for consumer and business financing and other financial intermediaries.

Despite the relatively constant share of overall investment in the finance and insurance sector, foreign ownership in this sector has increased relative to total foreign ownership in Canada. In 1985, inward foreign direct investment in finance and insurance was around 15 per cent of total inward foreign direct investment. In 1995, it was around 18 per cent. The growing importance of foreign investment in the financial sector presumably reflects the faster growth of that sector relative to the growth of the overall Canadian economy.

<table>
<thead>
<tr>
<th>Year</th>
<th>Historical series</th>
<th>Current series</th>
</tr>
</thead>
<tbody>
<tr>
<td>1983</td>
<td>11.8</td>
<td>—</td>
</tr>
<tr>
<td>1984</td>
<td>12.2</td>
<td>—</td>
</tr>
<tr>
<td>1985</td>
<td>14.2</td>
<td>—</td>
</tr>
<tr>
<td>1986</td>
<td>14.8</td>
<td>—</td>
</tr>
<tr>
<td>1987</td>
<td>15.4</td>
<td>—</td>
</tr>
<tr>
<td>1988</td>
<td>15.4</td>
<td>17.6</td>
</tr>
<tr>
<td>1989</td>
<td>—</td>
<td>17.9</td>
</tr>
<tr>
<td>1990</td>
<td>—</td>
<td>17.8</td>
</tr>
<tr>
<td>1991</td>
<td>—</td>
<td>17.4</td>
</tr>
<tr>
<td>1992</td>
<td>—</td>
<td>17.2</td>
</tr>
<tr>
<td>1993</td>
<td>—</td>
<td>17.8</td>
</tr>
</tbody>
</table>

Source: CALURA (Corporations, 1993).
Implications of Foreign Ownership Policies

Given the heterogeneous nature of the finance and insurance sector, performance comparisons between foreign-owned and domestically owned firms are especially unreliable. Moreover, restrictions on the growth of foreign-owned deposit-taking institutions will skew any performance comparison in favour of domestically owned institutions, given economies of scale.

Once again, we found the data in the Compact Disclosure Data base too problematic to use as a basis for comparing foreign and domestically owned firms. Data from CALURA are available for the period from 1983 to 1994 to calculate the ratio of operating revenues to total assets for foreign-owned and domestically owned deposit-taking institutions and insurance companies. Since the outputs of firms in these activities are unlikely to be homogeneous, a comparison of ratios will presumably include differences in price-cost markups across the samples of firms. Nevertheless, the calculated ratios may still provide suggestive insights into differences in capital productivity between foreign-owned and domestically owned firms.

Table 23 reports the ratios of operating revenues to total assets for foreign-controlled and domestically controlled deposit-taking institutions and insurance companies for two time periods. Given the much larger average size of domestically owned deposit-taking institutions, the slightly higher capital productivity ratio for domestically controlled units is unsurprising. Indeed, it is interesting to note that the ratios for foreign-controlled firms are only slightly lower than those for domestically controlled firms.

The ratios for the insurance sector suggest that foreign-controlled firms enjoy higher capital productivity ratios than their domestically controlled counterparts. The difference for this activity is more substantial than in the case of deposit-taking institutions. Economies of scale may be a partial explanation of the observed differences, although Canadian-owned life insurance companies are relatively large and have a significant international presence.

Our proxy measure for capital productivity was also calculable for a miscellaneous category identified as consumer and business financing and other financial intermediaries. Over the period from 1988 to 1994, the ratio of operating revenues to total assets averaged 14.9 per cent for foreign-controlled firms and 15.8 per cent for domestically controlled firms. The slight estimated difference in productivity is consistent with the virtually constant share of foreign-controlled assets in this segment over the period from 1988 to 1994 (around 18 per cent).

In summary, with the exception of the insurance industry, foreign investment restrictions in the financial sector appear not to have resulted in the displacement of more efficient (foreign-owned) firms by less efficient domestically owned firms. Nevertheless, restrictions on domestic competition between financial institutions may well have reduced overall efficiency in the industry.

<table>
<thead>
<tr>
<th></th>
<th>Deposit-taking institutions</th>
<th>Insurance companies</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Foreign</td>
<td>Domestic</td>
</tr>
<tr>
<td>1983–88</td>
<td>9.9%</td>
<td>10.4%</td>
</tr>
<tr>
<td>1988–94</td>
<td>9.0</td>
<td>9.4</td>
</tr>
</tbody>
</table>

Source: CALURA (Corporations, various years).
Over the years, there have been many complaints about the oligopolistic structure of the domestic banking industry in Canada. Among other things, it has been claimed that banks charged excessively high interest rates on consumer loans and made little capital available to small businesses. It has also been argued that restrictions on foreign banking operations, particularly on foreign banks operating through a branch structure, have delayed the introduction of new banking techniques into Canada. One example cited is the U.S. firm Capital One Financial which intended to set up business in Canada using a new credit risk assessment technology. A second example involves a large U.S. bank, Wells Fargo & Co., which intended to use pioneering credit assessment techniques to mass-market unsecured lines of credit to small Canadian businesses (Corcoran, 1996).

To support the claim that Canadian banks have abused their dominant position in the domestic market, the empirical evidence is, at best, ambiguous. In particular, there are studies showing that the Canadian banking industry operates in a manner more consistent with competition than monopoly (Nathan and Neave, 1989). Further, at least one Canadian bank has been pioneering the introduction of on-line brokerage services in North America. It is therefore unclear whether or how the performance of Canadian banks would be affected by a significant liberalization of restrictions on inward direct investment in banking.

In contrast, there is fairly widespread agreement that the Canadian insurance industry contains too many firms (Horstmann et al., 1996). Here there is a more presumptive case that restrictions on foreign ownership have perpetuated an inefficient domestic insurance industry; however, restrictions preventing domestic banks from offering insurance products may also have perpetuated inefficiencies. Indeed, one study argues that the share of foreign ownership in the Australian and New Zealand insurance sector in the mid-1980s was not dissimilar to that of Canada. Unlike Canada, Australia and New Zealand effectively allowed banks to compete with insurance companies; the evidence suggests that substantial changes took place in products and distribution systems, with resulting reductions in prices and improvements in levels of consumer service.
The communications sector is quite heterogeneous since it includes telecommunications companies, broadcasters and data network carriers; however, the major segments of this industry are characterized by relatively restrictive and rigid foreign ownership limits, as noted in an earlier section. Also, foreign ownership in the sector is well below the allowable limit and, moreover, has been relatively constant over the period for which data are available. Specifically, the share of total assets owned by foreigners was around 10 per cent in 1988 and only 9 per cent in 1994. The share of total revenue accruing to foreign-owned firms was 10.6 per cent in 1988 and 12 per cent in 1994.

Canada’s restrictive foreign ownership policies in communications are not unique, although many countries have been relaxing their restrictions in recent years. Perhaps as a consequence of limitations on controlling foreign ownership interests, the communications sector has been characterized by a relatively large number of strategic alliances in which foreign-owned firms hold far less than a 50-per-cent ownership interest in the relevant venture.

Several high-profile strategic alliances have taken place in the Canadian telephone industry. For example, in September 1992 Stentor and MCI announced an alliance to develop a portfolio of “intelligent” network services based on MCI’s technology platform and Northern Telecom’s equipment. Stentor agreed to spend $150 million to license MCI’s network platform for domestic and international use. In January 1993, AT&T and Unitel announced an agreement under which AT&T would acquire a 20-per-cent interest in Unitel in return for an investment of $150 million in AT&T’s software and switching/transmission equipment. The agreement also gave Unitel access to AT&T’s intelligent network products and services. In August 1993, Call-Net Telecom of Canada announced the issue of shares to the U.S. firm Sprint Corp. Included in the agreement was a technology and services sharing arrangement giving Call-Net access to Sprint’s intelligent network capabilities, including its business and billing systems.

It seems clear that Canadian telephone carriers have benefited from affiliations with larger U.S. carriers; however, the precise value of such affiliations is less clear. Certainly, Canada has one of the best-performing telephone systems in the world. For example, one recent study reports the results of an analysis of 43 specific performance variables measuring a wide range of areas critical to the telecommunications industry’s performance. The overall performance of Canada’s telecommunications sector ranked a close second behind Singapore’s and ahead of that of the United States, which ranked third (Hubert, 1995). Evidently, limitations on foreign investment have not prevented the Canadian telecommunications sector from being a global leader.

One possible reason why limitations on foreign ownership have not translated in poor performance is the existence of strong international competition in recent years. In effect, large companies can increasingly bypass the facilities of domestic carriers by accessing the international facilities of large carriers such as AT&T and British Telecom. Since large companies account for a substantial share of the revenues of telephone companies, such competition is meaningful and, undoubtedly, is equivalent to the direct competition that would be provided by inward foreign direct investment.

Whether the Canadian telecommunications sector’s performance would improve significantly with a relaxation of existing foreign ownership restrictions is currently a hotly debated issue in Canada. Several industry observers have emphasized the expanded access to capital that the industry would enjoy, along with the need for the industry to make substantial investments in new capacity (Surtees, 1996). In this regard, the previously cited study on competitiveness in the telecommunications industry pointed to Canada’s declining position in recent years in the rate of modernization of its telephone infrastructure.
The telecommunications sector seems to fit a broad pattern suggested by the other industries examined: if the benefits of inward FDI are less than dramatic, the causes for broad-based restrictions on inward FDI are obscure. BC Tel is a major foreign-owned telephone company in Canada whose foreign ownership was “grandfathered.” There is no evidence that it has behaved or performed in any way differently from its Canadian-owned counterparts. Nor could it, since it is subject to exactly the same regulatory regime. In countries that have deregulated their telecommunications sector while relaxing foreign investment restrictions (e.g., New Zealand), other policies have been implemented to ensure achievement of specific public policy goals, such as route-average pricing (Tuckwell, in Globerman et al., 1995).

The Canadian broadcasting sector offers a more complex picture than the telecommunications sector. Canada was one of the first countries in the world to achieve a significant cable penetration rate and it currently enjoys a relatively high penetration rate, but it is clearly falling behind in other areas, especially in the delivery of direct-to-home satellite broadcasts. For example, Canada was several years behind the United States and many other countries in introducing direct satellite broadcasting services; however, it is unclear how much of this delay can be attributed to foreign ownership restrictions. Indeed, an approved applicant for a direct-to-home broadcasting licence, Power DirectTV, had 20-per-cent foreign ownership. It subsequently relinquished its licence because it felt that it could not operate at a profit given Canadian content requirements as well as restrictions on the use of foreign-owned satellites.

In fact, it is estimated that there are over 500 000 illegal satellite dishes in Canada receiving U.S. direct broadcasting signals. This “bypass” competition is pressuring on Canadian cable companies to modernize their networks and expand channel capacity. The emergence of the Internet as a broadcasting medium will expand bypass opportunities for Canadian consumers, and may make the question of foreign ownership restrictions in the sector even less relevant.
12. OVERALL SUMMARY AND CONCLUSIONS

Theoretical economic arguments in support of government restrictions on inward FDI and regulation of foreign-owned firms rest on the notions that MNCs enjoy significant market power, and that host government policies can successfully extract the associated economic rent and/or induce changes in behaviour that will benefit host country residents. Both notions are questionable as general propositions, especially the second. It seems unlikely that host governments can calibrate policies to precisely extract available rents while maintaining the same level of FDI inflows. Available evidence, including new evidence presented in this study, supports that assertion.

At the same time, the ability of host governments to influence inward FDI flows should not be overestimated. Other attributes of the host economy are often more important than government policies, particularly in terms of attracting inward FDI. Even at the sectoral level, relaxing foreign investment restrictions may have very different impacts upon different segments. Finance is an example: there the evidence suggests that foreign-owned firms have been slow to enter the retail segment of the industry.50

Inward FDI has been shown to impart efficiency benefits to the host economy, and evidence provided in this report further supports this observation; however, the benefits can well be overestimated in many circumstances, and they may not justify host government subsidies of inward FDI. Indeed, it is unlikely that host governments can efficiently subsidize inward FDI for the same reasons that they are unlikely to be able to efficiently “tax” inward FDI. The determinants of inward FDI, as well as the net benefits at the margin, vary too much to allow policy makers to act efficiently as rent maximizers in either direction. Moreover, once governments assume a direct policy role in terms of regulating FDI, they are exposed to a host of pressures from domestic interest groups (such as local firms threatened by foreign competition), and policy making may increasingly become hostage to such groups, with adverse economic consequences for the economy as a whole.

The available theory and evidence further suggests that host governments can improve the overall investment environment by focussing on creating an appropriate infrastructure including an educated and skilled labour force, an efficient and up-to-date legal system, an adequate transportation system, a strong anti-monopoly policy, a sound macro-economic policy and a wealth-creating culture (Dunning, 1994). Such policies will encourage increased FDI as well as domestic investment. At the same time, restrictions on domestic competition will reduce efficiency on the part of domestic firms, regardless of ownership status. Some of the competitive benefits of increased inward FDI might well be achieved by reducing or eliminating regulatory restrictions on competition between domestically owned firms, e.g., between banks and insurers in the financial sector, or between telephony and broadcasting.
NOTES

1 For a comprehensive evaluation of the impacts of host government policies toward FDI, which itself comes to no strong conclusions, see Safarian (1993). An extensive review of the literature surrounding the causes and consequences of FDI is provided by Dunning (1993b).

2 For a more detailed discussion of these points, see Industry Canada (1994).

3 This broad distinction between formal and informal barriers is suggested in Industry Canada (1994).

4 Many of the trade-related investment requirements, as well as other conditions attached to approval of inward FDI initiatives, may be incorporated as criteria in the investment screening activities undertaken by host governments.

5 If the ownership or control ceiling is established as a percentage of overall assets or equity, inward FDI can increase in absolute value as a function of the overall growth of the sector(s) affected. Where the relevant ceiling fixes the absolute amount of allowable inward FDI, it typically prohibits any FDI in the sector(s).

6 Canadian evidence on the performance of foreign-owned establishments compared to domestically owned establishments is provided in Globerman et al. (Feb. 1994). More direct evidence on the existence of productivity spillovers from inward FDI in Canada is reported in Globerman (1979a).

7 For an overview of the linkages in the Canadian context, see Globerman (1985). We shall discuss both the relevant theory and empirical evidence in more detail in a later section.

8 For a review of this evidence, see Globerman et al. (Feb. 1994).

9 A comprehensive survey of the international literature is provided by Bloomstrom et al. (1996).

10 This argument is identified most notably with the former Science Council of Canada.

11 The issues surrounding foreign acquisitions of domestically owned high-technology companies are reviewed in Globerman (1991).

12 These questions have been addressed in the Canadian context in Globerman (1984a).


14 For a somewhat different approach, see UNCTC (1992).

15 See also Moore (1993), discussed below.

16 The sample is a cross-section of goods produced by a variety of firms.

17 Woodward and Rolfe (1993) examine locational decisions in developing countries. They find stronger evidence for the importance of wage rates, tax rates and investment incentives than do studies that focus on developed countries.

18 More recent confirmation of the importance of market size is provided by Aristotelous and Fountas (1996) and Braunerhjelm and Svensson (1996).

19 Notably lacking are empirical studies of aggregate FDI flows. There are empirical studies that analyse capital flows and public policy in particular sectors. There are also studies that evaluate public policy, but not within the context of a well-specified empirical model. An example is Safarian (1993). Aristotelous and Fountas (1996) use an empirical model of FDI to analyse the effects of enlarging markets in Europe. They conclude that the expectation of a barrier-free market in Europe led to increased FDI.

Statistics Canada’s threshold is 20 per cent. Thus foreign ownership holdings constituting less than 20 per cent of the relevant businesses are essentially ignored.

Over the period from 1950 to 1980, FDI increased by about 1500 per cent. It increased by around 160 per cent over the period from 1980 to 1995.

For evidence that FIRA did not discriminate by home country of foreign investor, see Globerman (1986).

This discussion is based on Safarian (1993), pp. 126–29.

The criteria of benefit were stated very generally. Moreover, no explicit weightings were given to the different criteria to permit comparisons between proposed projects.

Apparently, as many as one third to one half of all takeovers and about 25 per cent of all proposed start-ups that were rejected by FIRA when first proposed were resubmitted in a modified form and approved (Kudrle, 1995). Such resubmissions should not affect the overall rejection rate for FIRA applications.

The $5-million threshold applies if the Canadian business represents more than 50 per cent of the assets involved in the total international business.

Safarian (1993), pp. 134–35, notes that the streamlining introduced by the Investment Canada Act still resulted in a fairly broad review of foreign investments. Specifically, taking new business proposals together with takeovers, the Investment Canada review process has covered about 80 per cent of assets while applying to only about 20 per cent of the numbers involved.

There has apparently been disagreement between Canadian and American officials over government-mandated performance requirements. U.S. officials expected that the FTA exempted American companies from Canadian government–mandated performance requirements, while Canadian trade representatives insisted that the FTA prohibits only trade-distorting performance requirements (e.g., domestic content, export levels and import substitution) but not requirements linked to such issues as research and development or job training. See Earl H. Fry, in Fry and Radebaugh (1991).

It should be noted that Investment Canada does not see itself as playing an explicit rent capture role in its review process.

This discussion is based on Blomstrom et al. (1996).

For a brief overview of the bilateral investment provisions in the FTA, see A.E. Safarian, “Free Trade and Foreign Direct Investment: Interim Report,” in Fry and Radebaugh (1991). Bilateral investment provisions, as they were brought forward into the North American Free Trade Agreement, are discussed in Rugman and Gestrin (1994).

For details of Canada’s reservations under the NAFTA, see Rugman and Gestrin (1994). Canada’s reservations in transportation include the exclusion of foreign interests from all forms of cabotage, and heavy restrictions on foreign investment in the maritime sector.

For a full description of the WTO agreement, see Hoekman and Kostecki (1995).

See Laxer (1989). Several Canadian banks in the early 19th century had strong American connections. The exact effect of the restriction on foreign control in banking is unknown, but circumstances suggest that it was important in preventing American incursions into the Canadian business sector.
For example, on the basis of the Minister of Finance's estimate of the authorized total assets of foreign bank subsidiaries at the end of 1977 plus the requirement that each foreign bank subsidiary's authorized capital be at least $5 million, there should have been no more than 70 foreign bank subsidiaries at the end of 1977. A relatively crude 1979 survey identified 74 foreign banks advertising their presence in Canada. See Short (1979).

See Partridge (1996, B4). On November 8, 1997, the Canadian government formally offered to drop most remaining restrictions on foreign branch banking in Canada.

See Deigon (1991), pp. 334–35. In a number of activities including the underwriting and selling of insurance policies and sales financing, U.S. residents (firms and nationals) were exempted by the FTA from federal ownership restrictions, although no single U.S. shareholder can own more than 10 per cent of the capital of an insurance company. This means that Investment Canada can review acquisitions by U.S. investors of Canadian-owned companies in the sectors if the companies' book asset values exceed the review threshold. Takeovers of Canadian-owned loan and trust companies continue to require the approval of the Minister of Finance.

These provincial regulations override the FTA provisions concerning U.S. investments, so that a U.S. resident is treated like any other non-Canadian in the case of trust companies.

Features of the NEP were elaborated and implemented in the 1982 Canada Lands legislation. This legislation also included a requirement that companies seeking exploration and development rights ensure a high level of Canadian content, including industrial spinoffs, research and development, and the use of Canadian services in such areas as engineering and project management. See Crane (1982), p. 166.

The existing ownership restrictions on frontier lands were criticized by a federal government official for penalizing Canadian-owned companies. The official argued that the policy lowered the market value of Canadian-owned assets by restricting the groups able to bid for those assets.

A detailed summary and evaluation of the WTO agreement is provided in Globerman and Hagen (1997).

In fact, the differences in re-investment rates seemed more closely related to a preference for raising external capital than re-investing earnings. For example, in 1979, foreign-controlled petroleum companies re-invested around 69 per cent of their cash flow. Domestically controlled companies re-invested around 73 per cent of their cash flow in the same year. However, total investment was only around 73 per cent of cash flow for foreign-controlled firms, while it was 100 per cent for domestically controlled firms. In effect, domestically controlled firms were more willing to borrow money to engage in upstream activities in the 1970s. Some of these companies, a notable example being Dome Petroleum, went bankrupt under the weight of this debt during the recession of the early 1980s.

This rationale is not dissimilar to the argument that Canadian suppliers of inputs to the oil and gas sector would benefit from increased domestic ownership of the sector, because domestic companies were more likely to purchase domestically produced inputs.

This phenomenon has been identified in a number of countries aside from Canada. For a comprehensive review of the relevant evidence, see Blomstrom et al. (1996).

Policy effects are therefore estimated holding other effects constant. However, to the extent that FDI policies affect these factors (for example, FDI policies may impact exports or GDP growth), our estimates are biased. To some degree, this potential problem is alleviated by lagging the control variables, as discussed in the text.
We also used the absolute values of imports and exports, but these were collinear with other variables in the equations (notably GDP). However, their use did not change the results reported in the text.

Our argument is simply another application of the idea that all foreign investment in services is driven by foreign investment in general. For another application, see Terpstra and Yu (1988).

Some CDI is a function of foreign-owned Canadian affiliates.

Data on unit labour costs were available for the United States from 1977 onward. The simple correlation between U.S. wages and unit labour costs over the period from 1977 to 1995 was over 0.90.

These data, as well as those for Canadian oil prices, were kindly provided by Carlos Samur of Petro-Canada.

It might seem surprising that nominal and real variables were not stationary. However, all variables measured in real terms were highly correlated with their nominal counterparts, with correlation coefficients in excess of 0.90.

Co-integration tests were repeated on any new specifications to confirm the need for differencing of the data. Co-integration was rejected for all specifications. We also estimated equations using lagged values of the dependent variable, but the results were not different from those reported in the text.

However, a referee has pointed out that this would be true for changes in relative wages and CDI only if the bias changed over time.

Since these results are somewhat at odds with some of the literature, it should be noted that they remain unchanged when exports and imports are not expressed relative to GDP.

This may reflect the fact that the effect of the Auto Pact is measured over a long period. We measured it over a shorter period (up to introduction of the FTA), and this approach did not change the results. However, it is possible that the effects were stronger in the first years of the Auto Pact’s existence.

Unfortunately, similar problems with the Compact Disclosure Data base presented themselves for the other sample industries as well. This potential source of data for inter-company comparisons was therefore abandoned.

It should be noted that differences in the business activities of foreign and domestically owned firms may generate differences in capital-labour ratios and confound the efficiency comparison.

AT&T subsequently increased its ownership share in Unitel to 33.3 per cent.

In an earlier section we discussed the experience of the securities industry, which supported this assertion. Another example is the mutual funds industry. Apparently, American-owned mutual fund companies have been slow to penetrate the Canadian market. One reason may be that, when Canadian investors select domestic assets for investments, they do not see foreign-owned companies as having any particular advantage. See De Santis (January 8, 1997).
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APPENDIX
NATIONAL POLICIES TOWARD INWARD FDI

Until the mid-1950s, the government attitude toward inward FDI was generally to encourage maximum inflows of foreign capital.

1957: Amendments to Canadian and British Insurance Companies Act to ensure that the majority of board members are Canadian and to allow firms to buy shares and convert to mutual companies.


1960: Leases for mineral exploration in Yukon, the Northwest Territories and offshore limited to Canadian citizens or resident corporations provided 50 per cent of the shares are owned by citizens or companies are listed on a Canadian stock exchange.

1964–67: Foreign ownership in Canadian-controlled chartered banks, trust, loan and investment companies limited to 25 per cent of equity, and no single foreign shareholder to own over 10 per cent. Citizenship and residency requirements for majority of directors. (Subsequently, the domestic assets of foreign bank subsidiaries were limited to a percentage of total domestic assets of all banks). Ontario, Alberta and Manitoba prohibit the incorporation of foreign-controlled trust and loan companies.

1965: Amendments to Income Tax Act and Customs Act effectively prevent new foreign-controlled newspapers and periodicals, as well as foreign takeovers of existing newspapers and periodicals under Canadian control. Exemptions allowed for Time and Reader’s Digest but the former eventually discontinues its Canadian edition and the latter undergoes major restructuring.

1970: Foreign ownership of uranium limited.


1974–75: The Canada Business Corporations Act requires a majority of directors of federally incorporated companies to be resident Canadians by 1980.


1975: Establishment of Petro-Canada.


1985–86: Major provisions of the National Energy Program regarding foreign investors are terminated.


1992: Energy Minister announces dismantling of the “Masse Policy.” Among other things, the change allows the sale of Canadian-controlled upstream oil and gas businesses to foreign investors. Oil and gas acquisitions by foreigners are subject to similar review procedures as other sectors.

1994: The foreign ownership threshold for telecommunications holding companies is increased to 33 per cent.

1995: The foreign ownership threshold for cable and broadcasting holding companies is increased to 33 per cent.

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