MICRO

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Start Ups . . .

Announcing a New Publication Series

Up to now, Industry Canada's Publication Program has focused on the publication of research studies. The program is being expanded to include a new series of papers - the *Industry Canada Discussion Paper Series* - which will focus on micro-economic public policy issues of strategic importance. The series will include policy syntheses and general policy papers analyzing the direction a particular policy debate is taking.

These papers will be less rigorous and empirical than Industry Canada Working and Occasional Papers. However, they will be peer reviewed. These papers will not represent views of the department but will reflect views of the author(s) only.

The first in this series has just been released. It is *Multinationals as Agents of Change: Setting a New Canadian Policy on Foreign Investment*. See page 2 for a report on this publication.

In This Issue

...and a New Product

Following repeated requests, Industry Canada will make available upon request its *Monthly Economic Indicators* (MEI). The MEI presents a "round-up" of economic facts in an easy to read and convenient form. The report draws all of its information from public sources, primarily Statistics Canada and the Bank of Canada. Each issue includes sections on growth and competitiveness, capacity gaps, financial conditions, as well as a special monthly report.

"From the Competitiveness Notebook" (page 9) contains a summary of the special report on small business that appeared in the October issue of the MEI. Future issues of the MEI will include special reports on direct investment into and out of Canada; a detailed look at the employment/unemployment situation; a focus on Canada's current account; emerging micro-economic tax issues; a regional perspective on economic performance; a look ahead with a survey of economic forecasts; highlighting pressures on cost competitiveness; and a profile of corporate financial performance.

This publication is printed quarterly. Information on all publications can be obtained by phoning the Publications Officer at (613) 947-2068 or by fax at (613) 991-1261. Specific purchasing information can be found on Page 10 of this publication.

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To bring our seasonal designations in line with when our readers receive MICRO, this issue has been designated "Winter 1994". There will be no issue for "Fall 1994".

Canadian Multinationals and FDI Policy in a Time of Change

The trade and investment environment of North America has been transformed dramatically over the past 20 years by pressures coming from two directions.

In terms of market structures, the main shaping force has been widespread trade liberalization in the form of such regional trading arrangements as the 1989 Canada-U.S. Free Trade Agreement and the 1994 North American Free Trade Agreement. International investment liberalization has also gained momentum, causing the further globalization of world markets. In the same period, fundamental new technologies and flexible automation have caused a massive shift from mass production to lean production methods.

These forces have changed the ways in which firms produce and compete with one another. They are already forcing major structural adjustments by business as competition among firms for market share shifts from being national to being regional. In most sectors, global competition is now the norm.

How are the biggest firms in Canada responding to these changes, and what responses should they evoke from the makers of foreign direct investment (FDI) policy?

These questions are addressed in *Multinationals as Agents of Change: Setting a New Canadian Policy on Foreign Direct Investment*, a recently released work by **Lorraine Eden** of Carleton University in Industry Canada's Discussion Paper series.

Professor Eden examines the impacts of regional integration and lean production on multinationals (MNEs) in Canada. She argues that multinational enterprises are international actors faced by change, and, at the same time, they are agents of change. In her view, it is time for government to adopt a new approach to FDI policy -- one that treats multinationals as investment bridges to the global economy and as diffusers of technology within the Canadian economy.

In a brief historical summary, the author traces Canadian treatment of foreign direct investment from 1960 to the present and the development of a "hub-and-spoke" economic relationship between Canada and the United States. Her survey points to the deep integration of the Canada and U.S. economies and she argues that this integration will become even more extensive and multifaceted as a result of the regional trading agreements.

After surveying the trade and direct investment links and intra-firm trade between the two countries, Prof. Eden outlines the effects of regional integration and technological change on MNEs in Canada, paying particular attention to their influence on decisions about the function and location of plants.

The author argues that with the advent of regional trading agreements and enhanced economic integration, underlying economic factors will have more impact on MNEs' locational and organizational decisions. Because MNEs are concerned about their shares of global markets, they change the configuration of their activities so as to increase their international competitiveness.

Generally speaking, she expects that MNEs will locate plants and operations with the new wider North American market in mind. More horizontal and vertical rationalization will take place, leading to more intra-firm exchanges. Canada will have to articulate a clear role for itself in a North American regional strategy to attract investment from abroad. Canadian subsidiaries will have to work hard to define a role for themselves within the overall operations of the MNE.

The paper concludes by recommending a new foreign direct investment policy for Canada; one that would not differentiate between inward and outward investment, but that would seek to maximize the gains to Canada from MNE activities in both directions. The principal policy direction proposed is for Canada to develop a new national policy centred on the strategic integration of Canada into the global economy. The goal of this new strategy is to achieve long-run national competitiveness by emphasizing the removal of tariff and non-tariff barriers to trade and investment, by making a commitment to the knowledge-based economy with its focus on innovation, competition and sustainability and by focussing on a national education policy for the 21st century.

This strategic integration policy would be supplemented with other efforts including:

- getting the basics right by dealing with the deficit, macro-economic policy, regulatory burden and the duplication of government services;
- moving from confrontation to cooperation with MNEs in Canada;
- securing access to the U.S. market;
- reducing state aids to business and adopting a free trade zone strategy; and
- upgrading to best practice technology by attracting best practice multinationals to Canada.

The paper notes that in the new environment of globalized markets, governments and MNEs are "partners in the race to engineer competitive advantage". Given the rising importance of MNEs and the growing importance of intra-firm trade, increasingly Canadian foreign and trade policies will have to focus on MNEs and their investments.

UNCTAD's 1994 Report Traces TNC Investment Patterns

An annual milestone event in financial circles is the publication of the United Nations Conference on Trade and Development's (UNCTAD) World Investment Report — the world's only comprehensive source of data on global foreign direct investment (FDI).

The release of this year's report, *Transnational Corporations, Employment and the Workplace*, was accompanied in Canada by a media briefing on its salient findings. The briefing was given by **Alan Nymark**, Assistant Deputy Minister, Industry and Science Policy, and **Sylvia Ostry**, Chairman of the Centre for International Studies at the University of Toronto.

Commenting on the implications of the report for Canada, Nymark and Ostry agreed that domestic policy needs to focus on providing an attractive environment for investment. The Report finds that as TNCs battle for competitive advantage by globalizing their production and investment, their choices of locations for both are increasingly determined by such factors as regional growth rates, relative labour costs and the existence of pools of skilled labour and technology. The more the investment, the more attractive the location, as the supply base is upgraded and its technologies improve. On this basis, East Asia and Latin America will become increasingly attractive locations.

UNCTAD's figures document the impressive global clout of TNCs. They now number some 37,000, the top 100 of which hold about $3.4 trillion in assets - about $1.3 trillion outside their home country. TNCs control over 200,000 affiliate firms.

As a result of their global production and investment networks, TNC's control one third of world output, about one-third of world trade, and some 80% of international royalty payments take place on an intra-firm basis.

TNCs directly employ around 73 million people. This represents nearly 10% of non-agricultural employment worldwide and close to 20% in developed countries. Indirect employment effects are much larger, with total associated employment estimated at about 150 million.

Job growth

The UNCTAD report shows that direct and indirect employment by TNCs expanded in the 1980s and early 1990s but more slowly than worldwide FDI. Employment growth was concentrated among foreign affiliates in developing countries, where FDI generally took the form of greenfield investment, leading to job creation. Investment and employment increases were particularly concentrated in South, East and South-East Asia and in Latin America. The most important driving forces were rapid economic growth, privatization programs open to foreign investors, and the liberalization of direct investment regulatory frameworks.

Meanwhile, employment in parent firms generally stagnated or declined, as FDI concentrated on mergers and acquisitions and/or labour-saving technological improvements. However TNC employment is associated with important qualitative improvements and it is here that developed countries profited, since a high proportion of the stock of existing TNC investment is concentrated in these countries.

Employee benefits

TNCs offer higher wage levels, better working conditions and better social security benefits than domestically-oriented firms.

TNCs also provide well-developed training and upgrading programs to their employees. It is difficult to measure the impact of these activities in terms of comparative advantage but, with competitiveness and economic growth increasingly dependent on knowledge-based man-made resources, it is certainly important. The catch is that it takes satisfactorily high existing levels of skills and education to attract investment and realize the advantage.

The report emphasizes the critical role that national governments have to play in education and human resource development. Governments must coordinate policies for human resource development with measures to promote FDI and channel FDI into strategic areas that maximize TNCs' long-term contributions to national productive capacities.

Labour markets

The Report suggests that the growth of an internationally integrated production system raises important new issues for the institutional organization of domestic labour markets. Specifically, there is a need for government, business and labour to adapt more readily to change.

In closing Dr. Ostry noted that, increasingly, "domestic" policies do not play as purely domestic issues since they often have the potential to hinder the free movement of international trade and investment. This, in fact, has become the focus of the post-Uruguay Round trade policy agenda. Harmonization or coordination of environmental policies, competition policies and labour standards are the issues around which international trade debate now centres.

What Does It Take To Win A World Product Mandate?

The merit badge of the successful subsidiary of a multinational is the corralling of a world product mandate — being designated by the parent company to produce a given item not just for the home market but the global one.

And like merit badges, world product mandates have to be earned by initiatives.

A forthcoming paper by **Julian Birkinshaw** of Western Business School, Ontario, examines an array of business initiatives which won world product mandates for five large Canadian subsidiaries of large U.S. firms, As defined by the author, a subsidiary's "initiative" is the package of activities conceived and carried out by the subsidiary to land its world product mandate. These range from action taken to identify the opportunity in the first place to the measures subsidiaries take to persuade their parent firms that the mandate should be theirs.

Birkinshaw examines three main questions:

▸ What forms do these subsidiary initiatives take?

▸ What processes do subsidiary managers follow in pursuit of them?

▸ What distinguishes the successful initiative from one that does not come off?

Digging deeper the author investigates the influences that spark these initiatives and looks at the influence of public sector policy in the process.

He identifies four distinct types of mandate-winning activities:

▸ **Reconfiguration**. In this case, the subsidiary shows the parent company a way to allocate existing corporate assets or resources more efficiently. Typically, the subsidiary promotes the conversion of a branch plant to a world-scale production facility. Key factors in the success of such an initiative are timing, strong leadership by key individuals in management, the quality of the relationship with parent management and -- last but not least -- the ability to present a compelling proposal to the parent firm.

▸ **Local-Market Initiative.** In this approach the subsidiary builds a world product mandate on the base of an opportunity first identified in its own home market. Here, the vital ingredients of success include a high level of autonomy and local presence enjoyed by the subsidiary; a strong creative or entrepreneurial cast to its corporate personality, and compatibility between strategic goals of parent and subsidiary companies.

▸ **Mandate Extension**. This kind of initiative is sparked when the subsidiary, in the course of traditional business development, detects an opportunity to use existing capabilities to meet an international market opportunity. In the companies surveyed, the key factors in success were the existence of a solid business proposal, a high level of autonomy in the subsidiary, a successful track record and, again, a strategic fit with the parent company,

▸ **Competitive Bid Initiative**. In this case, the subsidiary typically finds itself in head-to-head competition with sister subsidiaries in order to earn the right to a global mandate. Successful bids are identified as requiring: (a) a competitive proposal; (b) high credibility with the parent; and (c) championing and selling efforts.

The survey also identifed other trends which appear to favour such initiatives. Mandate-winning companies tended to be those whose parent firms had assigned them steadily increasing responsibilities over time and whose corporate personalities included an openness to initiatives from their subsidiaries.

Finally, what kind of business environment fosters these initiatives? Birkinshaw's list includes a liberal trading regime, high levels of intra-industry competition, the presence of demanding, leading-edge customers, a well-educated and entrepreneurial workforce, a supportive business infrastructure, and a diverse society.

The Role of R&D Consortia in Technology Development

Research and Development alliances between businesses, universities and governments are playing an increasingly important part in business and national strategies for development. Extending both vertically and horizontally and linking both domestic and foreign companies, these coalitions are formed to share the costs and risks of pre-competitive R&D. They are particularly common in technology-intensive industries such as electronics, pharmaceuticals, computers and aerospace and are showing up even in more traditional ones such as automobiles and textiles.

In a working paper prepared for Industry Canada, **Vinod Kumar** and **Sunder Magun** (of Carleton University) focus on the growth of R&D consortia in the United States and on the extent and the nature of Canadian participation in them.

The authors find that the main factors driving the growth of R&D consortia include technological progress and globalization of the world economy. Over the past 40 years, this trend has been accompanied by an expansion of international linkages among multinational firms. In the process, multinational enterprises have served as the prime engines of globalization, permitting a worldwide approach to managing manufacturing, sourcing, marketing — and R&D.

Another factor contributing to the proliferation of these alliances is an increasingly activist approach by government to the shaping of nations' comparative advantages. This stems from a recognition that in advanced economies, a nation's comparative advantage is determined more by active industrial, and/or technology policies rather than by factor endowments. Both Japan and the European Community, for example, have used active industrial policies to improve the international competitiveness of such strategic industries as semiconductors and commercial aircraft. And, currently, both the United States and Canada are stimulating the formation of technology consortia through their new or expanded technology programs.

U.S. Consortia:

U.S. technology consortia and their accessibility to Canadians come in for special attention in this study. The authors examined various legal and institutional barriers that Canadian companies face when they set out to join in U.S. technology consortia, particularly those that are financially assisted by the U.S. government. They also compiled a profile of the leading American R&D consortia, analyzed the role government plays in supporting them and cast a searching eye on the extent of foreign membership in them.

In a sample survey, the authors found meagre participation of Canadian companies in American R&D — of 60 consortia members surveyed, only one was Canadian.

More importantly, Canadian firms are not allowed to participate in large and leading consortia that are funded by the US Federal Government. Canada, for instance, is restricted from participation in cooperative R&D projects supported by the NIST's Advanced Technology Program and Sematech.

Interviews with consortia participants and government officials suggested three additional barriers to Canadian participation.

- One is the stalemate in attempts to reach an umbrella intellectual property agreement between Canada and the United States. The US government wants a bilateral agreement that establishes some guidelines for sharing the intellectual property rewards of collaborative research.

- Generally speaking, Canadian companies tend to be unenthusiastic about joining American consortia because the kind of advanced R&D they do does not translate quickly into products. Canadians are more interested in applied research with quicker commercial results.

- Canadian companies find that membership fees of American technology consortia are too high.

To get a domestic perspective on these issues, Industry Canada conducted two consultative workshops with Canadian companies, research institutes and universities in March 1994. Discussions centered on three broad themes: reasons for low participation of Canadian firms in foreign technology consortia, the barriers they face and the potential role of government.

Several participants said that it was necessary to view the problem in perspective. Canadian companies are small- and medium-sized enterprises and they specialize in market niches. When they form technology alliances, it is usually for "near-market" or applied research in conjunction with market alliances into which they have entered to compete globally. In short, Canadian participation is low only in precompetitive technology consortia.

Participants in the workshops confirmed the existence of barriers to Canadian participation in U.S consortia, and even more extensive ones in Europe and Japan. None of these, they thought, were insurmountable for companies with the necessary expertise in a given technology, or which had strong R&D infrastructure.

Where does public policy fit into the equation? Some workshop participants argued that government's role should be limited to providing stronger R&D and university infrastructure or helping along the formation of horizontal consortia that emphasize basic research. Others suggested that the federal government stimulate domestic technology consortia by providing direct subsidies or by instituting government procurement policies that support that goal.

Distinguished Speakers in Economics Series: Focus on Trade and Investment Liberalization

At regular intervals, Industry Canada invites experts to present their views on selected critical issues in its *Distinguished Speakers in Economics Series*.

In the most recent lectures in the series two distinguished economists, Dr. **Steven Globerman** and Dr. **Richard Harris** of Simon Fraser University, examined the impact of falling barriers on international investment and trade.

As the framework for his discussion, Professor Globerman reviewed the research findings and policy implications contained in *Canadian-Based Multinationals*, the most recently published Industry Canada research volume.

The message of the reseach, he concluded, was that outward investment is good not only for the economic health of the investors but for the countries in which they are based, and he cites the following beneficial effects:

▸ outward investment does not impair domestic capital formation;
▸ it complements rather than substitutes for trade; and
▸ it encourages specialization of production, a trend which is associated with productivity improvements and increased trade flows. Outward investment also appears to promote specialization of R&D and stimulate home country innovation. The productivity of domestic R&D is therby improved while facilitating a two-way flow of innovative practices and products between home and host countries.

Professor Globerman notes also that specialization of production is more likely to affect the structure of employment rather than the number of jobs in the economy, and that higher-paid, knowledge-based jobs tend to concentrate in higher-productivity countries.

Despite these benefits, Dr. Globerman contends, the government should not directly promote outward foreign investment. He noted that the most effective way to encourage international investment flows, in any case, is through continued multilateral liberalization of the world trade and investment environment.

Evaluating WHFTA

In a lecture, titled *Human Capital and Dynamic Gains from Economic Integration of North and South America,* Professor Harris looked at the potential impact of the economic integration of Canada and the United States with Latin America in a Western Hemisphere Free Trade Agreement (WHFTA).

He noted that the literature on measurable dynamic gains from trade is large on vision and short on actual numbers. To estimate one potential source of gains from integration, Professor Harris used a variant of a conventional two-country model of economic growth grounded in a dynamic factor endowments-based theory of trade.

In this theory, international differences in productivity and income levels are traceable to differences in human resources, including education and skills levels.

This provides a framework in which some of the long term effects of slow-moving changes in the aggregate skills of human populations can be incorporated for empirical analysis.

Applied to WHFTA over a 20- to 30- year time frame, the long-term results produced by this model differ substantially from those suggested by most static trade-based models. For Latin America, long-run multipliers on income gains tend to be about 2 to 3 times those arrived at with trade models, and - 2 to + 2 in the case of North America

In general the results suggest that WHFTA could produce a strong negative diversion of investment from North America. On the other hand, the sharp differences in human capital intensity between regions would serve as a counter weight, resulting in an extremely long transition period and a slow movement of capital from the rich North to the South.

Distinguished Speakers in Economics Series

Schedule for 1994-95

This year's *Distinguished Speakers in Economics Series* is already underway. Here is the schedule for the remainder of the season:

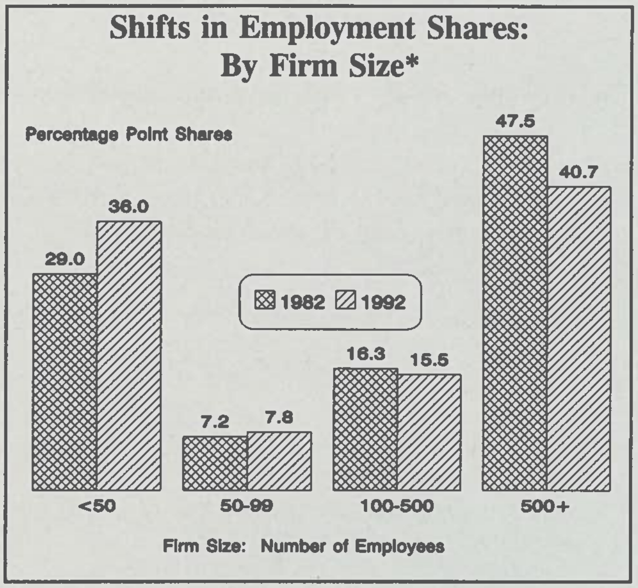
January 6, 1995 — PAUL ROMER, University of California, Berkeley, on "*R&D and Knowledge-based Growth*"

February 17, 1995 — ANDRÉ RAYNAULD, Institute for Research on Public Policy, on "*Labour Markets and Structural Change*"

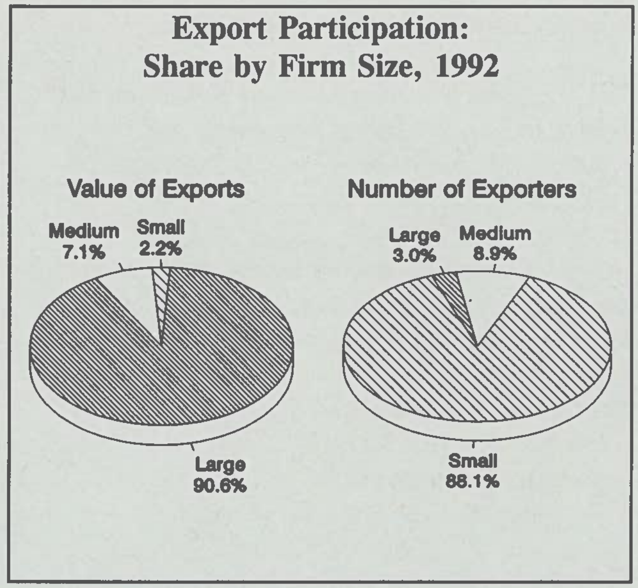
March 24, 1995 — ELHANAN HELPMAN, Tel-Aviv University, on "*Trade Policy and Politics*"

April 21, 1995 — SYLVIA OSTRY, Centre for International Studies, University of Toronto, on "*The New Trade Agenda, Post Uruguay Round*"

Growing Importance of Small and Medium Sized Enterprises



Source: Small Business Data Base



Source: Statistics Canada

- Small and medium sized enterprises (SMEs) play a key role in the economy in terms of employment and production. Equally or even more important, SMEs introduce dynamism and flexiblity into the system. These qualities are necessary to competitiveness and are particularly important as the Canadian economy moves to a more knowledge-based, higher value-added system.

- Small businesses are manufacturers with under 100 employees or service sector firms with fewer than 50 employees. Medium sized enterprises have up to 500 employees.

- The trend in most industries has been towards smaller production units. The average number of employees per firm in manufacturing fell from 41 in 1982 to 34 in 1992.

- SMEs produced 57% of GDP in 1992 and make up 99% of Canada's 2.1 million businesses. Their share of employment in the economy rose 6.8 percentage points between 1982 and 1992. Over 70% of jobs created in the first seven months of 1994 were attributed to firms with 50 or fewer employees.

- SMEs are expanding outward into global markets. The number of SME exporters has grown rapidly from 33,000 in 1986 to 73,000 by 1992. The new exporters are from a much broader range of industries than Canada's traditional large exporters. They tend to specialize in "niche" exports -- goods and services overlooked by large businesses. SMEs now account for about 9% or $14 billion of merchandise exports.

PUBLICATIONS

NOW AVAILABLE

Industry Canada Working Paper Series

No. 1 - *Economic Integration in North America: Trends in Foreign Direct Investment and the Top 1,000 Firms*, Micro-Economic Policy Analysis Staff, January 1994.

No. 2 - *Canadian-Based Multinational Enterprises: An Analysis of Activities and Performance*, Micro-Economic Policy Analysis Staff, June 1994.

No. 3 - *International R&D Spillovers Between Canadian and U.S. Industries*, Jeffrey I. Bernstein, September 1994.

Industry Canada Occasional Papers

No. 1, Vol. 1 - *Formal and Informal Investment Barriers in the G-7 Countries: The Country Chapters*
No. 1, Vol. 2 - *Formal and Informal Investment Barriers in the G-7 Countries: Summary and Conclusions*

Industry Canada Discussion Paper Series

No. 1 - *Multinationals as Agents of Change: Setting a New Canadian Policy*, Lorraine Eden, November 1994.

Joint Publications **

Infrastructure and Competitiveness
(with the John Deutsch Institute)
Editors: Jack Mintz and Ross S. Preston

FORTHCOMING

Industry Canada Working Paper Series

The Economic Impact of Mergers and Acquisitions

Steppin' Out: An Analysis of the Education Experiences and Early Labour Market Outcomes of a Panel of Recent Science and Non-Science University Graduates

Industry Canada Occasional Paper Series

Gender Tracking in University Programs: An Analysis of Gender Patterns in Canadian Scholarships Program Disciplines and Non-CSP University Disciplines

Business Development Initiatives in Multinational Subsidiaries

Competition Policy as a Dimension of Economic Policy: A Comparative Perspective

Monthly Economic Indicators

January - Economic Outlook
February - Focus on Competitiveness
March - Canada's Current Account

Information on all Publications mentioned above can be obtained from: *Corinne Nolan, Micro-Economic Policy Analysis, Industry Canada, 5th Floor, West Tower, 235 Queen Street, Ottawa, Ontario, K1A 0H5. Tel: (613) 947-2068, Fax: (613) 991-1261.*
* Research Volumes are available from the *University of Calgary Press, tel: (403) 220-7578, fax: 1-800-668-0821.*
** Joint publications can be purchased through *Renouf Publishing Company Ltd., tel: (613) 741-4333; fax: (613) 741-5439.*