Industry Canada Industrie Canada

Micro

Volume 5, Number 4
Winter 1998

Micro-Economic Policy Analysis Branch Bulletin

In this issue ...

Canada's Response to Global Economic Integration

In today's world, globalization and increasing international trade have become powerful forces for change in Canadian business. At the microeconomic level, firms seek to survive by increasing productivity in order to compete effectively in the global economy. In search of these goals, they embark on far reaching restructuring and introduce new technologies. Governments strive to enhance productivity by reducing barriers to trade and investment and by streamlining regulatory barriers and other impediments to the free flow of productive resources across economic activities.

These forces and changes are having a profound impact on the fundamental structure of firms and of national economies. While having obvious economic implications, they also have significant consequences for other aspects of the political economy. Rising income inequality has given rise to concerns about the social impact of rapid introduction of new technologies. As well, the reduction of trade barriers and the streamlining of regulatory structures have caused speculation about the future of nation states.

These issues are all rich territory for economic analysis, and this issue of *MICRO* looks at a sampling of works on various aspects of Canada's response to global economic integration. In this context, Sunder Magun examines the recent experience in restructuring of Canadian industries. Surendra Gera, Wulong Gu and Frank Lee investigate the causes of the slowdown in productivity growth in Canada. In the area of regulatory barriers, Ramesh Chaitoo and Michael Hart look at the progress made in attempting to remove internal barriers to trade, while Edward Graham investigates the role of investment and competition policy at the international level.

Also featured in this issue of *MICRO* are reports on presentations made by Professor Edward Leamer on the links between trade, technology and income inequality, and by Professor John Helliwell on the importance of national borders in the global economy. Both presentations were made under the auspices of Industry Canada's Distinguished Speakers in Economics Program.

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INDUSTRY CANADA RESEARCH AND PUBLICATIONS PROGRAM

RECENT RELEASES

WORKING PAPER SERIES.

No. 24: *Canadian Government Policies Toward Inward Foreign Direct Investment,* Steven Globerman and Daniel Shapiro.

This study evaluates the importance of formal and informal restrictions to foreign investors in Canada, and analyzes the net benefits to Canada of selectively restricting inward FDI. It draws upon case studies and existing theoretical and empirical literature both in economics and international business.

OCCASIONAL PAPER SERIES

No. 20: *Aboriginal Businesses: Characteristics and Strategies for Growth,* David Caldwell and Pamela Hunt.

This report seeks to deepen the understanding of Aboriginal businesses and their prospects for success or failure. It explores goals and strategies of Aboriginal businesses, and factors contributing to their growth, such as skills, markets, technology, financing and use of government support.

FORTHCOMING

WORKING PAPER SERIES

No. 25: *A Structuralist Assessment of Technology Policies - Taking Schumpeter Seriously on Policy,* Richard G Lipsey and Kenneth Carlaw.

No. 26: *Intrafirm Trade of Canadian-based Foreign Transnational Companies,* Richard A. Cameron

No. 27: *Recent Jumps in Patenting Activities: Comparative Innovative Performance of Major Industrial Countries, Patterns and Explanations,* Mohammed Rafiquzzam and Lori Whewell

No. 28: *Technology and the Demand for Skills: An Industry-level Analysis,* Surendra Gera, Wulong Gu, and Zhengxi Lin.

ANNOUNCEMENT

DISTINGUISHED SPEAKERS IN ECONOMICS PROGRAM

Please see page 15 of this issue for the schedule of speakers for Spring 1999.

Note: Regular readers of *MICRO* will notice that we have a new masthead. To underline *MICRO*'s connection with Industry Canada, we are adopting the Industry Canada logo. This logo shows a horizon, representing the frontiers of the global marketplace and the new information age. The glow signifies the vision of the future and the rays symbolize communication.

MICRO is a quarterly newsletter highlighting micro-economic research findings, published by the Micro-Economic Policy Analysis Branch of Industry Canada. This edition was prepared under the general editorship of William Horsman. Rick Cameron has also contributed to this issue. Abstracts of Industry Canada research volumes, and the full text of working papers, occasional papers, discussion papers, and MICRO can be accessed via STRATEGIS, the Department's online business information site, at http://strategis.ic.gc.ca. For more information about our research publications, or to place an order, contact the Micro-Economic Policy Analysis Branch, Industry Canada, 5th Floor, West Tower, 235 Queen Street, Ottawa, ON, K1A 0H5. Telephone: (613) 952-5704; e-mail <micro.news@ic.gc.ca>; or facsimile: (613) 991-1261. ISSN 1198-3558.

Restructuring in Canadian industry has created more jobs than it has eliminated.

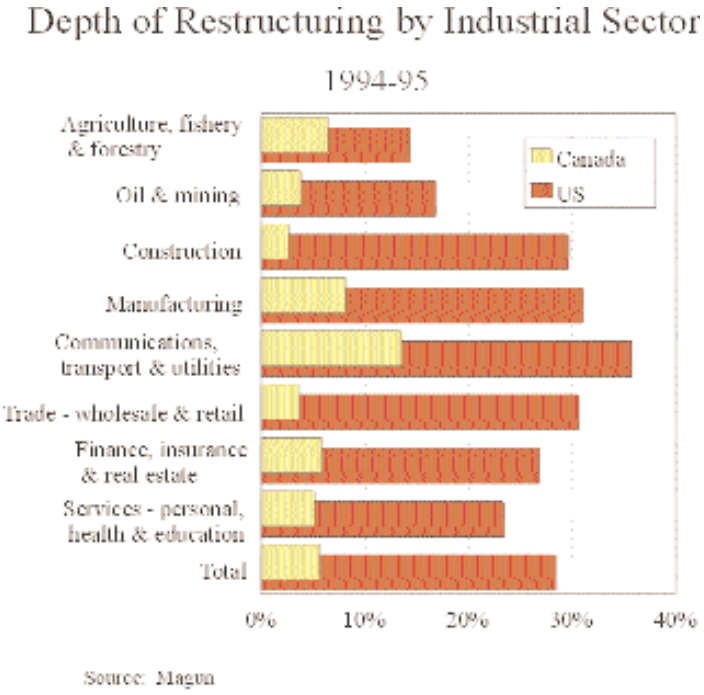
Restructuring in Canadian Industry

In recent years, Canadian companies have embarked on a wide ranging effort at organizational and operational restructuring. However, restructuring is not a new process. Canadian firms have always had to adjust to changes in the marketplace. The difference today is that the globalization of business and rapid technological changes have made the marketplace more complex and have intensified competition between firms and nations. These global trends have increased marketplace uncertainty and turbulence, forcing Canadian firms to reevaluate their activities and strategies to an unprecedented degree.

Restructuring is one of the ongoing, dynamic, competitive processes at play within the economy. It seeks to transform an organization by reframing its corporate orientations or market focus, by rationalizing its production structure or processes, by merging it with other firms, or by taking over other businesses. It attempts to respond to a variety of long-term factors, such as demographic shifts, technological changes, the emergence of new competitors, and changes in consumers' tastes or in public policies. If firms do not adjust to these trends, they either decline or disappear from the marketplace.

Sunder Magun takes a closer look at the microeconomics of restructuring in a recent paper entitled *Restructuring in Canadian Industries: A Micro Analysis.* The author collected data from a sample of business firms that underwent restructuring during 1994-95, including many prominent organizations: Air Canada, Hudson's Bay Company, Hydro-Québec, Petro-Canada, Brascan, and the Bank of Nova Scotia. In general, he found that many Canadian companies have improved their profitability, productivity and international competitiveness by restructuring their core business processes and functions and their organizational structures.

Magun notes, however, that restructuring is nowhere as deep in Canada as in the United States, a phenomenon observed across all industrial sectors.



Source: Magun

For example, the relative incidence of restructuring in the Canadian manufacturing sector is only 8 percent, whereas the comparable figure for the American manufacturing sector is 31 percent. This leads Magun to speculate that the recent widening in the productivity gap between the Canadian and U.S. manufacturing sectors could be attributed to a much greater restructuring effort in the United States compared with Canada.

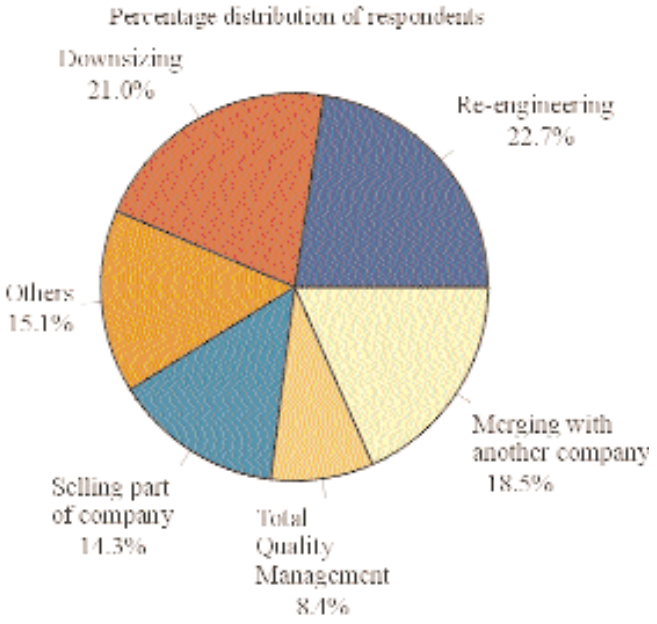
Canadian firms are very optimistic about the results of restructuring.

The author found that more than half of the firms that have restructured in recent years belong to the services sector, including trade, financial, educational, health and community services, as well as transportation, communications and public utilities. In contrast, only one quarter of firms that have undergone restructuring belong to the manufacturing sector. However, when restructuring does occur, it is relatively deeper in the manufacturing sector. While 18 percent of all Canadian companies belong to the manufacturing sector, the proportion of manufacturing companies that have gone through a restructuring exercise is 25 percent. The experience is similar to observed in the United States, although the U.S. manufacturing sector is affected relatively more by the current wave of restructuring.

Within the services sector, the finance, insurance and real estate industries have experienced wider restructuring. Over half of the restructured firms in the services sector belong to these industries. This outcome is attributable mainly to the impact of information technology and to the deregulation of financial institutions in Canada. In contrast, within the manufacturing sector, most firms that have restructured belong to heavy industries such as machinery and equipment, fabricated metal, electronic and electrical equipment, and transportation equipment. This result can be explained by the introduction of computers, numerically controlled machines and robotics technologies. Again within manufacturing, fewer restructured firms belong to light manufacturing industries, such as food products, textiles and apparel, and paper and paper products.

Magun found that Canadian firms restructure their organizations to meet global and domestic competition, to adopt new technologies, to maintain or improve market share, or to improve their stock's performance. Maintaining or improving market share is a key reason for initiating restructuring. About half of respondents considered this factor the most important in their firm's decision to undertake a restructuring effort. Two other reasons were rated very highly by respondents: meeting domestic competition and meeting global competition. Rising domestic or global competition may threaten a company's market share and compel it to redesign its organizational systems and structures. Individually and collectively, all three factors alter the organizational environment and, consequently, lead to the restructuring of a company.

Forms of Restructuring in Canadian Companies, 1996



Source: Magun

Canadian firms are very optimistic about the results of restructuring. The majority of respondents believed that restructuring had increased revenues and productivity, while reducing costs. The results of

Why are policy makers so preoccupied with the slower growth of productivity?

this survey also suggest that, on average, restructuring has created relatively more jobs than it has eliminated. This finding is contrary to the popular view that restructuring always eliminates jobs. It is true, however, that restructuring has led to "churning" in the labour market, and that many workers have been displaced because certain skills and occupations are no longer in demand, but the process has created numerous new jobs.

The Slowdown in Productivity Growth in Canada

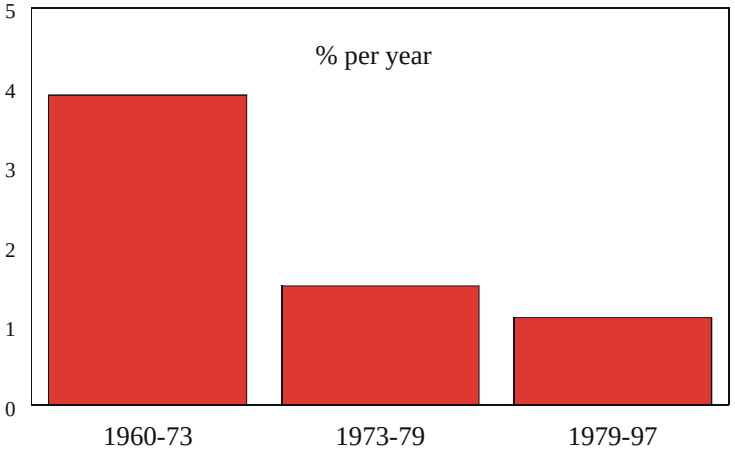
Slowing productivity growth in recent years has been one of the major economic concerns shared by policy makers in the major economies of the Organization for Economic Cooperation and Development (OECD). For example, labour productivity in the Canadian business sector grew at an average rate of 2.9 percent over the period 1960-73. However, from 1973 through 1996, the average annual productivity growth fell to 1.1 percent. Similarly, in the United States labour productivity growth declined from 2.6 percent annually during 1960-73 to 0.7 percent during 1973-96.

Why are policy makers so preoccupied with the slower growth of productivity? Their concern arises from the fact that productivity is the main source of improvement in our standards of living. In recent years, social commentators have frequently decried the fact that, because of slower income growth, the current generation of young people do not expect to be better off than their parents' generation. Slower income growth and stagnant living standards in industrialized countries can ultimately be attributed to the slowdown in productivity growth since 1973.

Productivity is a prime determinant of economic well-being, especially as it affects the international competitiveness of Canadian industry in the global economy. This in turn has profound implications for job creation, income growth and future economic development.

Labour Productivity* Growth in Canada

Business Sector



Source: Statistics Canada

*value added per hour worked

Productivity is defined as a ratio of output to one or more inputs. When output per unit of input rises, it is possible for some people to consume more without others consuming less, or even, in principle, for everyone to consume more. When productivity rises, there is a social dividend to distribute. This can make less painful the choice between producing more goods and services for consumers and maintaining social services such as the health care system. Because productivity is such a vital determinant of

living standards and resources available for private and social consumption, it is essential that economists understand clearly the causes of the slowdown in productivity growth.

In an effort to contribute to this understanding, Surendra Gera, Wulong Gu and Frank C. Lee investigate the causes of slower productivity growth in a paper entitled *Capital-Embodied Technical Change and the Productivity Growth Slowdown in Canada.* In particular, they look at the role of the vintage effect, which states that new capital is more productive than old capital, in seeking to explain the slowdown in productivity growth.

They find that previous studies of productivity growth in Canada have been inconclusive in identifying the reasons for the slowdown. Possible factors examined in these studies include: slower growth in research and development (R&D) intensity; a slowdown in infrastructure spending; a lack of technological progress in several mature industries; inter-sectoral shifts in output and labour toward services; and the reduced importance of the "catch-up" bonus. However, none of these earlier studies considered the vintage effect.

This study focuses on three factors to explain the post-1973 productivity growth slowdown in Canada: First, the *vintage effect*, or the embodiment hypothesis, suggests that new capital is more productive than older capital because new capital is more likely to embody best-practice technologies. Accordingly, as a country's capital stock ages, productivity performance suffers. Second, the *productivity catch-up hypothesis* assumes that technology diffuses from more technologically-advanced industries to laggards. The more Canadian industries lag behind their U.S. counterparts in technology, the greater the opportunities the former have to imitate and purchase advanced technologies and thus increase productivity growth. Third, the paper analyzes the implications of *growth in the capital-labour ratio* across Canadian industries for the productivity growth slowdown.

The main results of the study can be summarized as follows:

First, the trend towards a younger capital stock has weakened in Canada since 1973. Empirical analysis shows that this factor has contributed somewhat to the slowdown in labour productivity growth. It explains about 14 percent of the slowdown in total factor productivity growth and 7 percent of the post-1973 slowdown in labour productivity growth in Canada. The effect is mainly driven by a decrease in the rate of capital-embodied technical progress after 1973. Another interesting result is that this trend was much more pronounced in machinery and equipment than in non-residential structures.

Second, the catch-up effect, although an important source of productivity growth, was not an important factor behind the slower productivity growth.

Third, capital accumulation actually enhanced Canada's labour productivity growth.

These findings lead the authors to conclude that capital-embodied technical change (the vintage effect) has been a major factor in the post-1973 productivity growth slowdown across Canadian industries. This interesting result suggests that further work on the rate of technical progress in Canadian industry and the reasons for its decrease could be particularly useful in deepening our understanding of the productivity growth slowdown in Canada.

Canadians seem to have had less success in reducing regulatory barriers to trade in 130 years than Europeans who have been working together toward a common market for about 40 years.

A European Lesson for Canada on Removing Barriers to Internal Trade

Remarkable advances in information-processing technologies, coupled with progress in bringing down barriers to cross-border trade and investment, have led to a quantum leap in the internationalization of economic activity. Production is steadily being reorganized on a global or regional scale, and the nature of international transactions reflects this evolution. These changes have exerted significant pressures on Canadian firms to become more efficient in order to compete successfully in the global market.

Canada first responded to the competitive challenge of globalization by entering into the Canada-U.S. Free Trade Agreement in 1988, and the North American Free Trade Agreement soon thereafter. These agreements have resulted in a fundamental restructuring of domestic production that, in the aggregate, is believed to have boosted efficiency and made Canadian firms more competitive as they now produce for a larger market. In addition, the completion of the Uruguay Round of multilateral trade negotiations in 1994 and the subsequent creation of the World Trade Organization have led to further liberalization of international commerce, allowing Canadian firms access to ever larger markets.

Nevertheless, while most of these changes have occurred at the border and were initiated at the federal level, barriers to interprovincial trade have persisted in the Canadian market. The incomplete nature of Canada's internal economic integration has perpetuated inefficiencies in the domestic market because Canadian producers cannot benefit from economies of scale in many sectors. This has also adversely affected the international competitiveness of Canadian firms and has prevented them from benefiting fully from the opportunities of globalization. In recognition of this, an attempt was made to address interprovincial trade barriers in the Agreement on Internal Trade put together in 1995. How well has the Agreement worked?

In Industry Canada's Occasional Paper Number 18, Ramesh Chaitoo and Michael Hart, from the Centre for Trade Policy and Law at Carleton University, assess the Agreement on Internal Trade and compare it to the European Union experience with the removal of regulatory barriers to trade. They come to the provocative conclusion that Canadians seem to have had less success in reducing regulatory barriers to trade in 130 years, than Europeans who have been working together toward a common market for only about 40 years. The authors also suggest that Canadians could learn much from the European experience.

The European approach reflects a supranational strategy in which independent countries devolve some of their sovereign powers to regional institutions and processes. The language of the European Union's legislation is strong and binding on its members and is carried out through regulations, directives and decisions. Within the European Union, the Commission and Court of Justice have extensive authority to ensure compliance with the objective of an integrated internal market.

The competitive challenges of globalization dictate that the inefficiencies caused by regulatory barriers to trade in the Canadian market be eliminated.

In contrast, the Canadian approach to removing interprovincial trade barriers is based on actions initiated by individual provincial governments. The language of the Canadian interprovincial trade agreement is weak and relies on persuasion and good intentions on the part of provincial authorities. Chaitoo and Hart conclude that within the Canadian economic union, compliance with the Agreement on internal trade remains largely a matter of political will and intergovernmental negotiations.

The authors argue that this negotiated process has begun to resemble negotiations between sovereign states where reductions to regulatory barriers are concessions to be traded and bargained away. In their view, this has lent such barriers a perverse sense of legitimacy and has further embedded them into the political economy of the country, resulting in repeated failures to reduce them effectively. This assessment leads them to conclude that Canadians seem to have had less success in reducing regulatory barriers to trade in 130 years than Europeans who have been working together toward a common market for about 40 years.

According to Chaitoo and Hart, internal regulatory reforms in Canada seem less concerned with general welfare or economic efficiency and more with the demands of interest groups. They conclude that the Agreement on Internal Trade is only a first step in the task of significantly reducing regulatory barriers. The lesson from the European Union is clear: political commitments are not good enough; legal provisions are needed to ensure that future governments do not reverse earlier reform efforts.

To strengthen the liberalization process in Canada, Chaitoo and Hart make the following recommendations:

- The decision-making process of the Agreement on Internal Trade should be changed from a consensus approach to a qualified majority vote formula.

- The Committee on Internal Trade should be empowered to adopt measures for the mutual recognition of regulations and administrative actions of member provinces.

- The Internal Trade Secretariat should be given a formal role in the Agreement to promote, in conjunction with the Standards Council of Canada, conformity of standards and regulations on a national scale.

- A mandatory notification system for new regulations should be introduced in the Agreement.

- The Agreement on Internal Trade should be amended so that the dispute resolution procedures apply to regulatory measures and regimes.

- Attempts should be made to ensure the effective enforcement of the Agreement by conferring rights on *individuals* and not only on provincial governments.

The competitive challenges of globalization dictate that the inefficiencies caused by regulatory barriers to trade in the Canadian market be eliminated. If all levels of government in Canada do not act to address these challenges, serious harm could result for Canadian consumers and producers. It is therefore worthwhile to take bold steps and make the necessary policy changes now rather than later in order to minimize the pain of adjustment.

The new barriers to trade are mostly found behind the national frontier and are internal to the domestic economy of a trading nation.

Should Competition Policy Be Implemented at the National or International Level?

Successive rounds of multilateral trade negotiations have led to substantial reduction or even elimination of tariffs and other traditional non-tariff barriers to trade. However, many persisting hindrances to market access do not fall into the category of traditional trade barriers. Indeed, some new obstacles to trade have risen precisely as substitutes for fallen traditional barriers. The newly identified barriers are mostly found behind the national frontier and are internal to the domestic economy of a trading nation. They can include domestic regulatory policies which often favour established, incumbent firms by postponing or preventing the entry of new competitors, whether domestic or foreign, into regulated markets.

In recognition of this, at the first ministerial-level meeting of the World Trade Organization (WTO), held in December 1996 in Singapore, ministers of the member nations authorized the formation of working parties to examine whether rules should be added or changed in the body of multilateral trade law in order to address issues related to trade and investment and to trade and competition policy.

In his paper, *International Market Contestability and the New Issues at the World Trade Organization*, Edward M. Graham, of the Institute for International Economics, examines both competition policy and foreign direct investment (FDI) policies in the context of trade policy. With regard to foreign direct investment policies, the Uruguay Round produced a consensus on a limited WTO agreement on FDI — the trade-related investment measures (TRIMs) Agreement. However, Graham sees the need for a much more comprehensive agreement on investment reaching deeper into the arsenal of discriminatory measures.

He suggests that the main provisions of such an agreement would include the following key items:

- national treatment of foreign investors;
- most-favoured-nation treatment of investors;
- standards of protection for foreign investors;
- curtailment of additional measures that reduce market contestability not presently covered by the existing Agreement; and
- procedures for the resolution of disputes, with "standing" granted to foreign investors as well as governments.

The question of the role of competition policy at the multilateral level is more controversial. Even strong advocates of market contestability differ on this issue. They agree that competition policy has a role to play in maintaining market openness at some level, but they disagree over whether competition policy should be implemented at the international or national level.

However, there might be a set of practices falling under the aegis of competition policy on which nations could agree to international standards, even if they could not agree on overall competition standards.

There is a natural complementarity between the goals of trade policy and those of competition and investment policy.

Specifically, Graham proposes as a sensible step the negotiation of a new WTO agreement that might be labelled "trade-related antitrust measures." This agreement would cover:

- cartels with boycotts;

- vertical arrangements that tend to exclude "outside" vendors or prevent new entrants from gaining access to established distribution channels; and

- monopolistic discrimination and exclusions.

While agreement on the first aspect could be relatively straightforward, the author sees the second and third as problematic. For example, vertical arrangements that create elements of exclusivity can also be efficiency-enhancing. This potential benefit underpins the key argument used to justify the existence of production *keiretsus* in Japan.

Differences also exist between U.S. and European policies on vertical arrangements. The United States generally allows efficiency defences for arrangements that might be prohibited in Europe. Other differences relate to a firm's right to refuse to deal. The United States allows such refusal by monopolistic firms except under specific circumstances, while European policy holds that dominant firms have a duty not to discriminate between customers or refuse to deal.

Despite the difficulties nations might have with these proposals, Graham concludes that there is a natural complementarity between the goals of trade policy and those of competition and foreign direct investment policy. He argues that if a market is internationally contestable (open to entry by foreign firms) it is likely to be open to entry by new domestic firms as well. Given this natural complementarity, he concludes that it is worth pursuing a agreement along the lines proposed.

Is new technology the cause of growing income inequality?

DISTINGUISHED SPEAKERS SERIES

Edward Leamer Examines Wage Inequality from Technical Change and Global Competition

The rise in income inequality observed over the last two decades has become one of the key economic and political problems facing policy makers today. This trend has triggered a political reaction as the middle class felt the pinch of declining earnings, and sought culprits. Such pressures and the attendant political reverberations are likely to continue in the future, making it essential for economists to develop a clear understanding of the phenomenon of growing income inequality and formulate an appropriate response.

In the United States, immigration of unskilled labour, deficiencies in the education system, expanding international trade and rapid technological change have all been pointed to as causes of growing income inequality. In particular, highly vocal critics claim that the rapid introduction of new technology in the form of computerization is playing a significant role in widening income inequality.

- *There is little positive evidence that technology is the cause of growing income inequality.*
- *The trade effect, by depressing wages in labour intensive sectors, is the main force behind growing income inequality.*
- *The solution to trade-driven inequality is to shift toward the capital intensive sector.*
- *It is particularly important to invest in infrastructure, and in both human and physical capital.*

In a May 1998 Distinguished Speakers in Economics lecture entitled *Wage Inequality from Technical Change and Global Competition,* Edward Leamer expressed the view that critics who exonerate the first three factors and place the blame on technological change have not presented a convincing case. In particular, they have dismissed too quickly the impact of international trade.

According to Professor Leamer, the data show that real earnings in both agriculture and manufacturing in the United States had been growing for several decades until the 1970s, when the trend stopped. Similarly, income inequality had been decreasing until the early 1970s. This timing is important, as neither computerization nor immigration had yet become significant when income growth slowed and income inequality started to increase. Expanded trade and globalization, however, had already begun to play a greater role and it was this phenomenon on which the guest speaker focused in his lecture.

As globalization proceeds, arbitrage opportunities — buying goods cheaply in low wage countries and selling them in high wage countries — tend to equalize wages. Consequently, as globalization reaches all low-wage workers over the next few years, many unskilled workers in the United States are going to suffer a substantial reduction in earnings. It is this trade effect, depressing wages in

We still do not have a good handle on the computer as technology and what it will do to incomes.

labour intensive sectors, which is the main force behind the growing income inequality observed in communities where these sectors are important sources of employment.

Professor Leamer also addressed the relative importance of trade *vs.* technology. He argued economic analysis treats technology as a residual, so that what cannot be explained by other factors is often blamed on technology. He claimed that there is in fact very little positive evidence that technology is the cause of growing income inequality.

He pointed to the increase in the ratio of non-production to production workers across much of manufacturing in the United States. The traditional point of view is that trade drives down the wages of unskilled workers, which should encourage manufacturers to shift to unskilled workers, raising the ratio of production to non-production workers. In fact the opposite is occurring in sectors such as apparel where low-wage production jobs are being moved offshore and high-wage design and management jobs are kept in the United States. He noted that this could also be true for other sectors, so we need to be careful when talking about technology.

With respect to the rapid diffusion of computers, we still do not have a good handle on the computer as technology and what it will do to incomes. As with the introduction of electricity, the full impact of computers on production will take some time to play itself out. Is the computer going to benefit large segments of the population, or only a few highly skilled individuals who can write commercially viable computer programs? It is still too early in the process to answer this question.

Professor Leamer also looked briefly at immigration and the educational system as potential causes of income inequality. In the United States, income inequality is most pronounced in states that receive high levels of unskilled immigrants from Latin America, because immigration can accentuate the impact of trade by shifting the product mix towards labour intensive goods. Immigration has thus played an important part in income inequality in some states. As for the numerous claims about the deficiencies of the American educational system, the speaker concluded that it cannot be blamed for rising income inequality.

What is the remedy to trade-driven income inequality? According to Professor Leamer, the solution for a community or an industry would be to gradually shift toward the capital intensive sector. This would insulate wages from the downward pressure exerted by labour-intensive, low-wage countries. It would have an added benefit beyond reducing income inequality: increasing competition with low wage countries would improve the overall standard of living as the drop in the price of labour-intensive imports would improve the terms of trade. To shift to capital intensive industries, it would be important to invest in infrastructure, and in both human and physical capital. It would be particularly important to make non-mobile investments.

Professor Leamer concluded that, collectively, the academic community is still uncertain about the relative impacts of all these forces on income and inequality. However, there is clear unanimity on the fact that education is a sure remedy for the effects of globalization and, probably also, for those brought about by technological trends.

There was a boom in Canada-U.S. trade for three years following the FTA, but trade between provinces remains far more important.

John Helliwell asks: How Much Do National Borders Matter?

On the subject of NAFTA and closer European union, there is much loose talk about globalization and the seamless international market weakening national ties. Growing international trade will boost productivity through the magic of efficient allocation of productive resources. Unnatural east-west trading patterns in Canada will give way to more natural and productive north-south trading flows in a continental context. The world of nation states will be replaced by a world of natural economic spaces. This is the conventional wisdom.

Professor John Helliwell, in a May 1998 Distinguished Speakers in Economics lecture entitled *How Much Do National Borders Matter?* (drawing on the manuscript of his book published by the Brookings Institution, in August 1998, under the same title), argued that empirical reality does not necessarily support what economic theory and conventional wisdom predict. To be sure, there was a boom in Canada-U.S. trade for about three years following the FTA, but trade between provinces remains far more important. And he contends that, yes, national borders still seem to matter very much, even in a free trade environment.

- *Borders still matter, even in the face of free trade agreements within North America and Europe.*
- *Part of the reason may lie in the cost of decision making and uncertainty--information is expensive and evaluating it is a difficult task.*
- *For such national preferences to be maintained, the foregone opportunities for higher productivity must be modest.*

Using a gravity model of trade, Professor Helliwell analyzed both interprovincial and interstate, as well as international trade before and after the conclusion of the Free Trade Agreement and found a number of interesting phenomena. For example, the inception of the FTA did lead to more north-south trade, but east-west trade remains very signficant. Before the FTA, interprovincial merchandise trade was 20 times as large as international trade. That proportion fell rapidly over a three-year period following the FTA, but interprovincial merchandise trade remains 12 times as important as international trade and appears to have stabilized at this ratio. The figures also show that interprovincial trade in services is still 25 to 30 times as dense as Canada-U.S. trade in services.

These results first began to emerge in work done in Canada, partly because of the availability of interprovincial trade data. They gave rise to the following question: are these effects true for other countries? While hampered by scarcer data on internal trade, economists have attempted to estimate these border effects for other countries.

It appears that OECD countries have internal trade densities 10 times their international trade densities. This ratio drops to 6 for EU countries. Interestingly, it drops even further between EU countries which share a common language, primarily English or German.

Why do border effects persist, even in the face of free trade agreements within North America and Europe?

But why do these border effects persist, even in the face of free trade agreements within North America and Europe?

Professor Helliwell speculated that part of the reason may lie in the cost of decision making and uncertainty. Information is expensive and evaluating it is a difficult task. Therefore, in order to minimize costs and reduce uncertainties, people are going to operate in networks where they know the rules, share the same standards, and are able to determine if contracts are good or bad. They prefer to deal with others when they know how these parties will react to problems and when they have an assurance that problems can be worked out in a mutually acceptable way.

He also argued that for such national preferences to be consistent over the long term — for the pattern to be maintained — the foregone opportunities for higher productivity must be modest. If national cohesion is to remain a credible feature, real underlying institutional economies, combined with diminishing returns to scale from international trade, will be necessary. Although some degree of trade openness is useful because it enables one to learn from others, beyond a certain point these benefits are limited.

Professor Helliwell's findings are provocative and fly in the face of much conventional wisdom about the fading of the nation state and, even, about the economic viability of Canada itself. His work will no doubt stimulate more debate and research on this important issue.

DISTINGUISHED SPEAKERS IN ECONOMICS PROGRAM - SPRING 1999

March 12, 1999 -- ***JOEL MOKYR***, Northwestern University,
on *"Technical Advance and Economic Progress"*

March 19, 1999 -- ***DANI RODRIK***, Harvard University,
on *"Making Openness Work"*

March 26, 1999 -- ***PETER B. KENEN***, Princeton University,
on *"Reforming the International Financial System: Motion or Commotion?"*

April 9, 1999 -- ***JACK TRIPLETT***, Brookings Institution,
on *"Quality Improvements and Productivity"*

April 30, 1999 -- ***FRANK S. LEVY***, Massachusetts Institute of Technology,
on *"Computers and Work"*

May 21, 1999 -- ***FRANCO MODIGLIANI***, Massachusetts Institute of Technology,
on *"An Economists' Manifesto on European Unemployment"*