SETTING OUR SIGHTS ON INNOVATION

Canada at the Crossroads

If Canada is to compete and win on the world stage, our firms and governments must turn their backs on a culture of replication, and strive instead for uniqueness and innovation. In the New Economy, relentless innovation and the pursuit of unique products and processes are what will define international competitiveness. Roger Martin and Michael E. Porter explain.

Canada has enjoyed a spectacular macroeconomic turnaround in the past decade. The Canadian government has managed to bring the federal budget deficit down from a second worst among G-7 countries level of 6.6 per cent of GDP to the best, with a surplus of 0.9 per cent. Interest rates, using the three-month Treasury bill rate as a proxy, fell over 60 per cent, from an average of 11.55 per cent in the 1988-90 period to 4.97 per cent in the 1998-2000 period, providing a much more attractive environment for investment. Inflation fell from 4.6 per cent (1988-1990) to 2.1 per cent (1998-2000), a level not seen in 30 years.

The economy also became more export-oriented, with exports as a share of GDP increasing from 25.2 per cent in 1989 to 43.2 per cent in 1999, the highest share among G-7 countries, and by far the largest increase over the period.

Despite this impressive macroeconomic performance, Canada's relative prosperity has fallen. While GDP per capita measured at purchasing power parity grew at a compound annual rate of 4.1 per cent between 1990 and 1999, much of that growth was due to the depreciation of the Canadian dollar. The same metric measured at the current exchange rate only reached 1.2 per cent, putting Canada at the lower range of Organization for Economic Cooperation and Development (OECD) countries.

Canada slipped from third in the world, a position it had occupied for decades, to fifth over the period. Had Canada maintained its third place standing, the income for the average family of four in Canada would have been higher by CDN$10,000 in 1999, or approximately $500 per month in after-tax family purchasing power – a substantial difference in standard of living.

Why did Canada's impressive macroeconomic turnaround fail to translate into higher productivity and thus a higher standard of living? While the macroeconomic context and the microeconomic business environment create the conditions for prosperity, ultimately, Canadian firms need to take advantage of these conditions to make choices consistent with productivity upgrading.

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Illustration: Oleg Koulikov/Three in a Box

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In 1991, newsprint was one of Canada's leading export industries, with $5.5 billion in sales and a world export share of 62 per cent. The Canadian industry consisted of seven large companies (Canadian Pacific Forest Products, Abitibi-Price, Fletcher Challenge Canada, Stone Consolidated, Quebec and Ontario Paper Company, Kruger, and MacMillan Bloedel) that controlled 65 per cent of Canadian capacity. Newsprint exports comprised 43 per cent of Canadian pulp and paper industry exports.

Our assessment in 1991 was that of an industry with important but narrow strengths and with vulnerabilities for the future. Canada's primary strengths were low wood fibre cost and low energy costs. In addition, Canada enjoyed proximity to the largest market in the world, which lowered shipping costs and facilitated selling and customer service. However, Canada's advantage in wood fibre cost was coming under pressure due to the development of thermomechanical pulping (TMP), which allowed the efficient use of low-cost fibre found in the southeastern U.S. and Latin America. Also, the increasing use of recovered paper, economically available in the U.S., reduced the advantage provided by inexpensive Canadian fibre.

In addition, the industry had weaknesses in its microeconomic context. Although there were a number of rivals, they did not compete on innovation and upgrading. As with most parts of the Canadian forest products sector, Canada lagged by a decade or more in implementing new techniques such as the production of groundwood pulp and the use of a soda process for chemical pulping. The lack of local related and supporting industries, such as equipment suppliers, made the likelihood and challenge of technological upgrading more difficult. Historically-lax environmental regulation had also not prepared Canadian firms for the heightening of environmental concerns about the forest products sector worldwide.

Overall, the industry personified the crossroads faced by the economy as a whole. The lack of pressure for upgrading had left Canadian firms with smaller machines, lower labour productivity, and lower capital spending than their international competitors. With governments, especially in British Columbia, putting upward pressure on wood fibre costs through higher stumpage fees, the 1990s promised to be more challenging than the previous decades.

The question was: Would Canadian firms move forward to higher productivity and more distinctive strategies, or would their fundamental competitiveness erode? Unfortunately, relatively little has changed over the past decade with respect to the Canadian newsprint industry and its approach to competition. The trends already in evidence at the time of *Canada at the Crossroads* have continued, and Canada's position in the industry has eroded.

Characteristic of many commodities, prices in the industry have continued their long-term drift downward at a real rate of approximately 1.1 per cent per year.

Newsprint, a commodity product, continues to decline as a proportion of global pulp and paper production, dropping from 39 per cent to 30 per cent between 1989 and 1999. Increases have come in the production of value-added grades of paper and paperboard.

A depreciating currency hides fundamental competitiveness problems, rather than indicating true competitiveness.

In this environment of falling prices and slow growth, Canadian share of world exports of newsprint has fallen from 62 per cent in 1991 to 53 per cent in 1997, a significant reduction. Continued growth in the use of TMP and recovered paper has weakened Canada's basic wood fibre advantage.

With a weakening competitive position due to advances in the use of low cost fibres and greater investment in upgrading abroad, the Canadian sector depended on the falling Canadian dollar to maintain its competitiveness. In a commodity industry such as newsprint, competitiveness and firm profitability are determined by the firm's position on the global delivered cash cost curve, as shown on the chart, below left. Newsprint mills on the left of the cost curve are competitively strong and profitable while mills on the right are weak and unprofitable. Canadian mills (marked by the dots on the cost curve) are reasonably well positioned on the cost curve with firms most heavily positioned in the third quartile. A smaller number of mills are in the more competitive first and second quartiles, and a substantial number in the uncompetitive fourth quartile.

However, the acceptable position of Canadian firms is largely a function of a low dollar, which stood at approximately US$.66 at the end of 2000. If the Canadian dollar were back near its 1991 level of US$.85, the Canadian mills would be positioned as indicated on the chart, below right, and the Canadian industry would be in a precarious position.

At an exchange rate of US$.85, virtually the entire Canadian newsprint industry would be positioned in the fourth quartile of the cost curve with cash costs almost $100/tonne higher. In this way, a depreciating currency hides fundamental competitiveness problems, rather than indicating true competitiveness.

Even with a falling currency, the Canadian paper and forest industry has not performed well compared to global competitors. In 2000, the Canadian industry had a return on capital employed of 4.0 per cent, well below the average return for Europe (5.9 per cent) and the U.S. (6.0 per cent). Finland was a particularly impressive performer with a return of 7.0 per cent.

Perhaps the most substantial change in the newsprint industry is increased globalization, consistent with the overall globalization of the pulp and paper sector. Asian share of global demand grew from 10 per cent to 15 per cent between 1989 and 1999, spurring a wave of investment in Asian capacity. Some major firms began to acquire outside their home markets in order to establish a more global presence.

The leaders in this new wave were the Scandinavian firms, who invested heavily to upgrade themselves and their local environment during the 1990s. At home, they worked together through industry associations and linkages with universities to promote innovation. The average worker in the Scandinavian industry has a related university degree and a high level of technological literacy. Abroad, firms invested heavily in North American assets. Swedish/Finnish firm Stora Enso acquired U.S. fine paper producer Consolidated Papers and Finland's UPM-Kymmene acquired Canadian fine paper producer Repap Canada. Norways's Norske Skog purchased Canadian newsprint player Fletcher Challenge Canada, and recently made a bid for Pacifica Papers, the Canadian firm to which the newsprint assets of MacMillan Bloedel were spun off. In addition, Bowater, a U.S. newsprint manufacturer, acquired Avenor, successor to Canadian Pacific Forest Products.

Norske Skog is a particularly interesting example, because the company made a decisive move out of a home market that it considers detrimental to its long-term competitive advantage. Lacking a strong local cluster, it has

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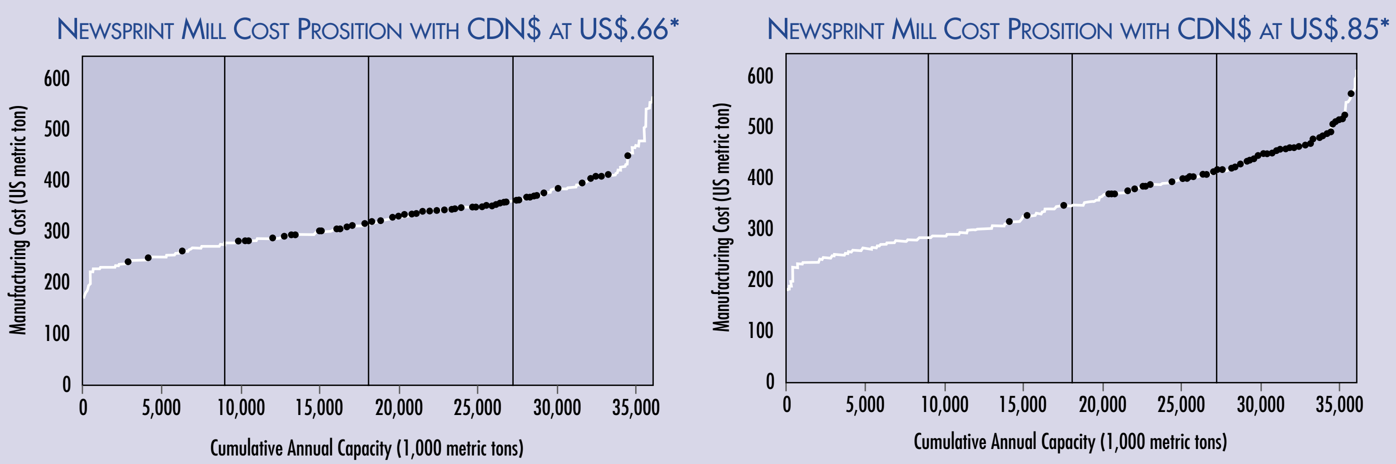
Global Newsprint Industry Cost Curves



*Canadian Mills marked with dots.

Source: Jaakko Poyry Consulting. Cost curve as of December 2000. Canadian dollar adjusted to US$.85

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moved abroad to keep up with competitors from stronger cluster environments like Sweden and Finland. While success is not certain, this aggressive strategy exposes Norkse Skog to the competitive pressure often needed to motivate a strong upgrading effort.

The Canadian newsprint industry has participated passively in the globalization of the industry through the acquisition of three of the seven major Canadian players by global competitors. Abitibi has focused on consolidating the industry within Canada, having combined Abitibi-Price, Stone-Consolidated, Quebec and Ontario Paper Company, and Donahue into Canada's dominant player, Abitibi-Consolidated. In contrast, Abitibi-Consolidated has made only very minor forays into the global industry, with one joint venture in Asia and no presence in Europe or Latin America. Though the global industry focus has shifted to value-added papers, Abitibi-Consolidated has seen the proportion of value-added papers fall from 30 per cent of its portfolio to 25 per cent over the 1996-to-1999 period.

Unlike its Scandinavian competitors, which have invested more heavily in upgrading at home, expanded in the faster-growing value-added papers sector, and acquired to create global reach, the Canadian pulp and paper sector – exemplified by newsprint – has focused primarily on domestic consolidation rather than on upgrading and globalizing.

These trends were evident at the time of the 1991 study. The Canadian industry had a choice: To upgrade its capability in newsprint, migrate to more value-added products and establish a more robust global position, or to continue the status quo. In large part, the Canadian industry chose the latter, while other countries' newsprint industries chose the former.

While newsprint remains an important Canadian industry and one with leading global export share, it is an industry that has allowed its position to decay slowly rather than invest in upgrading and innovation. It will remain an important Canadian industry for years to come, but it is unlikely to contribute to a high and rising standard of living on its current path, and will continue to lose share in a business whose output is falling slowly in real value.

The newsprint industry is a metaphor for the Canadian economy. Its trajectory, as well as the overall evidence suggests that Canada has followed the less favourable path described in *Canada at the Crossroads*. Substantial progress has been made in the macroeconomic context, and there are some microeconomic improvements. However, the progress has not been sufficient to move Canada ahead in relative terms against other highly-developed economies. Finally, companies have on average not reacted to these changes in their competitive environment by taking the necessary decisions to upgrade their strategies and operations. As a consequence, Canada is drifting slowly down in relative ranking across a number of measures from GDP per capita, to productivity, to World Economic Forum Global Competitiveness Report (GCR) ranking, to Innovation Index.

The single most important priority for Canadian prosperity is to bring about a transformation in the way Canada's companies compete. Historically, natural resource endowments and high tariff barriers have combined to produce a tendency toward a set of company strategy choices that are distinctly incompatible with global competitiveness. This set of choices is inconsistent with rising prosperity, and does not lead to the intensive investments in upgrading necessary for high productivity and international competitiveness.

There's no doubt that Canadian firms can compete on the basis of uniqueness and innovation. However, lulled by a steadily declining dollar, they face strong temptations toward more of the same. For Canada to win in the global economy, innovation must become our new natural resource. RM

Excerpted primarily from Canadian Competitiveness: A Decade After the Crossroads*, a study published jointly by Dean Roger Martin and Michael E. Porter, Bishop William Lawrence Harvey University Professor at the Harvard Business School. The full study is available on the Rotman Web site. Hard copies can be obtained by contacting Karen Christensen at 416-946-5919, christen@rotman.utoronto.ca.*

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