Restructuring in the Canadian Economy: A Survey of Firms

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- *A survey of 140 Canadian companies, representing all sectors of the economy, confirmed the perception that the extent of firm-level restructuring (defined as a major change in the way firms do business) was greater in the 1990s than in the 1980s.*
- *The most common type of restructuring was the adoption of new technology. This investment was typically related more to the* availability *of the technology than to its* affordability. *Other forms of restructuring included the move to "bigger business" through larger-format retail outlets, mergers, or consolidation.*
- *In the firms surveyed, restructuring led to reduced employment to a greater extent in the 1990s than in the 1980s. The most common reason for a decrease in employment was that competition squeezed profit margins and made it necessary to reduce the cost of labour. Restructuring also had other effects on the labour force—a shift in the skill mix in favour of more highly skilled workers and increasing use of contract workers.*
- *Given the structural changes in the economy, the relatively weak labour productivity growth over the 1990s is puzzling. However, companies are optimistic regarding their future performance.*

Near the end of the 1980s and into the early 1990s, the Canadian economy experienced a number of major structural changes. These included the free trade agreement (FTA); deregulation in the transportation, communications, and financial sectors; the arrival of large U.S.-based retailers; and the introduction of the goods and services tax (GST). While anecdotal evidence suggests that restructuring intensified as a result of these shocks, there is a lack of direct evidence. The restructuring associated with these developments may, however, at least partially explain the sluggish performance of output and employment growth in the first half of the 1990s.

The relationship between firm-level employment and corporate restructuring (defined here as a fundamental change in the way firms conduct their operations) has not been extensively studied or measured. Questions such as the extent of restructuring and its effects on employment are difficult to resolve using traditional analytical techniques and data. It can, therefore, be useful to ask companies directly about their experiences.[1] Industry Canada surveyed 63 Canadian companies that had indicated (in company documents in the public domain) that they had restructured between 1994 and 1995 (Magun 1998). The sample was designed primarily to determine the effects of restructuring on firms that had engaged in such activities.

1. A different approach is taken in Parker (1995) who focuses on the changes in the relative prices of labour and capital and their implications for output and employment.

Survey interviews were conducted by Brigid Brady, Paul Fenton, Mark Illing, Carolyn Kwan, Louis-Robert Lafleur, Hung-Hay Lau, Sophie Monnier, Farid Novin, and Mike Stockfish, with technical assistance and support from all five regional offices. Irene Ip and Allan Crawford coordinated the project and provided valuable comments. The Bank of Canada would also like to thank the companies that participated in the survey for their time and for their comments.

While informative for the purposes of their study, the Industry Canada sample does not provide information on the overall effects of restructuring on the Canadian economy in the 1990s, since it was confined to publicly traded corporations that were known to have restructured over a two-year period.

The staff at the Bank of Canada's regional offices therefore undertook their own survey. The focus was on a comparison of the 1980s and the 1990s to get a sense of whether restructuring might have been more intensive in the 1990s than in the 1980s. In contrast to the Industry Canada approach, the Bank's survey did not restrict the sample to firms that had restructured. It also inquired about firms' experiences during the 1980s and 1990s in order to explore the extent and type of restructuring that occurred in the two decades to see if any differences between them were reflected in the effects on the labour market. The survey was designed to assess whether there are any links between restructuring and employment at the firm level; to examine the role, if any, that restructuring might have in explaining the relatively sluggish employment performance in the first half of the 1990s compared with previous business cycles in Canada; and to determine if restructuring could be reasonably expected to contribute to improved productivity in the future.

Survey Results

One hundred and forty Canadian companies were surveyed in the second half of 1998 and were asked questions regarding restructuring in the 1980s and 1990s. The sample is roughly representative of the Canadian economy, with the number of firms from each geographical region and from each industry sector proportional to their weight in the overall economy.[2] (See Box, p. 17.) The results must be interpreted with caution, however, since the sample sizes of some sectors are small. See the Appendix for details on the methodology.[3]

The Extent of Restructuring

The broad results of the survey are clear: many Canadian firms restructured their operations in the 1980s and 1990s. The degree of restructuring was greater in the 1990s than in the 1980s. Of the 140 companies surveyed, 87 per cent reported undergoing a major restructuring in the 1990s, and 36 per cent indicated that they did so in the 1980s (Table 1). Over half of the respondents said they restructured in the 1990s but not in the 1980s (Table 2). Of the group that answered in the affirmative for both decades, 68 per cent of the goods-producing sector and 90 per cent of the services sector reported that the extent of restructuring was greater in the 1990s than in the 1980s.

Table 1

Percentage of Sample with Major Restructuring

Industry sector	1980s	1990s
Primary	50	100
Manufacturing	52	87
Construction	36	100
Transportation, communications, and utilities	27	82
Wholesale and retail trade	27	82
Finance, insurance, and real estate	31	69
Business and personal services	26	89
Goods-producing	48	93
Services	27	82
Total	36	87

Table 2

Percentage of Firms that Did/Did Not Restructure in Each Decade

	1980s - no 1990s - no	1980s - no 1990s - yes	1980s - yes 1990s - no	1980s - yes 1990s - yes	Total
Goods	1.4	19.3	1.4	17.9	40
Services	9.3	34.3	1.4	15.0	60
Total	10.7	53.6	2.8	32.9	100

In the primary industry and construction sectors, 100 per cent of the respondents said that they restructured in the 1990s. In four other sectors (manufacturing; transportation, communications, and utilities; trade; and business and personal services), over 80 per cent of the respondents said that they restructured in the 1990s, a considerably higher share than for the 1980s. An unexpected result, given the amount of investment in information technology, was that the finance, insurance, and real estate sector had the lowest incidence of restructuring. It is possible that this relatively low incidence was a result of the small sample size.

2. The survey and sample were designed to present a representative profile of Canadian companies. When examined by firm size or by region, the results are largely the same as those in the aggregate.

3. More details will be provided in a forthcoming Bank of Canada working paper.

Sampling Issues

Both the sample of companies in the survey as well as the survey results have potential biases for a number of reasons. Some of the more important ones are discussed here.

The population of companies from which the subset was chosen is the group that did not go out of business or leave Canada during the period in question. Firms that went out of business would, of course, not have been captured in the sample, and consequently, any effort on their part to restructure to stay in business would not be included. However, the survey wording avoided another potential bias that could have arisen where companies participated in a merger. Any subsequent job losses could be accurately reflected, since estimates of job losses at the merged company were made relative to the pre-merger labour force.

It was also possible that firms in the survey might not have been in existence for the entire period under consideration. It was thus possible for firms to have a biased perspective when comparing the 1980s and the 1990s. This is expected to have had a minimal effect on the results since this issue was considered when deciding which companies to contact.

Institutional memory loss is another issue. The information obtained was often dependent on the person interviewed in each company, most commonly the vice-president of finance. In some cases, because of staff turnover, the vice-president of finance may not have been with the firm during the whole period. Some information was passed on by word of mouth only, since records of earlier years may not have been available.

With this type of survey, it is difficult to assess the net effect of any bias in the survey results. However, some errors could be offsetting and could thus minimize any potential bias. It should be kept in mind that the results can be indicative only of the kinds of adjustments that companies have had to make.

In the services sector, the proportion of firms restructuring increased significantly in the 1990s. Whereas only 27 per cent of the respondents in that sector indicated that they had restructured in the 1980s, 82 per cent said they restructured in the 1990s, almost as high as the 93 per cent in the goods-producing sector.

What Restructuring Involved

Restructuring included various operational changes as well as workforce adjustments. These encompass changes to the size and location of operations, narrowing the focus of business, as well as significant investments to alter methods of production.

New technology had a major impact on businesses throughout both decades, and the importance of technology can be seen in the survey results. In fact, the most common form of restructuring in both decades was to "invest in new technology." Of those that restructured, this type of change was identified by 50 per cent in the 1980s and by 65 per cent in the 1990s (Table 3).[4] The major changes in business processes included electronic messaging, data accumulation on customer spending patterns, the centralization of vast amounts of information, supply-chain management, and automated manufacturing plants.

One interesting issue is the perceived business opportunities in domestic versus foreign markets. Of the companies that restructured in the 1990s, about the same percentage indicated that they "expanded existing operations in Canada" (42 per cent) as those that said they "reduced existing operations in Canada" (43 per cent). This is a significant change from the situation in the 1980s, where two-and-a-half times the number of companies that restructured indicated that

4. The results in Tables 3, 4, and 7 are calculated as a percentage of respondents who indicated that they restructured and not as a percentage of the complete sample of 140 firms. Since more firms restructured in the 1990s, the numerical differences between the 1980s and 1990s would be greater if the data were reported as a percentage of the "total number of firms" as opposed to a percentage of "those who restructured."

Table 3

Type of Restructuring

As a percentage of firms that restructured[a]

	Goods sector		Services sector		Total	
	1980s	1990s	1980s	1990s	1980s	1990s
Invested in new technology	28	26	22	40	50	65
Reduced existing operations in Canada	6	21	12	21	18	43
Expanded existing operations in Canada	24	20	22	22	46	42
Contracted out some operations	8	18	6	22	14	40
Merged with another company	8	8	12	20	20	28
Expanded production outside Canada	10	13	6	13	16	26
Moved to fewer but larger establishments	4	8	8	16	12	24
Focused on a narrower range of products	2	12	8	11	10	23
Introduced different formats for retail outlets	2	3	4	17	6	21
Relocated some operations from Canada to other countries	16	5	2	7	18	12
Entered Canada	0	2	4	1	4	2
Number of companies that restructured	27	52	23	69	50	121

a. Figures can sum to greater than 100 per cent since firms were asked to respond to all applicable choices.

they expanded their Canadian operations compared with those that reduced them.

Of the companies that restructured in the 1990s, about one in six felt that business conditions were appropriate to transfer part of their business outside Canada. Results indicate that 17 per cent increased operations outside Canada while at the same time reducing operations in Canada or relocating operations from Canada to other countries. However, only a small proportion of companies felt that the operating conditions in Canada were so poor as to require the relocation of operations outside of Canada. About 5 per cent indicated this as their only form of restructuring.

"Contracted out some operations"—usually accounting, legal services, payroll, information-technology support, site management, and human resources—was also more common in the 1990s than in the 1980s. Firms expect that contracting out activities that were previously done in-house will result in a net saving. They also believe that using professional-services companies will result in lower head-office overhead as well as lower costs for employee searches and compensation. In the 1980s, only 14 per cent of companies that restructured took advantage of this potential cost saving, while in the 1990s, 40 per cent took this step.

The 1990s business environment could be characterized, in part, by the "bigger is better" philosophy. Merging with other companies had a particularly high profile in sectors such as auto manufacturing, forest products manufacturing, finance, retail trade, and high-technology-related businesses. In theory, mergers allow companies to take advantage of new synergies and improved purchasing power, as well as reducing duplication in head-office functions and marketing. "Merged with another company" was identified by 20 per cent, or 10 companies, that restructured in the 1980s. During the 1990s, 28 per cent, or 34 companies, experienced a merger. Companies have also "moved to fewer but larger establishments." About one-quarter of companies that restructured in the 1990s did this.

One of the least-common types of restructuring in the 1980s—identified by only 6 per cent of respondents that restructured—was "introduced different formats for retail outlets," in some cases, another example of "bigger is better." This percentage rises to 21 per cent for the 1990s. For the wholesale and retail trade sector, the result was more pronounced. The responses in this sector rose from 17 per cent for the 1980s to 56 per cent for the 1990s, reflecting more aggressive expansion strategies by "big box" retailers in the 1990s, many of which were U.S. based.[5] In the survey, this choice was aimed at the retail industry but was interpreted by other sectors to include the retail operations of their business. These include financial companies, utilities, and personal services such as restaurants and theatres.

The types of restructuring that garnered the biggest increase in the frequency of response from the 1980s to the 1990s were the introduction of different retail formats, contracting out operations, reducing Canadian operations, and focusing on a narrower range of products.

Reasons for Restructuring

To understand the reasons for restructuring, it is useful to put this period in context. The two decades in question included the free trade agreement, first with the United States (FTA) and then with Mexico

5. The term "big box" includes such formats as category killers and superstores. See Genest-Laplante (1998).

(NAFTA), significant technological advances and their associated price declines, the general availability of the Internet, the entrance into Canada of a number of large U.S.-based retailers, a speculative real estate bubble in the late 1980s and its subsequent correction in the early 1990s, replacement of the manufacturers' sales tax with the goods and services tax, and the introduction of the Bank of Canada's policy goal of price stability.

In our survey, businesses were asked to give their reasons for restructuring and to indicate as many choices as were applicable. In general, firms believed that they needed to become more flexible, and, therefore, many have had to change their operations.

Availability and affordability of new technology

The form of restructuring most frequently identified by respondents was "invested in new technology." When asked to indicate which factors caused businesses to restructure their Canadian operations, the most common response from firms was the *availability* of new technology in both the 1980s (40 per cent) and in the 1990s (46 per cent) (Table 4). Interestingly, the *affordability* of new technology was not identified as frequently in either decade, implying that it was not the declining price of technology that was the primary incentive to become more efficient, but rather that technological advances provided opportunities for improved efficiency. Nevertheless, it is significant that 30 per cent of firms indicated affordability as a factor.

The "availability of new technology" was most frequently identified by firms in transportation, communications, and utilities; finance, insurance, and real estate; manufacturing; and primary industries. The extent to which technology has affected communications, banking, and supply-chain management and manufacturing is well understood. It is interesting, however, to see that technology accounts for almost half of the restructuring in the primary sector as well. In conversations with primary sector companies, changes in technology were reported to have facilitated many innovations in the acquisition and processing of products.

A significant impact of the technological revolution has been the greater ease of communication. In many cases, this resulted in the need for only one plant for the whole of North America, compared with an earlier time when it was necessary to have multiple plants in order to service each region. The availability of instantaneous communications has greatly enhanced the efficiency of inventory management, wholesaling, and distribution. Technology has also permitted the centralization of information. In the financial sector, this centralization has led to branches relinquishing account information to the head office, thus reducing the need for branch staff. The centralization of administration, such as payroll, at one location was a change not specific to any one industry.

Competitive environment

Competition has also compelled firms to restructure. "Greater competition from Canadian firms" was the second most common reason cited (after the "availability of new technology") for restructuring in both decades. It was identified by 32 per cent of the businesses that restructured in the 1980s and 45 per cent of those that did so in the 1990s. For the 1990s, 31 per cent of firms also identified "greater competition from U.S. firms" as a reason to restructure. The "desire to compete globally" was also important in the 1990s, with 28 per cent identifying this factor.

In the wholesale and retail trade sector, competition was a very significant reason for restructuring. More than one-half of the wholesale and retail respondents

Table 4

Reasons for Restructuring

As a percentage of firms that restructured[a]

	Goods sector		Services sector		Total	
	1980s	1990s	1980s	1990s	1980s	1990s
Availability of new technology	18	17	22	29	40	46
Greater competition from Canadian firms	12	16	20	30	32	45
Greater competition from U.S. firms	16	14	6	17	22	31
Affordability of new technology	4	9	12	21	16	30
Desire to compete globally	10	15	6	13	16	28
Change in government regulation	6	7	18	17	24	24
Greater competition from outside North America	14	14	4	4	18	18
U.S./Canada Free Trade Agreement		12		4		16
Major change in exchange rate	0	3	0	2	0	5
Lack of flexibility of Canadian workers relative to U.S. workers	2	2	2	2	4	3
North American Free Trade Agreement		2		0		2
Number of companies that restructured	27	52	23	69	50	121

a. Figures can sum to more than 100 per cent since firms were asked to respond to all applicable choices.

indicated “greater competition from U.S. firms,” and two-thirds indicated “greater competition from Canadian firms” as reasons for restructuring. In this sector, only three of the 18 firms surveyed said “greater competition from outside North America” was important enough to warrant restructuring.

> *“Greater competition from Canadian firms” was the second most common reason cited (after the “availability of new technology”) for restructuring.*

The FTA and NAFTA were identified as reasons by only 18 per cent of firms. Of the 22 firms citing free trade, almost half were from the manufacturing sector, which is not surprising, given the export-orientation of Canadian manufacturing firms. Interestingly, 20 per cent of those citing free trade came from either the retail and wholesale or the commercial services sectors, and the remaining 30 per cent were from the primary industry sector—most of which were not directly affected by the FTA. Many in the services and retail sectors were not directly affected by the removal of tariffs, but instead regarded free trade as a sign of future international competition. The globalization of commodity markets is evident in the primary industries, since this was the largest group who identified “greater competition from outside North America” as a factor in restructuring.

Free trade was not as large a factor as might have been expected, particularly in manufacturing, where only 37 per cent cited it as a major factor. Historical data indicate that free trade did, in fact, affect the economy as a whole, since after the free trade agreements were in place, exports and imports as a percentage of gross domestic product rose from 25 per cent to over 40 per cent. However, this survey attempts to gauge restructuring at the firm, not the aggregate, level.

Regulatory changes

During the 1980s and 1990s, changes in government regulation occurred in many industries. These included the deregulation of air, rail, and trucking as well as of the telecommunications and financial sectors. In addition, hydro and gas delivery services were privatized. In our survey, several companies, primarily concentrated in the transportation, communications, and utilities sector, identified deregulation by the federal government as a reason for their need to restructure and downsize. Some companies went through dramatic cost-control processes in order to deal with both the loss of monopoly power and the desire to compete internationally. “Change in government regulation” was identified by 12 companies in the 1980s (24 per cent of the companies that restructured) and by 29 companies in the 1990s (also 24 per cent of restructuring companies).

Other Commentary

Some respondents from the construction sector indicated that the rise in interest rates during the recessions caused hardship for them and that the restructuring was undertaken to enable them to better cope with similar shocks in the future. They cited factors that led to restructuring but which were not explicitly included on the survey questionnaire. These include the inflexibility of unions and the severe downturn of the real estate market in the late 1980s.

Other respondents commented that restructuring was brought on, not by any one single factor, but by a number of different shocks occurring at once. For example, one manufacturing company said that the sudden shift in focus from a Canadian to a North American market motivated them to become more efficient. However, their efforts were hampered by higher financing costs because of increased interest rates. In general, many of the companies interviewed had become better equipped to handle financial downturns, and some had noted that the low-inflation environment had helped them to identify inefficiencies and to become more productive.

Many respondents are still in the process of restructuring. For example, several companies that had operated across Canada were in the process of closing their Canadian head offices and transferring these operations to their U.S. parent's head office, leaving only a skeleton staff to work as liaison between the two. One firm noted that this development essentially makes the Canadian office a branch operation of the U.S. company and eliminates many jobs for highly skilled, professional workers in Canada.

Employment Effects

Not only was the recovery in employment and output more prolonged in the 1990s than in the 1980s, but the expansion in paid employment did not really get underway until 1997. This development may have been influenced by an acceleration of restructuring. One objective of this survey was to assess the changes in the labour force attributable to major restructuring initiatives. Restructuring can affect the labour force in several ways: companies could require a higher overall skill level; general reductions in the workforce could lead to a higher rate of frictional unemployment; also, those who may have been unemployed for a long period could experience difficulty re-entering the workforce. Our survey attempts to quantify some of these effects.

The results of the survey indicate that many firms did, in fact, change the level of employment as part of their restructuring.[6] Over twice as many firms that restructured in the 1990s indicated that they reduced rather than increased employment (45 per cent said employment was reduced, compared with only 21 per cent who indicated that employment was increased). The difference is less apparent for firms that restructured in the 1980s—38 per cent said employment was reduced, compared with 24 per cent who increased employment (Table 5).

Table 5

Effect of Restructuring on Employment

	As a percentage of firms that had restructured		As a percentage of all firms in survey[a]	
	1980s	1990s	1980s	1990s
Employment reduced	38	45	14	39
Employment increased	24	21	9	19
Employment fell initially but eventually increased because of improved long-term competitive position	6	17	2	14
No effect	24	17	74	28
Employment increased initially but later found to be excessive and was cut back	6	2	2	2
Number of companies	50	121	140	140

a. The results for "no effect" include those firms that had not gone through a major restructuring.

These percentages do not include the number of firms that said "employment fell initially but eventually increased" (17 per cent in the 1990s) or "employment increased initially but was later found to be excessive and was cut back" (2 per cent in the 1990s). If these two categories are included, the initial effect is even more negative than the effect in the long run, when employment levels ultimately climb because of improved long-term competitive positions. Only 24 per cent of companies who restructured in the 1980s said that there was "no effect" on their workforce, and this share declined to 17 per cent for firms restructuring in the 1990s.

The industry most affected in the 1980s was manufacturing, with 50 per cent of firms saying that employment had declined. In the 1990s, the transportation, communications, and utilities sector had the biggest declines in employment, with two-thirds of companies cutting staff, while manufacturing again reported about 50 per cent of companies with lower employment.

To assess the impact of employment losses from restructuring on the economy as a whole, a useful proxy is the percentage of firms that had decreased their workforces as a proportion of *all* companies surveyed. The differences between the 1980s and 1990s are more pronounced when this measure is used. In the 1980s, 74 per cent of companies surveyed did not change the level of employment as a result of structural factors, whereas in the 1990s, this figure drops to 28 per cent (Table 5). Considering only the initial effects on employment, the net effect can be seen by adding the percentage of firms that indicated that employment fell or fell only initially (39 per cent and 14 per cent) and subtracting those who said employment rose or rose initially only (19 per cent and 2 per cent.) Thus, the net initial effect was that 32 per cent of all firms reduced employment in the early 1990s. However, the extent of these declines is mitigated by the fact that some firms also contracted out services (see the following sections).

Why did firms reduce staff?

Firms that indicated reductions in employment (19 in the 1980s and 55 in the 1990s) were asked to give a reason for the decrease. Foremost among those given was competitive pressures, and this influence intensified in the 1990s. In the 1980s, 63 per cent of firms where employment declined indicated that "competition squeezed profit margins making it necessary to reduce the cost of labour inputs," and 42 per cent cited "investment in new technology." In the 1990s, the dominant reason, given by 80 per cent of those who

6. The questionnaire requested that firms control for the cyclical effects in employment and concentrate only on the gains and losses caused by restructuring.

Table 6

Reasons for Decline in Employment

As a percentage of firms that indicated employment was reduced[a]

	Goods sector		Services sector		Total	
	1980s	1990s	1980s	1990s	1980s	1990s
Competition squeezed profit margins, making it necessary to reduce the cost of labour inputs	42	44	21	36	63	80
Investment in new technology	32	29	11	16	42	45
Wage rates not consistent with productivity	26	20	5	18	32	38
Payroll tax increases could not be passed on	11	16	5	4	16	20
Shortage of skilled labour	0	7	0	2	0	9
Number of companies with employment losses	14	26	5	29	19	55

a Figures can sum to more than 100 per cent since firms were asked to respond to all applicable choices.

reduced staff, was again that "competition squeezed profit margins." This was a significantly higher proportion than for the next most common reason, "investment in new technology" (45 per cent of respondents who reduced staff) (Table 6). Some commentary from companies supported the view that technology allowed companies to substitute capital for labour. For example, a business-service company reported that staff was cut by 10 per cent purely as a result of efficiency gains from computer technology. Several companies in the primary sector said that they were moving towards a capital-intensive approach, whereas previously their operation had been primarily labour-intensive.

The survey results indicate that payroll taxes were not a major reason for companies to restructure and decrease their workforces.

Other reasons for staff cutbacks were cited by relatively few respondents. These included "payroll tax increases could not be passed on" and a "shortage of skilled labour." Although payroll taxes are often cited as an impediment to the growth of employment, the survey results indicate that payroll taxes were not a major reason for companies to restructure and decrease their workforces. One possible explanation is that the survey took a long-term perspective, and the effects of payroll taxes are likely felt over the short term. Also, some respondents could have viewed wage rates as being equivalent to labour costs, which include payroll taxes. There was some overlap between the firms who cited "wage rates not consistent with productivity" and "payroll tax increases could not be passed on," although this did not come through in conversations with the companies.

Change in the composition of the labour force

The survey also tried to get a sense of the extent of "churning," or change in the composition of the workforce. The survey results show little evidence of a change in the composition of the workforce in the 1980s. The type of change identified most frequently was "skill mix was changed in favour of highly skilled workers," and even this was identified by only 26 per cent of respondents (Table 7). In the 1990s, this change was also identified most frequently, although by a much higher proportion (58 per cent).

The need for more highly skilled workers is closely related to the widespread introduction of technology as a business tool and is consistent with investment in new technology being the method of restructuring identified most frequently. A common theme in the commentary was that job duties were changing, and companies required employees to be adaptable and to change career paths more frequently than ever before. Some firms indicated that many employees used to

Table 7

Effect on Composition of Labour Force

As a percentage of firms that restructured[a]

	Goods		Services		Total	
	1980s	1990s	1980s	1990s	1980s	1990s
Skill mix was changed in favour of highly skilled workers	16	25	10	33	26	58
Some employees were replaced by contract workers	0	14	0	18	0	32
Greater reliance on temporary workers	0	8	2	13	2	21
Proportion of part-timers was increased	2	2	2	12	4	14
Proportion of part-timers was decreased	4	4	0	3	4	7
Number of companies that restructured	27	52	23	69	50	121

a Figures can sum to more than 100 per cent since firms were asked to respond to all applicable choices.

work in "back office" operations such as payroll or site management, and that these duties have been outsourced. In these firms, all the employees are now front-line workers—client-focused and working on supporting the business and building client relations. Some financial sector companies said that they had reduced branch jobs but had more than made up for the job losses by increasing staff to deal with increased computerization at the head office.

A common theme in the commentary was that job duties were changing, and companies required employees to be adaptable and to change career paths more frequently than ever before.

Other changes in employment include the use of contract workers to replace full-time employees. No firms reported this change for the 1980s, but it was the second most common change in the composition of employment in the 1990s, reported by 32 per cent of firms. The proportion of firms that increased their use of part-time workers and temporary workers was also higher in the 1990s than in the 1980s. The motivation was for companies to achieve a higher degree of flexibility.

The Outlook

In the survey, companies were asked what they felt their prospects were for the future. Many responded that they were confident. Some indicated that further expansion was planned. Others expected technology to continue playing a major role in their future plans. Many hoped to gain more exposure in international markets. Finally, there was the expectation of a continuing search for efficiencies through consolidation and strategic alliances. Thus, while a few participants had negative comments about their future prospects, it seems that those who had navigated the shocks of the 1980s and early 1990s were optimistic.

At the time of the survey, the optimism expressed was not supported by evidence of sustainable economic growth. When the economy's recent performance is considered, there is a clearer picture of sustained growth, suggesting that some of the negative impacts of restructuring are now over. The one remaining question is that if the survey is representative of the Canadian economy, why then has there been so little productivity growth? During the first half of the 1990s, growth in aggregate employment and labour productivity in the Canadian economy was sluggish.[7] This is puzzling since the survey results showed that corporate restructuring initiatives, such as investing in new technology and moving to fewer, but larger, establishments were undertaken to enhance productivity. Indeed, given the structural changes that have taken place since the late 1980s (such as free trade, deregulation, and a shift to a low-inflation environment), the low level of productivity growth is even more perplexing.

There are a number of possible reasons for the sluggish performance of productivity in the early 1990s. One is the existence of lags between restructuring and the eventual realization of productivity gains (David 1991, Lipsey 1996). For example, following a technological innovation, it takes time to refine the applications that will produce efficiencies, integrate them, and finally, train workers to full proficiency. Another reason could be that Canada's economic recovery was relatively weak and, given that cyclical productivity improvements are difficult to separate from structural ones, all the improvements in productivity growth from restructuring may not yet be readily apparent. In fact, productivity did pick up in the late 1990s, and it is possible that further gains stemming from restructuring are still to come.

Conclusions

While this firm-level survey did not use a scientific statistical sample of the Canadian economy, it was structured in such a way as to be roughly representative of the business sector of the Canadian economy. The results may, therefore, be seen as indicative of the trends that were occurring in the economy during the first half of the 1990s.

The survey results clearly point to extensive restructuring in both the 1980s and the 1990s in the firms contacted, with the 1990s experiencing a more prolonged and deeper level of change. Over four-fifths of the companies surveyed reported a major restructuring in the 1990s, and over two-thirds of those who

7. Labour productivity growth was lower in 1988–95 compared with 1979–88 and 1995–99, whether measured as output per employee or output per person-hour.

restructured in both decades indicated that restructuring was greater in the 1990s. For the majority of firms that did restructure, their restructuring initiatives involved heavy investment in new technology. Indeed, changing technology was the clearest manifestation of restructuring, and this came about not because of affordability, but because of the availability of new technology. Competitive forces were also a factor in the decision to restructure.

The majority of the firms that responded that they had restructured in the 1990s had also cut their workforces. This may have been a temporary phenomenon, however, because a number of firms also indicated that they had since increased their level of employment. Indeed, the strong growth that has been evident in paid employment since early 1997 suggests that even if a period of major restructuring had an initial dampening effect on employment growth, eventually, the structural changes will have a payoff in greater employment growth. Employers also demanded a higher skill mix and increased their use of contract workers. Thus, for those currently in the labour force as well as for those who will soon enter it, there will be an ongoing need to improve their skill sets to remain competitive, up-to-date, and employable. Commentary from discussions with industry representatives since the survey was completed confirm these results.

These results provide some evidence that, in the wake of a major change in their operating environment (for example, from trade liberalization or deregulation), firms are more prepared to embark on a major restructuring of their operations than would otherwise be the case. The types of restructuring that were the most common among the companies surveyed—investing in new technology and adjusting the size or quality of their workforces—may not have had an immediate payoff. The expectation of improved performance in the future, however, suggests that for the economy as a whole, the acceleration in both output and employment since 1996 may soon give way to an increase in productivity growth.

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Appendix: Methodology

There were two important preliminary tasks in this project. The first was to design the survey; the second, to select the sample. All companies spoke with the Bank on the condition of confidentiality. Their anecdotal information is used to supplement and provide background to the results of the formal survey questions.

Survey Questionnaire

The questionnaire was designed to answer the following: Did restructuring occur? What type of restructuring took place and why? What were the effects on employment? Questions regarding employment tried to assess both the effect on the level of employment and the change in the type of jobs in demand. Firms were asked to respond to each question for each of the two decades to ensure clarity between the two time periods.

Selecting the Sample

Three main factors were considered in determining which firms to interview: an appropriate mix of small, medium, and large companies; a division across all industry sectors in the same proportion as their representation in each region's total gross domestic product (GDP);[1] and finally to separate nationally based from provincially based companies and properly represent both groups. Firm size was defined by the following characteristics: small firms were those that employed between one and 100 people; medium-sized firms were those that employed between 101 and 500 people; and large firms were those with over 500 employees.

A total of 140 companies were surveyed. There were 36 national companies (those with employees in more than one region) and 104 regional companies (those with employees based primarily in one area) (Table A1). All but two national companies had more than 500 employees. The remaining two were medium-sized. Of the 104 regional companies, 58 were large (L), 27 were medium-sized (M), and 19 were small (S). Small firms are under-represented, largely because fewer operational staff made it difficult for them to participate in the survey.

1. Throughout this article, GDP refers to business sector GDP, or total GDP excluding government, health, and social services.

Table A1

Number of Companies by Industry and Size

Industry sector	Regional			National			Total		
	L	M	S	L	M	S	L	M	S
Primary	6	1	2	5	0	0	11	1	2
Manufacturing	11	9	2	9	0	0	20	9	2
Construction	5	2	3	1	0	0	6	2	3
Transportation, communications, and utilities	13	2	4	3	0	0	16	2	4
Wholesale and retail trade	7	4	3	8	0	0	15	4	3
Finance, insurance, and real estate	5	2	2	3	1	0	8	3	2
Business and personal services	11	7	3	5	1	0	16	8	3
Goods-producing	22	12	7	15	0	0	37	12	7
Services	36	15	12	19	2	0	55	17	12
Total by size	58	27	19	34	2	0	92	29	19
Total		104			36			140	

Table A2

Industry Weighting

Industry sector	Percentage of companies surveyed	Percentage of business-sector GDP
Primary	10.0	8.1
Manufacturing	22.0	21.5
Construction	7.8	6.9
Transportation, communications, and utilities	15.7	14.2
Wholesale and retail trade	16.4	14.4
Finance, insurance, and real estate	9.2	19.6
Business and personal services	19.3	15.3

With few exceptions, the regional and industrial mix of companies is similar to that of the actual breakdown of total business sector GDP (Tables A2 and A3). Sectorally, firms in the finance, insurance, and real estate sector were under-represented. Regionally, the percentage of firms from Atlantic Canada is disproportionately large relative to that region's share of Canadian GDP.

Table A3

Number of Companies Visited by Region and that Region's GDP

	Atlantic	Quebec	Ontario	Prairies	B.C.	National	Total
Goods sector	5	7	14	7	8	15	56
Services sector	6	14	26	11	6	21	84
Total	11	21	40	18	14	36	140
Percentage of regional companies in survey	10.6	20.2	38.5	17.3	13.5		
Percentage of GDP	6.0	21.7	40.6	18.5	12.8		99.6

In almost all cases, the interview was conducted in one-hour, face-to-face discussions with senior financial executives. In some instances, however, the results were faxed back with written comments from the company. In these cases, the companies were contacted again by phone for any necessary clarification.

The first round of interviews was conducted in September 1998. In that first round, about 40 per cent were successfully interviewed. Companies that declined to participate or had conflicts were replaced with companies that had matching characteristics. The interviews were completed by December 1998.