



The Daily

Statistics Canada

Tuesday, February 15, 2005

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Major releases

Study: Business Dynamics in Canada

1991 to 2001

Of all firms that were created during the 1990s, roughly one-quarter ceased to operate within the first two years according to a new report that analyzes the impact of economic developments on business dynamics during the past decade.

Just over one-third of these firms survived five years or more, and only one-fifth were still in operation after 10 years.

Overall, the chances of a firm's survival improved slightly during the 1990s. Firms that were created during the second half of the decade were more likely to survive than their counterparts born in the early 1990s. This was due partly to the economic recovery that followed the 1990-92 recession.

On average, the number of businesses grew by about 8,500 each year during the 1990s. This was the difference between the average of 140,500 firms that began operations each year and the average of about 132,000 a year that went out of business. Businesses employing 100 to 499 workers experienced the strongest growth.

In 2001, roughly one million businesses were operating in Canada, up 9% from a decade earlier. The nation's strongest rate of growth was in Alberta, where the number of firms increased by 31%, followed by British Columbia (+15%) and Ontario (+9%).

In 2001, only 0.2% of firms employed 500 or more employees, but they represented 42% of total employment. The vast majority (92%) of companies employed fewer than 20 workers, and they accounted for 21% of total employment.

Strongest growth in high-knowledge sector

Most of the growth in firms between 1991 and 2001 occurred in the services-producing sector (+13%) while the goods-producing sector advanced only 1%.

The number of businesses evolved at markedly different rates even within these two broad sectors. For instance, within the services-producing sector, the number of firms in high-knowledge industries nearly doubled (+90%), while the number in

Note to readers

This release is based on a study that investigates the impact of economic changes on business dynamics during the past decade.

This analysis is based on data from Statistics Canada's Longitudinal Employment Analysis Program (LEAP) file. It contains employment information for each employer business in Canada, for each year from 1991 to 2001. LEAP is a company-level file; the company is defined as the legal entity that reports to Canada Revenue Agency for taxation purposes.

Knowledge based industries are defined on the basis of three measure of research and development (R&D) and three measures of human capital.

The R&D measures are: the R&D-to-sales ratios, the proportion of R&D personnel to total employment, and the proportion of professional R&D personnel to total employment.

The measures of human capital are: the ratio of workers with postsecondary education to total employment, the ratio of knowledge workers (occupations in the natural sciences, engineering and mathematics, education, management and administration, social sciences, law and jurisprudence, medicine and health, and writing) to total employment, and the ratio of the number of employed scientists and engineers to total employment).

High-knowledge industries are those that fall in the top third on the basis of two of the R&D measures and two of the human capital indices. This report classifies industries into high-, medium-, and low knowledge industries, public administration and other.

medium-knowledge industries rose 17% and the number in low-knowledge industries declined 2%.

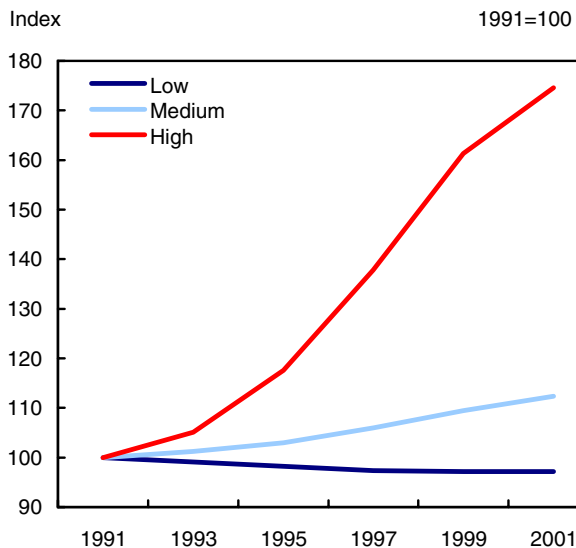
Percentage change in the number of businesses, by industry, 1991 to 2001

Knowledge based industries	Goods	Services	All
% change			
Low knowledge	-6	-2	-3
Medium knowledge	3	17	12
High knowledge	29	90	75
All Industries	1	13	9

In the goods-producing sector, the number of firms in high-knowledge industries also grew at a much faster pace than in other industries.

As a result, high-knowledge firms experienced by far the fastest growth between 1991 and 2001 overall. Their number rose a solid 75%, six times the rate of 12% among medium-knowledge industries.

Rate of growth highest in the high knowledge industries



Overall, low-knowledge firms fared even worse, as their number fell 3% during the 10-year period.

Even though business growth was very strong in the high knowledge industry, this sector actually accounted for only 37% of the net increase of 85,000 firms between 1991 and 2001.

The reason is that relatively few firms were operating in this sector at the beginning of the 1990s. In fact, almost two-thirds (61%) of the net increase in the number of business originated in the medium-knowledge industry. This occurred mainly among small firms.

Business creation slows down after 1996

The rate at which businesses were created increased between 1993, right after the 1990-92 recession, and 1996 when it peaked. Following 1996, the rate declined every year up to and including 2001.

The factors underlying the decline in the proportion of firms that were created during the second half of the 1990s are currently unknown. One potential explanation is that, during the 1990s, there was a shift from self-employed workers with a small number of employees to self-employed workers with no employees.

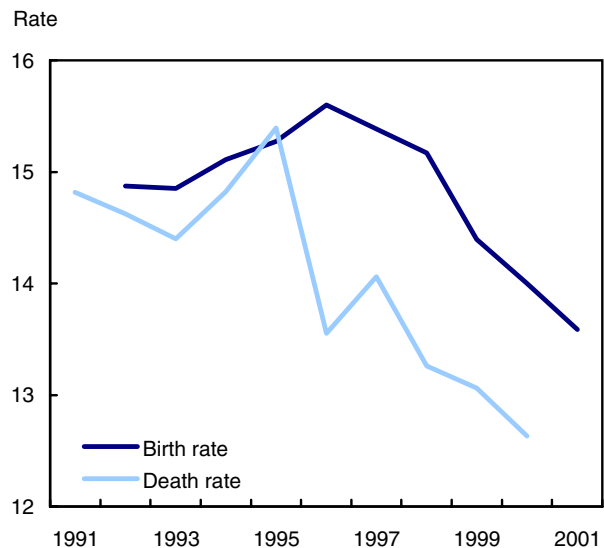
Data from the Labour Force Survey indicate that between 1991 and 2001, the group of self-employed workers with no employees increased by 48% while the group with a small number of employees displayed virtually no growth.

Since self-employed workers with no employees are not considered business start-ups in the data

file used for this report (contrary to self-employed workers with employees) this shift in the composition of self-employment would lead to a drop in birth rates, all other factors being equal.

While the rate at which new firms are created has slowed down since 1996, the rate at which they ceased operations has also fallen. Between 1991 and 1995, a range of 14.4% to 15.4% of existing firms ceased operations.

Business creation far exceeds those that cease to operate



Subsequent rates at which firms ceased to operate were much lower, as the fraction of firms ceasing their operations declined continuously between 1997 and 2001. In 2000, the rate at which firms ceased to operate was only 12.6%.

Just under one-half of firms in high-knowledge industries survived five years or more

Chances of survival varied by industry. Between 1992 and 1997, 46% of high-knowledge industries survived five years or more. In contrast, 39% of medium-knowledge firms lasted for five years or more and 33% of low-knowledge firms survived.

While a sizeable proportion of firms cease operations within a short time, those that survive may expand or contract as time passes. However, many remain in their initial size class after several years.

For example, of all firms that employed on average fewer than 20 employees between 1991 and 1993 and were still in operation in 2001, fully 91% still

employed on average fewer than 20 employees between 1999 and 2001.

Survival rate of new firms created in 1992 and 1997 by knowledge industries

	Born in 1992			Born in 1997	
	Percentage of firms that lasted at least			Percentage of firms that lasted at least	
	2 years	5 years	10 years	2 years	5 years
Low knowledge	74	33	17	72	38
Medium knowledge	75	39	22	75	39
High knowledge	79	46	28	79	46

Only 8% increased employment to 20 to 99 employees between 1999 and 2001. A negligible fraction ended up employing 100 or more employees.

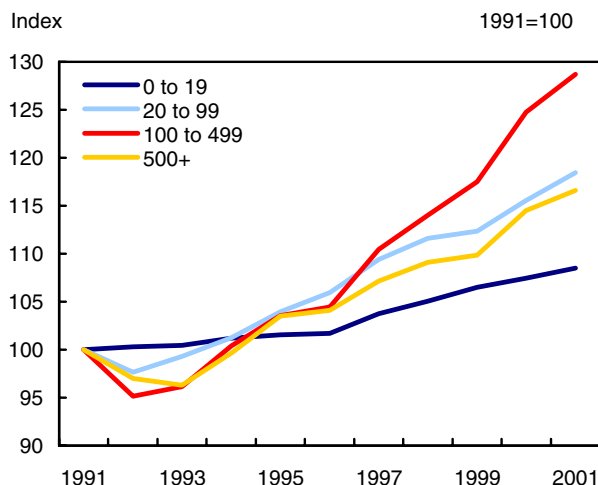
Likewise, of all firms that employed, on average, 500 or more employees between 1991 and 1993 and that were still operating in 2001, 82% still had 500 or more employees between 1999 and 2001.

Only 15% employed 100 to 499 workers between 1999 and 2001, while 3.2% ended up employing fewer than 100 workers during that period.

Medium-sized firms experienced the strongest growth

The growth in the number of firms was not uniform across size classes. Between 1991 and 2001, the number of medium-sized firms (those employing 100 to 499 workers) increased by about 29%.

Rate of growth highest among medium sized firms



Note: Size categories refers to number of employees (0 to 19 employees).

In contrast, smaller businesses (those with 20 to 99 employees) had a growth rate of 18%, while the largest firms (those with 500 or more employees) experienced growth of 17%. The number of the smallest firms (those employing less than 20 employees) rose only 8%.

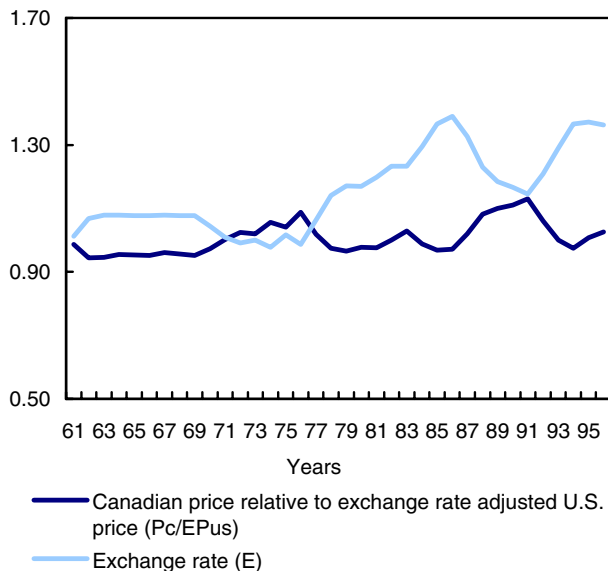
The report titled *Business Dynamics in Canada, 2001* (61-534-XIE, \$25) is now available. See *How to order products*.

For more information, or to enquire about the concepts, methods or data quality of this release, contact Sri Kanagarajah (613-951-1132; sri.kanagarajah@statcan.ca), Business and Labour Market Analysis Division. ■

Study: Do prices charged by manufacturers in Canada and the United States move together over time?

Manufacturers' prices in Canada track those in the United States closely, but not perfectly, over the long run, according to a new study that examined 84 industries in both nations.

Manufacturing average (weighted by output shares)



The study used a detailed industry-level data base of industry prices in the manufacturing sector of both countries to investigate whether the prices for Canadian and US products move together, or alternatively, whether differences in the prices of products which are "matched" (in the sense of being produced by similar industries, albeit in different countries) exist and persist over time. This issue is of practical importance, affecting among other things comparisons of productivity or economic growth between the two countries.

Trade agreements have increased the degree of economic integration between Canada and the United States during the last 40 years.

Note to readers

Data for this study comes from NBER-CES productivity database and the KLEMS databases developed at the Micro-economic Analysis Division of Statistics Canada.

One measure of the impact of economic integration is the extent to which identical products sell for the same common-currency price in each country, thereby obeying the so-called "law of one price."

The study investigated how Canadian prices responded to US prices that are expressed in Canadian dollars, that is, adjusted for the exchange rate. Is, say, a doubling of Canadian prices matched by a doubling of US prices when those prices are expressed in common currency terms?

Based on data from 84 manufacturing industries from 1961 to 1996, the study finds that average Canadian manufacturing prices do not match US prices (expressed in Canadian dollars) in the short run. Price differences exist and fluctuate over time and reflect shifts in the exchange rate.

Such a conclusion is supported by the relationship between fluctuations in the ratio of the average price of Canadian manufacturing output to that of US manufacturing output (both expressed in Canadian dollar terms) and movements in the exchange rate. Fluctuations of the former around a value of one represent changes in relative prices and mirror exchange rate movements almost exactly.

It is also apparent that average Canadian manufacturing prices move in line with their US counterparts in the long run, as evidenced by the tendency of the relative price ratio to return to a value of one (rather than diverging) over time.

Although Canadian and US prices moved together in the long run, the magnitude of the relationship was not one-to-one, especially at the industry level. Many individual industries deviated from it.

The study found that as the degree of product substitutability and market integration increased, the correlation between Canadian and American prices also become stronger. Although there is little movement (relative to the prices charged by their US counterparts) in the prices charged by industries with less differentiated products and more integrated markets, this is not the case for all industries.

For example there are substantial upward movements in the Canadian price relative to the US price in industries such as the dairy products industry, the brewery products industry, the record player/radio and television receiver industry, and the communication and other electronic equipment industry. In other instances, there are substantial downward movements in Canadian prices relative to their US counterparts (e.g., in the steel pipe and tube industry, the copper and alloy rolling, casting and extruding industry, and the motor vehicle parts and accessories industry).

The research paper *Integration and Co-integration: Do Canada-US Manufacturing Prices Obey the "Law of*

One Price?" no. 29 (11F0027MIE2005029, free) is now available online. From the *Our products and services* page, under *Browse our Internet publications*, choose *Free*, then *National Accounts*.

More studies on international trade can be found at *Update on Economic Analysis* on our Web site (11-623-XIE, free).

For more information, or to enquire about the concepts, methods or data quality of this release, contact Paul Warren (613-951-3999) or Beiling Yan (613-951-1234), Micro-economic Analysis Division. ■

Other releases

Refined petroleum products

December 2004 (preliminary)

Data on the production, inventories and domestic sales of refined petroleum products are now available for December 2004. Other selected data about these products are also available.

Definitions, data sources and methods: survey number 2150.

For more information, or to enquire about the concepts, methods or data quality of this release, contact the dissemination officer (1-866-873-8789; 613-951-9497; energ@statcan.ca), Energy, Manufacturing, Construction and Energy Division. ■

New products

Infomat, A Weekly Review, February 15, 2005
Catalogue number 11-002-XWE (\$100).

Economic Analysis Research Paper Series:
Integration and Co-integration: Do Canada-US
Manufacturing Prices Obey the Law of One Price?,
no. 29
Catalogue number 11F0027MIE2005029
(free).

Monthly Survey of Manufacturing, December 2004,
Vol. 58, no. 12
Catalogue number 31-001-XIE (\$17/\$158).

Business Dynamics in Canada, 2001
Catalogue number 61-534-XIE (\$25).

New Motor Vehicle Sales, December 2004, Vol. 76,
no. 12
Catalogue number 63-007-XIE (\$14/\$133).

All prices are in Canadian dollars and exclude sales tax. Additional shipping charges apply for delivery outside Canada.

Catalogue numbers with an -XWE, -XIB or an -XIE extension are Internet versions; those with -XMB or -XME are microfiche; -XPB or -XPE are paper versions; -XDB or -XDE are electronic versions on diskette and -XCB or -XCE are electronic versions on compact disc.

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 The Daily	
Statistics Canada	
Thursday, June 5, 1997	
For release at 9:30 a.m.	
MAJOR RELEASES	
• Urban transit, 1995	2
Despite the emphasis on taking urban transit, Canadians are using it less and less. In 1996, each Canadian took an average of about six trips on some form of urban transit, the lowest level in the past 25 years.	
• Productivity, hourly compensation and unit labour cost, 1995	4
Growth in productivity among Canadian businesses also noticeably weak again in 1996, accompanied by sluggish gains in employment and slow economic growth during the year.	
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Statistics Canada's official release bulletin

Catalogue 11-001-XIE.

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