

Statistics Canada

Wednesday, September 24, 1997 For release at 8:30 a.m.

MAJOR RELEASES

- Canada's international transactions in securities, July 1997
 Foreign buyers snapped up \$2.3 billion of Canadian stocks in July, matching the record set in May 1996. Meanwhile, Canadian residents were huge buyers of foreign bonds, mainly U.S. treasury bonds.
- Research and development in small and large manufacturing firms
 Small firms network with large firms to create innovations.

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Research and development in small and large manufacturing firms

The release announced in today's *Daily* is based on data from the 1993 Survey of Innovation and Advanced Technology. Information was gathered from over 3,500 manufacturing firms on both their innovative capabilities and their research and development activities.

The Analytical studies branch research paper no. 107: The importance of research and development for innovation in small and large Canadian manufacturing firms is now available on the Internet at www.statcan.ca or by contacting the Micro-economic Analysis Division (613-951-4676).





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MAJOR RELEASES

Canada's international transactions in securities

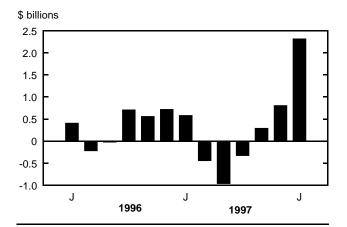
July 1997

Foreign buyers snapped up \$2.3 billion of Canadian stocks in July, matching the record set in May 1996. They did, however, reduce their holdings of Canadian debt securities by \$1.8 billion in July. Meanwhile, Canadian residents were huge buyers of foreign bonds, mainly U.S. treasury bonds.

Foreign purchases of Canadian stocks matched previous record

As Canadian stock prices shot up 7% in July, foreigners purchased \$2.3 billion of Canadian stocks. The heavy buying spree came mainly from the United States and to a lesser extent from Europe. The equity investment was very much concentrated in the natural resource and financial sectors. The foreign purchases in July brought to \$3.4 billion the investment in the past three months, coinciding with a 15% rise in Canadian stock prices, as measured by the TSE 300 Index.

Foreign investment in Canadian stocks



Foreign residents sold off \$1.4 billion of Canadian bonds in July, after buying \$1.2 billion in June. New Canadian bonds issued in foreign markets rose to \$5.7 billion in July, the largest in three years. These were, however, offset completely by a similar amount of retiring foreign-held Canadian bonds. In total, non-residents reduced their holdings of federal issues by \$3.5 billion in July, while increasing the holdings of

Related market information

Interest rates

Both Canadian and U.S. short-term rates, which have been relatively flat since November 1996, rose in July. Canadian rates rose some 15 basis points more than their U.S. counterparts, reducing the differential to 200 basis points, continuing to favour investment in the United States. During the same period, U.S long-term federal government bond yields declined slightly less than their Canadian counterparts, resulting in a differential of zero.

Stock prices

Canadian stock prices, as measured by the TSE 300 Index, shot up 6.8% in July, bringing to 15% the gain in the past three months. U.S. stock prices, as measured by Standard and Poor's Composite 500 Index, were even stronger, gaining 7.8% in July and a full 19% over the same three-month period.

Canadian dollar

The Canadian dollar closed July marginally higher at US72.55 cents, gaining back the small amount it lost in June.

provincial (\$1.8 billion) and corporate (\$0.4 billion) issues. Overall, Europeans sold \$4.3 billion of Canadian bonds in July, in contrast to U.S. investors who bought \$2.8 billion during the month.

Non-residents reduced their holdings of Canadian money market paper by a further \$0.5 billion in July, bringing to \$5.2 billion their disinvestment over the past four months. Heavy selling by U.S investors (\$2.1 billion) was mostly offset with buying by both European (\$0.9 billion) and Asian investors (\$0.8 billion).

Canadian residents bought heavily into U.S. treasury bonds

Canadian residents bought a record \$1.6 billion of mainly U.S. treasury bonds in July and sold off \$0.5 billion of mainly U.S. equities. U.S. long-term federal government bond yields declined less than their Canadian counterparts in July. This led to a zero interest rate differential, a departure from the differential that has favoured investment in Canada for many years. The selling of foreign stocks by residents in July contrasted with the massive investments they have consistently made in recent years.

\$ billions 1.0 -1.0 -2.0 -3.0 -4.0 1996 1997 * Includes bonds and stocks.

Available on CANSIM: matrices 2328-2330, 2378-2380 and 4195.

The July 1997 issue of *Canada's international transactions in securities* (67-002-XPB, \$18/\$176) will be available in October. See *How to order publications*.

For further information on this release, contact Don Granger (613-951-1864), Balance of Payments Division.

Canada's international transactions in securities

	April 1997	May 1997	June 1997	July 1997	Jan. to July 1996	Jan. to July 1997	
	\$ millions						
Foreign investment in Canadian securities, total	3,969	-2,771	919	480	11,047	6,096	
Bonds (net)	5,905	-1,007	1,157	-1,380	6,830	5,188	
Outstanding	4,636	-2,543	-438	-1,183	-2,112	-4,867	
New issues	2,397	2,203	4,509	5,720	25,143	24,297	
Retirements	-1,359	-1,511	-2,149	-5,738	-16,190	-14,479	
Change in interest payable ¹	231	844	-766	-179	-11	236	
Money market paper (net)	-1,614	-2,050	-1,038	-451	-2,321	-1,347	
Government of Canada	-1,991	-2,528	-1,424	-696	-4,146	-3,339	
Other paper	378	478	386	245	1,825	1,992	
Stocks (net)	-322	286	800	2,310	6,538	2,255	
Outstanding (net)	-649	200	198	2,177	3,389	636	
New issues (net)	327	86	602	133	3,149	1,620	
Canadian investment in foreign securities, total	-180	829	-141	-1,067	-8,065	-4,429	
Bonds (net)	-231	928	255	-1,615	198	-1,681	
Stocks (net)	51	-99	-396	548	-8,263	-2,749	

¹ Interest accrued less interest paid

Note: A (-) indicates an outflow of money from Canada: for example, a withdrawal of foreign investment from Canada, or an increase in Canadian investment abroad.

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Research and development in small and large manufacturing firms

Small- and medium-sized manufacturing firms are less likely to introduce new products and processes than large firms. While over 63% of large firms introduced a new product or process between 1989 and 1991, only 40% of small firms did so. In addition, of those firms that did innovate, smaller firms were less likely to introduce world-first changes and were relatively more likely to introduce Canadian-first innovations. Although innovation occured somewhat less frequently in small firms, there were 10 times the number of small firms. Therefore, small firms produced a much larger number of innovations in total than did large firms.

Despite these differences in the frequency of innovation, there were a number of similarities across innovators of different sizes. Small- and medium-sized firms produced the same number of product innovations per firm as did large firms, though they produced fewer process innovations. The impact of the innovation on the sales of the firm was about the same for small, medium and large firms.

R&D found less frequently in small firms

Small firms were also less likely to engage in research and development (R&D) than large manufacturing firms, but the difference was not significant (76% versus 86% respectively). Differences were more marked with regards to the type of R&D performed (regular and ongoing versus occasional). Some 53% of large firms conducted R&D on an ongoing basis, compared with only 32% of small firms. Small firms differed primarily from large firms in that they were more likely to conduct R&D on an occasional basis; therefore, they were less likely to use a separate, dedicated R&D facility than large firms. The innovative process in small firms differed from that in large firms in that it was less continuous.

Small firms that perform R&D just as likely to innovate

Large firms were more likely to utilize R&D facilities and be more innovative than small firms by a number of standards. Nevertheless, small firms that did perform R&D produced innovations just as frequently as large firms.

Small firms introduce innovations in different ways

Large and small firms also differed in the way they innovate. Large firms almost invariably perform R&D.

Note to readers

The study The importance of research and development for innovation in small and large Canadian manufacturing firms examines the innovation profiles of small and large firms, and how the intensity and efficacy of research and development (R&D) varies across firms of different sizes. Four different firm sizes were used in the study: micro-firms (less than 20 employees); small firms (20 to 99 employees); medium-sized firms (100 to 499 employees); and large firms (over 500 employees). The study also looks at how R&D contributes to the success of small- and medium-sized firms. Small firms were also asked which policies would best reduce the impediments to innovation. Most of the data come from the 1993 Survey of Innovation and Advanced Technology, which gathered information from over 3,500 manufacturing firms on both their innovative capabilities and their research and development activities.

Innovation involves the creation and commercialization of a new product or process and generates economic growth. Understanding the different contributions made by small and large firms to innovation is particularly valuable since small firms have become more important players in the economy. This paper demonstrates that the innovative intensity of large and small firms is not the same. Small firms are not less efficient innovators, rather they do innovate in different ways.

Small firms were more likely to produce innovations without having an R&D department. Small firms tended to rely more heavily on engineering and production departments. Large firms relied on R&D departments and on affiliated firms. Small firms were more likely to cultivate special relationships with customers and non-affiliated firms that permited them to develop innovations.

Small firms can be divided into two groups. The first group consists of firms that resemble large firms in that they perform R&D and generate new products and processes primarily through their own efforts. The second group consists of firms that rely on customers and suppliers for sources of ideas for innovation. Conversely, large firms tend to rely more heavily on R&D. While they too rely on networks for ideas, their networks focus more heavily on relationships with affiliated firms.

R&D leads to success in small firms

Despite these differences. innovation consistently the most important characteristic associated with success in small- and mediumsized firms, according to the 1994 study "Growing small- and medium-sized enterprises". While there are undeniable differences in the degree to which large and small firms make use of an R&D strategy, it would be a mistake to treat an R&D strategy as ineffective in small firms or to conclude that innovation strategies matter for success only in large firms. Among the growth factors related to success are: R&D-innovation capability, competency in accessing markets, and technology.

Reasons for differences in the small- and large-firm innovation process

Most of the differences between small and large firms exist because firms of different sizes serve different niches; that is, they each have their own advantages. Small firms are more flexible but can suffer from cost disadvantages due to scale. They overcome their disadvantages by networking with their customers and by showing the same flexibility in their R&D process that they exhibit elsewhere. They rely less on dedicated R&D facilities and more on the flexible exploitation of R&D as opportunities arise.

They also network with customers in order to adopt their suggestions for innovations.

Small firms face special problems

There were several areas where small firms indicated that they face special problems. Small firms perceived that they face barriers with regards to information on technologies, on markets, and on technical services. They also perceived significant barriers to inter-firm co-operation. This is a particularly serious problem since this is the method they use most frequently for developing new ideas for innovation.

For further information on this release, contact John Baldwin (613-951-8588; baldjoh@statcan.ca), Microeconomics Analysis Division. To obtain copies of this paper, contact Louise Laurin (613-951-4676).

OTHER RELEASES

Sawmills and planing mills July 1997

Sawmills in Canada produced 5 137.5 thousand cubic metres of lumber and ties in July, up 4.4% from 4 919.3 thousand cubic metres (after revisions) produced in July 1996.

January-to-July production was 38 606.6 thousand cubic metres, up 3.4% from 37 324.9 thousand cubic metres (after revisions) produced over the same period in 1996.

Available on CANSIM: matrices 53, 122 (series 2).

The July 1997 issue of *Sawmills and planing mills* (35-003-XPB, \$12/\$114) will be available shortly. See *How to order publications*.

For further information on this release, contact Gilles Simard (613-951-3516; Internet: simales@statcan.ca), Manufacturing, Construction, and Energy Division.

Business and other services industries 1994

The 1994 data on selected business and other services industries are now available. These data provide information such as revenue, salaries and wages, profit margin, the percentage distribution of revenue by type of service, expenditures and client base for selected industries.

Data are now available for the following categories: Other business services, which includes: security and investigation services, credit bureau services, collection agencies, custom brokers, telephone answering services, duplicating services and other business services; Other repair services, which includes: electric motor repair, welding and other repair services; and Other services, which includes: parking lots and parking garages, and other services.

For further information on this release, contact Randy Smadella (613-951-3472), Services Division. ■

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Electric lamps (light bulbs and tubes), August 1997 Catalogue number 43-009-XPB

(Canada: \$7/\$62; outside Canada: US\$7/US\$62).

Mineral wool including fibrous glass insulation, August 1997

Catalogue number 44-004-XPB

(Canada: \$7/\$62; outside Canada: US\$7/US\$62).

Gas utilities, June 1997

Catalogue number 55-002-XPB

(Canada: \$17/\$165; outside Canada: US\$17/US\$165).

Imports by commodity, July 1997 (microfiche version)

Catalogue number 65-007-XMB

(Canada: \$37/\$361; outside Canada: US\$37/US\$361).

Imports by commodity, July 1997 (paper version)
Catalogue number 65-007-XPB

(Canada: \$78/\$773; outside Canada: US\$78/US\$773).

All prices exclude sales tax.

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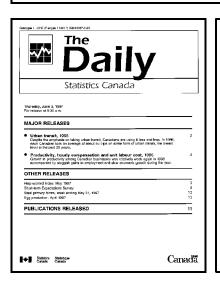
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Editor: Duncan Currie (613-951-1103, currdun@statcan.ca)

Head of Official Release: Chantal Prévost (613-951-1088, prevcha@statcan.ca)

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