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Information and Communications Technologies (ICT)



## Quarterly Monitor of the Canadian ICT Sector Third Quarter 2011

Canada

**Quarterly Monitor of the Canadian ICT Sector**  
**(URL: [http://www.ic.gc.ca/eic/site/ict-tic.nsf/eng/h\\_it07955.html](http://www.ic.gc.ca/eic/site/ict-tic.nsf/eng/h_it07955.html))**

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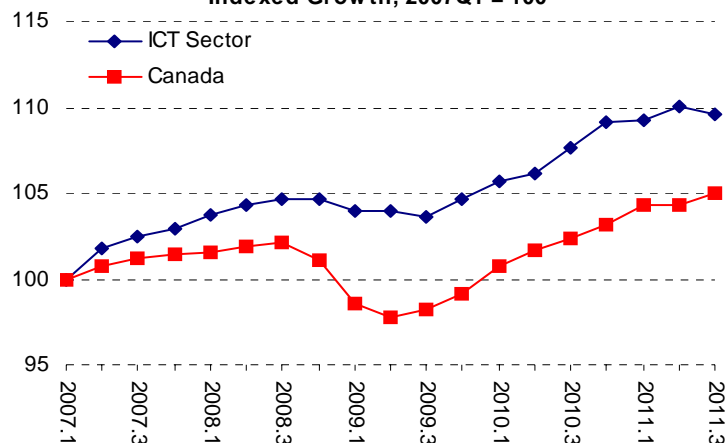
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# Gross Domestic Product

## ICT output fell this quarter

Real ICT sector output (GDP) fell 0.4% in the third quarter of 2011, ending a period of seven consecutive quarters of growth. Meanwhile, real output for all Canadian industries increased by 0.7%. Since the end of the recession (Q3 2009), the ICT sector has been growing at a slower pace than the overall economy. Over the last eight quarters, the ICT sector has grown by 5.7% while the overall economy has grown by 6.9%. This slower growth in the ICT sector is due to the communications services industries which have not grown during this period. The rest of the ICT sector has actually grown by 10.8% during the same period, a much faster pace than the overall economy.

**Real GDP: ICT Sector and Canadian Economy, Indexed Growth, 2007Q1 = 100**

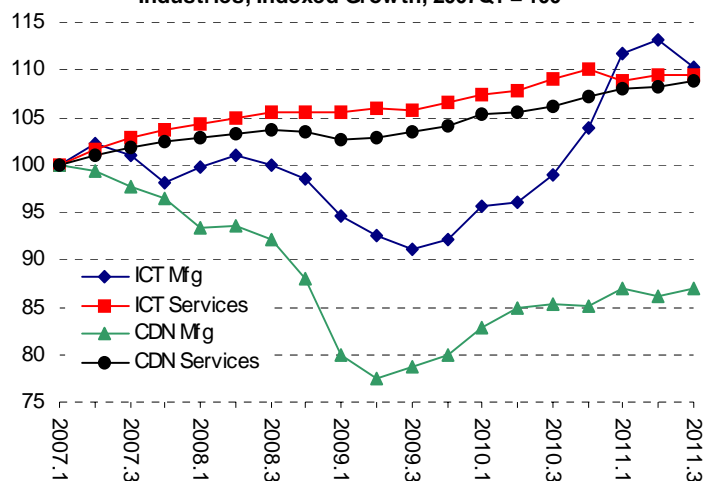


ICT manufacturing GDP dropped by 2.4% this quarter. ICT manufacturing GDP had been increasing at a rapid rate between the third quarter of 2009 and the second quarter of 2011, following its downturn between mid-2008 and mid-2009. It returned to its pre-downturn level quickly and continued to grow past it. While ICT manufacturing output fell this quarter, it still remains well above its pre-downturn levels. Total Canadian manufacturing GDP increased 1.0% this quarter. Canadian manufacturing output fell more severely during the downturn and has been less resilient than ICT manufacturing, not yet returning to its pre-downturn levels.

ICT services\* GDP remains essentially unchanged this quarter while total Canadian services grew by 0.5%. In the first three quarters of 2011, the ICT services sub-sector has slowed down significantly, in fact, the sub-sector slightly declined by 0.5%.

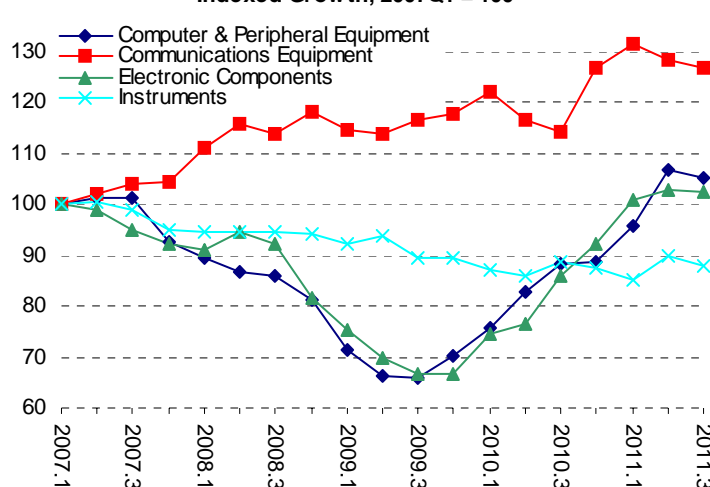
\* See ICT services definition on page five. This total includes the ICT wholesaling industries.

**Real GDP: ICT & CDN Manufacturing & Services Industries, Indexed Growth, 2007Q1 = 100**



Real GDP fell in all four key ICT manufacturing industries this quarter. Instruments industry GDP fell the most (-2.2%), followed by the computer and peripheral equipment (-1.5%), communications equipment (-1.3%), and electronic components (-0.5%) industries. On a longer period, the computer and peripheral equipment and electronic components industries have increased at the fastest and steadiest rate since the end of the downturn in 2009, only falling this quarter. Communications equipment output has experienced some quarters of positive and negative growth during the same period but it has been trending upwards overall. The Instruments industry has been slowly declining since the beginning of the analysed period (Q1 2007).

**Real GDP: Selected ICT Manufacturing Industries, Indexed Growth, 2007Q1 = 100**

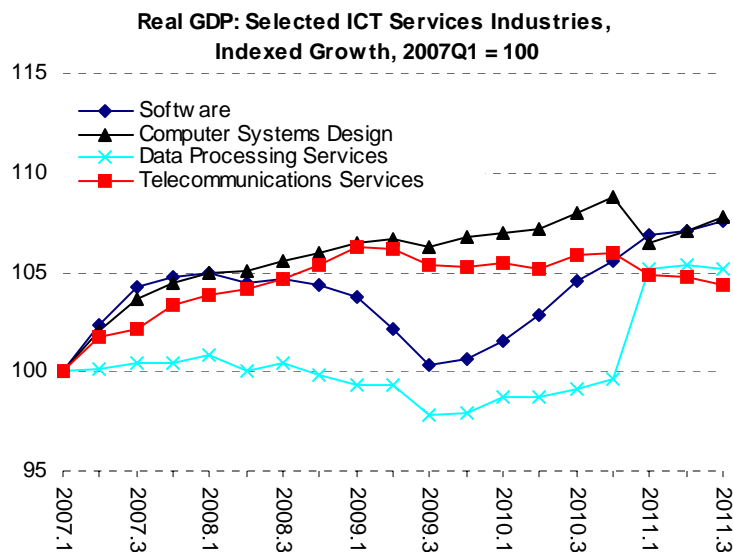


# Gross Domestic Product

In the services industries, wholesaling decreased by 1.1% this quarter. Excluding wholesaling, ICT services output grew by 0.1%, compared to no growth including wholesaling.

A decline of 0.4% in output of the telecommunications services industry offset most of the growth experienced by the computer systems design (0.7%) and software publishers (0.4%) industries. The data processing services industry GDP declined by 0.2% in the third quarter.

For the telecommunications services industry, this quarter's decline was the third in a row. In the first three quarters of 2011, the industry has declined by 1.5%.



3rd Quarter

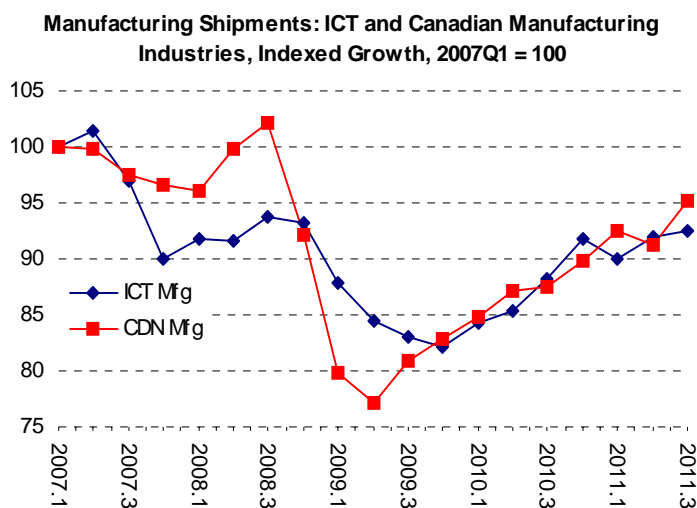
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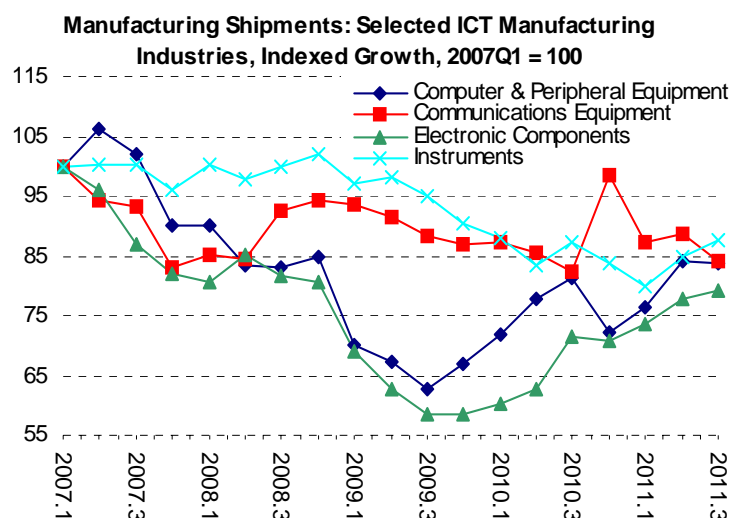
## Manufacturing Shipments

### ICT manufacturing shipments are up slightly...

After an increase of 2.3% in the second quarter, shipments of ICT manufacturers rose by 0.5% this quarter. As for the whole Canadian manufacturing sector, ICT manufacturers' shipments have trended upwards since the fourth quarter of 2009 but have yet to recover to pre-recession levels. ICT shipments have grown by 12.5% since the fourth quarter of 2009, or at an average rate of 1.7% per quarter. However, shipments are still 8.8% below the high for the analysed period, recorded in the second quarter of 2007.



### ...lifted by increases in instruments and electronic components



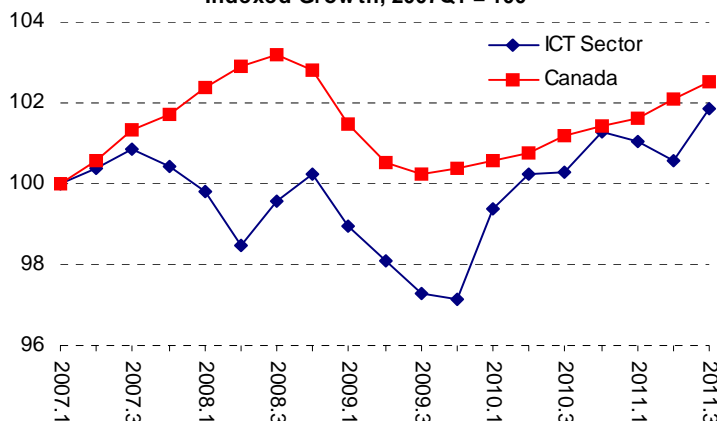
ICT manufacturing shipments growth this quarter was attributed to instruments and electronic components. Shipments of instruments have increased for two consecutive quarters, up by 3.3% in the third quarter of 2011. For a third consecutive quarter, shipments of electronic components rose, up 1.9%. After strong growth in the previous quarter (10.2%), shipments of peripheral equipment dropped by 0.5% this quarter. Communications equipment shipments have been volatile for most of 2010 and 2011, declining by 5.2% this quarter.

# Employment\*

## ICT employment rebounded

After two quarters of decline, the number of employees in the ICT sector jumped by 1.3% in the third quarter of 2011 to reach a new high. Since the fourth quarter of 2009, employment in the ICT sector has trended upward with brief periods of decline; it is now 4.8% above its end of 2009 level. Since the beginning of 2007, employment growth in the ICT sector has been slightly slower than in the overall economy.

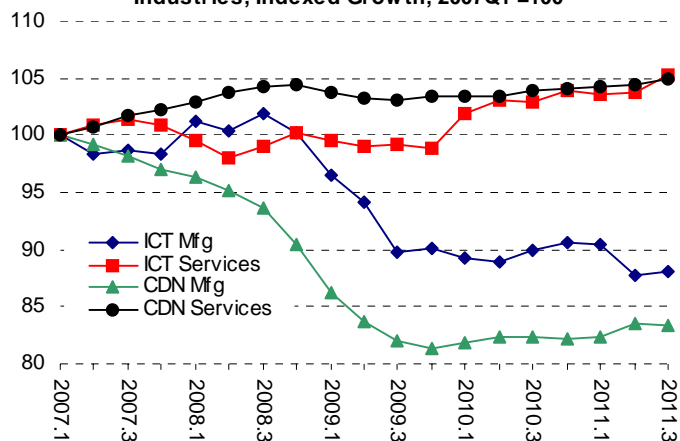
**Employment: ICT Sector and Canadian Economy, Indexed Growth, 2007Q1 = 100**



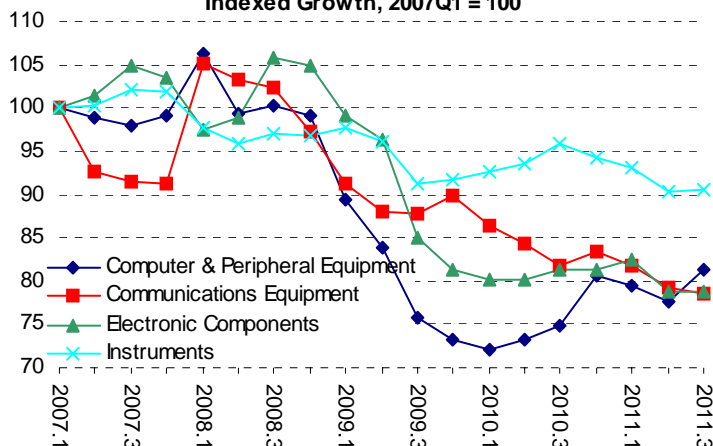
After a 2.8% decline in the second quarter, the number of employees in the ICT manufacturing industries slightly increased (0.2%) in this quarter. Employment in ICT manufacturing has declined 13.6% since the third quarter of 2008. This decline occurred mainly from the fourth quarter of 2008 and the third quarter of 2009 and in the second quarter of 2011. Over the same period, employment in the overall manufacturing sector declined by 11.0%.

In the third quarter of 2011, the number of employees in ICT services grew by 1.5% (1.8% excluding wholesaling), to reach its highest level for the analysed period. Canadian services sector employment was up 0.5% this quarter. Since the beginning of 2007, overall growth in the number of employees in ICT services (5.3%) industries and in all Canadian services industries (5.0%) has been about the same.

**Employment: ICT & CDN Manufacturing & Services Industries, Indexed Growth, 2007Q1 = 100**

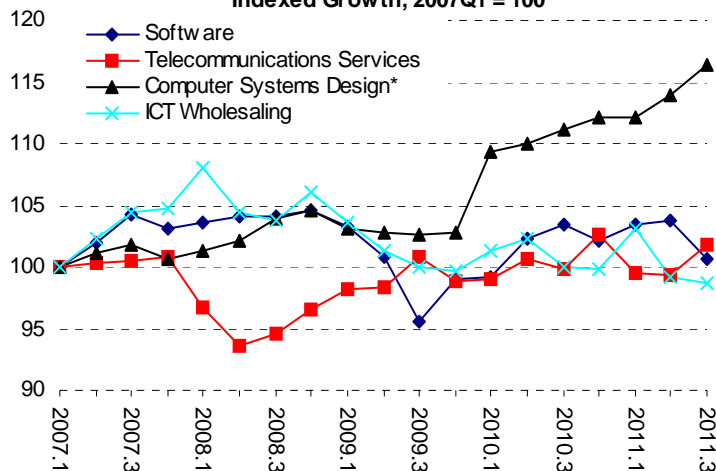


**Employment: Selected ICT Manufacturing Industries, Indexed Growth, 2007Q1 = 100**



Growth in ICT manufacturing employment this quarter was driven by a 4.8% increase in the computer and peripheral equipment industry. This increase in computer and peripheral equipment occurred after two consecutive quarters of decline. Employment in the instrument industry also increased this quarter, up 0.3%, ending a series of three quarters of decline. Employment remained stable in the electronic components industry while it declined for a third consecutive quarter in the communications equipment industry, down 0.8% this quarter.

**Employment: Selected ICT Services Industries, Indexed Growth, 2007Q1 = 100**



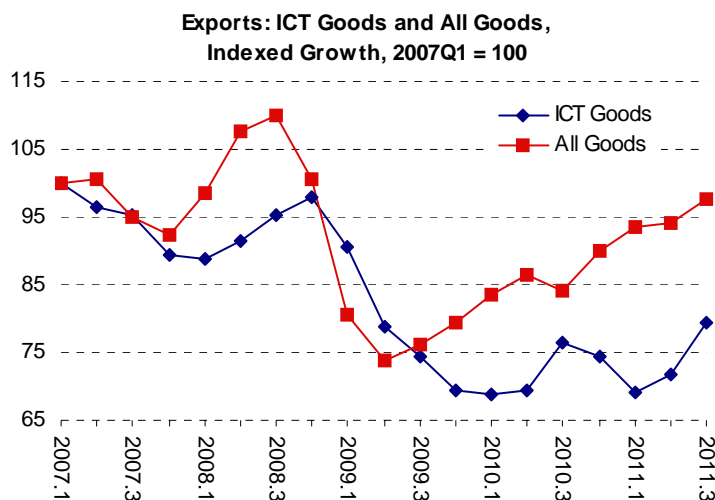
Growth in ICT services employment was attributable to increases in telecommunications services (2.3%) and computer systems design (2.5%) industries. Continuous growth has occurred in computer systems design since the fourth quarter of 2009. After two consecutive quarters of growth, employment in the software industry declined by 2.9%, approaching its level at the beginning of the analysed period.

\*Note: Due to reclassification of some of the establishments within the data processing industry to the computer systems design industry, employment in the computer systems design industry has been combined with employment in the data processing industry

# Exports of Goods

## Exports of ICT goods rose...

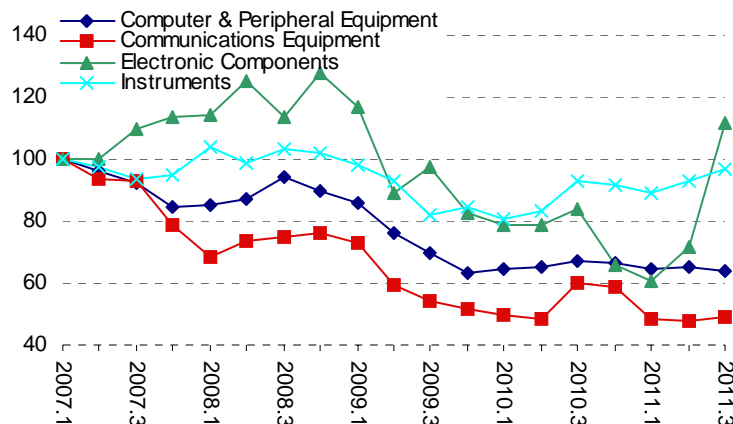
In the third quarter of 2011, for a second consecutive quarter, ICT exports grew faster (10.4%) than overall exports of Canadian goods (3.7%). Canadian goods exports began to recover after the second quarter of 2009, while ICT goods export appear to be just turning the corner. ICT goods exports remain low; 20.6% lower than the beginning of the analysed period. Exports of Canadian goods have almost returned to their first quarter of 2007 level, only 2.4% lower.



## ...led by strong growth in electronic components

The growth in ICT exports this quarter was heavily influenced by a sharp rise in exports of electronic components (56.5%). Exports of electronic components have yet to recover to the highest level of the analysed period (Q3 2008) but are well above the first quarter of 2007. Exports of instruments (4.3%) and communications equipment (3.1%) also increased this quarter. Overall, exports of instruments have been trending upwards weakly since the beginning of 2010, and are approaching their pre-downturn level. The increase in communications equipment exports this quarter occurred after three consecutive quarters of decline. Exports of computer and peripheral equipment have remained relatively flat since the end of 2009, down this quarter by 1.7%.

**Exports: ICT Goods by Selected Product Group, Indexed Growth, 2007Q1 = 100**

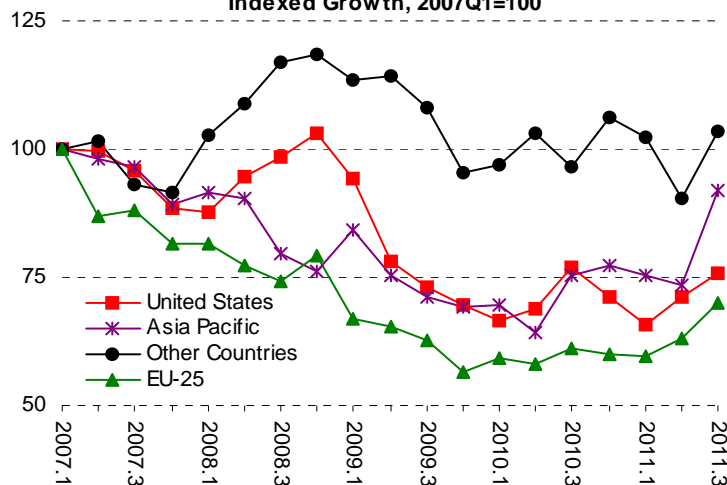


## Exports to all markets increased

For a second consecutive quarter, ICT exports to the US grew, up by 6.5% this past quarter. The share of Canadian ICT exports to the US was 62%, down slightly over the previous quarter. Despite the share drop, the US remains Canada's main trading partner for ICT goods.

The jump in ICT exports was stronger in other markets. ICT exports to the EU-25, Asia Pacific, and other countries rose this quarter by 10.9%, 25.2% and 14.5%, respectively. The shares of exports to the EU-25 & Asia Pacific rose moderately to reach 13.4% and 14.0%, respectively. The share for all remaining countries rose to 11.1% this past quarter.

**Exports: ICT Goods by Major Market, Indexed Growth, 2007Q1=100**





# Notes, Definitions and Sources

## Real GDP Versus Manufacturing Shipments

It is important to note that GDP and shipments differ in two ways. First, GDP measures the total contribution of an industry to the economy in terms of value-added while shipments are a simple measure of revenues. Most of the time, changes in shipments are good indicators of changes in GDP but structural changes to an industry (for example, an increase in outsourcing) can lead to different trends in GDP and shipments indices. Second, GDP is measured in constant dollars while shipments are measured in current dollars. This means that when prices increase, GDP fluctuates less than shipments but when prices decline, GDP fluctuates more than shipments. In the ICT context, this difference is very important in measuring output of the computer equipment industry since a hedonic price index is used. A hedonic price index is a statistical tool used to standardize per unit prices for goods whose quality and characteristics change rapidly such as a computer. The hedonic price index adjusts the price of a computer based on the improvements in speed, design, etc. Using this hedonic price deflator, a very rapid decline in production prices is observed resulting in a much stronger growth in the GDP index compared to the shipments index for the computer equipment industry.

## Information and Communications Technologies Sector\*

### ICT Manufacturing:

- Computer and Peripheral Equipment Mfg
- Communications Equipment Mfg
  - wired communications equipment mfg
  - wireless communications equipment mfg
- Audio and Video Equipment Mfg
- Electronic Component Mfg
- Instruments Mfg
- Communication Wire and Cable Mfg
- Commercial and Service Machinery Mfg

### ICT Services:

- Software
- Computer Systems Design
- Data Processing Services
- Telecommunications Services
- Cable and Other Program Distribution
- ICT Wholesaling

\* Based on the North American Industry Classification System

### Sources:

GDP (2002 constant dollars): GDP by Industry, Industry Measures and Analysis Division, Statistics Canada.

Manufacturing Shipments: Monthly Survey of Manufacturing, Manufacturing, Construction and Energy Division, Statistics Canada.

Employment: Survey on Employment, Payrolls and Hours (SEPH), Labour Statistics Division, Statistics Canada.

Exports: Trade Data Online, International Trade Division, Statistics Canada.

### Notes:

1. Self-employed workers are not included. Employment trends in this publication are based on the Survey on Employment, Payrolls and Hours (SEPH) and might be slightly different from trends based on annual industry specific surveys reported in the ICT Statistical Overview. Although data from SEPH might not be as reliable as data from industry specific surveys, they are timelier and provide an indication of the current employment situation.
2. Data used in this report are adjusted for seasonal variation.

## Export Markets:

United States: United States.

EU-25: United Kingdom, Germany, France, Belgium, Netherlands, Italy, Spain, Sweden, Austria, Finland, Ireland, Denmark, Poland, Portugal, Czech Republic, Greece, Luxembourg, Hungary, Slovenia, Latvia, Lithuania, Estonia, Slovakia, Cyprus and Malta.

Asia Pacific (based on Department of Foreign Affairs and International Trade definition): Afghanistan, Australia, Bangladesh, Bhutan, Brunei Darussalam, Burma (Myanmar), Cambodia (Kampuchea), China, Cook Islands, Fiji, French Polynesia, Guam (U.S.), Hong-Kong, India, Indonesia (includes East Timor), Japan, Kiribati (includes Tuvalu), South Korea, Kyrgyzstan, Laos, Macau (Macao), Malaysia, Maldives, Micronesia, Mongolia, Nauru, Nepal, New Caledonia, New Zealand, Niue, Pakistan, Papua New Guinea, Philippines, Singapore, Solomon Islands, Sri Lanka, Taiwan (Taipei), Tajikistan, Thailand, Tonga, Turkmenistan, Uzbekistan, Vanuatu (New Hebrides), Vietnam.