

Information and Communications Technologies (ICT)



# Quarterly Monitor of the Canadian ICT Sector Second Quarter 2011



Quarterly Monitor of the Canadian ICT Sector (URL: http://www.ic.gc.ca/eic/site/ict-tic.nsf/eng/h\_it06100.html)

**Industry Canada** 

Spectrum, Information Technologies and Telecommunications Information and Communications Technologies Branch

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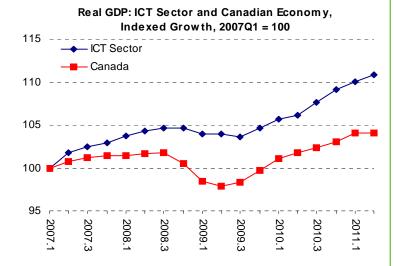
IC Registration No. 60804 http://www.ic.gc.ca/ict

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## **Gross Domestic Product**

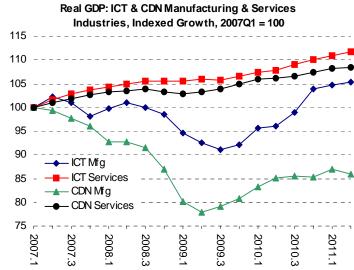
### ICT output trends upward

Real ICT sector output continued to trend upward in the second quarter of 2011, up 0.8%, marking seven consecutive quarterly increases. Real output for all Canadian industries remained stable this quarter. While real ICT sector output dropped between the end of 2008 and the third quarter of 2009, it recovered quickly. Real ICT sector output returned to its pre-decline level in the fourth quarter of 2009, and continued to grow. Real GDP for all Canadian industries took a year to recover to pre-downturn levels from its low in the second quarter of 2009; increasing at a slower rate than ICT output.

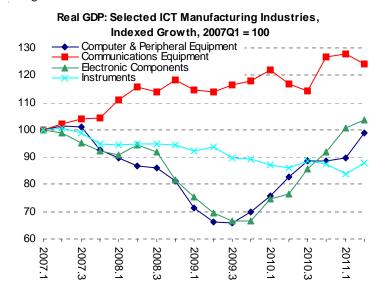


ICT manufacturing GDP growth slowed down in the last two quarters, up 0.6% this quarter. Total Canadian manufacturing GDP dropped by 1.2%, nearly offsetting its increase from the previous quarter. While both ICT manufacturing GDP and Canadian manufacturing GDP trended downwards from mid-2008 until mid-2009, ICT manufacturing GDP levels did not fall as severely as Canadian manufacturing GDP. ICT manufacturing output was also more resilient, returning to its pre-downturn level quickly and continuing to grow past it, while Canadian manufacturing GDP has yet to fully recover.

ICT services\* GDP continues to increase, up 0.8%, for seven consecutive quarters of growth. Total Canadian services also grew, up 0.3% over the previous quarter. Since the first quarter of 2010, ICT services have been growing faster than total Canadian services.



Real GDP increased in three of the four key ICT manufacturing industries this quarter. Real GDP for the computer and peripheral equipment industry jumped 10% this quarter after two quarters of almost no growth. Electronic components output grew for the sixth consecutive quarter, up 2.9%. Computer and peripheral equipment and electronic components have increased at the fastest and steadiest rate since the end of the downturn in 2009. Instruments output has trended down since the second quarter of 2009, but turned around this quarter increasing by 4.9%. Communications equipment dropped 2.9% after two quarters of growth.

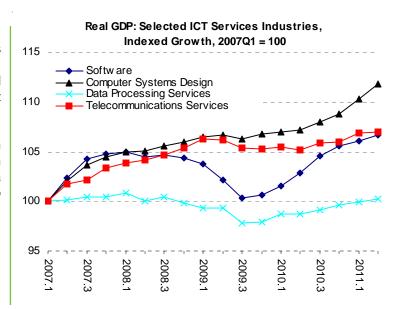


<sup>\*</sup> See ICT services definition on page five. This total includes the ICT wholesaling industries.

## **Gross Domestic Product**

In the second quarter of 2011, output in ICT services was brought up by ICT wholesaling. Real GDP in ICT wholesaling grew 2.8% this quarter, having grown steadily since the second quarter of 2009. Excluding wholesaling, ICT services output grew by 0.6%, compared to 0.8% including wholesaling.

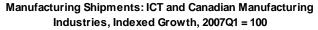
The increase in ICT services this quarter is attributable to growth in the software publishers (0.6%) and computer systems design industries (1.4%). The telecommunications and data processing services industries experienced slower growth, up 0.1% and 0.2%, respectively.

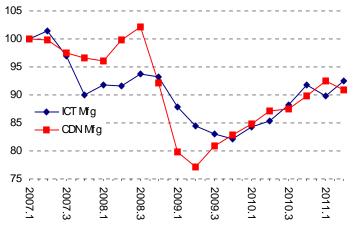


# **Manufacturing Shipments**

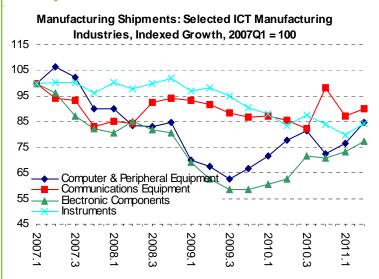
# ICT manufacturing shipments rebounded...

ICT manufacturing shipments grew 3.0% this quarter, after falling in the previous quarter. ICT manufacturing shipments declined from the third quarter of 2008 until the beginning of 2010, when they reached their lowest level since 2002. Since the first quarter of 2010, ICT manufacturing shipments increased, only dropping in the previous quarter, rebounding back this quarter. As in the rest of the Canadian manufacturing sector, ICT manufacturing shipments have yet to return to pre-recession levels.





# ...due to increases in shipments of all ICT products

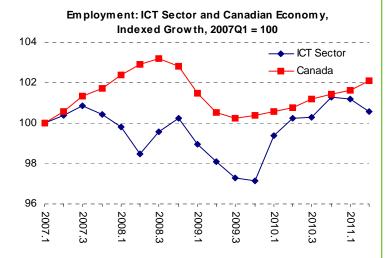


The growth in ICT manufacturing shipments this quarter was attributed to increases in shipments of all key ICT products. Shipments of computer and peripheral equipment grew by 10.8% this quarter. Shipments of instruments, electronic components, and communications equipment were up 5.9%, 5.7%, and 3.5%, respectively. Shipments of communications equipment experienced a large drop in the previous quarter and have yet to fully recover. Although instruments shipments increased this quarter, they have been trending downwards since the end of 2008.

# **Employment\***

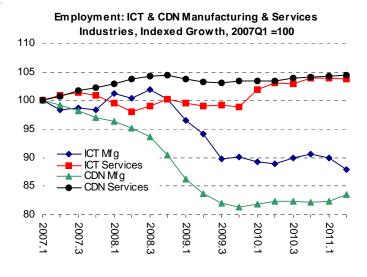
# ICT employment dropped for a second quarter in a row

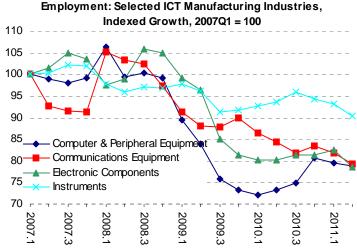
Employment in the ICT sector experienced a drop in the second quarter of 2011, down 0.7%. This was the second consecutive quarterly drop. Meanwhile, employment in the Canadian economy continued to grow moderately for the seventh consecutive quarter, with growth of 0.4%.



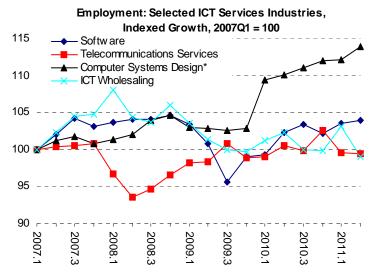
Employment in ICT manufacturing industries declined sharply, dropping for a second quarter in a row (-2.3%). Employment in the ICT manufacturing industries remained essentially flat from the third quarter of 2009 through the first quarter of 2011. Canadian manufacturing industries employment also remained flat since the second half of 2009, but was up by 0.5% this quarter.

Employment in ICT services also dropped, down 0.3% from the previous quarter, while employment in the Canadian service economy continues to stay relatively flat.





Employment decreased in all four key ICT manufacturing industries this quarter. Employment in the electronic components industry declined the most, down 4.6%. Employment in the instruments, communications equipment and computer and peripheral equipment industry dropped 3.1%, 2.9%, and 1.0%, respectively.

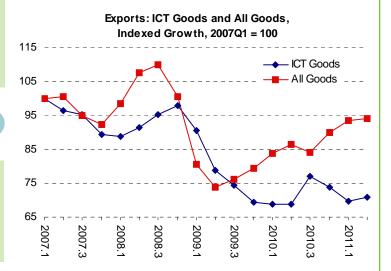


The decrease in ICT services employment this quarter was predominately driven by the wholesaling industry, which declined by 4.0%. Employment in the software and computer systems design industries increased by 0.4%, and 1.9%, respectively.

\*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

### Growth in ICT goods exports...

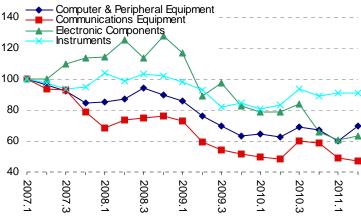
In the second quarter of 2011, ICT goods exports increased 1.7% following two consecutive quarters of decline. ICT exports dropped throughout 2009, leaving ICT goods exports at the lowest level of the analyzed period. The declining trend flattened off at the end of 2009 and turned around after the second quarter of 2010, only to fall again until this quarter. Total Canadian exports have trended upwards since the second quarter of 2009, up 0.4% this quarter.



# ...attributed to an increase in computer equipment & peripheral exports

The growth in ICT good exports was primarily led by an increase in exports of computer and peripheral equipment, which rose by 16.7% after falling for the previous two quarters. Exports of electronic components also went up by 5.0%. Meanwhile, exports of communications equipment and instruments declined by 3.1% and 0.4%, respectively. Exports have trended downwards for electronic components, computer and peripheral equipment, and communications equipment since the end of 2008. On the other hand, instruments exports rebounded in 2010, and remained steady in the last three quarters.

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



## Exports to the US increase

ICT exports to the US increased this quarter (8.1%), after falling for the previous two quarters. The US share of Canadian ICT goods exports now stands at 64%, up 3 percentage points from the previous quarter.

ICT exports to Asia Pacific economies dropped 3.1%, a second consecutive quarterly decrease. Exports to 'Other countries' declined 10.4%, also for the second quarter in a row. Meanwhile, ICT exports to the EU-25 rose 5.7%. The share of ICT exports to the EU-25 and Asia Pacific now stands at 13.3% and 12.4%, respectively, while 'Other countries' share increased to 10.7%.

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## **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
- \* Based on the North American Industry Classification System

#### **ICT Services:**

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

#### 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

- 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, Naura, 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.