



Industry  
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**Information and Communications Technologies (ICT)**



## **Quarterly Monitor of the Canadian ICT Sector First Quarter 2012**

**Canada**

*Quarterly Monitor of the Canadian ICT Sector*  
(URL: [http://www.ic.gc.ca/eic/site/ict-tic.nsf/eng/h\\_it06100.html](http://www.ic.gc.ca/eic/site/ict-tic.nsf/eng/h_it06100.html))

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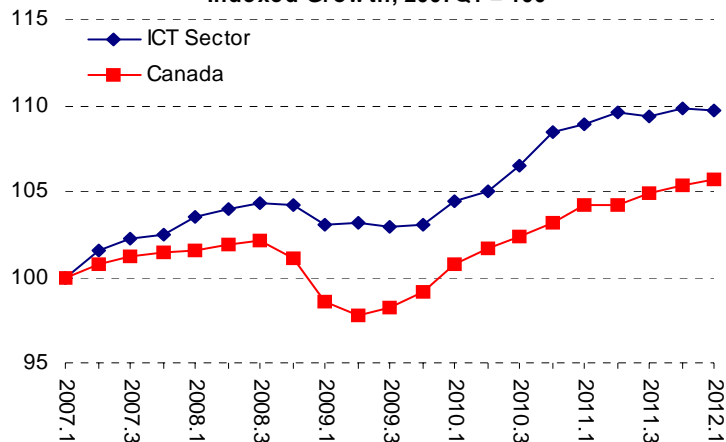
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# Gross Domestic Product

## ICT output decreased slightly

Real ICT sector output (GDP) fell 0.1% in the first quarter of 2012, having remained essentially flat in the last three quarters. Real output for all Canadian industries continued to increase, up 0.4%. Over the last four quarters, the ICT sector grew by 0.8% while the overall economy grew by 1.5%. ICT sector growth has been limited by the ICT manufacturing and communication services industries, which declined by 3.0% and 0.5% respectively during the period. The rest of the ICT sector grew by 3.3% over the period, outpacing the overall economy.

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

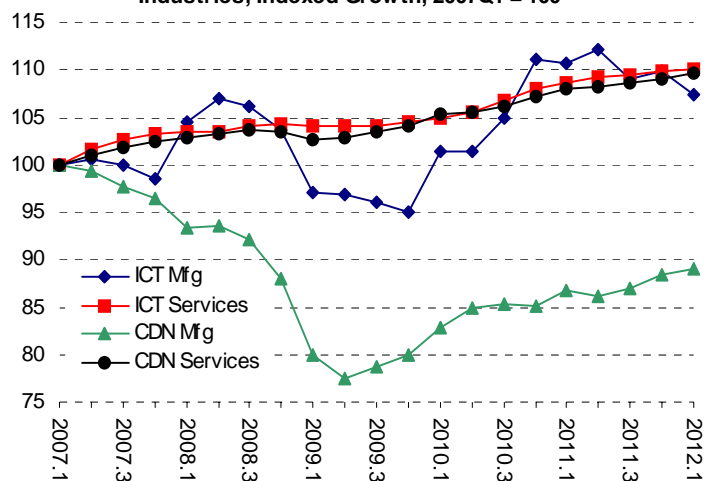


ICT manufacturing GDP fell by 2.3% in the first quarter of 2012 and has been trending down since the second quarter of 2011. Output level in the first quarter of 2012 was about the same as in the second quarter of 2008 (pre-recession). Total Canadian manufacturing GDP is following a different trend with a third consecutive quarter of growth, up 0.6% this quarter. However, total Canadian manufacturing GDP is still at a lower level than before the recession.

ICT services\* GDP increased by 0.3% this quarter, a slower pace than growth in the total Canadian services GDP (0.5%). Both ICT services and total Canadian services GDP have been growing moderately over the past four quarters, up 1.4% and 1.5% respectively.

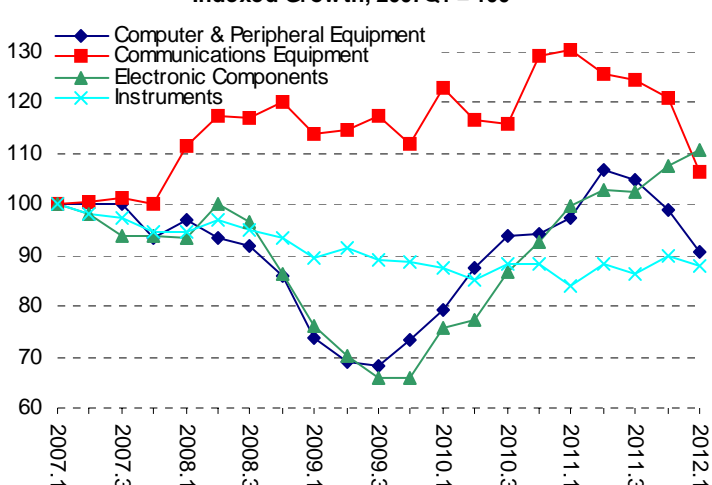
\* See ICT services definition on page five. This total includes the ICT wholesaling industries.

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



Real GDP fell in three of the four key ICT manufacturing industries this quarter. Communications equipment industry GDP fell the most (-11.8%), followed by computer and peripheral equipment (-8.5%), and instruments (-2.2%) industries. Meanwhile, electronic components industry GDP increased 3.1%. While the electronic components industry has trended upwards for the past four quarters, the communications equipment and the computer and peripheral equipment industries are quickly declining. GDP has dropped by 18.3% in the communications equipment industry since the first quarter of 2011 and by 15.1% in the computer and peripheral equipment industry since the second quarter of 2011.

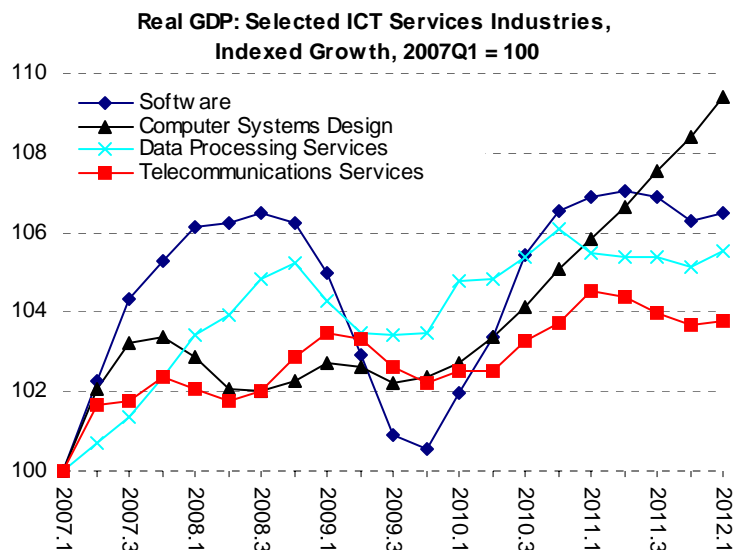
**Real GDP: Selected ICT Manufacturing Industries, Indexed Growth, 2007Q1 = 100**



# Gross Domestic Product

Wholesaling GDP decreased by 0.6% this quarter. Excluding wholesaling, ICT services output grew by 0.4%. However, over the past four quarters ICT services output growth was brought up by wholesaling, 5.5% including it compared to 3.8% if excluded.

Real GDP increased in all four key ICT services industries this quarter. The computer systems design services industry increased the most (0.9%), followed by the data processing (0.4%), software publishers (0.2%), and telecommunications (0.1%) services industries. Output in the computer systems design industry has trended upwards steadily since late 2009. While output in the software publishing, data processing, and telecommunications services industries trended downwards in 2011, all three industries rebounded this quarter.

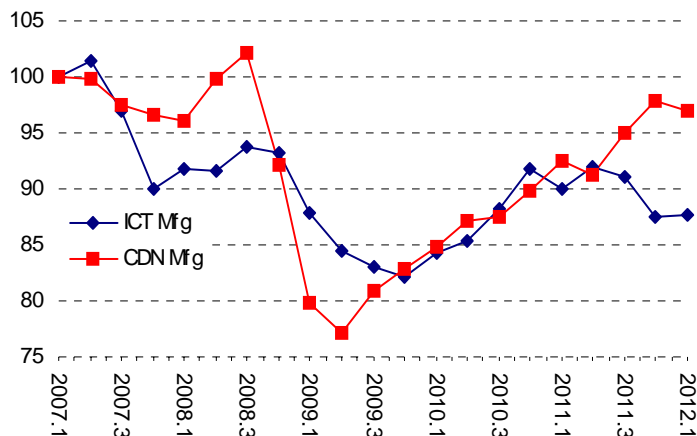


## Manufacturing Shipments

### ICT manufacturing shipments increased...

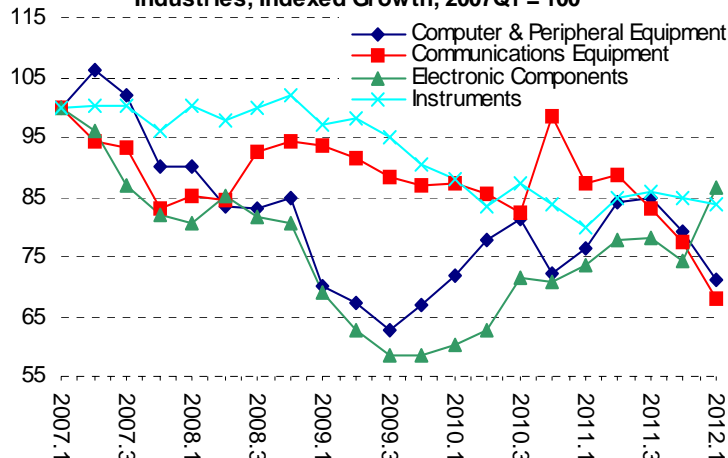
Shipments of ICT manufacturers rebounded slightly this quarter (0.3%), after two consecutive quarters of decline. Meanwhile, shipments for the whole Canadian manufacturing sector fell 0.8% after increasing for two consecutive quarters. Since the beginning of 2011, shipments of ICT manufacturers have been decreasing, down 2.5%, while shipments of total Canadian manufacturing sector have been increasing, up 4.9%.

**Manufacturing Shipments: ICT and Canadian Manufacturing Industries, Indexed Growth, 2007Q1 = 100**



### ...primarily due to the electronics component manufacturing industry

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

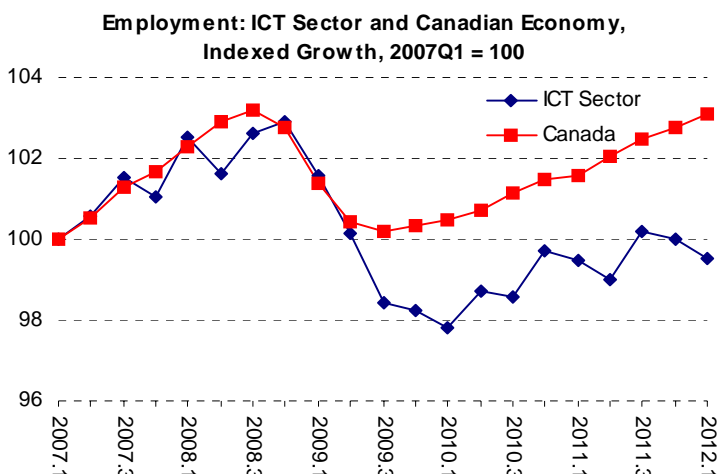


The recovery in ICT manufacturing shipments this quarter is primarily attributed to the sharp increase in shipments of electronic components, up 16.1% this quarter. Meanwhile, shipments of communications equipment, computer and peripheral equipment, and instruments decreased 12.2%, 10.5% and 1.0% respectively.

# Employment\*

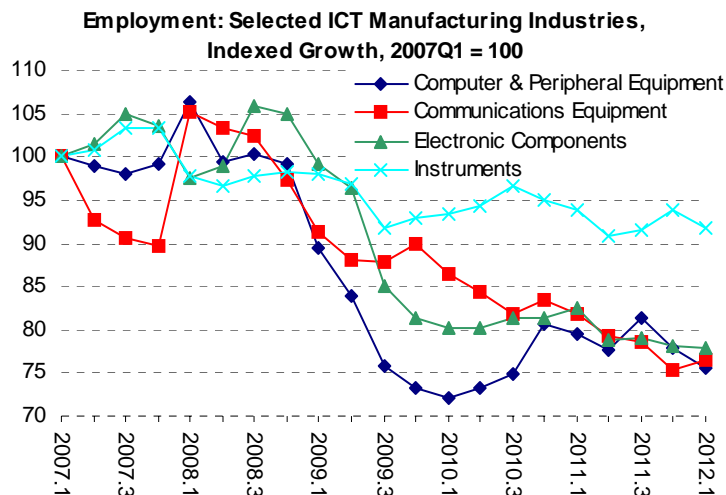
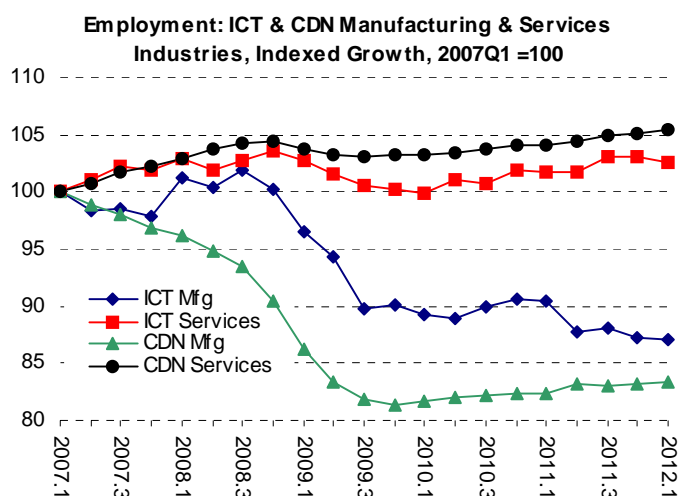
## ICT employment declined

For a second consecutive quarter, the number of employees in the ICT sector fell, down 0.5% this quarter. In the last two quarters, employment in the ICT sector has trended downwards (-0.7%), while the number of employees in the Canadian economy has increased steadily since the end of 2009.

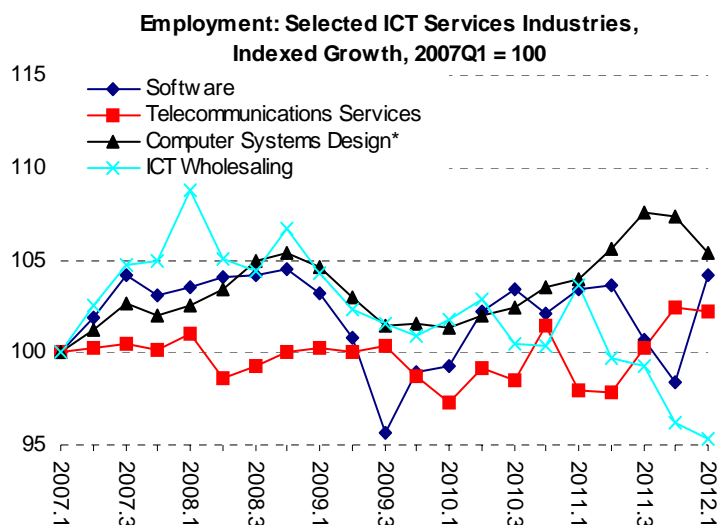


The number of employees in the ICT manufacturing industries fell for a second quarter in a row, down 0.2%. After remaining relative stable from the third quarter of 2009 to the first quarter of 2011, employment in the ICT manufacturing industries has trended downwards since, declining by 3.7%. Meanwhile, employment in the overall manufacturing sector held a weak upwards trend since the third quarter of 2009.

In the first quarter of 2012, the number of employees in ICT services declined by 0.5%, offsetting part of the gains (1.4%) made in the third quarter of 2011. Since the beginning of 2007, the number of employees in ICT services has only grown by 2.6% compared to an increase of 5.4% for the whole Canadian services sector.



The decline in ICT manufacturing employment this quarter was attributed to drops in three of the four ICT manufacturing industries. Employment in the computer and peripheral equipment, instruments, and electronic components industries fell 3.1%, 2.2% and 0.3% respectively. Meanwhile, employment in the communications equipment industry increased 1.5% after falling for four consecutive quarters.



The decline in ICT services employment this quarter was driven by decreases in the computer systems design, wholesaling, and telecommunications industries, down by 2.5%, 0.4% and 0.2%, respectively. Software industry employment rebounded sharply this quarter, up by 5.9%. Since the beginning of 2011, employment in the telecommunications industry has trended upwards, increasing by 4.5%. While employment in the computer systems design industry had increased in the first three quarters of 2011, it began to decrease afterwards.

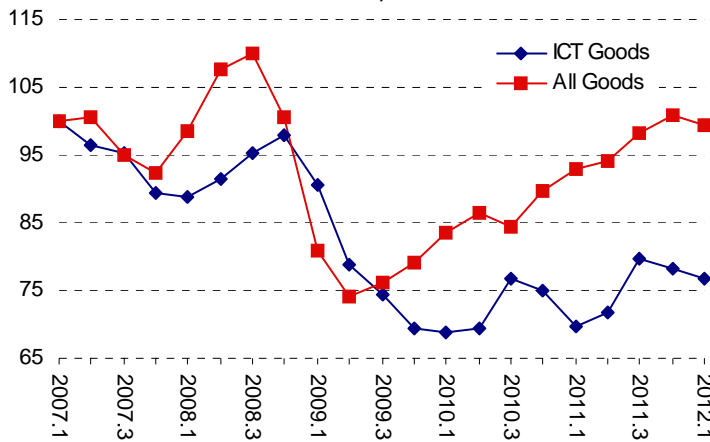
\*Note: Due to reclassification of some of the establishments within the data processing industry to the computer systems design industry, employment in the computer systems design industry has been combined with employment in the data processing industry

# Exports of Goods

## Exports of ICT goods continued to fall...

ICT exports fell for a second consecutive quarter, down 1.6%, after growing faster than overall Canadian goods exports in the first half of 2011. Total Canadian goods exports fell this quarter (-1.3%), after growing for five consecutive quarters.

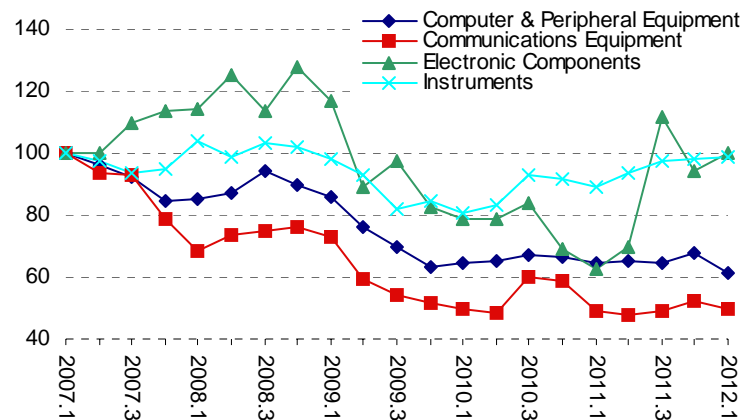
Exports: ICT Goods and All Goods, Indexed Growth, 2007Q1 = 100



## ...attributed to declines in computer and peripheral equipment and communications equipment exports

The decrease in ICT exports this quarter was heavily influenced by drops in exports of computer and peripheral equipment (-9.2%) and communications equipment (-5.3%). Exports of electronic components rebounded after a sharp drop in the previous quarter, increasing by 5.9%. Exports of instruments increased for a fourth consecutive quarter, up 0.7%. Since the beginning of 2011, exports of electronic components have increased sharply, up 60%. Meanwhile, exports of instruments have trended up steadily, increasing by 10% while exports of computer and peripheral equipment and communications equipment remained relatively flat over the same period.

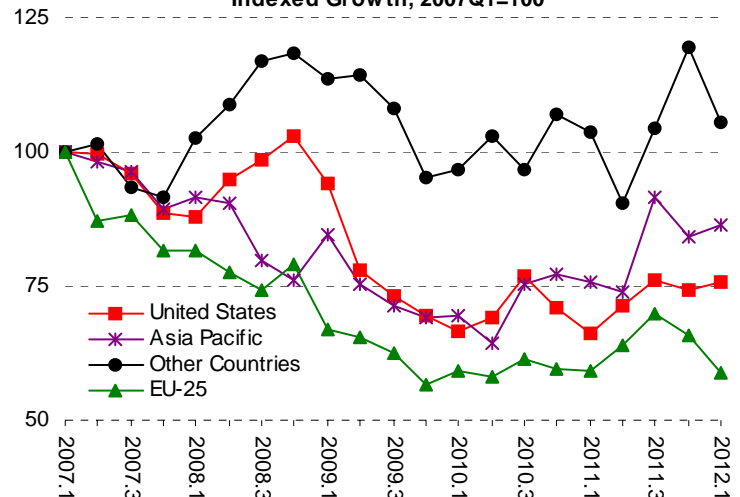
Exports: ICT Goods by Selected Product Group, Indexed Growth, 2007Q1 = 100



## Exports to the US increased

ICT exports to the Asia Pacific and US increased this quarter, up 2.5% and 2.2%, respectively. Meanwhile, exports to the EU-25 and the other remaining countries fell, down 10.6% and 11.6%, respectively. The US share of Canadian ICT exports was 63% this quarter, up by 1 percentage point from the previous quarter. The share of exports to the Asia Pacific also increased slightly to 13.5%, while the share for the EU-25 and all other remaining countries decreased to reach 11.5% and 11.6%, respectively.

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



# Notes, Definitions and Sources

All growth rates are quarter over quarter unless otherwise mentioned.

## 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.

## 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.