

Multifactor productivity growth estimates and industry productivity database, 2019

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Multifactor productivity, measured as output per unit of combined labour and capital inputs, increased 0.2% in the Canadian business sector in 2019, following 0.6% growth in 2018 and 1.7% growth in 2017. The rise in 2019 reflected a 1.6% increase in output and a 1.4% gain in the combined inputs of capital and labour.

These estimates incorporate the most recent supply and use tables and the latest estimates for fixed capital, hours worked and gross domestic product.

Multifactor productivity measures the extent to which inputs are used efficiently in the production process. Growth in multifactor productivity is often associated with technological change, organizational change or economies of scale.

Multifactor productivity is one of the three components of labour productivity, the other two being capital intensity and upgrading labour skills. Labour productivity in the business sector rose 0.8% in 2019, reflecting the combined effect of growth in multifactor productivity (+0.2 percentage points), an increase in capital intensity (+0.4 percentage points) and skills upgrading (+0.2 percentage points).

Multifactor productivity growth in 2019 lower than that in the post-recession period

Multifactor productivity growth in the Canadian business sector increased after the financial crisis of 2008 and 2009, following a decade of weak growth. Multifactor productivity growth rose an average of 0.6% per year from 2010 to 2019, stronger than the average annual multifactor productivity growth for the period from 2000 to 2010 (-0.6%) and for the period from 1980 to 2000 (+0.5%). The 0.2% growth in multifactor productivity in 2019 in the business sector is lower than the average annual growth in multifactor productivity for the period from 2010 to 2019, but higher than the average annual growth in multifactor productivity (-0.6%) in the 2000-to-2010 period.

The change in capital intensity mirrors the weak performance in capital intensity in the post-recession period

Capital intensity growth in the Canadian business sector in 2019 continued the weak performance in capital intensity following the financial crisis of 2008 and 2009. The increase in capital intensity contributed 0.4 percentage points to annual labour productivity from 2010 to 2019, which is less than half of the increase in capital intensity for the period from 2000 to 2010 (+1.0 percentage points) and for the period from 1980 to 2000 (+0.9 percentage points).

Table 1
Sources of labour productivity growth in the business sector (average annual basis)

| | 1980 to 2000 | 2000 to 2010 | 2010 to 2019 | 2019 |
|---|-------------------|--------------|--------------|------|
| | % | | | |
| Gross domestic product growth | 3.2 | 1.5 | 2.4 | 1.6 |
| Growth in hours worked | 1.5 | 0.8 | 1.1 | 0.7 |
| Labour productivity growth | 1.7 | 0.7 | 1.2 | 0.8 |
| | percentage points | | | |
| Contributions to labour productivity growth | | | | |
| Capital intensity | 0.9 | 1.0 | 0.4 | 0.4 |
| Labour composition | 0.4 | 0.3 | 0.2 | 0.2 |
| Multifactor productivity growth | 0.5 | -0.6 | 0.6 | 0.2 |

Note(s): The growth rates represent annual compound growth rates. Numbers may not add up because of rounding.

Source(s): Table 36-10-0208-01.



Note to readers

Multifactor productivity estimates by major business sector for 1961 to 2019 are now available. The detailed industry productivity database for 1961 to 2017 is also now available.

Revisions

Data in this release reflect the latest supply and use tables for 2017, published in *The Daily* on [November 9, 2020](#); data on fixed capital, published in *The Daily* on [November 19, 2020](#); data on real gross domestic product, published in *The Daily* on [March 2, 2021](#); and data on hours worked, published in *The Daily* on [February 12, 2021](#).

Multifactor productivity measures

Multifactor productivity measures at Statistics Canada are derived from a growth accounting framework that allows analysts to isolate the effects of increases in input intensity and skills upgrading on the growth in labour productivity.

The residual portion of labour productivity growth that is not attributable to gains in input intensity and skills upgrading is called growth in **multifactor productivity**. It measures the efficiency with which the inputs are used in production. Growth in this area is often associated with technological change, organizational change or economies of scale.

Available tables: [36-10-0208-01](#) and [36-10-0217-01](#).

Definitions, data sources and methods: survey number [1402](#).

A description of the method used to derive productivity measures can be found in the "[User Guide for Statistics Canada's Annual Multifactor Productivity Program](#)," part of *The Canadian Productivity Review* series ([15-206-X](#)), available on our website.

The documentation about revisions to multifactor productivity growth estimates can be found in "[Revisions to the Multifactor Productivity Accounts](#)," part of *The Canadian Productivity Review* series ([15-206-X](#)), also available on our website.

For more information, or to enquire about the concepts, methods or data quality of this release, contact us (toll-free 1-800-263-1136; 514-283-8300; STATCAN.infostats-infostats.STATCAN@canada.ca) or Media Relations (613-951-4636; STATCAN.mediahotline-ligneinfomedias.STATCAN@canada.ca).