

Labour productivity, hourly compensation and unit labour cost, fourth quarter 2020

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Productivity continues to decline, but at much slower rate than in the previous quarter

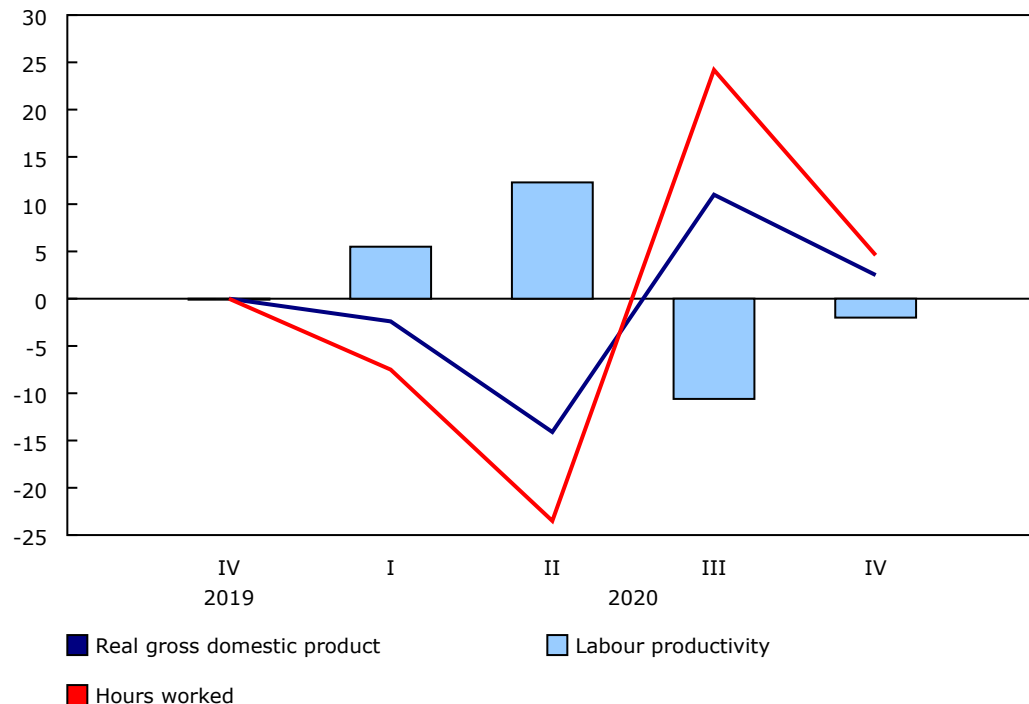
Labour productivity of Canadian businesses fell 2.0% in the fourth quarter, while hours worked rose faster than business output.

The fourth-quarter decline in productivity—though much smaller than the record drop observed in the third quarter (-10.6%)—was still the largest since the fourth quarter of 1986 (-2.1%). For a second straight quarter, both business output and hours worked were up, following record declines for both indicators in the second quarter.

Chart 1

Productivity declines again in a context of a marked slowdown in both output and hours worked

quarterly % change



Source(s): Table 36-10-0206-01.

Throughout the four quarters of 2020, productivity saw significant ups and downs, driven by the impacts of the pandemic on economic activity and the labour market. The 2.0% drop in productivity observed in the fourth quarter came on the heels of a sharp 5.5% increase in the first quarter, a record 12.3% gain in the second quarter and a historic drop of 10.6% in the third quarter.

Despite historically large quarterly declines in each of the last two quarters of 2020, labour productivity was up 3.8% from the fourth quarter of 2019. In each of the first three quarters of 2020, productivity also rose year over year, increasing 6.5% in the first quarter, 19.1% in the second quarter and 5.9% in the third quarter.



Targeted measures to curb the second wave of the COVID-19 pandemic, which were introduced in most regions of the country in October 2020, hindered the economic recovery that began with the easing of measures in the third quarter. As a result, business output and hours worked both continued their upward trend in the fourth quarter, but at a much slower pace than in the previous quarter. Once again, hours worked outpaced business output, which resulted in the decline in labour productivity in the fourth quarter.

The economic slowdown in the fourth quarter—driven by new, more targeted restrictions—was also accompanied by a considerable slowdown in job growth, as hours worked per job saw higher growth than in the third quarter.

As a result, for the entire business sector, the impacts of the second wave of COVID-19 were much smaller than the effects of the first wave. Generally speaking, businesses leveraged the so-called "learning effect"—particularly by shifting to telework—and adapted to the new public health restrictions. In addition, activity continued in some industry sectors, such as manufacturing and construction, which was not the case in the spring.

Business output sees much smaller increase in the fourth quarter, but continues to recover

Following the strong rebound (+11.0%) in the third quarter after public health measures were eased, growth in businesses' real gross domestic product (GDP) slowed in the fourth quarter to 2.5%. As a result, the GDP of businesses continued to return to its pre-pandemic level in the fourth quarter—it was 4.6% below its level a year earlier, while its year-over-year decrease in the third quarter was 6.9%.

Output in both goods-producing and service-producing businesses rose at a much slower rate than in the previous quarter. Although growth slowed in most of the industrial sectors, 14 of the 16 sectors saw their output rise in the fourth quarter.

Despite a significant slowdown, hours worked post their second largest increase in the fourth quarter

At the same time, hours worked in the business sector rose 4.6% in the fourth quarter—the second largest increase in a row on record. This follows a strong rebound of 24.2% in the third quarter.

In spite of the record growth of the last two quarters of 2020 combined, hours worked have still not returned to their fourth quarter 2019 level, the last quarter before the pandemic began. Hours worked remained 8.1% below their level a year earlier, showing slower recovery than business output.

In the fourth quarter, growth in hours worked also slowed significantly in both goods-producing (up 3.7% following a 25.3% increase) and service-producing (up 5.0% following a 23.8% increase) businesses.

All industrial sectors continued to post increases, but they were much smaller than in the previous quarter. However, in the fourth quarter, finance and insurance practically returned to last year's level (-0.4%)—the only sector to do so—as this sector can offer its employees telework.

The increase in hours worked in the fourth quarter was attributable to the combined effect of growth in employment (+2.6%) and in hours worked per job (+2.0%). The number of people who had more than one job was up 7.5%, following a 37.1% increase in the third quarter. At the same time, the number of people who were absent without pay was practically unchanged (+0.1%), after falling 52.0% in the previous quarter.

Impacts of the COVID-19 pandemic on hours worked in the business sector, fourth quarter of 2020

The estimates of hours worked in the business sector are based primarily on data from the Labour Force Survey (LFS). Note that for hours worked (used to measure productivity), both main and secondary jobs are considered—not only the main job as in the LFS. The main survey for the reference period that includes the months of October, November and December does not capture the job losses outside the reference weeks. To account for those, the estimates of hours lost were adjusted using a compilation of questions added to the LFS questionnaire in November and December 2020 and January 2021 for the respective reference months of October, November and December. These adjustments are reflected in the data on hours worked and related measures (including labour productivity) for the fourth quarter of 2020.

In a context where new public health measures were introduced in the fourth quarter, though they were less strict than in the spring, many workers continued to see their work hours reduced, while others worked more overtime. In the business sector, if only those in the labour force or on paid leave are considered, roughly 139.3 million hours of work were lost in the fourth quarter, while 3.4 million hours of overtime were worked. The result was a net loss of 135.9 million hours. This is added to the 733.3 million hours lost in the first three quarters of 2020.

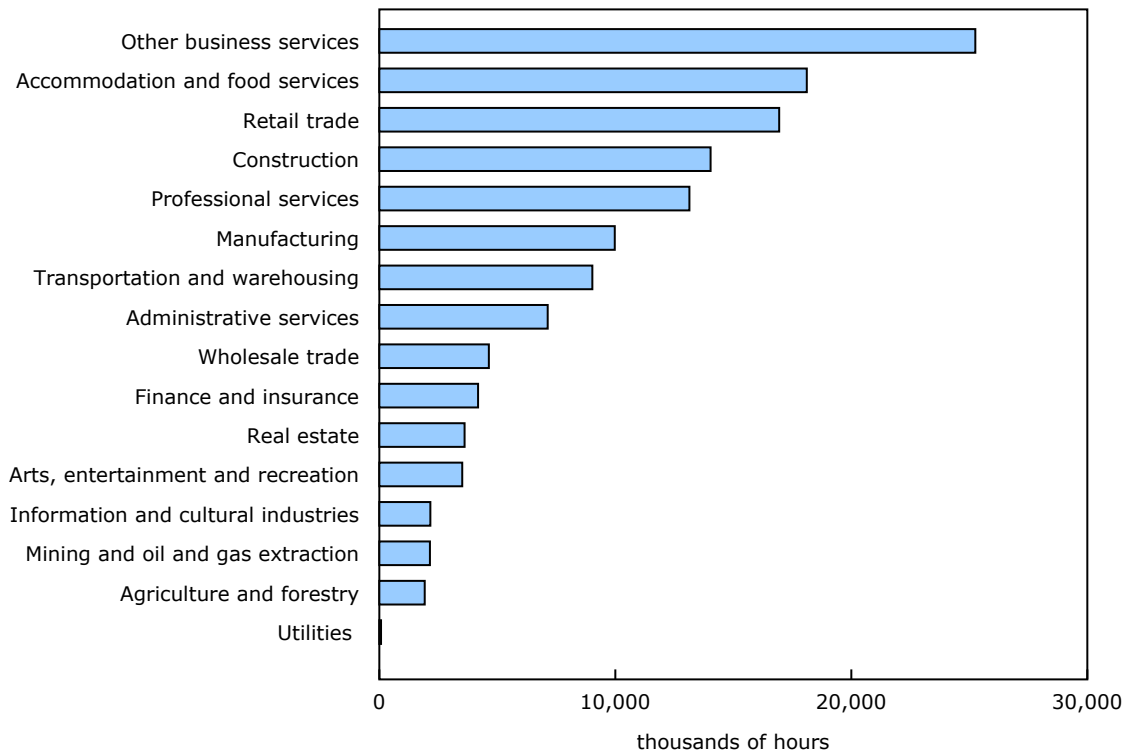
Hours lost continue in some sectors, but to a lesser extent than in the third quarter

As in the previous quarter, hours lost were spread unevenly across industry sectors in the fourth quarter. However, hours lost by sector were smaller in the fourth quarter than in the previous quarters of 2020.

Overall, the sectors most affected by hours lost since the start of the pandemic are other business services, accommodation and food services, and retail trade. Nearly a quarter of the hours lost in the fourth quarter were in these three sectors, sectors in which wages are among the lowest and telework is uncommon.

For a third straight quarter, the other business services sector posted the biggest loss of all sectors. In the fourth quarter, 25.3 million hours were lost in this sector, which comprises a variety of businesses that were affected by the restrictions imposed on a large portion of its activities, such as personal and laundry services, hair salons and beauty parlours, and repair and maintenance services.

Chart 2
Work hours lost in the fourth quarter 2020 as a result of COVID-19, by industry, business sector



Source(s): Special tabulations.

Productivity declines in the majority of industrial sectors

In the fourth quarter, the decline in productivity slowed considerably both in goods-producing (down 1.2% after falling 13.3% in the previous quarter) and in service-producing (down 2.8% after falling 10.7% in the previous quarter) businesses.

Productivity was down in 14 of the 16 main industrial sectors. Only mining and oil and gas extraction (+5.0%) and agriculture and forestry (+2.0%) saw increases in their productivity. The largest declines were observed in accommodation and food services; arts, entertainment and recreation; real estate; information and cultural industries; retail trade; and construction.

In addition, the declines in productivity reported in the fourth quarter were much smaller than those observed in the third quarter, except in accommodation and food services (down 10.4% after falling 6.8% the previous quarter) and retail trade (down 4.5% after falling 3.2% the previous quarter). The decrease in wholesale trade (-1.2%) was similar to that observed in the previous quarter. In the third quarter, productivity was down in all industry sectors.

In the United States, the labour productivity of businesses fell 1.4% in the fourth quarter, after strong gains of 1.6% in the third quarter and 2.3% in the second quarter and zero growth in the first quarter. The last time a decrease of this magnitude was observed was in the first quarter of 1974. In the fourth quarter, the real GDP of American businesses rose 1.3%, after posting a record 9.6% increase the previous quarter. In addition, hours worked were up 2.7%, following an unprecedented gain of 7.9% observed in the third quarter.

Unit labour costs are unchanged, after a decline in the third quarter

In Canadian businesses, productivity (-2.0%) and hourly compensation (-2.0%) both fell at the same pace in the fourth quarter. As a result, labour costs per unit of output in Canadian businesses were unchanged in the fourth quarter, after decreasing 1.6% in the previous quarter.

The average value of the Canadian dollar relative to the US dollar rose for a second consecutive quarter, up 2.1% in the fourth quarter. Given this appreciation, unit labour costs in US dollars for Canadian businesses grew 2.2%—an advance similar to that recorded in the previous quarter. Furthermore, the unit labour costs of American businesses rose 1.7%, following a 1.8% decrease in the previous quarter.

The year 2020

On average, for all of 2020, the labour productivity of Canadian businesses saw unprecedented increases since the quarterly data series began in 1981, with an annual gain of 8.8%.

This never-before-seen growth in productivity in 2020 is attributable primarily to the fact that the sharp gains in productivity in the first and second quarters were only partly offset by the declines posted in the third and fourth quarters.

Productivity showed very different behaviour between the first and second halves of 2020. The first half was affected by the widespread economic shutdown from mid-March to early May 2020, while the second half saw economic activity begin to recover, as many businesses resumed their activities in the wake of more relaxed targeted public health measures.

In 2020, the real GDP of businesses fell (-7.0%), as did hours worked, which posted a stronger decline (-14.1%). As a result, the gains in productivity were significant. These were historical decreases for both business output and hours worked, reflecting an unusual year defined by the COVID-19 pandemic.

In the business sector, the overall effect of the pandemic on hours worked was a net loss of 869.2 million hours for 2020.

By comparison, the annual growth in the productivity of American businesses was 2.6% in 2020—the largest annual increase since 2010, when productivity rose 3.3%. The sharp increase in 2020 illustrates the unprecedented drop in business output (-4.1%) and the largest decline in hours worked (-6.5%) since 2009.

In Canadian businesses, unit labour costs rose 4.0% in 2020 marking the largest annual increase since 2007 (+4.4%). This annual growth in unit labour costs reflects the record growth observed in hourly compensation (+13.2%), which outpaced the growth in productivity (+8.8%).

Expressed in US dollars at the average exchange rate, unit labour costs for Canadian businesses were up 2.9% in 2020. Meanwhile, unit labour costs for American businesses rose 4.2%—the largest annual growth observed since 1990 (also +4.2%).

Sustainable development goals

On January 1, 2016, the world officially began implementation of the [2030 Agenda for Sustainable Development](#)—the United Nations' transformative plan of action that addresses urgent global challenges over the next 15 years. The plan is based on 17 specific sustainable development goals.

The release "Labour productivity, hourly compensation and unit labour cost" is an example of how Statistics Canada supports the reporting on the global sustainable development goals. This release will be used to help measure the following goal:



Note to readers

Volatile data in the four quarters of 2020

Data from one quarter to the next have been quite volatile, reflecting the impacts of the pandemic on economic activity and the labour market. Given the sharp changes in the four quarters of 2020, the percentage changes from the same quarter a year earlier better reflect the changes in productivity and its related measures than percentage changes from quarter to quarter. Note that the quarterly data in Table 1 of this release are presented in the usual format: the percentage change from the same quarter in the previous year (q/q-4), and the change from the previous quarter (q/q-1).

Revisions

With this release on labour productivity and related measures, data were revised back to the first quarter of 2016 at the aggregate and industry levels. These revisions are consistent with those incorporated in the release on quarterly gross domestic product (GDP) by income and expenditure and the release on monthly GDP by industry, released on March 2, 2021.

This release also incorporates the 2016 to 2019 revisions of the benchmark data on provincial and territorial labour productivity and related measures, which were published on February 12, 2021.

Lastly, it should be noted that this release does not take into account recent revisions from the Labour Force Survey (LFS), released on January 25, 2021. The incorporation of the historical revisions of LFS is scheduled for March 4, 2022, with the release of fourth quarter 2021 data.

Productivity measures

The term **productivity** in this release refers to labour productivity. For the purposes of this analysis, labour productivity and related variables cover the business sector only.

Labour productivity is a measure of real GDP per hour worked.

Unit labour cost is defined as the cost of workers' wages and benefits per unit of real GDP.

The approach to measuring real output in the business sector differs from the one that is used in the estimates by industry. For the business sector, output is measured using the expenditure-based GDP approach at market prices. This approach is similar to that used for the quarterly measures of productivity in the United States. However, output by industry is based on the value added at basic prices.

All the growth rates reported in this release are rounded to one decimal place. They are calculated with index numbers rounded to three decimal places, which are now available in data tables.

All necessary basic variables for productivity analyses (such as hours worked, employment, output and compensation) are seasonally adjusted. For information on seasonal adjustment, see [Seasonally adjusted data – Frequently asked questions](#).

Next release

Labour productivity, hourly compensation and unit labour cost data for the first quarter of 2021 will be released on June 4.

Table 1
Business sector: Labour productivity and related variables for Canada and the United States¹ –
Seasonally adjusted

	Fourth quarter 2018	First quarter 2019	Second quarter 2019	Third quarter 2019	Fourth quarter 2019	First quarter 2020	Second quarter 2020	Third quarter 2020	Fourth quarter 2020
% change from the previous quarter									
Canada									
Labour productivity	-0.4	0.4	0.5	0.5	-0.1	5.5	12.3	-10.6	-2.0
Real gross domestic product (GDP)	0.0	-0.0	1.3	0.4	-0.0	-2.4	-14.1	11.0	2.5
Hours worked	0.5	-0.4	0.8	-0.1	0.0	-7.5	-23.5	24.2	4.6
Hourly compensation	0.9	1.4	0.6	1.5	1.2	5.6	17.1	-12.1	-2.0
Unit labour cost	1.3	1.0	0.1	1.0	1.2	0.1	4.3	-1.6	0.0
Exchange rate ²	-1.0	-0.7	-0.5	1.2	0.1	-1.8	-3.0	4.0	2.1
Unit labour cost in US dollars	0.2	0.4	-0.5	2.3	1.3	-1.7	1.1	2.4	2.2
United States³									
Labour productivity	0.2	0.9	0.5	0.0	0.3	-0.0	2.3	1.6	-1.4
Real GDP	0.4	0.9	0.3	0.7	0.7	-1.5	-10.8	9.6	1.3
Hours worked	0.2	-0.0	-0.2	0.7	0.4	-1.5	-12.9	7.9	2.7
Hourly compensation	0.4	2.1	0.4	-0.0	0.8	2.2	5.4	-0.3	0.3
Unit labour cost	0.2	1.2	-0.1	-0.1	0.4	2.2	3.0	-1.8	1.7
	2016	2017	2018	2019	2020	First quarter 2020	Second quarter 2020	Third quarter 2020	Fourth quarter 2020
% change from the previous year					% change from the same quarter of the previous year				
Canada									
Labour productivity	-0.1	2.0	0.6	1.0	8.8	6.5	19.1	5.9	3.8
Real GDP	0.5	3.5	2.3	1.7	-7.0	-0.8	-15.8	-6.9	-4.6
Hours worked	0.5	1.4	1.7	0.7	-14.1	-6.8	-29.3	-12.1	-8.1
Hourly compensation	-1.3	2.7	3.7	3.9	13.2	9.1	27.1	10.0	6.6
Unit labour cost	-1.3	0.7	3.1	2.9	4.0	2.5	6.7	4.0	2.7
Exchange rate ²	-3.6	2.1	0.1	-2.3	-1.1	-1.1	-3.5	-0.8	1.2
Unit labour cost in US dollars	-4.8	2.9	3.1	0.5	2.9	1.3	3.0	3.1	4.0
United States³									
Labour productivity	0.4	1.3	1.6	1.7	2.6	0.9	2.7	4.3	2.5
Real GDP	1.9	2.7	3.5	2.4	-4.1	0.2	-11.0	-3.1	-2.6
Hours worked	1.5	1.4	1.9	0.7	-6.5	-0.8	-13.3	-7.1	-4.9
Hourly compensation	1.1	3.6	3.4	3.6	7.0	3.3	8.5	8.2	7.7
Unit labour cost	0.7	2.3	1.8	1.9	4.2	2.4	5.7	3.8	5.1

1. Calculations of growth rates are based on index numbers rounded to three decimal places.

2. The exchange rate corresponds to the Canadian dollar value expressed in US dollars.

3. US data are from Bureau of Labor Statistics (BLS), Productivity and Costs: Fourth Quarter and Annual Averages 2020, Preliminary — published in news release, February 4. Because of rounding, the annual growth rates presented in this table can sometimes differ slightly from the annual rates published by the BLS.

Source(s): Table 36-10-0206-01.

Table 2
Labour productivity and related measures, by business sector industry, seasonally adjusted,
fourth quarter 2020

	Real gross domestic product (GDP)	Hours worked	Labour productivity	Total compensation per hour worked
	% change from the previous quarter			
Business sector, goods	2.4	3.7	-1.2	-1.3
Agriculture, forestry, fishing and hunting	5.1	2.9	2.0	-2.0
Mining and oil and gas extraction	6.1	1.0	5.0	-1.2
Utilities	-1.7	0.1	-1.8	2.6
Construction	1.7	5.6	-3.7	-2.1
Manufacturing	1.4	2.8	-1.4	-0.6
Business sector, services	2.0	5.0	-2.8	-2.3
Wholesale trade	1.7	2.9	-1.2	-1.5
Retail trade	0.7	5.5	-4.5	-4.6
Transportation and warehousing	3.2	4.0	-0.7	-1.4
Information and cultural industries	1.7	7.5	-5.3	-2.4
Finance and insurance, and holding companies	1.9	2.6	-0.7	-0.4
Real estate and rental and leasing	1.3	7.8	-6.0	-5.6
Professional, scientific and technical services	3.6	4.9	-1.3	-1.3
Administrative and support, waste management and remediation services	5.1	5.5	-0.4	0.1
Arts, entertainment and recreation	4.5	10.9	-5.8	-5.9
Accommodation and food services	-5.5	5.5	-10.4	-3.4
Other business services	4.5	5.9	-1.4	-2.9

Source(s): Table [36-10-0207-01](#).

Available tables: [36-10-0206-01](#) and [36-10-0207-01](#).

Definitions, data sources and methods: survey number [5042](#).

The [Economic accounts statistics](#) portal, accessible from the *Subjects* module of our website, features an up-to-date portrait of national and provincial economies and their structures.

The *Latest Developments in the Canadian Economic Accounts* ([13-605-X](#)) is available.

The *User Guide: Canadian System of Macroeconomic Accounts* ([13-606-G](#)) is available.

The *Methodological Guide: Canadian System of Macroeconomic Accounts* ([13-607-X](#)) is available.

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).