

Monthly Survey of Manufacturing, March 2020

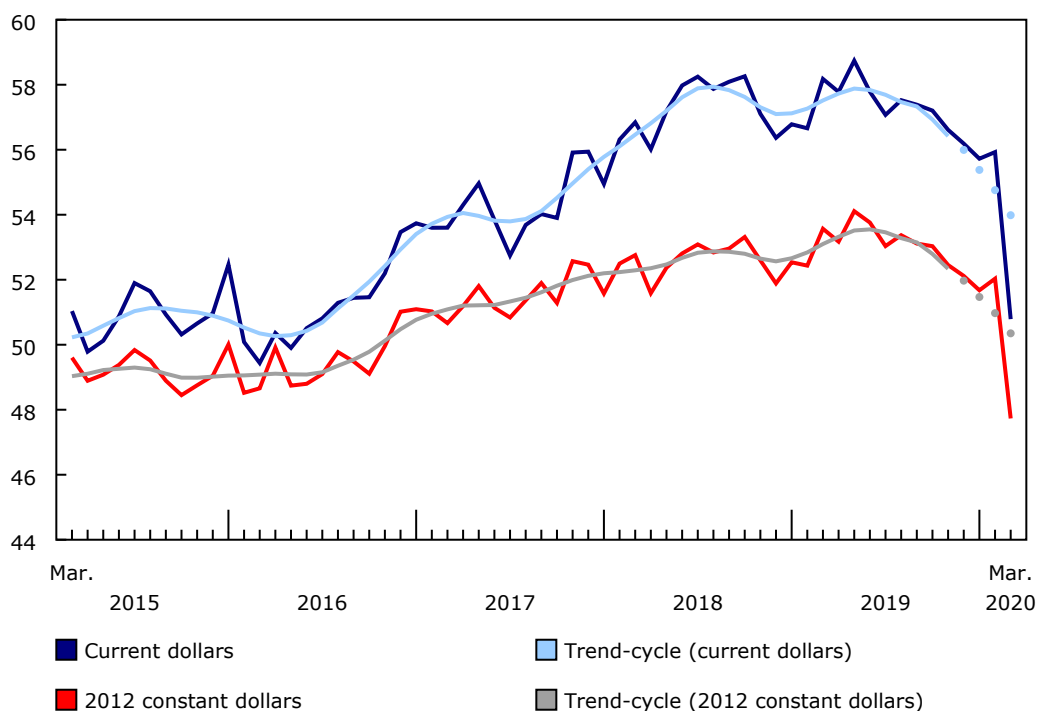
Released at 8:30 a.m. Eastern time in *The Daily*, Thursday, May 14, 2020

Manufacturing sales fell 9.2% to \$50.8 billion in March, the lowest level since June 2016 and the largest percentage decline since December 2008, during the previous recession.

Manufacturing sales in March were substantially affected by COVID-19 as many plants were shut down or faced sharply lower demand during the last two weeks of the month. Given ongoing lower demand, together with continued challenges to global supply chains and ongoing physical distancing measures, the March decline in sales is expected to continue into April.

Chart 1
Manufacturing sales

billions of dollars



Note(s): Data are seasonally adjusted.

Source(s): Tables [16-10-0047-01](#) and [16-10-0013-01](#).

Sales were down in 17 of 21 industries, led by steep declines in the transportation equipment and petroleum and coal product industries. In contrast, sales were up in food, paper, as well as the beverage and tobacco industries.

In volumes terms, manufacturing sales fell 8.3%, indicating that a lower volume of products was sold in March.



Statistics
Canada

Statistique
Canada

Canada

COVID-19 has major impact on the manufacturing sector

Over three-quarters (78.3%) of establishments in the manufacturing sector reported that their activities were impacted by COVID-19. Furniture and related product (91.2%), miscellaneous (88.9%) and transportation equipment (88.3%) industries reported supply issues, with some shutting down several plants in response to lower global demand or in response to physical distancing requirements.

Over four-fifths (86.8%) of firms in the printing and related support activities industry reported that COVID-19 had affected their activities, as they lost clients in the wake of the closure of restaurants, schools and sporting events.

Paper (62.8%) and food (61.8%) manufacturers reported that COVID-19 had affected their activities. For both industries, higher consumer demand boosted overall sales in these industries during the month of March.

Based on respondent feedback, the largest estimated impacts of COVID-19 on manufacturing sales in dollar terms were in the transportation equipment (-\$2.9 billion), fabricated metal product (-\$376 million), petroleum and coal product (-\$331 million), machinery (-\$295 million), plastic and rubber product (-\$277 million) and primary metal (-\$219 million) industries. It should be noted that these estimated impacts are on an unadjusted basis and should be interpreted with caution. However, they provide an estimate of the magnitude to which COVID-19 may have lowered sales.

Shutdowns at assembly plants and motor vehicle parts suppliers

Sales in the transportation equipment industry fell by over one-quarter (-26.5%) to \$7.6 billion in March. All transportation equipment industries reported lower sales. The largest declines were in the motor vehicle (-33.8%) and motor vehicle parts (-31.6%) industries. During the last two weeks of March, all Canadian assembly plants and several motor vehicle parts suppliers in North America lowered production in the wake of COVID-19.

Refineries ramp down production

Sales declined for the third consecutive month in the petroleum and coal product industry, down by one-third (-32.2%) to \$3.9 billion in March. The drop in sales reflected lower prices and quantities, as refineries curtailed production in response to the world oil supply glut and falling demand as drivers stayed home in response to lockdown orders. Furthermore, many refineries have announced in the media that they will postpone their spring turnaround works as a result of the pandemic to avoid bringing in extra workers and contractors.

Sales also decreased in the plastic and rubber (-10.9%), primary metal (-7.4%), fabricated metal product (-4.9%), furniture and related product (-16.6%), non-metallic mineral product (-11.7%), printing and related support activities (-16.2%) and machinery (-3.9%) industries. Most of the decline registered in these industries was attributable to plant closures or reduced production during the last two weeks of March in the wake of COVID-19, as well as due to lower demand.

On the other hand, higher sales of plastic packaging for essential products—such as flexible food packaging, garbage bags and plastic containers—partly offset the decline in the plastic and rubber industry. Increased sales of COVID-19 signage for essential services partly offset the decrease in printing and related support activities.

Sales were up in the food (+8.2%), paper (+8.4%) and beverage and tobacco (+6.7%) industries. The gains in these industries largely stemmed from increased demand for meat and dairy products along with higher sales of beer, wine and soft drinks. The gain in the paper industry largely reflected panic buying of toilet paper and hygiene products across the country.

Ontario and Quebec lead the declines

Manufacturing sales were down in eight provinces in March, led by Ontario and Quebec. In contrast, Manitoba and Nova Scotia reported higher sales.

Manufacturing sales in Ontario fell 14.3% to \$22.3 billion, the lowest level since January 2014. Sales declined in 15 of 21 industries, led by the motor vehicle (-35.8%), motor vehicle parts (-32.7%) and petroleum and coal product (-30.6%) industries. Gains in the food, chemical, beverage and tobacco, paper and miscellaneous industries were mostly attributable to higher consumer demand for their products during COVID-19.

Sales in Quebec declined for a second consecutive month, falling 4.1% to \$13.1 billion. Sales were down in 17 of 21 industries, led by the petroleum and coal product, fabricated metal product, transportation equipment, and furniture and related product industries. The decreases were partly offset by higher sales in food and paper industries.

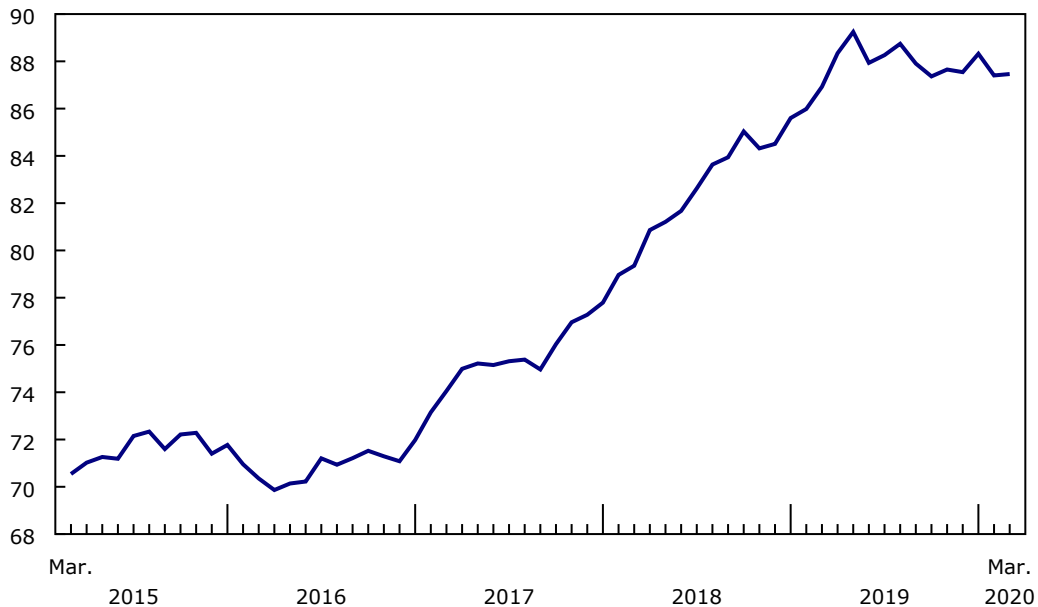
The largest monthly increase in dollar terms was in Manitoba (+8.2%), mainly due to higher sales of non-durable goods—particularly food. Sales in Nova Scotia rose 2.9% mostly on higher sales of the transportation equipment and paper industries.

Inventory levels edge up

Inventory levels edged up 0.1% to \$87.5 billion in March. Inventories rose in 13 of 21 industries, led by the transportation equipment industry (+5.3%). This was mostly offset by lower inventories in the petroleum and coal product industry (-20.7%), as prices for crude oil and refined products fell sharply in March.

Chart 2
Inventory levels edge up

billions of dollars

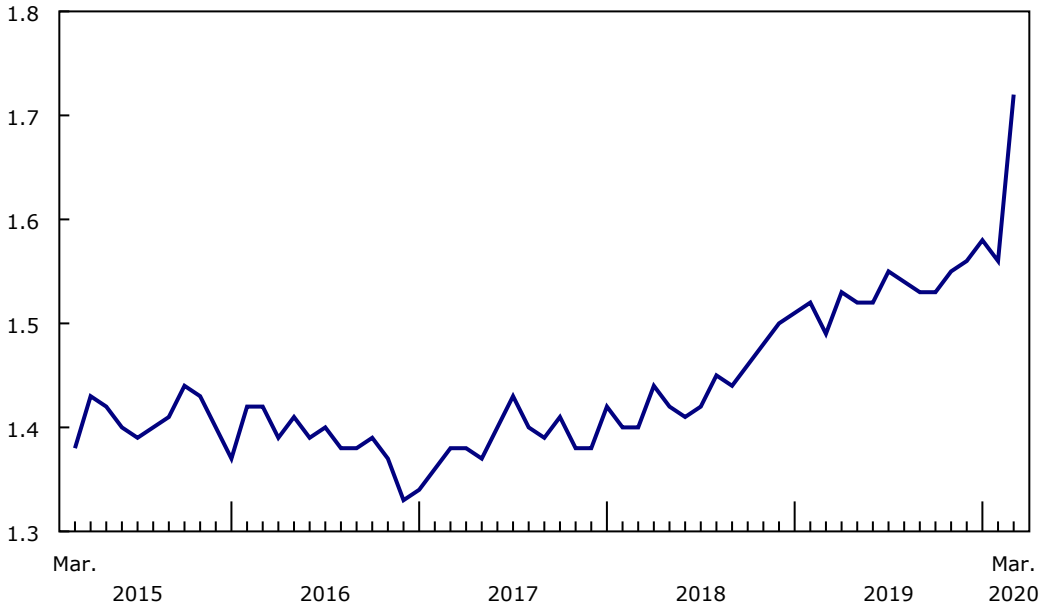


Note(s): Data are seasonally adjusted.
Source(s): Table 16-10-0047-01.

The inventory-to-sales ratio increased from 1.56 in February to 1.72 in March, mostly due to lower sales. This was the largest monthly increase in the inventory-to-sales ratio since December 2008. This ratio measures the time, in months, that would be required to exhaust inventories if sales were to remain at their current level.

Chart 3 The inventory-to-sales ratio increases

ratio



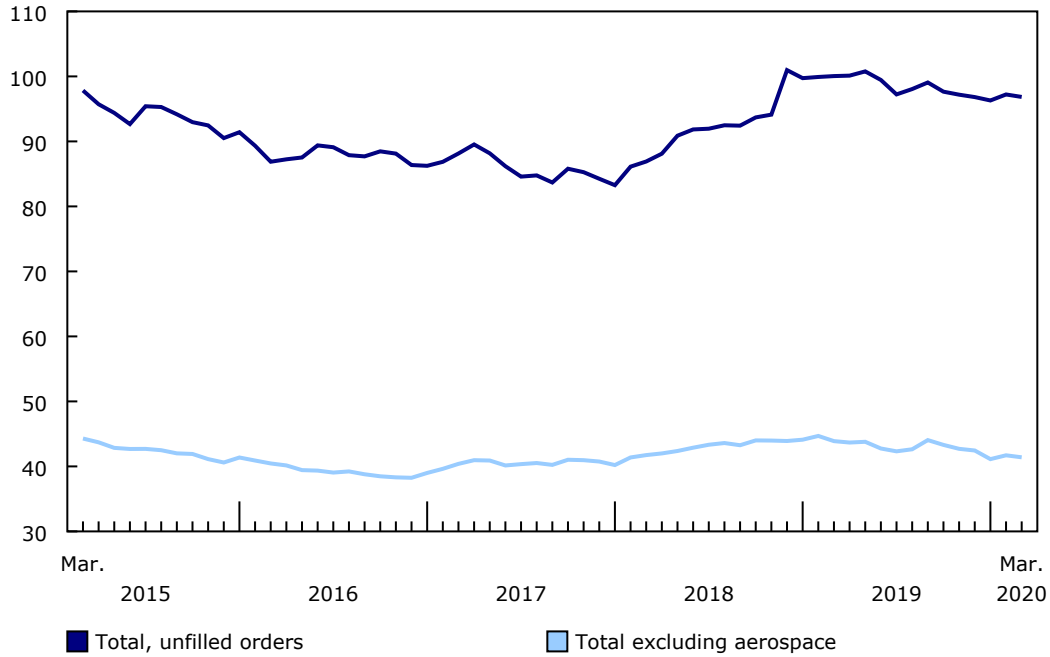
Note(s): Data are seasonally adjusted.
Source(s): Table [16-10-0047-01](#).

Unfilled orders decline

Unfilled orders decreased 0.4% to \$96.8 billion in March. The decline was mainly attributable to lower unfilled orders in the transportation equipment (-0.9%) and machinery (-3.5%) industries.

Chart 4
Unfilled orders decline

billions of dollars



Note(s): Data are seasonally adjusted.
Source(s): Table 16-10-0047-01.

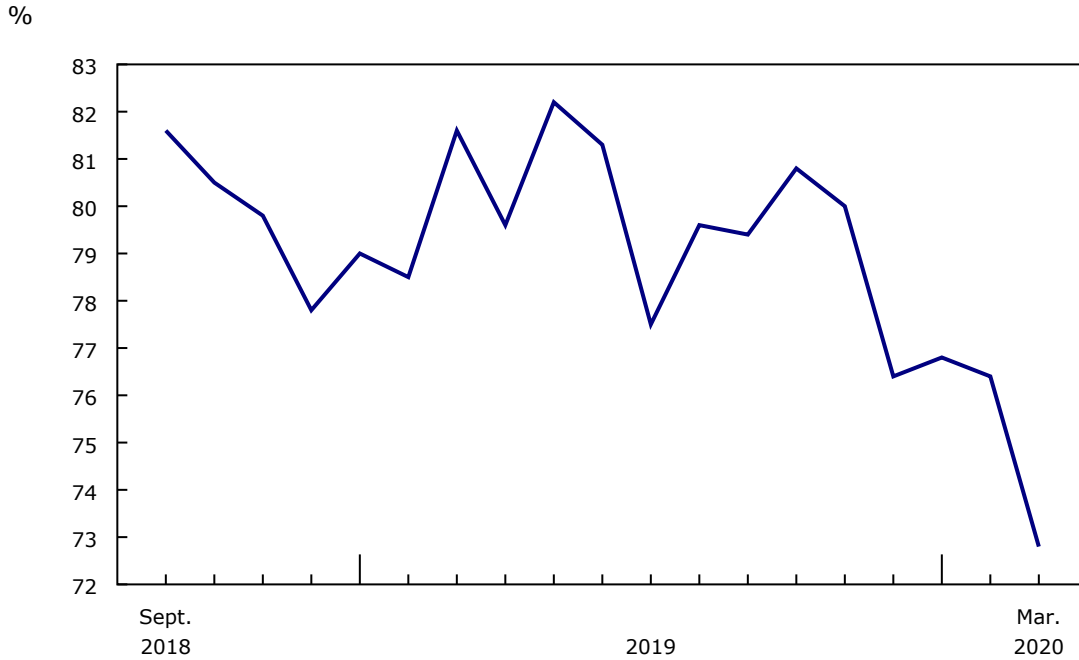
These declines were partially offset by higher unfilled orders in the fabricated metal product (+3.2%) and chemical (+18.6%) industries.

New orders fell 11.3% to \$50.4 billion in March, mostly reflecting lower new orders in the transportation equipment (-38.5%) and the petroleum and coal product (-32.1%) industries.

Capacity utilization rate falls

The unadjusted capacity utilization rate for the manufacturing sector declined 3.6 percentage points to 72.8% in March. This was 8.8 percentage points lower compared with March 2019.

Chart 5
The capacity utilization rate falls



Note(s): Data are not seasonally adjusted.
Source(s): Table [16-10-0012-01](#).

The capacity utilization rate for the transportation equipment industry fell 17.7 percentage points to 65.1% in March. The decrease was mostly attributable to lower production at motor vehicle assembly and motor vehicle parts plants associated with the two-week shutdown at the end of March.

The capacity utilization rate of the petroleum and coal product industry declined for the third consecutive month, falling 11.8 percentage points to 65.1% in March. The decrease was attributable to lower production across the country due to lower demand and shutdowns at some refineries.

First quarter results

Manufacturing sales fell 4.4% to \$162.4 billion in the first quarter, the third consecutive quarterly decline. In volume terms, manufacturing sales decreased 3.9% in the first quarter, mostly due to lower volumes sold in the transportation equipment (-15.7%) and petroleum and coal products (-9.5%) industries.

Table 1
Manufacturing: Principal statistics – Seasonally adjusted

	March 2019	February 2020 ^r	March 2020 ^p	February to March 2020	March 2019 to March 2020
	millions of dollars			% change ¹	
Manufacturing sales (current dollars)	58,178	55,927	50,788	-9.2	-12.7
Manufacturing sales (2012 constant dollars)	53,568	52,032	47,732	-8.3	-10.9
Manufacturing sales (current dollars) excluding motor vehicles, parts and accessories	50,292	48,496	45,809	-5.5	-8.9
Inventories	86,924	87,403	87,463	0.1	0.6
Unfilled orders	100,048	97,220	96,840	-0.4	-3.2
New orders	58,313	56,853	50,408	-11.3	-13.6
Inventory-to-sales ratio ²	1.49	1.56	1.72

^r revised

^p preliminary

... not applicable

1. Percent change calculated at thousands of dollars for current dollars and millions of dollars for constant dollars.

2. The inventory-to-sales ratio measures the time in months that it would take to exhaust inventories if sales were to remain at the current rate.

Source(s): Tables [16-10-0047-01](#) and [16-10-0013-01](#).

Table 2
Manufacturing sales by industry – Seasonally adjusted

	March 2019	February 2020 ^r	March 2020 ^p	February to March 2020	March 2019 to March 2020
	millions of dollars			% change ¹	
Food manufacturing	8,678	9,007	9,742	8.2	12.3
Beverage and tobacco product	1,184	1,271	1,357	6.7	14.5
Textile mills	158	147	141	-4.4	-10.9
Textile product mills	145	115	109	-5.3	-24.9
Clothing manufacturing	228	279	259	-7.0	13.5
Leather and allied product	26	24	22	-9.8	-15.5
Wood product	2,476	2,442	2,361	-3.3	-4.6
Paper manufacturing	2,473	2,229	2,416	8.4	-2.3
Printing and related support activities	762	797	668	-16.2	-12.3
Petroleum and coal product	6,285	5,769	3,911	-32.2	-37.8
Chemical	4,532	4,485	4,482	-0.1	-1.1
Plastics and rubber products	2,703	2,677	2,386	-10.9	-11.7
Non-metallic mineral product	1,280	1,348	1,191	-11.7	-7.0
Primary metal	4,439	3,941	3,651	-7.4	-17.7
Fabricated metal product	3,431	3,563	3,388	-4.9	-1.2
Machinery	3,712	3,266	3,139	-3.9	-15.4
Computer and electronic product	1,393	1,176	1,157	-1.6	-16.9
Electrical equipment, appliance and component	936	887	829	-6.5	-11.5
Transportation equipment	11,148	10,307	7,572	-26.5	-32.1
Motor vehicle	5,256	4,803	3,181	-33.8	-39.5
Motor vehicle body and trailer	391	346	315	-8.9	-19.5
Motor vehicle parts	2,630	2,627	1,798	-31.6	-31.6
Aerospace product and parts	2,111	1,802	1,715	-4.8	-18.7
Railroad rolling stock	295	258	219	-15.4	-25.8
Ship and boat building	186	220	169	-23.1	-8.9
Furniture and related product	1,106	1,133	944	-16.6	-14.6
Miscellaneous manufacturing	1,084	1,063	1,065	0.2	-1.7
Non-durable goods industries	27,174	26,801	25,491	-4.9	-6.2
Durable goods industries	31,004	29,126	25,297	-13.1	-18.4

^r revised

^p preliminary

1. Percent change calculated at thousands of dollars.

Source(s): Table 16-10-0047-01.

Table 3
Manufacturing sales: Provinces and territories – Seasonally adjusted

	March 2019	February 2020 ^r	March 2020 ^p	February to March 2020	March 2019 to March 2020
	millions of dollars			% change ¹	
Canada	58,178	55,927	50,788	-9.2	-12.7
Newfoundland and Labrador	612	527	425	-19.4	-30.6
Prince Edward Island	181	211	199	-5.8	9.8
Nova Scotia	748	723	745	2.9	-0.4
New Brunswick	1,504	1,469	1,116	-24.0	-25.8
Quebec	14,464	13,614	13,061	-4.1	-9.7
Ontario	26,637	26,018	22,291	-14.3	-16.3
Manitoba	1,570	1,571	1,699	8.2	8.2
Saskatchewan	1,369	1,301	1,189	-8.7	-13.2
Alberta	6,536	6,216	5,808	-6.6	-11.1
British Columbia	4,550	4,270	4,245	-0.6	-6.7
Yukon	2	3	5	39.8	197.5
Northwest Territories and Nunavut	4	3	5	82.3	17.0

^r revised

^p preliminary

1. Percentage change calculated at thousands of dollars.

Source(s): Tables [16-10-0047-01](#) and [16-10-0048-01](#).

Table 4
Manufacturing sales by selected census metropolitan area – Unadjusted

	March 2019	February 2020 ^r	March 2020 ^p	February to March 2020	March 2019 to March 2020
	millions of dollars			% change ¹	
Halifax	205	179	221	23.5	8.2
Québec	1,551	1,307	1,180	-9.7	-23.9
Montréal	7,245	5,881	6,494	10.4	-10.4
Ottawa–Gatineau, Ontario and Quebec	580	523	718	37.1	23.6
Toronto	10,804	9,718	9,652	-0.7	-10.7
Hamilton	1,751	1,409	1,486	5.4	-15.2
Winnipeg	912	841	1,016	20.8	11.4
Regina	590	657	437	-33.5	-25.8
Saskatoon	304	272	355	30.6	16.6
Calgary	968	933	1,035	11.0	6.9
Edmonton	3,497	2,777	2,742	-1.3	-21.6
Vancouver	2,215	2,040	2,341	14.8	5.7

^r revised

^p preliminary

1. Percentage change calculated in thousands of dollars.

Note(s): Data in this table are not seasonally adjusted.

Source(s): Table 16-10-0011-01.

Table 5
Manufacturing capacity utilization rates by industry – Unadjusted

	March 2019	February 2020 ^r	March 2020 ^p	February to March 2020	March 2019 to March 2020
	%			percentage point change	
Manufacturing	81.6	76.4	72.8	-3.6	-8.8
Non-durable goods industries	82.7	76.7	76.1	-0.6	-6.6
Food manufacturing	80.0	77.8	80.2	2.4	0.2
Beverage and tobacco product manufacturing	74.5	70.4	74.1	3.7	-0.4
Beverage manufacturing	76.2	70.6	73.5	2.9	-2.7
Tobacco manufacturing	68.1	69.4	77.1	7.7	9.0
Textile mills	78.6	80.4	72.2	-8.2	-6.4
Textile product mills	75.0	71.3	64.7	-6.6	-10.3
Clothing manufacturing	82.4	81.3	70.6	-10.7	-11.8
Leather and allied product manufacturing	82.5	71.5	61.9	-9.6	-20.6
Paper manufacturing	89.5	86.6	89.4	2.8	-0.1
Printing and related support activities	77.8	72.4	69.5	-2.9	-8.3
Petroleum and coal products manufacturing	89.8	76.9	65.1	-11.8	-24.7
Chemical manufacturing	83.3	75.1	77.3	2.2	-6.0
Plastics and rubber products manufacturing	76.0	71.7	70.2	-1.5	-5.8
Plastic product manufacturing	74.9	71.1	70.4	-0.7	-4.5
Rubber product manufacturing	81.8	74.9	68.7	-6.2	-13.1
Durable goods industries	80.6	76.1	70.0	-6.1	-10.6
Wood product manufacturing	82.7	78.8	79.7	0.9	-3.0
Non-metallic mineral product manufacturing	66.0	57.9	64.6	6.7	-1.4
Primary metal manufacturing	77.1	79.0	77.6	-1.4	0.5
Fabricated metal product manufacturing	76.4	68.2	66.1	-2.1	-10.3
Machinery manufacturing	80.3	70.5	70.8	0.3	-9.5
Computer and electronic product manufacturing	83.2	78.2	82.0	3.8	-1.2
Electrical equipment, appliance and component manufacturing	79.1	72.3	71.2	-1.1	-7.9
Transportation equipment manufacturing	85.0	82.8	65.1	-17.7	-19.9
Furniture and related product manufacturing	76.5	76.7	70.3	-6.4	-6.2
Miscellaneous manufacturing	80.8	73.0	72.4	-0.6	-8.4

^r revised

^p preliminary

Note(s): Data in this table are not seasonally adjusted.

Source(s): Table 16-10-0012-01.

Table 6
Estimates of impact of COVID-19 on manufacturing sales by industry – Unadjusted

	March 2020
	millions of dollars
Manufacturing	-5,168
Food manufacturing	82
Beverage and tobacco product manufacturing	2
Textile mills	-2
Textile product mills	-9
Clothing manufacturing	-51
Leather and allied product manufacturing	-3
Paper manufacturing	99
Printing and related support activities	-136
Petroleum and coal products manufacturing	-331
Chemical manufacturing	-68
Plastics and rubber products manufacturing	-277
Wood product manufacturing	-170
Non-metallic mineral product manufacturing	-77
Primary metal manufacturing	-219
Fabricated metal product manufacturing	-376
Machinery manufacturing	-295
Computer and electronic product manufacturing	-58
Electrical equipment, appliance and component manufacturing	-81
Transportation equipment manufacturing	-2,900
Furniture and related product manufacturing	-205
Miscellaneous manufacturing	-95

Note(s):

Data in this table are not seasonally adjusted.

The sum of the individual industries may not add up to the total as a result of rounding.

Source(s): Monthly Survey of Manufacturing (2101).

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 Monthly Survey of Manufacturing is an example of how Statistics Canada supports the reporting on the Global Goals for Sustainable Development. This release will be used in helping to measure the following goal:



Note to readers

While the quality of data for the month of March remains high, response rates from manufacturers' establishments have fallen from the usual 95% to a rate of 81% in March. Every effort has been made to supplement data for the month of March with information from other sources.

Monthly data in this release are seasonally adjusted and are expressed in current dollars unless otherwise specified.

For information on seasonal adjustment, see [Seasonally adjusted data – Frequently asked questions](#). For information on trend-cycle data, see [Trend-cycle estimates – Frequently asked questions](#).

Non-durable goods industries include food, beverage and tobacco products, textile mills, textile product mills, clothing, leather and allied products, paper, printing and related support activities, petroleum and coal products, chemicals, and plastics and rubber products.

Durable goods industries include wood products, non-metallic mineral products, primary metals, fabricated metal products, machinery, computer and electronic products, electrical equipment, appliances and components, transportation equipment, furniture and related products, and miscellaneous manufacturing.

Production-based industries

For the aerospace and shipbuilding industries, the value of production is used instead of the value of sales of goods manufactured. The value of production is calculated by adjusting monthly sales of goods manufactured by the monthly change in inventories of goods in process and finished products manufactured. The value of production is used because of the extended period of time that it normally takes to manufacture products in these industries.

Unfilled orders are a stock of orders that will contribute to future sales assuming that the orders are not cancelled. New orders are those received, whether sold in the current month or not.

New orders are measured as the sum of sales for the current month plus the change in unfilled orders from the previous month to the current month.

Manufacturers reporting sales, inventories and unfilled orders in US dollars

Some Canadian manufacturers report sales, inventories and unfilled orders in US dollars. These data are then converted to Canadian dollars as part of the data production cycle.

For sales, based on the assumption that they occur throughout the month, the average monthly exchange rate for the reference month established by the Bank of Canada is used for the conversion. The monthly average exchange rate is available in table 33-10-0163-01. Inventories and unfilled orders are reported at the end of the reference period. For most respondents, the noon spot exchange rate on the last working day of the month is used for the conversion of these variables.

However, some manufacturers choose to report their data as of a day other than the last day of the month. In these instances, the daily average exchange rate on the day selected by the respondent is used. Note that because of exchange rate fluctuations, the daily average exchange rate on the day selected by the respondent can differ from both the exchange rate on the last working day of the month and the monthly average exchange rate. Daily average exchange rate data are available in table 33-10-0036-01.

Revision policy

Each month, the Monthly Survey of Manufacturing releases preliminary data for the reference month and revised data for the three previous months. Revisions are made to reflect new information provided by respondents and updates to administrative data.

Once per year, a revision project is undertaken and data for several years are revised.

Real-time data tables

Real-time data tables 16-10-0118-01, 16-10-0119-01, 16-10-0014-01 and 16-10-0015-01 will be updated on May 25.

Next release

Data from the Monthly Survey of Manufacturing for April will be released on June 15.

Available tables: [16-10-0011-01](#) to [16-10-0013-01](#) , [16-10-0047-01](#) and [16-10-0048-01](#).

Definitions, data sources and methods: survey number [2101](#).

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).