

Research Briefing | Canada

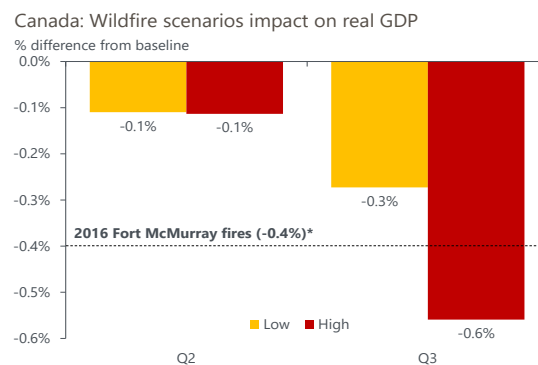
Historic wildfires could choke the economy this summer

- Canada's early-season wildfires have caused massive destruction and dislocation in their paths – we estimate they have already reduced GDP in Q2 by 0.1ppt.
- However, if [predictions](#) of record-breaking wildfires this summer are realized, our preliminary analysis suggests cuts to Q3 GDP could be between 0.3ppts and 0.6ppts. The higher estimate would be worse than the economic impact from the [2016 Fort McMurray fires](#).
- The bulk of the hit to the economy will be in mining, quarrying, and oil and gas extraction in Alberta, Quebec, and British Columbia where fires have forced operations to shut down for various periods since mid-May.
- Wildfire smoke is also causing bouts of poor air quality across much of Canada and parts of the US. So far, we don't think this has had a measurable macroeconomic impact. But, if the wildfires lead to a large number of poor air quality days this summer, outdoor economic activities like recreation travel, tourism and construction could be disrupted.
- In a worse case, should wildfires shut major traffic corridors, cutting off supply lines or disrupting power supply to large population and business centres, the economic consequences could be even more severe.

On top of the threat to life, burning of timberlands, damage to the environment, and health-related consequences, Canada's wildfires are also disrupting the economy. Some forestry, mining, and oil operations in regions of Quebec, Ontario, Alberta, and British Columbia have been suspended since mid-May. Poor air quality from the wildfire smoke across Canada and the United States is also sporadically affecting outdoor activities and events like concerts, sporting events, construction, air travel, and tourism.

Some positive offsets will stem from increased firefighting activity, support for those displaced from their homes, and rebuilding efforts once the fires have been extinguished. But our preliminary analysis suggests overall, Canada's wildfires will reduce GDP in Q2 by around 0.1 ppt. And if predictions of a record-breaking wildfire season turn out to be true, Q3 GDP could be cut between 0.3ppts-0.6ppts – a potentially larger hit than the -0.4ppt quarterly GDP impact from the 2016 Fort McMurray fires ([Chart 1](#)).

Chart 1: Wildfires could cut Q3 GDP by 0.3ppts-0.6ppts



Source: Oxford Economics/Haver Analytics
*Estimate based on 2017 Statistics Canada report

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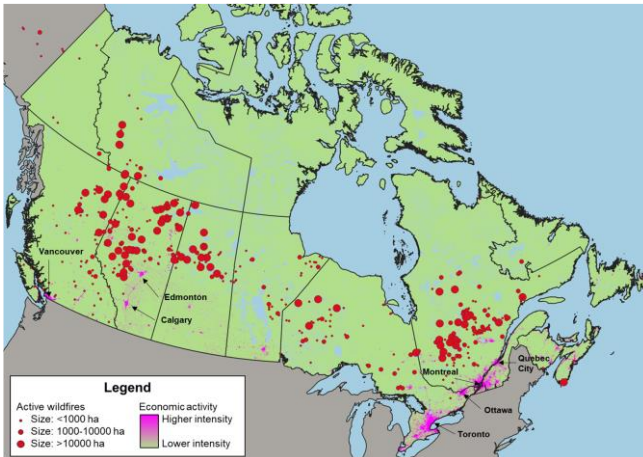
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Canada is headed for a record-shattering wildfire season

An unprecedented start to the wildfire season in Canada is now well past the halfway mark to the previous record-holding year of 1989, when about 7.5 million hectares burned. According to [Natural Resources Canada](#), over 100,000 people have been affected by evacuation orders so far this year, with an estimated 27,643 people still evacuated across the country due to wildland fires as of June 8. This figure includes 4,334 in Alberta, 1,165 in Saskatchewan, 1,039 in British Columbia, 405 in the Northwest Territories, 10,927 in Nova Scotia, and 9,773 in Quebec (**Chart 2**).

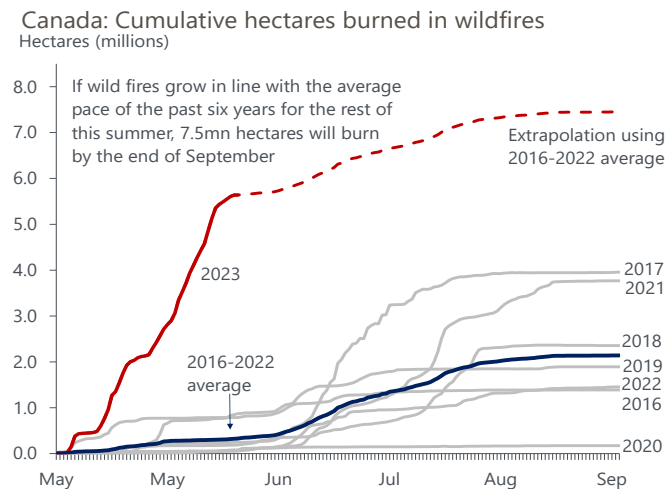
Chart 2: Wildfires remain concentrated in rural areas for now



Source: Oxford Economics/Canadian Forest Service * Data as of June 19

If the cumulative hectares burned so far this are extended to the rest of the wildfire season based on the past 6-year average, 7.5 million hectares of forest in 2023 would be lost to fire (**Chart 3**). This would roughly match 1989 for the worst wildfire season on record.

Chart 3: Canada's record-setting 2023 wildfire season



Source: Oxford Economics/Canadian Wildland Fire Information System

A bottom-up approach to estimating the economic impact of Canada's wildfires

Our analysis is based on a bottom-up assessment of the likely impacts from Canada's wildfires on those industries most vulnerable. This is a challenging undertaking, so we have prepared a range of possible impacts that we consider as reasonable bookends should the record-breaking wildfire season persist.

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Wildfires have shaved an estimated 0.1ppt off Q2 GDP

We referred to a wide variety of sources including official government reports, high frequency data from industry associations, studies on the impact of wildfires in other regions, and media reports to gauge the degree to which activity in specific industries has been impacted by the fires so far. The largest impacts to date have been in the mining, quarrying and oil and gas extraction sectors in Alberta and Quebec, where fires have forced operations to shut down for varying periods. The forestry industry has also been directly impacted by the closure of sawmills in hard-hit areas, particularly in Quebec. Overall, our analysis suggests the wildfires likely shaved around 0.1ppt off Canada-wide real GDP in Q2.

But the economic harm could be worse, surpassing the hit from the Fort McMurray fires

Should the record wildfire season continue to worsen as experts predict, the negative economic fallout in Q3 will spread. Like Q2, the biggest direct impact would once again come from closures of large mining, oil and gas extraction, and forestry operations in areas where wildfires are most severe. Prices for commodities like lumber, forestry products and natural gas could rise until supply is rebuilt, and premiums for property and casualty insurance may also increase.

If smoke from the fires causes a higher-than-normal number of poor air quality days, it could also restrict outdoor activities and lead some tourists to cancel trips planned for this summer. A study by Visit California found that 11% of potential travelers cancelled trips to the state during its record wildfire season in 2017.

What's more, a larger number of poor air quality days could disrupt Canada's construction sector if labourers aren't able to work safely outdoors. A growing body of economic research on the effects of poor air quality and air pollution show the impact on hours worked and productivity, though most focus only on specific sectors and regions and the research techniques used vary considerably. For instance, an [NBER paper](#) from Borgschulte, Molitor and Zou published in 2022 looked at the impact of wildfire smoke on U.S. labour market outcomes, and found that each additional day of wild fire smoke exposure reduces quarterly earnings by about 0.1%.

We have taken a more cautious approach to estimating the economic impact of poor air quality days, assuming in our low impact scenario 10 additional poor air quality days will shave about 0.1% off national GDP in Q3.

In a "low impact" scenario, we estimate the wildfires would shave a cumulative 0.3ppts off GDP in Q3. In our more gloomy "high impact" scenario, wild fires could reduce GDP by 0.6ppts in Q3, worse than the -0.4ppt economic impact from the [2016 Fort McMurray fires](#).

While these scenarios represent a plausible range of outcomes and provide useful bookends for the potential wildfire impact on the economy they should not be interpreted as worst case or best case scenarios. Ultimately, the economic impact will hinge on the degree to which the wildfires worsen this summer and, more importantly, where the fires occur.

What's more, the economic consequences could be even worse should wildfires shut major traffic corridors, cutting off supply lines or disrupting power supply to large population and business centres.

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Table 1: Scenario assumptions by industry

Industry	Key Assumptions	Q3 industry GDP impact	
		Low	High
Mining, quarrying, oil and gas extraction	Disruptions to oil and gas activity in Alberta and British Columbia, and the shutdown of mines in Quebec will have the largest direct impact on Canada GDP. We estimate 4% of Alberta's oil and gas industry was shut down due to wildfires in May. Meanwhile, the Donnie Creek wildfire – now BC's largest ever individual fire – is blazing through the province's prominent gas producing region. Our analysis also suggests that at least 7% of mines in Quebec were closed in June due to fires. In Q3, we assume 2.7% of the sector is shut down nationally due to wildfires in our low-impact scenario while the high-impact scenario assumes 5.1% of the sector is impacted.	-2.7%	-5.1%
Agriculture, forestry and fishing	In Quebec, some sawmills and other wood product facilities have been shut due to the fires in June. So far, the hit to this industry is largely contained to areas in Quebec where fires are most severe. For Q3, we assume 1.5% of the industry is shutdown due to the fires in our low-impact scenario. The high-impact scenario assumes a 3.7% hit to the industry in Q3. Moreover, shutdowns in the forestry and agriculture industry risk driving lumber and food prices higher.	-1.5%	-3.7%
Travel and tourism	Bad air quality from wildfire smoke and the fires themselves are likely reduce travel and tourism in Canada. This would primarily reduce wholesale and retail trade, transportation, accommodation and food services, and arts, entertainment and recreation. Our high-impact scenario assumes Q3 tourism is cut 11%, in line with Visit California's estimate, while our low-impact scenario assumes Q3 tourism is reduced 5%.	-0.2%	-0.4%
Arts, entertainment, and recreation	Outdoor activities could be restricted due to a higher number of bad air quality days. This would primarily affect industries in the arts, entertainment, and recreation sector. In our low-impact scenario, we assume 10 poor air quality days more than normal this wildfire season, while our high-impact scenario assumes 20 poor air quality days more than normal. As noted above, arts, entertainment and recreation activity would also be hit by reduced tourism.	-2.3%	-4.5%
Construction	Poor air quality due to wildfire smoke may curtail or postpone some construction activity. In our low-impact scenario, we assume 10 more poor air quality days than normal this wildfire season, while our high-impact scenario assumes 20 more poor air quality days than normal. However, once the wildfire season is over, rebuilding efforts should provide a meaningful but gradual boost to the construction sector.	-0.5%	-0.9%
Public administration	A rise in firefighting activity will provide a relatively minor positive offset to the negative impacts from wildfires on other sectors of the economy. We assume the various levels of government spend a combined C\$500bn more than planned this summer to fight the record-breaking wildfires.	0.2%	0.2%

Source: Oxford Economics