
# Study on the impact of inflation on the generic pharmaceutical industry in Canada

Final report

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Aviseo stratégie + économie

CGPA Making Patient Care Affordable

# Summary

### The generic sector is characterized by short-term price fixation

The off-patent drug market has a unique pricing mechanism. Fixed prices for a given period of time make the industry vulnerable to inflation as it is unable to adjust its prices in the short term to reflect increased production costs. The generic drug sector is characterized by the presence of a single price whether it is a private or public insurer. Inflation outside its range therefore represents a higher risk to the sector.

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### A sector highly dependent on imports

Canada's generic pharmaceutical sector produces less than 10% of the active pharmaceutical ingredients used in its medicines in Canada. As a result, it is vulnerable to real exchange rate changes and supply chain disruptions.

**2029** **In Quebec, the labour replacement index will be below one until 2029**

**Transportation costs are a risk for the industry**
The price index for air cargo transportation services increased by 26% between January 2021 and January 2022

### The generic sector is very competitive

In addition to being characterized by strong competition, the sector has seen its prices fluctuate less than inflation in recent years

**The Supply Chain Pressure Index reaches levels not seen since 1998**

### Labour market conditions contribute to inflation

While attracting and retaining workers is a pan-Canadian issue, this situation is likely to result in additional pressure on labour compensation

### Inflation: a risk in Quebec as much as in the rest of Canada

Whether it is the short-term fixity of prices, the dependence on imports, the labour market that is characterized by a difficulty in replacing the existing workforce, or the channels through which price increases will be transmitted to the rest of the economy, the findings of this report apply as much to Quebec as to the rest of Canada.

**The vulnerability of Canada's generic drug sector to inflation must be taken into account when setting prices over the next period**

# Inflation peaked in 2021 in a majority of economies

**Canadian consumers have more than $180 billion in additional savings that can be disbursed quickly in this period of economic recovery**

## A significant price increase for several economies in 2021

Over the past decade, price growth in Canada has remained relatively stable and predictable. Between 2007 and 2020, the average annual inflation rate in Canada was around 1.65%, which is within the Bank of Canada's target range of 1% to 3%.

Since the beginning of the pandemic, the situation has changed. Initially hit by a sharp decline in the first wave in 2020, Canada has seen a gradual rise in the price level in 2021. The average annual inflation rate in Canada for the year 2021 reached 3.4%, its highest level since 1991. Recently, the inflation rate was 5.1% in January 2022.

Price pressures have been even more significant in Quebec, with the monthly inflation rate reaching a peak of 5.3% last October. For the year 2021, the average inflation rate will have been 3.8%, the highest in the past 30 years. Currently, rising prices in Canada are not an isolated case among developed countries. The European Union and the United States have recorded inflation rates of 5.3% and 7% respectively in December 2021 (see Appendix 1). The average annual inflation rate for all G7 countries in 2021 was 3.49%, the highest in 30 years.

## Inflation is partly explained by price level catch-up

In the second half of 2020, prices were down in Canada as the economy paused. Thus, when compared on an annual basis, part of the increase observed between 2020 and 2021 is attributable to the catching up of the price level as well as the recovery of economic activity in several sectors.

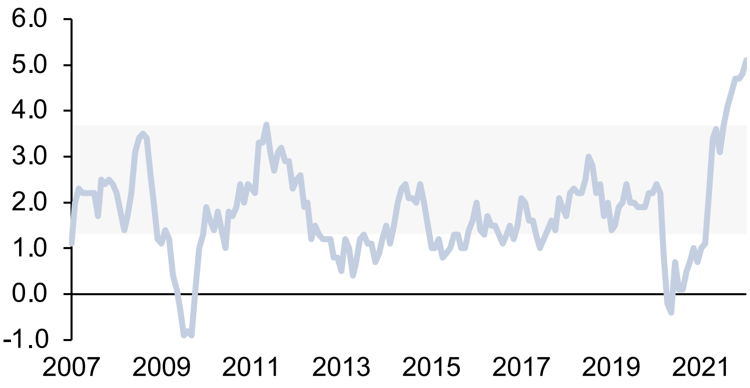
## The reopening of the economy has strongly stimulated demand

At the height of the crisis, the closure of several sectors of the economy resulted in the loss of nearly 3 million jobs in Canada. Despite this, **government interventions, coupled with the decline in consumption, resulted in an unprecedented increase in savings in Canada**.

In this sense, the CEO of the Royal Bank had mentioned, in the context of the 2021-2022 federal budget, the risks of over-stimulating the economy. According to him, the $180 billion in additional savings available to households was a real risk, since it represented about 10% of the Canadian economy. **These additional savings are quickly disbursed during the reopening, resulting in strong and sustained demand.**

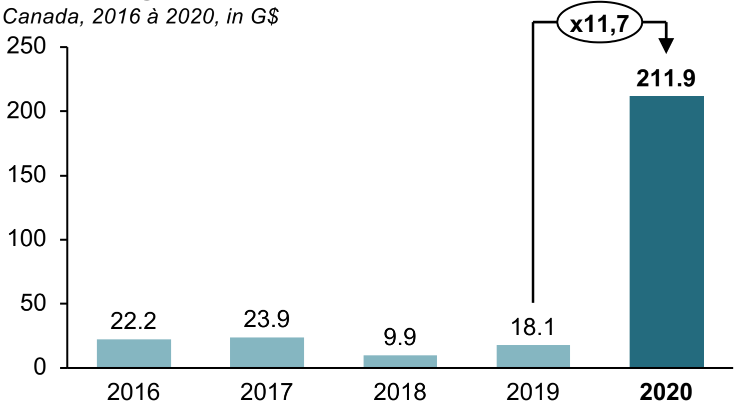
### Monthly inflation rate calculated over 12 months

*Canada, January 2007 to January 2022, in %*




### Net savings households

*Canada, 2016 à 2020, in G$*




*Sources: Statistics Canada, Bank of Canada, OECD, Globe and Mail, Analysis Aviseo Conseil 2022*

# Strong demand coupled with supply disruptions

## The structure of household spending has changed during the crisis

The prolonged closure of several sectors of the economy due to health restrictions has had an impact on the allocation of household spending between goods and services. Without the ability to spend on services such as food and tourism, consumers turned to purchasing goods. Since the beginning of the pandemic, there has been an 8.7% increase in household spending on goods compared to a decrease of almost 5% in spending on services.

**+8%** increase in spending on goods since the pandemic

Despite this, a return to normal consumer spending patterns is being observed as governments proceed to lift health restrictions. For example, following a drastic 29% drop in 2020, Quebec household spending on accommodation and food has shown annualized growth of 5%, 16% and 30% in the first three quarters of 2021. This return to normalcy could create new inflationary pressures in the service sector, a labour-intensive sector.

## The pandemic has caused disruptions in supply

In the current context of economic recovery, several factors are constraining companies' ability to meet demand. This is amplifying the rise in price levels currently being experienced in Canada.

In the recent Bank of Canada survey, nearly 80% of businesses reported difficulty meeting an unexpected increase in demand, twice as many as in the past three years. This inability translates into higher delivery times and longer order books. Paradoxically, the inability to obtain essential inputs or to mobilize the necessary number of employees is forcing companies to slow down their production.

## Supply issues create price pressures

The Bank of Canada expects inflation to peak in the first quarter of 2022 due to supply-side issues and high energy prices. As a result, inflation is expected to be around 5% in the first few months of the year.

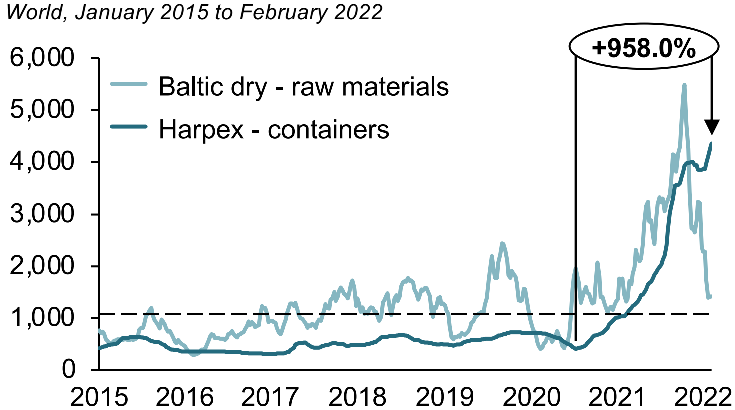
At present, supply issues caused by the pandemic are the main driver of price pressure. Notable issues include intermittent port and plant closures, unprecedented levels of absenteeism due to isolation policies, and travel restrictions between several regions.

A recent survey conducted by the Bank of Canada indicates a worrisome situation. In the last quarter of 2021**, more than 40% of companies report bottlenecks in supply chains, four times more than before the pandemic**. Since June 2020, the HARPEX index for the global price of container shipping has grown by nearly 1,000% as a result. The situation does not appear to be resolving in the near term, with the index reaching new highs since the beginning of 2022.

It is reasonable to assume that the price pressures caused by supply problems will be transitory, particularly because of the flexibility of transportation prices, which can adjust as the pressures of the pandemic dissipate. However, the companies surveyed by the BoC believe that it will be 2023 before we see a return to normalcy.

**Maritime Transportation Costs Index**

*World, January 2015 to February 2022*




*Sources : Statistics Canada, Bank of Canada, OECD, Harper Petersen & Co, Analysis Aviseo conseil 2022*

# Price pressures are expected to continue until the end of 2023

**Projected wage increases averaging 3% to 3.5% in 2022 have the potential to create an inflationary spiral that could spread to several sectors of the economy.**

## Labour shortages create long-term pressures

Accelerating inflation caused by a disruption in supply and demand is compounded by labour shortages. More than 50% of Canadian companies cite hiring problems and lack of staff as the main obstacle to meeting demand. In this sense, the number of job vacancies in Canada reached 5.8% in the third quarter of 2021, twice the average of the last five years. With the balance of power to the disadvantage of companies, half of them mention having to increase the compensation offered to employees. Several surveys, particularly in Quebec, show that this situation could result in average salary increases of 3% to 3.5% in 2022, a 10-year high.

The expected increase in wages has the potential to create an inflationary spiral that could spread to several sectors of the economy. **Such a phenomenon occurs when inflation leads to higher wages, which in turn leads to further price increases.** The first signs of widespread inflation are apparent. Nearly 70% of CPI components are up by more than 3%, three times the average over the 2015-2020 period.

## Workforce issues are structural and may persist

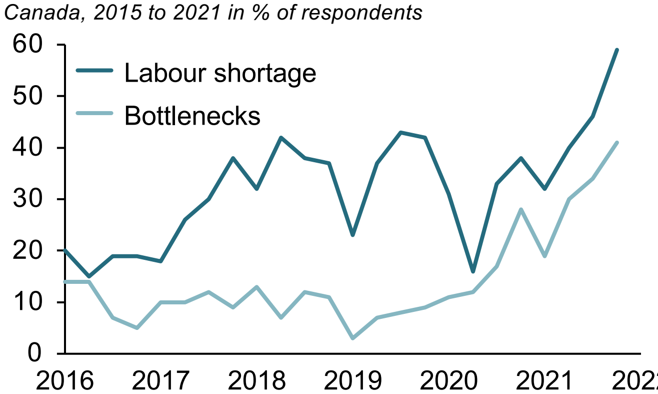
Labour scarcity problems will affect businesses for several years to come and their impact on prices could therefore last beyond 2023. Including immigration, demographic forecasts for both Quebec and Canada suggest that retirements will exceed the arrival of new workers on the labour market for the next three to eight years (see Appendix 1).

## Inflation is not expected to fall to 2% until 2024

According to the Bank of Canada, all indications are that inflation should gradually return to its long-run value (2%) by 2023 as pandemic pressures dissipate. The same is true for private banks. The most recent projections anticipate a peak in inflation through the second quarter of 2022, followed by a gradual decline in inflationary pressures to 2.2 percent in the second quarter of 2023. However, uncertainty remains. **The BoC's current expectations are constantly evolving, leading the central bank to raise its forecasts each quarter** (see Appendix 1).

**Key barriers that prevent companies from meeting demand**

*Canada, 2015 to 2021 in % of respondents*




*Sources: Statistics Canada, Bank of Canada, BDC, Normandin Beaudry, CRHA, LesAffaires, Analysis Aviseo Conseil 2022,*

**Price growth due to supply and demand pressures**

**Demand**

- Catching up with prices in an economic recovery
- Rapid disbursement of savings
- Concentration of spending on goods

**Supply**

- Inability to meet unexpected increases in demand
- Disruption of supply chains
- Worsening situation due to labor shortage

# Prescription drug prices have fallen over the past 15 years

**The Canadian Generic Pharmaceutical Association has reached an agreement with the Pan-Canadian Pharmaceutical Alliance to lower generic drug prices in Canada. This agreement has resulted in a 60% drop in generic drug prices in 15 years.**

## Average price of prescription drugs declines since 2007

Prescription drug prices have, on average, declined over the past 15 years in Canada. Part of this decline is attributable to significant price reductions for generic drugs, where the average price has declined by 60% over the past 15 years. Prices for some of the largest sellers have fallen by as much as 80% over the same period.

**-0,9%** average annual decline in price levels since 2007†

The COVID-19 pandemic has not affected the prescription drug market in the same way as the rest of the Canadian economy. The average price of prescription drugs has increased by approximately 0.6% per year since the end of 2019. However, this increase remains well below price increases seen elsewhere in the economy. It is possible that producers are affected by supply constraints and inflation, but that the many measures regulating drug prices limit their ability to raise prices.

## OTC drug prices are very volatile

Non-prescription drug prices have experienced a very different trajectory than prescription drugs over the past 15 years. The average inflation rate for OTC prices has been 1.55% per year, which is slightly lower than the average annual inflation rate over the same period (1.75%). On average, the inflation rate in this market was 0.1% in 2021.

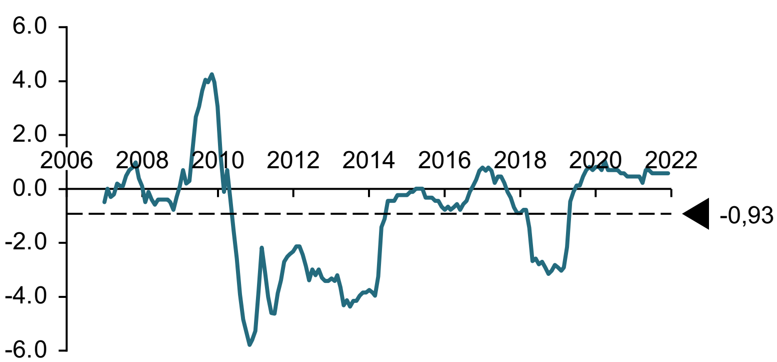
## Drug expenditures affected by the pandemic

Spending on drugs and pharmaceuticals has grown year after year since 1982. They slowed in 2019 with annual growth of less than 1%, the lowest growth since 1982.

Despite a decline in the second quarter, quarterly household spending on drugs and pharmaceuticals in 2020 remained at a level comparable to pre-pandemic levels. However, available data for the first three quarters of 2021 show a decrease in household spending in this category compared to 2020.

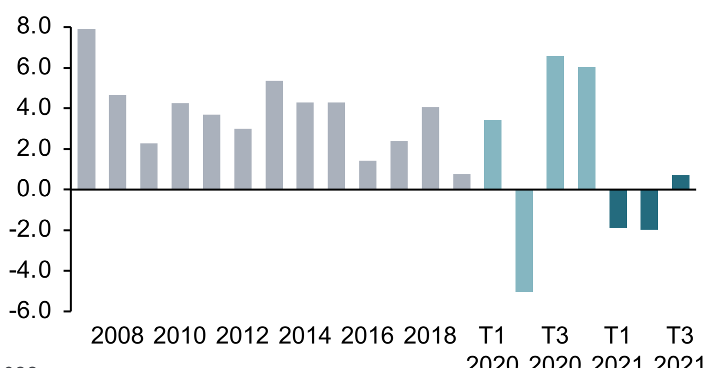
**Monthly inflation rate calculated over 12 months for prescription drugs**

*Canada, January 2008 to December 2021, in %*




**Household final consumption expenditure on pharmaceutical products and medicines**

*Canada, T1 2007 to T3 2021, growth in %, in constant 2012 prices*




*Sources: Government of Canada, Statistics Canada, EY, Analysis Aviseo Conseil 2022*

† *Statistics Canada, Table 18-10-0004-01*

# Pricing limits the sector's ability to absorb cost increases

**The price of patented drugs is regulated by the federal government to limit year-over-year price increases. Changes in inflation are not reflected until a year later, which is a significant risk to the industry when inflation remains high across the country.**

## Drug prices are rigid in the short and medium term

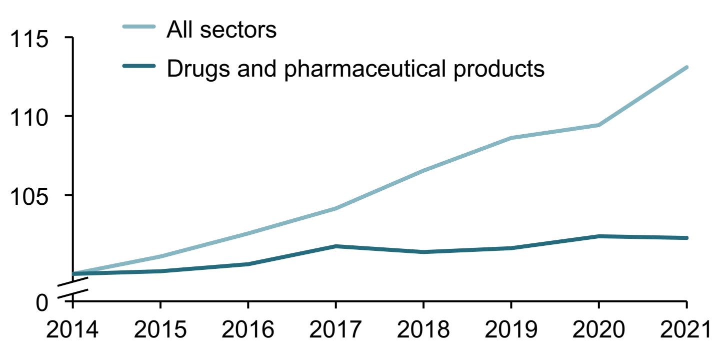
The market for patented drugs in Canada has a different pricing mechanism than most other markets. It is regulated by the federal government to limit price increases from year to year. While increases of 2.7% were agreed to between 2020 and 2021, prices in 2022 can be at most 0.7% higher than in 2021. The price adjustment factor will be higher from 2022 to 2023, at 3.4%, to compensate for the recent high inflation rates. While year-to-year price increases are allowed for breakthrough drugs, the situation is different for generic drugs.

## Generic producers have little room to maneuver

The first pan-Canadian agreement to set maximum price limits for generic drugs available in Canada came into effect in April 2014 and the Quebec agreement dates back to 2017. Since then, prices for all drugs have increased by a cumulative 2.3% over 7 years.

**Annual Inflation Rate by Sector and Annual Drug Price Adjustment Factor**

*Canada, January 2008 to December 2021, in %*




The situation was quite different for the economy as a whole over the same period, with cumulative inflation of 13.1% over seven years.

Generic drug prices are also regulated, but the provinces are responsible for setting the exact price. The ceiling price for generic drugs is set as a percentage of the price of the equivalent patented drug. Generic prices range from 18% to 35% of the price of patented drugs. Another important difference between the pricing of innovator drugs and generics is that on the innovator side there are actually two prices: one for private drug plans, and one for public plans. For generics, there is only one price. This means that generic drug sellers cannot take advantage of the higher profit margins that innovative drug sellers make with private insurers. This makes it very difficult for generic companies to adjust to cost increases, as their flexibility is limited.

## Inflation is a risk for the drug industry

With prices set for one year, inflation can pose a significant threat to the industry. With recent monthly inflation rates well above the 2022 drug price increases, companies in the drug sector could be in a difficult position. These companies will be unable to adjust their prices in line with the cost increases they face.

The length of the inflationary cycle will be critical for drug companies. A quick exit from the crisis will limit the effects on their margins, while a longer inflationary spiral will have a persistent effect on reducing their profits.

*Sources: Gouvernment of Canada, Statistics Canada, EY, Analysis Aviseo Conseil 2022*

# The vitality of the generic drug industry relies on imports

**Canada's generic pharmaceutical sector produces domestically less than 10% of the active pharmaceutical ingredients used in its medicines. It also imports 88% of the finished dose products.**

More than 73% of prescription drugs sold at retail in Canada are generics. Generic drugs have been able to gain a large share of the prescription drug market by minimizing costs and reducing profit margins to a minimum. **This leaves producers with very little room to absorb inflation**.

Inflation is likely to reach the market through either of the major cost inflation axes: transportation and labor.

## High dependence of the industry on imports

The vitality of Canada's generic pharmaceutical industry relies heavily on imports. This industry imports active pharmaceutical ingredients (APIs) that are useful in the production of drugs and finished dosage forms that are ready to be put on the shelves.

EY (2022) states in their Canadian Generic Pharmaceutical Importing/Manufacturing Capacity Study that less than 10% of active pharmaceutical ingredients are manufactured in Canada, although the exact figure cannot be presented to maintain confidentiality. For comparison purposes, the US is also heavily dependent on imports for its API supply, but to a lesser extent (28% is produced in the US).

It is expected that the Canadian generic industry's reliance on imports will continue over the next few years, as such a structure in the supply chains is not easily changed in the short term.

This dependence creates additional challenges, as costs can be strongly influenced by inflationary pressures elsewhere in the world. Given the current global uncertainty and the surge in commodity prices following the war in Ukraine, the Canadian industry has very little visibility on the short- or medium-term evolution of the current crisis, which potentially adds significant constraints on the industry.

Many companies specialize in the production of high-demand, high-priced drugs. These production decisions have a direct impact on the quantity and diversity of generic drugs produced in Canada. The total number of drugs produced in Canada has decreased each year between 2019 and 2021, but the volume of production (in kg) has remained stable. It is expected that the number of different products manufactured in Canada will continue to decline in the coming years, but that volumes will increase. Imports will remain essential to supply the market with drugs that are not produced here.

## Real exchange rate appreciation would increase the cost of imports

Over the past 30 years, the value of gross oil exports has increased by more than 15 times and in 2019 accounted for more than 14% of the country's total export value. With the global recovery and the crisis in Ukraine, it is expected that the value of a barrel of oil will remain relatively lifted, which would put upward pressure on the value of the Canadian dollar. There is a vast literature on the negative effects (i.e. Dutch disease), particularly on the manufacturing sector, of a currency appreciation following an increase in the value of a resource's exports.

In addition, a recent Reuters poll shows that investors expect the Bank of Canada to raise rates faster than the Federal Reserve, which would further strengthen the Canadian currency. The appreciation of the Canadian dollar resulting from higher resource prices (e.g. oil, natural gas) and a faster rate hike than in the U.S. would increase the cost of imports. Considering that the generic pharmaceutical sector imports a significant amount of active pharmaceutical ingredients and drugs, it is particularly susceptible to an increase in production costs due to the appreciation of the Canadian dollar exchange rate.

*Sources: Statistics Canada, EY (2022), Analysis Aviseo Conseil 2022, Régie de l’énergie du Canada, Reuters*

# Transportation costs are a major risk for the industry

**As the generic drug industry is highly competitive and dependent on imports, disruptions in the supply chain will affect the profit margins of companies in the sector.**

## Supply chains are experiencing difficulties

Most companies in the generic sector have been affected by supply chain disruptions since the start of the pandemic. Border closures and reduced flights have been among the main causes of these constraints.

The resumption of international commercial flights will benefit the generic industry, as this mode of transportation is widely used for active pharmaceutical ingredients and final doses. However, air transport is not immune to significant increases in transportation costs.

**+26.8%** increase in the price index for U.S. air cargo import transportation services between January 2021 and 2022 †

## An unprecedented portrait of the pressures on supply chains

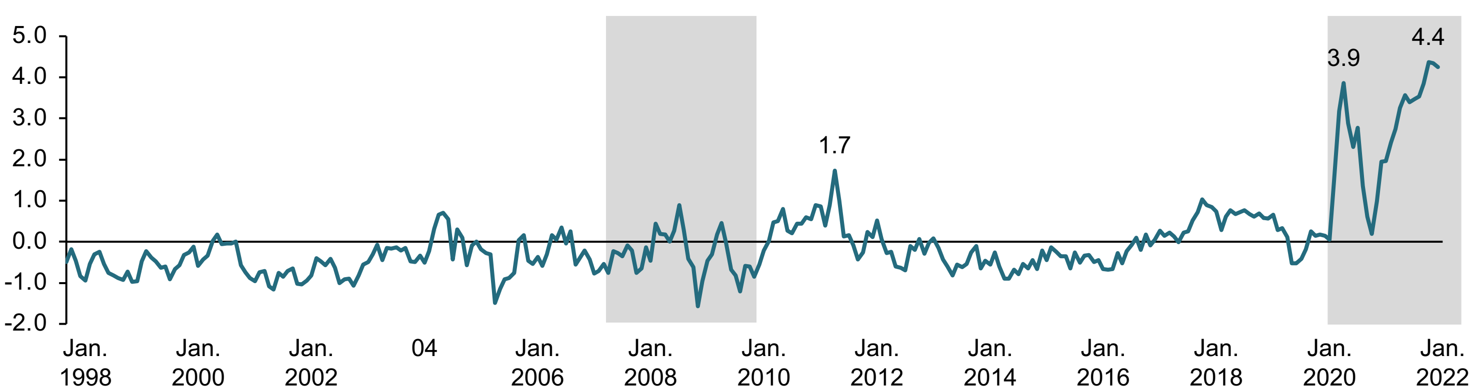
Researchers at the Federal Reserve Bank of New York have developed a new index to measure supply chain disruptions in early 2022. It is called the Global Supply Chain Pressure Index (GSCPI).

The index has remained above average since the arrival of the pandemic, indicating that supply chain disruptions remain significantly higher today than before 2020. Many peaks have been reached since the start of the pandemic. The previous peak, observed in April 2011, was 1.7 standard deviations from the mean. The index climbed suddenly in February 2020, from 0.05 (January 2020) to 1.48 (February 2020). By April 2020, the index was at 3.86, its highest peak in 2020. Pressures eased by the end of 2020, as the index had fallen back to a level between 0 and 1 standard deviation from the mean. Pressures began to rise again in early 2021, surpassing the highs of the previous year, and have remained at a high level to date.

As of December 31, 2021, the index stood at 4.25 standard deviations from the mean, the third-highest observation since 1997 (when the data began). The two higher observations were in October (4.37) and November (4.34) 2021.

**Global Supply Chain Pressure Index**

*USA, September 1997 to December 2021, in standard deviation from the mean*




*Sources : † Labor Bureau of Statistics, Statistics Canada, EY, Analysis Aviseo Conseil 2022*

# Labor costs have increased in recent years

**The total amount paid in wages in generic drug manufacturing has grown faster than the number of employees over the past 10 years. At this point, there is no reason to believe that the sector will be spared by the wage increases seen in recent months.**

## Jobs have been trending upward since 2015

The number of jobs in the generic pharmaceutical manufacturing sector has seen notable variations between 2012 and 2015. The number of jobs in the sector decreased by 14.4% between 2012 and 2013, grew by 13.2% between 2013 and 2014, and decreased again by 7.3% between 2014 and 2015. The situation stabilized between 2015 and 2016, and the number of jobs has remained on the rise through 2020. The decrease in employment observed in the generic sector in 2020 (-0.71%) remains well below that observed in the economy as a whole (-4.37%) between January 2020 and 2021.

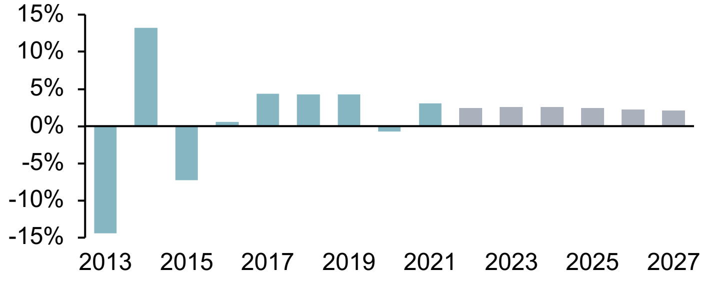
The Canadian generic pharmaceutical sector employed just over 13,600 people in 2021. IBISWorld forecasts that employment in the generic pharmaceutical manufacturing sector will increase by approximately 2.5% per year over the next few years to exceed 15,000 jobs by 2025

## Average earnings have decreased slightly since 2020

Total compensation has moved similarly to the number of jobs since 2012-2013. In turn, average compensation per worker has increased by an average of 3.1% per year between 2013 and 2019.

### Job growth in generic pharmaceutical manufacturing

*Canada, 2013 to 2021 and 2022p to 2027p, in %*




While the total amount of wages has grown faster than the number of employees between 2013 and 2019, it is expected that the tight labour market will continue to put upward pressure on wages.

Wage pressures elsewhere in the Canadian economy, however, suggest that the wage per worker offered in the generic industry will increase in the near future. Inflation in the goods and services sector is encouraging workers to demand higher wages. This trend is likely to continue for some time, at least until workers feel they have recovered the purchasing power they have lost so far, but this is contributing to inflation and the potential for an inflationary spiral.

Business spending has also been affected by the arrival of the pandemic. It has forced businesses to implement a variety of health measures in order to maintain their operations. These adjustments have created a variety of costs for businesses, and this situation is expected to continue for at least a few more months.

## Labor costs are expected to continue to rise

It should be remembered that the sector is characterized by strong competitiveness. Labour replacement will also pose an additional challenge for companies until 2029, particularly in Quebec (see Appendix 1). With a smaller pool of new workers than the number of workers leaving the labour market, companies will face a context of relative labour scarcity that will put upward pressure on labour costs.

Labour costs are a particularly important component of the production structure (or production costs) of drug companies. According to information obtained from stakeholders, labour costs represent approximately 40% of total costs..

*Sources: Statistics Canada, EY, IBISWorld, Analysis Aviseo Conseil 2022*

# A reduction in margins is to be expected for the drug industry.

## Cost inflation has affected the drug sector as early as 2021

The price regulation for patented medicines sets the price adjustment factor for a year based on the inflation in the economy as a whole in the previous year. For this reason, the price adjustment factor for patented medicines was limited to 0.7% in 2021, as average annual inflation was low in 2020.

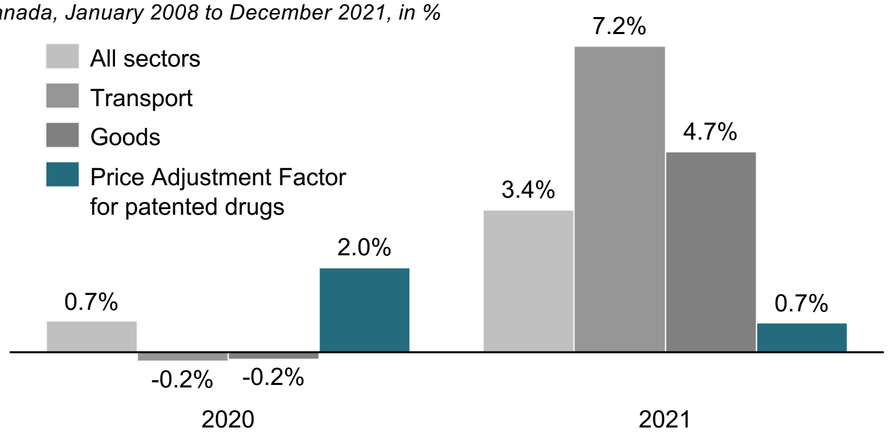
While the price increase for drugs was limited to 0.7% in 2021, other sectors of the economy experienced periods of high inflation. This was the case for the goods sector (4.7 percent) and the transport sector (7.2 percent), among others. Inflation in the economy as a whole amounted to 3.4% in the same year.

## The sector will have to absorb rising costs due to inflation at least until 2023

The drug sector has had to absorb cost increases related to inflation in transportation and inputs for its production. If inflation rates remain high in 2022 and sector prices do not increase to offset the resulting increase in production costs, the sector will have to absorb further cost increases without being able to sufficiently compensate through sales price increases (limited to 3.4% in 2022).

**Annual Inflation Rate by Sector and Annual Drug Price Adjustment Factor**

*Canada, January 2008 to December 2021, in %*




**Inflation is a significant risk for the drug industry. The recent high inflation seen in other sectors of the economy will certainly affect the drug sector, and its ability to adjust to cost increases is very limited.**

*Sources: Statistics Canada, Analysis Aviseo Conseil 2022*

# A competitive industry vulnerable to inflationary pressures

## A vulnerability exacerbated by its production structure

The preponderance of imported intermediates is a risk for the Canadian and Quebec generic pharmaceutical sector, particularly given the continuing high transportation costs, supply chain bottlenecks and rising price levels in many economies (see Appendix 1), including Canada. The fact that rising inflation is a global phenomenon adds a layer of complexity to the situation. First, inflation in other countries translates into higher costs for imported goods. The appreciation of the Canadian dollar would also make imports more expensive for the industry. Second, higher price levels in Canada put upward pressure on wages. Canada's generic pharmaceutical industry is labour intensive.

## A tight labour market

While attraction and retention of labour are pan-Canadian issues, this is likely to translate into additional pressure on labour compensation. In Quebec, the labour replacement index is expected to remain below unity until 2029 (see Appendix 1), implying that companies will face challenges in replacing departures. While the pressure on supply chains may ease in the near future**, the structural nature of the labour issues suggests that upward pressure on production costs may persist**. It should be noted that Canada and Quebec are not the only places affected by labour issues. An increase in labour compensation elsewhere in the world could impact the costs of the Canadian generic sector through the prices paid for imports.

## A situation that applies to both Canada and Quebec

Whether it is the short-term fixity of prices, the dependence on imports, the labour market that is characterized by a difficulty in replacing the existing workforce, or the channels through which price increases will be transmitted to the rest of the economy, the findings of this report apply as much to Quebec as to the rest of Canada.

In addition, global uncertainty and soaring commodity prices due to the war in Ukraine could generate additional cost pressures in 2022. In this sense, the Bank of Canada is constantly revising its forecasts upwards, with inflation reaching a level unprecedented in the last 30 years.

## Vulnerability to inflation accentuated by drug pricing

The Canadian generic pharmaceutical industry is characterized by time-limited pricing. In a period of low inflation, the impact on the sector is negligible, but in an inflationary cycle, the generic sector is more vulnerable as it is unable to increase its selling price to match the increase in production costs resulting from inflation. As the sector is already very competitive, margins are potentially not sufficient to absorb a significant part of the cost increase. While innovative medicines benefit from a framework that allows for price increases over time, generic medicines do not have this possibility, as their market is also characterized by the presence of a single price.

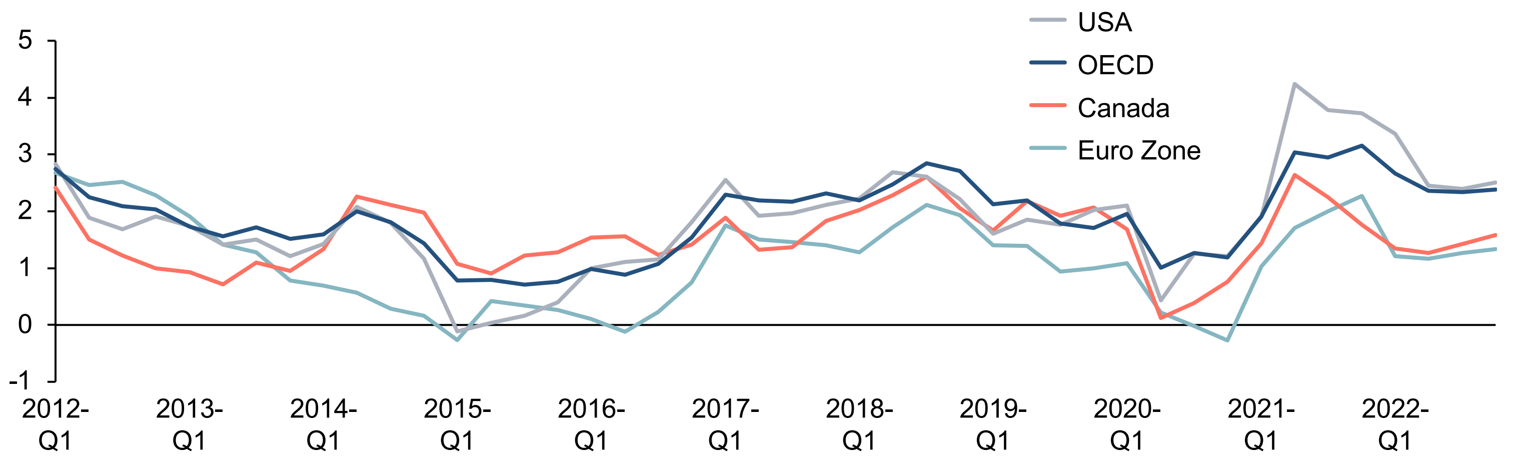
This creates a vulnerability that must be assessed in order to limit its impact. Failure to take this vulnerability into account could make the Canadian and Quebec market less attractive for companies in the sector.

**The vulnerability of Canada's generic drug sector to inflation must be taken into account when setting prices over the next period.**

# Appendix 1

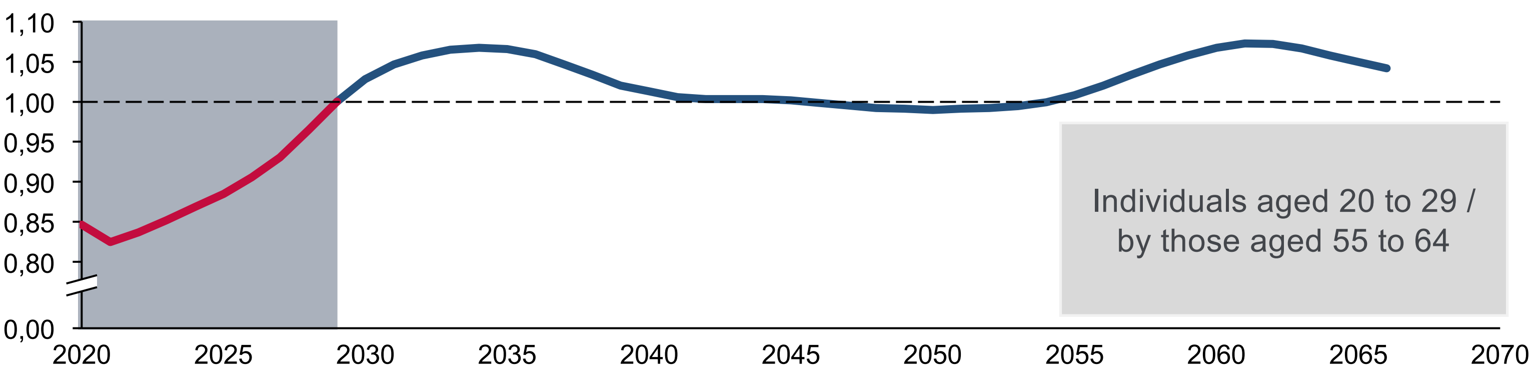
**Annual inflation rates**

*Canada, USA, Euro zone and OECD, 2012-Q1 to 2022-Q4p*



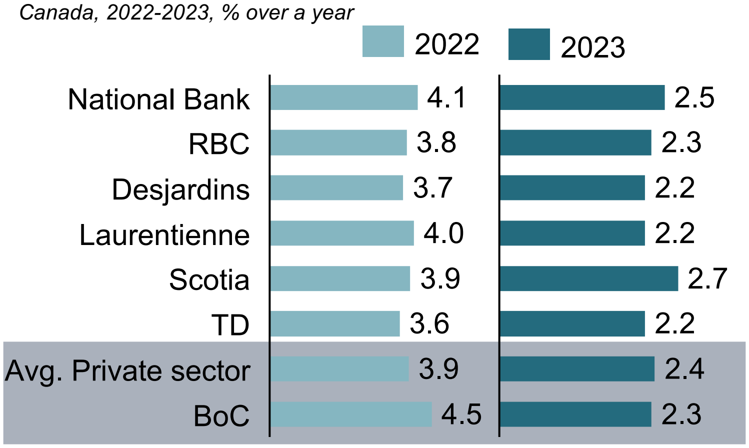

**Labour replacement index**

*Québec, 2020-2066*



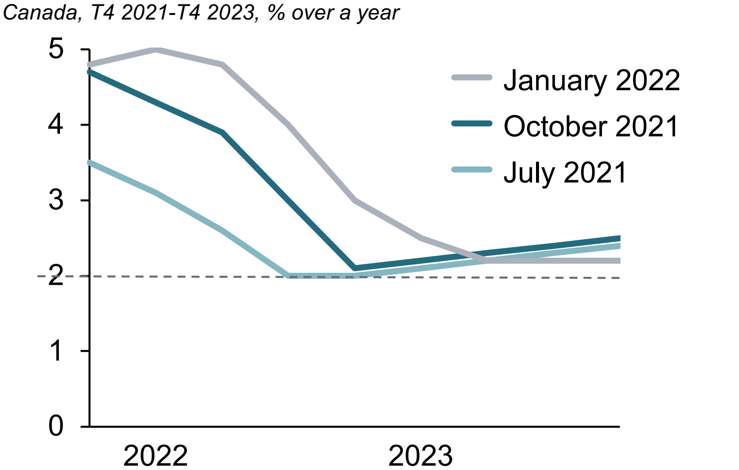

**Inflation forecasts in Canada**

*Canada, 2022-2023, % over a year*




**Evolution of BoC forecasts**

*Canada, T4 2021-T4 2023, % over a year*



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