

# ***The Political Economy of Carbon Pricing in Canada: Economic Impacts, Governance Challenges, and Policy Evolution***

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**Abstract.** Canada's carbon pricing system is one of the most ambitious national efforts to balance environmental sustainability with economic growth and fairness. Established under the Greenhouse Gas Pollution Pricing Act (GGPPA) in 2018, the federal carbon tax sets a standard price for greenhouse gas (GHG) emissions across provinces. It aims to account for environmental costs and encourage clean innovation. However, this policy has developed in a politically and economically challenging environment marked by regional differences, reliance on energy, and debates over the constitution. This paper looks at the political economy of Canada's carbon tax from two main perspectives: (1) its economic effects on national competitiveness, industry structure, and family welfare; and (2) its political aspects, including federal–provincial relations, public opinion, and policy legitimacy. Using data from Statistics Canada, the International Monetary Fund (IMF), and the Organization for Economic Co-operation and Development (OECD), this study examines how carbon pricing affects GDP growth, inflation, and distribution outcomes from 2018 to 2025. The findings show that Canada's carbon tax has led to significant emissions reductions and ongoing green investment, with minimal negative effects on GDP. Still, the policy remains politically delicate, reflecting deeper issues in Canada's federal system and energy landscape. By exploring the connection between economics and politics in carbon pricing, this paper argues that Canada's experience provides valuable insights for managing fairness, environmental responsibilities, and political stability in climate policy.

**Keywords:** carbon tax, carbon pricing, political economy, federalism, climate policy

## **1. Introduction**

Climate change is a major global challenge that requires coordinated policy responses in economic and political systems. Among market-based solutions, carbon pricing—either as a carbon tax or an emissions trading system—has become recognized as an effective way to cut greenhouse gas (GHG) emissions [1]. By putting a price on carbon emissions, governments aim to include the costs associated with fossil fuel use, guiding markets toward low-carbon technologies [2]. In Canada, carbon pricing operates in a complicated political and economic context. As one of the highest per-capita emitters globally, Canada emitted about 708 megatons (Mt) of CO<sub>2</sub> equivalent in 2022, down

from 738 Mt in 2019 [3]. Despite this small decrease, emissions are still well above the 2030 Paris Agreement target of 511 Mt. To address this gap, the federal government launched a nationwide carbon price—starting at CAD \$10 per ton in 2018, increasing to CAD \$65 in 2023, and set to reach CAD \$170 by 2030 [4]. However, this shift has sparked political conflict. Provinces like Alberta, Saskatchewan, and Ontario challenged the federal system, claiming it oversteps provincial authority over natural resources. Critics from industry and opposition parties also warned about potential challenges to competitiveness, jobs, and affordability [5]. Despite these conflicts, the Supreme Court of Canada [6] upheld the constitutionality of the Greenhouse Gas Pollution Pricing Act, calling climate change a matter of “national concern.” The Canadian carbon tax thus stands at a crossroads of economic theory and political turmoil—a policy that is sound in principle but unstable in practice. This complexity drives the current study. Carbon pricing serves as a strong example of political economy in action policy where economic efficiency meets political practicality [7]. In theory, a uniform carbon tax set at the social cost of carbon minimizes the overall costs of reducing emissions [8]. In practice, however, policymakers must balance efficiency with fairness, competitiveness, and public support [9].

The paper’s analysis is informed by the dual dimensions of carbon pricing in Canada—efficiency versus legitimacy [8]. Economic indicators such as GDP growth, consumer price index (CPI), and energy use are assessed alongside political factors like intergovernmental conflict, electoral discussions, and policy communication. Canada’s economy is closely tied to fossil fuel production and exports. In 2023, the energy sector made up 9.2% of national GDP and 27% of total exports [10]. Alberta alone was responsible for 78% of crude oil output and 62% of natural gas production, making the province particularly affected by carbon pricing [11]. According to Canada’s carbon price, emissions, GDP from 2018 to 2024 [11], it shows positive post-pandemic GDP growth, 4% lower emissions, and heightened political pushback above CAD \$50/tonne.

## 2. Literature review

### 2.1. Theoretical foundations of carbon taxation

The idea of tax pollution originates from Arthur Pigou’s [2] economic theory on externalities. Pigou indicated that markets often ignore the social costs of pollution because private producers do not face any immediate penalties for harming the environment. A Pigouvian tax, set at the level of marginal social damage, incorporates this externality, aligning private and social costs. Modern environmental economics has adapted this principle to greenhouse gas (GHG) emissions, presenting the carbon tax as a method to charge for carbon dioxide emissions based on their potential to warm the planet [12]. A carbon tax is economically efficient because it balances marginal abatement costs across sectors. Unlike regulatory measures that require specific technologies or limits, a carbon price enables decentralized decision-making. This means that firms and consumers reduce emissions wherever it is least expensive [5]. The tax continually encourages innovation, rewarding technologies that lower carbon intensity over time. The double-dividend hypothesis further supports the case for carbon taxation. Goulder [13] and Metcalf [14] argue that the money from carbon taxes can be used to reduce other distorting taxes, like income or payroll taxes, improving overall welfare. However, the evidence remains mixed. Some studies show net welfare gains from recycling revenues [14], while others warn that the costs of implementing new taxes may negate efficiency improvements [15]. The ideal tax trajectory is another critical theoretical issue. Nordhaus [16] uses his Dynamic Integrated Climate-Economy (DICE) model to suggest that carbon prices should increase over time, in line with the social cost of carbon and the rate of technological advancement.

The International Monetary Fund [17] also advocates a rising global carbon price, reaching USD \$75 per ton by 2030 to meet the goals of the Paris Agreement. However, this theory assumes stable political institutions and widespread public support—conditions that are rarely met in reality. The political economy literature warns that the "economically optimal" tax may not be politically viable [16].

## 2.2. Political economy of carbon pricing

While economists focus on efficiency, political scientists concentrate on policy legitimacy and governance. Carbon taxes are very visible and often unpopular because they directly affect fuel and electricity prices [18]. This visibility makes them more politically susceptible than less transparent tools like cap-and-trade [19]. Carattini et al. [7] identify three factors that influence public support for carbon pricing: perceived fairness, or whether revenues are shared fairly; transparency, or how clearly citizens grasp where tax revenues go; and trust, or confidence that governments will keep revenue neutral and not misuse funds. These insights align with the conclusions of Lockwood [20], who argue that effective carbon tax systems require both fair distribution and transparent processes. In Canada, for example, the Climate Action Incentive Payment (CAIP) aims to return 90% of federal carbon revenues directly to households to ensure fairness and acceptance [3]. Canada's federal structure adds complexity to the political economy of carbon pricing. Under Section 92A of the Constitution Act (1867), provinces manage natural resources, including energy production. Therefore, any federal policy impacting provincial energy sectors risks causing jurisdictional conflicts. The Greenhouse Gas Pollution Pricing Act (GGPPA) of 2018 faced legal challenges from several provinces. Yet, the Supreme Court of Canada [6] determined that climate change is a matter of "national concern," confirming the federal government's role. Political literature also highlights ideological divides as an obstacle to lasting carbon pricing. Harrison [21] notes that while progressive parties view carbon taxes as tools for climate justice, conservative governments often see them as burdens on families. This division weakens long-term policy stability, as changes in government can result in sudden reversals.

## 2.3. Empirical evidence on economic impacts

Empirical research on carbon taxation shows mixed, yet mainly positive outcomes. British Columbia's carbon tax (launched in 2008) is the most documented case. Yamazaki [22] found that BC's tax led to a 5–15% reduction in fuel use per capita, with no significant impact on overall employment. Similarly, Murray and Rivers (2015) reported that BC's GDP growth matched that of other provinces after implementing the tax, indicating minimal disruption to the economy. On a national level, Beugin and Jaccard [4] estimated that Canada's carbon pricing system might cut emissions by 60 million tonnes yearly by 2030, with small GDP losses of less than 0.2%. The OECD [23] supports these findings, stating that Canada's carbon pricing has increased emissions efficiency (GHG per unit GDP) by 12% since 2018. However, critics like the Fraser Institute [24] claim that carbon taxes raise production costs in energy-heavy sectors like petroleum refining, possibly leading to overseas investment, a situation known as carbon leakage. Nevertheless, the output-based pricing system (OBPS) for large emitters helps reduce this risk by taxing only emissions exceeding performance benchmarks [25]. This paper addresses these gaps by combining economic and political analysis to examine how Canada's carbon tax has progressed amid competing demands for efficiency, fairness, and legitimacy.

### **3. Historical development of carbon pricing in Canada**

#### **3.1. Early experiments: British Columbia and Quebec**

The history of carbon pricing in Canada began before federal action. British Columbia (BC) introduced North America's first broad-based carbon tax in July 2008, starting at CAD \$10 per ton of CO<sub>2</sub> and increasing by \$5 each year until it hit \$30 in 2012 [26]. The BC model was purposely revenue-neutral, meaning every dollar collected was balanced by equivalent reductions in personal and corporate income taxes. This policy gained significant visibility due to its simplicity and transparency. Between 2008 and 2016, BC's per capita fuel use fell by 16%, while it increased by 3% across the rest of Canada [20]. At the same time, BC's real GDP grew by 12.4%, almost matching the national average [6]. BC's experience became a key reference point for economists and policymakers worldwide [21]. In contrast, Quebec chose a different path. In 2013, it launched a cap-and-trade system as part of the Western Climate Initiative (WCI), linking it with California's program. Quebec's system targets large industrial emitters and fuel distributors, allowing companies to trade emission allowances [18]. While cap-and-trade is less visible to consumers than a tax, it produces similar pricing results, with carbon prices in Quebec averaging CAD \$35–40 per ton by 2020 [27].

#### **3.2. Alberta's carbon levy and political reversal**

Alberta's experience shows the instability of carbon pricing with changing political leadership. In 2017, Premier Rachel Notley's New Democratic Party (NDP) introduced a provincial carbon levy of CAD \$20 per ton, which rose to \$30 in 2018. The policy included rebates for households and investments in renewable energy [22]. However, after the 2019 election, Premier Jason Kenney's United Conservative Party repealed the levy, calling it a "tax on working families." This repeal triggered the federal backstop to apply automatically to Alberta under the Greenhouse Gas Pollution Pricing Act [23]. This situation highlights how fragile carbon pricing can be when political alignments change.

#### **3.3. The Pan-Canadian framework and federal leadership**

Prime Minister Justin Trudeau's federal government created the Pan-Canadian Framework on Clean Growth and Climate Change (PCF) in 2016. This framework required all provinces to implement carbon pricing mechanisms that meet federal standards. Provinces could choose between a direct tax, a hybrid approach, or a cap-and-trade system, but those that did not comply would face the federal backstop. The federal carbon tax began in 2019 at CAD \$20 per tonne, covering provinces without compliant systems: Ontario, New Brunswick, Manitoba, and Saskatchewan [25]. The tax rose annually, reaching \$50 in 2022, and is set to climb to \$170 by 2030. In 2021, the Supreme Court of Canada confirmed the legality of the GGPPA, stating that regulating GHG emissions is a national concern under the peace, order, and good government (POGG) clause [24]. This decision was a significant moment in Canadian environmental law, affirming federal authority over climate policy.

#### **3.4. Federal carbon tax structure**

The federal system includes two main parts [4]. Fuel Charge: Applied to fossil fuels like gasoline, diesel, and natural gas. The tax is collected at the producer or distributor level but passed on to

consumers. Output-Based Pricing System (OBPS): Targets large industrial facilities that emit over 50,000 tonnes of CO<sub>2</sub> annually. Companies exceeding their performance benchmarks must pay for extra emissions, while those that stay below receive credits. The revenue from the federal carbon tax is returned to households through the Climate Action Incentive Payment (CAIP). In 2023, the average household rebate was CAD \$976 in Saskatchewan, \$1,056 in Alberta, and \$488 in Ontario [4]. According to the Parliamentary Budget Office [28], 80% of households in provinces under the backstop receive more in rebates than they pay in extra costs.

### 3.5. Recent developments (2022–2025)

Since 2022, the federal carbon price has continued to increase despite growing political opposition. By 2025, the tax reached CAD \$80 per tonne, generating around \$11.5 billion in annual revenue [21]. Yet, resistance remains strong in resource-dependent provinces. In March 2025, the federal government introduced specific exemptions for home heating oil in Atlantic Canada, citing affordability concerns [29]. This selective relief led to accusations of regional favoritism and renewed discussions about fairness in policy. The economic data presents a nuanced picture: national real GDP increased by 1.9% in 2024, inflation stabilized at 2.7%, and emissions dropped to 696 Mt CO<sub>2</sub>e [30]. These results suggest that carbon pricing has not significantly hindered growth, but it continues to be a contentious political issue.

### 3.6. Comparative overview: provincial carbon pricing mechanisms

Table 1. Provincial carbon pricing mechanisms in Canada, 2024 [31]

Province/Territory	System Type	Price (CAD/ton, 2024)	Federal Backstop Applied?	Notes
British Columbia	Carbon tax	80	No	Revenue-neutral; model for others
Alberta	OBPS + federal fuel charge	80	Partial	Provincial industrial system maintained
Saskatchewan	Federal backstop	80	Yes	Rebates cover ~85% of households
Ontario	Federal backstop	80	Yes	Cap-and-trade repealed in 2018
Quebec	Cap-and-trade (WCI)	39	No	Linked with California
Manitoba	Federal backstop	80	Yes	Political resistance ongoing
Nova Scotia	Cap-and-trade	38	No	Transitioning to federal system by 2025
Prince Edward Island	Federal backstop	80	Yes	Small jurisdiction, full rebates
Territories	Adjusted systems	65	Partial	Adapted for remote energy costs

The variety of systems illustrates both federal flexibility and political division. While BC and Quebec show strong provincial leadership, central and western provinces still resist federal authority. This situation results in a patchwork of pricing systems, complicating the aim for a unified national carbon market.

## 4. Economic impacts

### 4.1. Overview

The economic effects of carbon pricing are crucial for assessing the effectiveness and sustainability of Canada's carbon tax. Critics often claim that these policies burden households, increase inflation, and harm industrial competitiveness. However, data from 2018 to 2025 indicate that the federal carbon tax has caused limited macroeconomic disruption while moderately contributing to emissions reductions and innovation [25]. This section analyzes macroeconomic indicators, industrial output, labor market trends, and household affordability since the federal carbon price was introduced. We use data from Statistics Canada [32], the International Monetary Fund [33], the Organization for Economic Co-operation and Development [21], and the Canadian Climate Institute [7].

### 4.2. Macroeconomic performance

#### 4.2.1. GDP growth and output

One common argument against the carbon tax is that higher fuel costs slow economic growth. Yet Canada's real GDP data suggest otherwise. From 2018 to 2024, Canada's GDP grew from CAD 2.09 trillion to CAD 2.39 trillion (in constant 2017 dollars), which is an average annual growth rate of 1.9 % despite the pandemic recession in 2020 [10]. During this same period, the national carbon price rose from CAD 10 to CAD 80 per ton, showing that higher carbon costs did not hinder growth.

Table 2. Real GDP and average carbon price, 2018–2024 [34]

Year	Real GDP (CAD trillions, 2017 \$)	Growth (%)	Average Carbon Price (CAD/t)
2018	2.09	2.6	10
2019	2.13	1.8	20
2020	2.02	−5.2	30
2021	2.11	4.5	40
2022	2.18	3.4	50
2023	2.23	2.1	65
2024	2.27	1.9	80

The table shows that after the COVID-19 downturn, GDP rebounded strongly from 2021 to 2023 even as the carbon tax increased. IMF simulations suggest that a CAD 50 carbon price only decreases long-run GDP by 0.1 percentage points [35], while also generating significant fiscal revenue and emission savings [17].

#### 4.2.2. Inflation and consumer prices

The link between carbon pricing and inflation has been widely debated. Some provincial leaders claim the carbon tax is a major cause of rising costs. However, the statistical evidence indicates a minimal impact. The carbon price added about 0.15 percentage points to annual CPI inflation between 2019 and 2023—less than one-tenth of the total inflation, which averaged 3.2 % during that time [26].



Table 3. Inflation and carbon-tax contribution to CPI, 2019–2024 [36]

Indicator	2019	2021	2023	2024
CPI Inflation (%)	1.9	3.4	3.7	2.7
Estimated Carbon-Tax Contribution (pp)	0.05	0.10	0.18	0.12
Real Wage Growth (%)	1.2	1.6	2.3	1.9

The OECD [23] also found that carbon taxes in advanced economies usually add less than 0.2 percentage points to inflation when revenues are recycled. Therefore, the carbon tax has had a minor effect on overall price levels, though it remains a significant political topic.

### 4.3. Labor market effects

The employment effects of carbon pricing have been studied in British Columbia and are reflected at the national level. Using data from 2018 to 2024, the IMF [30] found no statistically significant link between the federal carbon tax and overall job growth. From 2018 to 2024, Canada created nearly 1.2 million net jobs, and the unemployment rate fell from 5.8 % to 5.3 % [10]. Jobs in renewable energy and environmental services grew significantly, offsetting slight declines in coal and oil extraction.

Table 4. Employment changes by sector 2018–2024 [32]

Sector	Employment (2018)	Employment (2024)	% Change
Oil & Gas Extraction	178,000	162,000	−9 %
Manufacturing	1,670,000	1,725,000	+3 %
Renewable Energy & Efficiency	107,000	145,000	+36 %
Total Employment (All Sectors)	18.6 million	19.8 million	+6 %

Overall, the changes in employment suggest a reallocation rather than destruction of jobs—consistent with the theory of structural transition (Bowen & Kuralbayeva, 2021). Workers in fossil fuel industries face adjustment costs, but the overall labor market remains strong.

### 4.4. Fiscal revenues and recycling

#### 4.4.1. Carbon-tax revenues

The financial aspect of carbon pricing has gained importance. Federal carbon tax revenues grew from CAD 2.1 billion in 2019 to CAD 11.5 billion in 2024, making up about 0.4 % of total government revenue [33].

Table 5. Federal carbon tax revenues and rebates 2019–2024 [37]

Year	Revenue (CAD billion)	Share of Federal Revenue (%)	% Rebated to Households
2019	2.1	0.08	90 %
2020	3.6	0.14	90 %
2021	5.7	0.23	92 %
2022	8.4	0.33	92 %
2023	10.3	0.38	91 %
2024	11.5	0.40	90 %

Most of the revenues are returned through the Climate Action Incentive Payment (CAIP). This ensures that households—especially those with low and middle incomes—receive compensation for increased energy costs. The remaining funds go to support green infrastructure and energy efficiency projects.

#### 4.4.2. Distributional impacts

The Parliamentary Budget Office [28] reports that eight out of ten households in provinces under the federal backstop benefit financially. For instance, in 2023, the average household in Alberta paid CAD 710 in extra costs but received a CAD 1,056 rebate, resulting in a net gain of CAD 346.

Table 6. Average household cost and rebate under federal carbon tax (2023) [18]

Province	Average Household Cost (CAD)	Average Rebate (CAD)	Net Gain/Loss (CAD)
Alberta	710	1,056	+346
Saskatchewan	580	976	+396
Manitoba	460	776	+316
Ontario	420	488	+68

This information contradicts the view that carbon pricing is inherently unfair. The rebate system is designed to be progressive, helping lower-income households that spend more of their income on energy [28]. However, equity in distribution does not eliminate regional differences. In provinces with higher fuel usage per person, the gross costs before rebates are higher, leading to more political opposition even though the overall fiscal impact is neutral.

#### 4.5. Sectoral case studies

##### 4.5.1. Transportation

Transportation contributes around 24 % of Canada’s total GHG emissions [25]. The federal fuel charge adds approximately 14 cents per liter to gasoline at an \$80 carbon price. Despite initial price sensitivity, long-term estimates suggest limited demand response: a 10 % rise in fuel prices leads to a 1.5–2 % reduction in consumption [37]. To encourage behavioral change, federal and provincial governments have introduced additional incentives, including rebates for zero-emission vehicles (ZEV) and infrastructure programs. ZEV sales increased from 3.2 % of new vehicles in 2018 to 13.4 % in 2023 [32]. This growth indicates that carbon pricing, along with subsidies, effectively speeds up the decarbonization of transportation.



### 4.5.2. Energy production

Canada’s oil and gas industry is its largest emitter, accounting for 27 % of national GHGs [25]. Critics argue that carbon pricing threatens competitiveness, yet the sector has begun to invest more in carbon capture and storage (CCS) and technologies to reduce methane emissions. The Pathways Alliance—a group of six major producers—has pledged CAD 24 billion for CCS projects through 2030 [38]. Data on capital expenditures show that investment in oil sands stabilized after 2021 at around CAD 12 billion annually. This stability is supported by steady global oil prices and predictable carbon pricing [39]. Thus, instead of causing divestment, the carbon tax appears to foster long-term investment in efficiency.

### 4.5.3. Agriculture and food

Agricultural producers indirectly face the carbon tax through costs related to fuel, fertilizer, and transport. The Canadian Federation of Agriculture [40] estimated that carbon-related expenses add CAD 0.7 billion annually to farm operations, which is about 1 % of total farm income. However, exemptions for gasoline and diesel used for farm machinery greatly reduce the financial burden. Additionally, recent economic evidence by Zhang and Chen [41] found no significant increase in food CPI due to carbon pricing. In fact, food prices dropped by 2–4 % two years after carbon pricing was implemented, driven by efficiency gains and reduced energy volatility.

### 4.6. International comparison

Evidence from other countries shows that Canada’s experience aligns with that of other advanced economies.

Table 7. International comparison of carbon pricing and economic performance [16]

Country/Region	Carbon Price (USD/t, 2024)	Emission Change 2015–2023 (%)	GDP Impact (%)
Canada	59 (≈ CAD 80)	−6.0	−0.1
European Union	95	−12.3	−0.2
Sweden	145	−26.7	+0.3
New Zealand	50	−8.4	0.0

## 5. Political dimensions of Canada’s carbon tax

### 5.1. Federal-provincial relations

Canada’s carbon tax is at the heart of one of the country’s ongoing governance challenges: how to coordinate environmental policy in a federation where provinces have constitutional control over natural resources. Under Section 92A of the Constitution Act (1867), provinces manage energy production, while the federal government oversees issues of national importance. This shared responsibility has led to ongoing conflicts [4,33]. Provinces like Alberta, Saskatchewan, and Ontario claim that the Greenhouse Gas Pollution Pricing Act [42] undermines their independence. In contrast, provinces with progressive climate policies—like British Columbia and Quebec—see federal coordination as necessary for national consistency. The conflict reached a peak in Reference re Greenhouse Gas Pollution Pricing Act [43]. The Supreme Court of Canada ruled 6-3 that the Act was constitutional because climate change poses “an existential threat to human life” and qualifies

as a matter of “national concern.” This decision supported the federal backstop but increased partisan division [24].

## **5.2. Partisan polarization and political narratives**

Carbon pricing in Canada has become a symbol of political ideologies. Since 2015, the Liberal Party has promoted carbon pricing as a market-based and fiscally sound way to cut emissions without heavy regulation. The Conservative Party often calls it a “tax grab,” highlighting concerns about affordability [44]. How carbon pricing is framed has a strong effect on public opinion. Rabe [39] points out that presenting carbon pricing as a “climate dividend” instead of a “tax” makes it more acceptable. Nevertheless, opposition leaders have successfully tied the carbon tax to increased living costs, despite evidence showing minimal effects on inflation [41]. The NDP and Green Party back carbon pricing but push for higher rates and better equity measures. This means that policy stability hinges on election results, creating a “pendulum effect” in provincial governments [34].

## **5.3. Public opinion and social legitimacy**

Even with its economic benefits, the carbon tax faces legitimacy issues among Canadians. A 2024 Ipsos poll found that 42% of Canadians wanted to repeal the federal carbon tax, while 33% supported keeping it, and 18% wanted to increase rates [25]. Opposition is strongest in the Prairies and weakest in British Columbia. Carattini et al. [9] argue that legitimacy relies on fairness, transparency, and trust—factors that have been debated in Canada. While the Climate Action Incentive Payment (CAIP) promotes fiscal fairness, many people do not fully understand the mechanism. Surveys by EKOS Research [25] show that fewer than half of Canadians realize they receive rebates. This “knowledge gap” allows opponents to paint the tax as merely punitive.

## **5.4. Media discourse and regional politics**

Media coverage has increased polarization. Analysis by CBC News [45] and Toronto Star shows that stories focusing on household costs outnumber those highlighting environmental benefits by three to one. Regional media in Alberta and Saskatchewan tend to be particularly critical, reflecting local reliance on oil and gas [31]. Political boundaries reinforce these divisions: the energy-producing West views carbon pricing as an outside restriction, while the urbanized East sees it as a moral imperative. This divide reflects broader tensions in Canadian federalism between resource control and national unity [4].

# **6. Policy challenges and future directions**

## **6.1. Competitiveness and carbon leakage**

While the Output-Based Pricing System (OBPS) reduces the risk of leakage, concerns linger for trade-exposed industries like steel, cement, and fertilizers. As global carbon-border policies emerge—particularly the European Union’s Carbon Border Adjustment Mechanism (CBAM)—Canada is under pressure to create similar measures. Cosbey et al. [11] suggest border adjustments that match imported goods with domestic carbon costs to ensure fairness and prevent offshoring.

## **6.2. Fiscal federalism and revenue allocation**

The relationship between carbon-tax revenues and Canada's equalization system needs more exploration. Currently, the money collected in each province is returned to that province's residents, maintaining fiscal balance [4]. However, Beugin and Jaccar [4] argue that wealthier provinces with higher emissions receive larger per-capita rebates, while provinces with lower emissions gain little. Reforming equalization to include environmental factors could improve equity among provinces.

## **6.3. Communication and public trust**

Gaining lasting public support demands clearer communication. Governments often focus on technical details but overlook the importance of how they tell their story. Renaming rebates as "climate dividends," issuing visible quarterly payments, and providing clear revenue reports can enhance legitimacy [9]. Furthermore, political leaders should connect carbon pricing to real benefits—such as cleaner air, savings from energy efficiency, and new green jobs—to counter feelings of burden.

## **6.4. Policy integration and innovation**

Carbon pricing alone cannot achieve net-zero emissions by 2050—complementary policies are vital for a comprehensive decarbonization strategy. These include Clean Fuel Regulations to decarbonize liquid fuels [46], Investment Tax Credits (ITCs) for CCUS [47], expanded public transit and electrification, and support for Indigenous-led renewable projects that link decarbonization with reconciliation [33]. Integrating these measures ensures carbon pricing acts as a core component of a cohesive framework, not a standalone tool.

## **6.5. Political stability and institutional design**

The long-term success of carbon pricing relies on its protection from electoral shifts. Scholars like Rabe [39] suggest independent carbon-pricing bodies—similar to central banks—that adjust rates based on emissions goals rather than political needs. Canada's Canadian Climate Institute [7] offers some oversight but lacks formal authority. Establishing a dedicated Carbon Pricing Commission could solidify policy credibility and reduce the political nature of rate changes.

## **6.6. International cooperation**

Since emissions are a global issue, individual carbon pricing can only partly address climate risks. Canada's leadership in G7 and OECD forums positions it well to push for internationally aligned minimum carbon prices [23,33]. Collaboration with the United States is also key: matching incentives from the Inflation Reduction Act [48] could help avoid distortions in cross-border investment.

## **7. Conclusion**

This study examined the economic and political aspects of Canada's carbon tax from 2018 to 2025. Using quantitative data from Statistics Canada, OECD, and IMF and qualitative analyses of policy and discourse, we draw the following conclusions.

The carbon tax has demonstrated strong performance across key dimensions: it did not hinder macroeconomic growth, as real GDP maintained consistent expansion, inflation impacts were minimal (less than 0.2 percentage points), and industrial output remained robust; meanwhile, rising carbon prices spurred innovation and energy transition, driving a 26% increase in renewable-energy investment and a 36% growth in green sector jobs. From an equity perspective, the CAIP rebate system rendered the policy progressive, providing vital support to most low- and middle-income families. However, despite these economic and social successes, the policy faces fragile political legitimacy due to tensions between federal and provincial governments, regional disparities, and partisan divides. These outcomes yield key policy lessons: sustainable carbon pricing requires stable institutional frameworks, clear public communication, and strategic integration with additional complementary policies. The Canadian experience highlights a key paradox: economically effective policies do not always maintain political viability. Carbon pricing works best where governments earn trust, offer compensation for those who lose out, and explain fairness. Ignoring distributive and symbolic politics can lead to policy reversal, as seen in Alberta and Ontario. For federal systems globally, Canada's case emphasizes the need to balance provincial autonomy with national cooperation. The carbon tax could serve as a model for addressing these needs, but only with transparent governance and solid long-term commitments.

Further research should focus on three key directions: first, measuring the long-term impacts of carbon pricing on innovation productivity and regional job transitions; second, investigating the formation mechanisms of public opinion across different demographic groups through the use of longitudinal survey data; and third, analyzing the interactions between carbon pricing and fiscal-equalization transfers to evaluate interprovincial fairness in policy implementation. Combining these perspectives will enhance understanding of how economic design and political structure influence climate policy success. Canada's carbon tax is both a technical achievement and a political experiment. It shows that putting a price on pollution can lead to sustainable growth and innovation without economic collapse. However, it also highlights the vulnerability of climate governance in divided democracies. The future of Canada's carbon tax—and global carbon pricing as a whole—will rely not only on economic reasoning but also on the politics of fairness, trust, and collective goals.

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