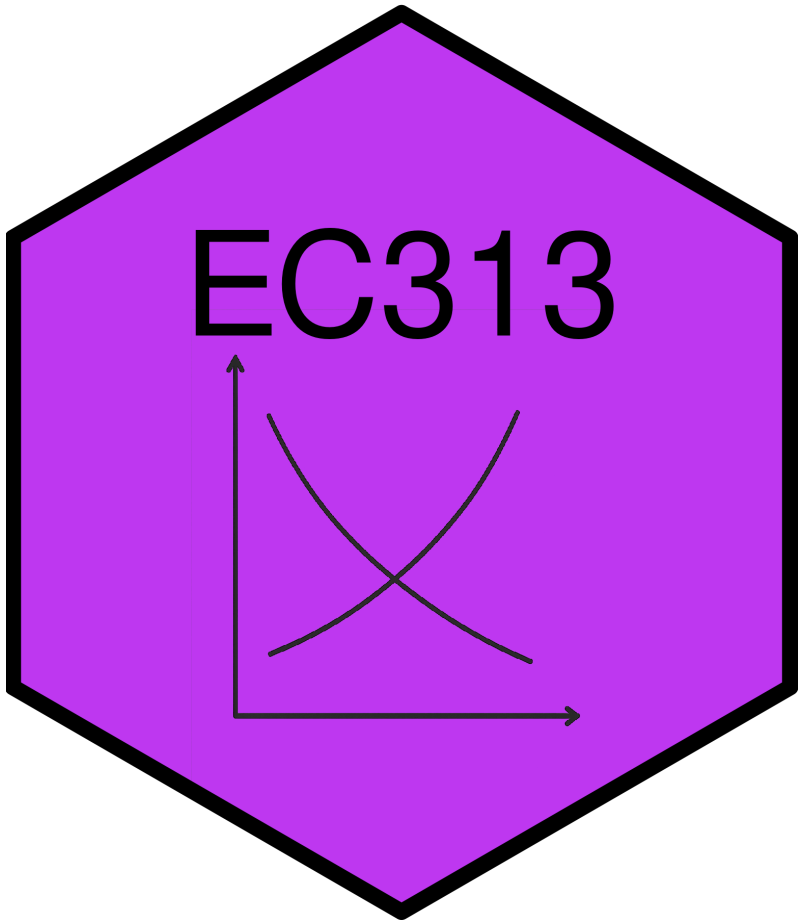
The Corporation Tax

EC313 - Public Economics: Taxation

Justin Smith

Wilfrid Laurier University

Fall 2025



Goals of This Section

Goals of This Section

- Define and discuss externalities
- Differentiate between negative and positive externalities
- Discuss private responses to externalities
- Discuss public responses to externalities, including Pigouvian taxes and subsidies

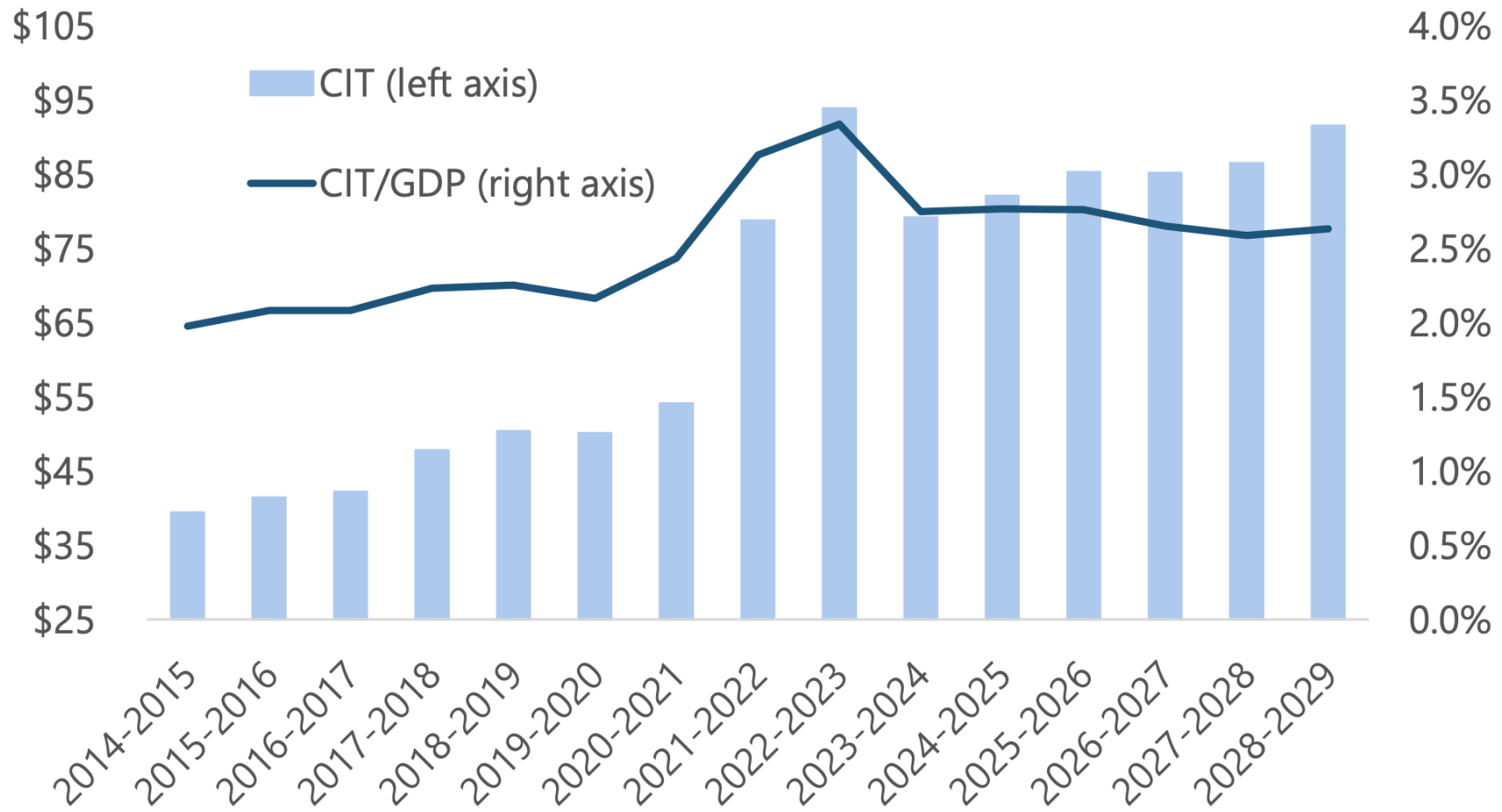
Introduction

Introduction

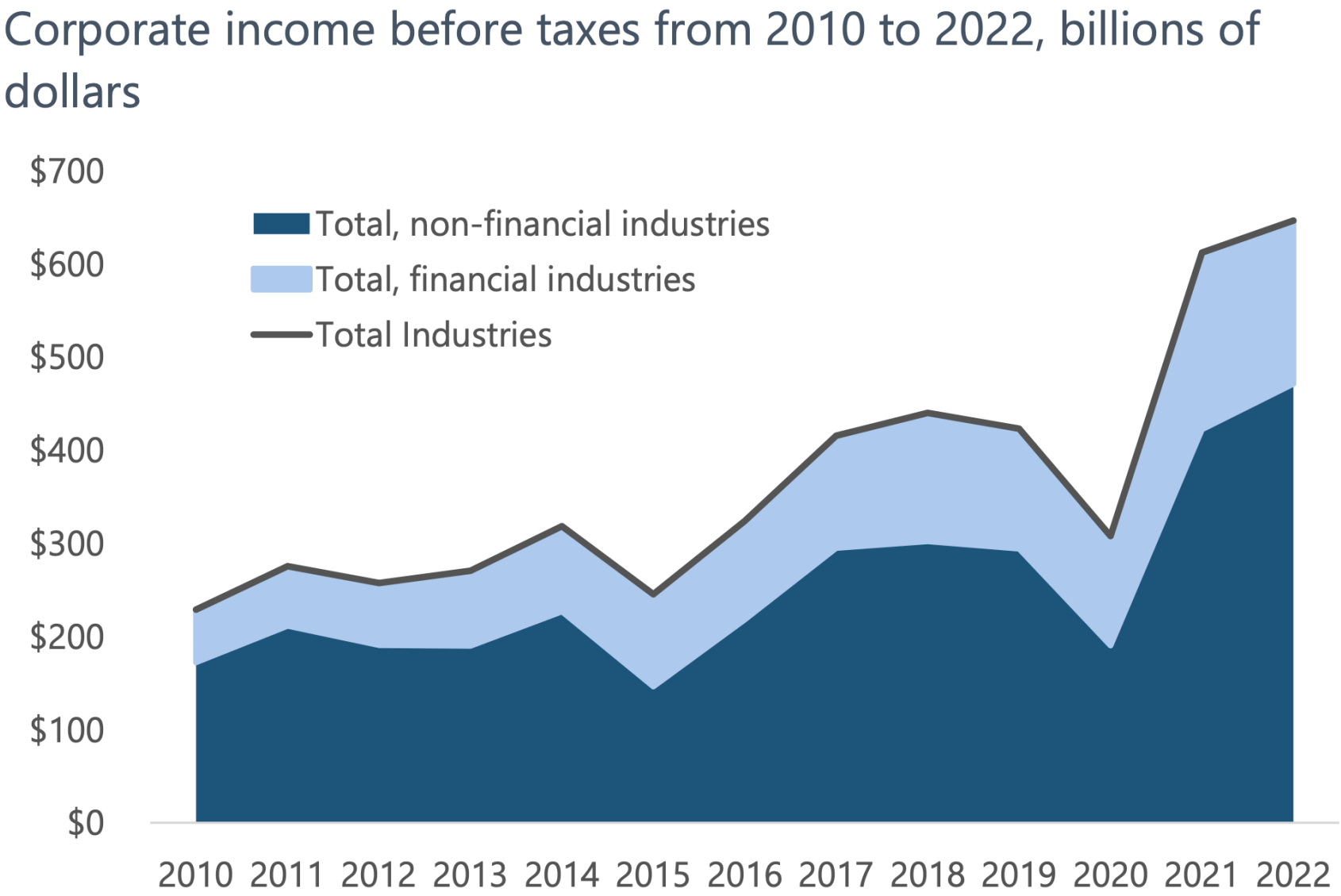
- So far we have discussed individual taxation
- Corporations also pay taxes, and are taxed separately
- A corporation is a type of business organization that
  - Is a legal entity that is separate from its owners
  - Is owned by shareholders
  - Can enter into contracts, own assets, and incur liabilities
- The structure limits liability for shareholders
  - Shareholders are not personally liable for the corporation’s debts or legal obligations beyond their investment in the company

Introduction

Evolution of corporate income tax revenue from 2014-15 to 2028-29, billions of dollars and as a percentage of GDP



Introduction



Introduction

Income before taxes for the top five non-financial industries from 2018 to 2022

	Income 2018 ($ billions)	Income 2022 ($ billions)	Growth from 2018 to 2022	Share of income 2018 to 2022 (average)	Contribution to growth 2018 to 2022
Manufacturing	$71.4	$81.5	14.1%	13.8%	4.9%
Real estate and rental and leasing	$39.0	$59.1	51.4%	9.2%	9.7%
Wholesale trade	$34.0	$53.5	57.3%	8.3%	9.4%
Mining, quarrying, and oil and gas extraction	$1.8	$70.8	3,916.2%	1.3%	33.4%
Construction	$23.5	$38.8	65.5%	6.4%	7.4%

Introduction

Analysis of federal CIT paid for the five top paying non-financial industries from 2018 to 2022

	Federal tax paid 2018 ($ billions)	Federal tax paid 2022 ($ billions)	Growth from 2018 to 2022	Share of total federal tax 2018 to 2022	Contribution to growth 2018 to 2022
Manufacturing	$6.6	$12.8	93.5%	12.1%	22.4%
Real estate and rental and leasing	$5.8	$8.7	51.4%	10.1%	10.7%
Wholesale trade	$5.4	$7.6	40.1%	8.9%	7.9%
Professional, scientific and technical services	$3.8	$5.7	48.6%	7.1%	6.7%
Construction	$3.8	$5.6	46.0%	7.0%	6.4%

Introduction

Total share of federal tax paid by industry

	2018	2019	2020	2021	2022
Finance and insurance	27.8%	28.6%	28.8%	27.2%	22.2%
Manufacturing	11.8%	10.7%	10.4%	12.2%	15.3%
Real estate and rental and leasing	10.3%	10.3%	9.8%	9.8%	10.5%
Wholesale trade	9.7%	8.3%	8.6%	8.7%	9.1%
Professional, scientific and technical services	6.8%	6.9%	7.5%	7.5%	6.8%
Construction	6.9%	6.9%	7.5%	6.9%	6.7%
Retail trade	5.5%	5.3%	6.0%	6.3%	6.1%
Educational, health care and social assistance services	5.2%	5.5%	5.1%	4.6%	4.4%
Transportation and warehousing	3.8%	4.6%	4.1%	3.7%	4.1%
Information and cultural industries	1.3%	1.7%	1.4%	3.8%	5.3%
Agriculture, forestry, fishing and hunting	3.2%	3.5%	3.5%	2.9%	2.6%

Introduction

TABLE 21.1 Corporate Income Taxes in Canada, 1945–2020

Year	Federal Revenue (millions)	Provincial Revenue (millions)	Federal + Provincial (millions)	As a Percent of Government Revenue (%)	Real per Capita ($2020)
1945	$ 645	$ –	$ 645	17.8	$ 796
1955	1,081	54	1,135	16.5	703
1965	1,759	523	2,282	13.7	948
1975	5,748	2,091	7,921	12.6	1,620
1985	9,210	4,033	13,243	7.3	1,116
1995	12,432	7,093	19,525	6.1	1,043
2005	30,528	16,400	46,928	8.7	1,866
2015	41,730	26,947	68,667	9.7	2,083
2020	55,226	35,308	90,534	10.7	2,383

Sources: Adapted from the Statistics Canada publications "Historical Statistics of Canada," 1983, Catalogue 11-516, released July 29, 1999; "Public Finance Historical Statistical Data," 1965/66–1991/92, Catalogue 68-512, released April 1, 1992, and "Public Sector Statistics," 2007/08, Catalogue 68-213-X, released July 14, 2008 (Tables 2-3, 2-4, 2-6); and from Statistics Canada, data table 36-10-0450-01; and Finances of the Nation, Macroeconomic Database, https://financesofthenation.ca/macrodata/.

Introduction

- Corporations are important in terms of economic activity
- Also in terms of the taxes they pay
- Given they pay tax, there are efficiency and equity considerations
  - We will explore these in this chapter
- Corporate taxation is a complex and politically sensitive topic
  - We will only cover the basics here

Why Tax Corporations?

Why Tax Corporations?

- In Canada, we have a personal income tax
  - The income of a corporation will eventually be distributed to individuals
  - So itcould be taxed with the personal income tax
- Why have a separate tax for corporations?
- One reason is that corporations receive special privileges
  - Limited liability, perpetual life, easy transfer of ownership
  - These things are valuable, and so it is reasonable to tax corporations for them

Why Tax Corporations?

- It also withholds taxes from foreign companies that operate in Canada
  - Without a corporate tax, foreign companies could avoid paying Canadian taxes on their Canadian income
  - The corporate tax ensures that foreign companies contribute to the cost of public goods and services in Canada
- It allows the government to capture economic rents
  - Some large corporations earn economic rents due to their market power or unique resources
  - Taxing these rents are a way to raise revenue from them
- It creates fairness with personal taxes
  - Without a corporate tax, individuals could avoid paying personal income taxes by channeling their income through corporations
  - The corporate tax helps to prevent this type of tax avoidance

How Corporate Taxes Work in Canada

Tax Rates

- Corporate tax rates are less complex than personal income tax rates
- There are three main rates:
  - General corporate tax rate
  - A lower small business tax rate on the first $500,000 of active business income
  - A rate for manufacturing and processing income
- Income is taxed at both the federal and provincial level
  - Just like personal income

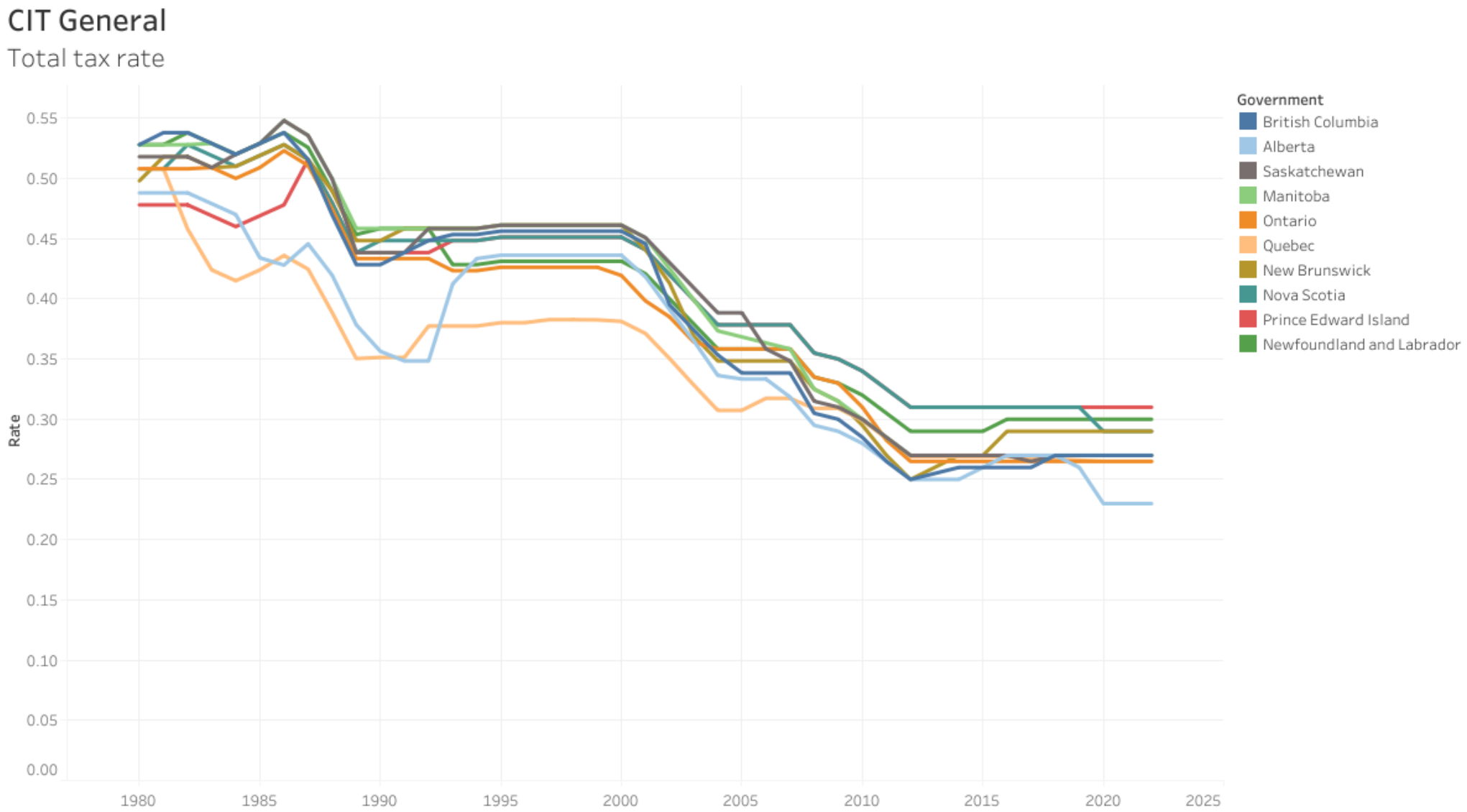
Tax Rates

TABLE 21.2 Combined Federal and Provincial Corporate Income Tax Rates, 2022

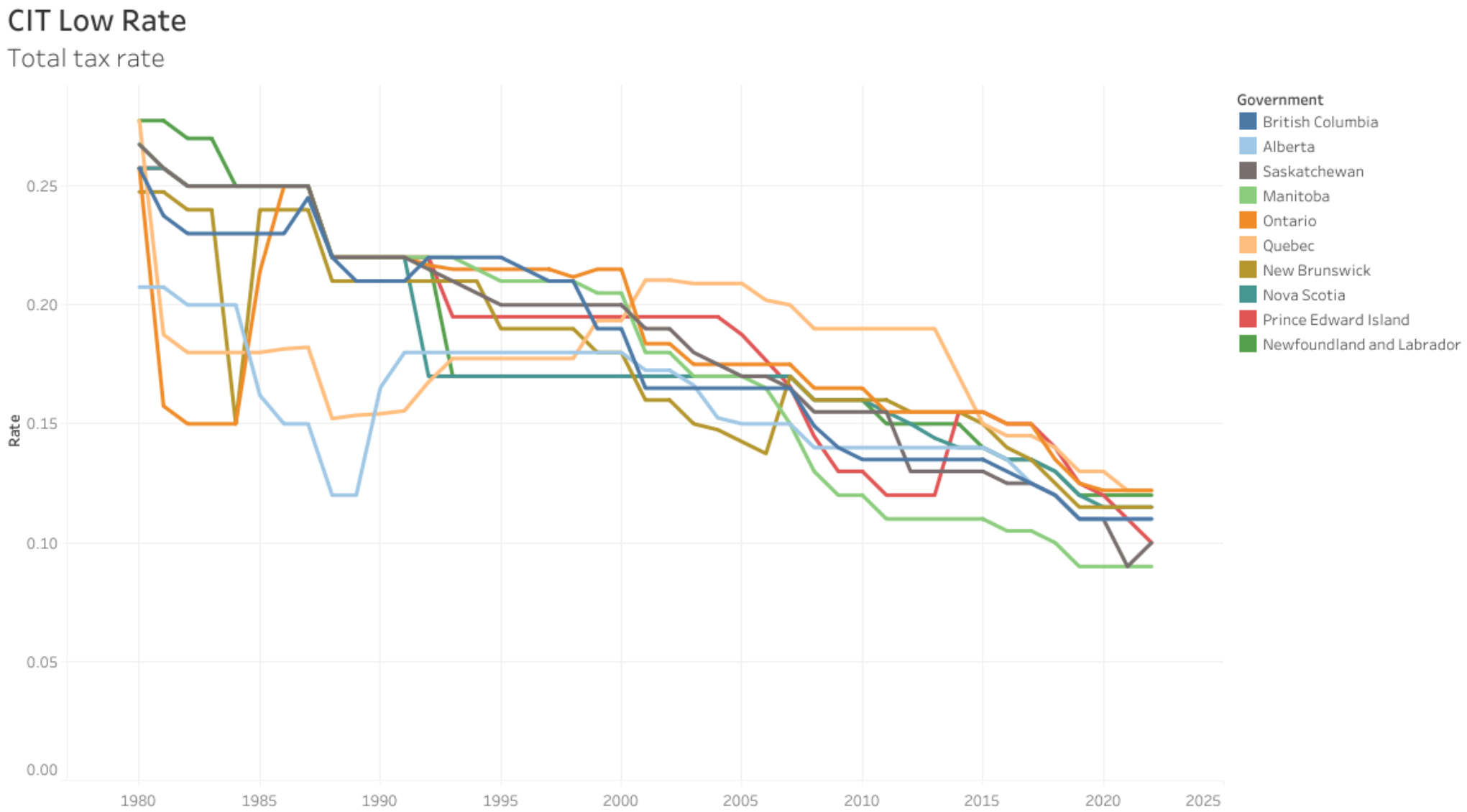
	Small Business	Manufacturing and Processing	General
Federal	9.0%	15.0%	15.0%
Province (federal plus provincial)			
Newfoundland and Labrador	12.0	30.0	30.0
Prince Edward Island	10.0	31.0	31.0
Nova Scotia	11.5	29.0	29.0
New Brunswick	11.5	29.0	29.0
Quebec	12.2	26.5	26.5
Ontario	12.2	25.0	26.5
Manitoba	9.0	27.0	27.0
Saskatchewan	10.0	25.0	27.0
Alberta	11.0	23.0	23.0
British Columbia	11.0	27.0	27.0
Northwest Territories	13.0	26.5	26.5
Nunavut	12.0	27.0	27.0
Yukon	9.0	17.5	27.0
Unweighted average	11.1	26.4	27.4

Source: Finances of the Nation, Statutory Tax Rate Database, https://financesofthenation.ca/statutory-tax-rates/.

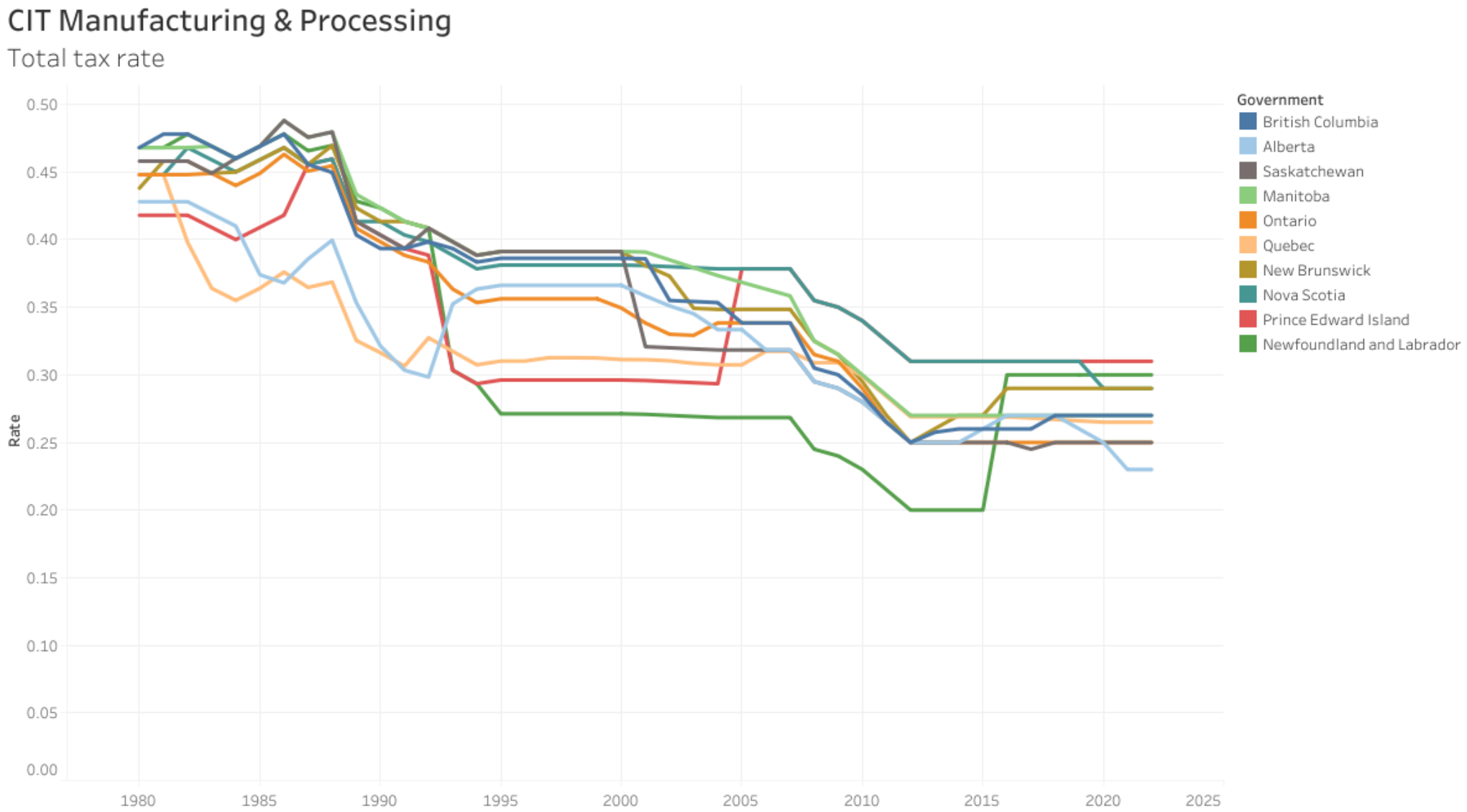
Tax Rates


CIT General
Total tax rate
Rate
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
1980
1985
1990
1995
2000
2005
2010
2015
2020
2025
Government
British Columbia
Alberta
Saskatchewan
Manitoba
Ontario
Quebec
New Brunswick
Nova Scotia
Prince Edward Island
Newfoundland and Labrador

Tax Rates


CIT Low Rate
Total tax rate
Rate
0.25
0.20
0.15
0.10
0.05
0.00
1980
1985
1990
1995
2000
2005
2010
2015
2020
2025
Government
British Columbia
Alberta
Saskatchewan
Manitoba
Ontario
Quebec
New Brunswick
Nova Scotia
Prince Edward Island
Newfoundland and Labrador

Tax Rates


CIT Manufacturing & Processing
Total tax rate
Rate
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
1980
1985
1990
1995
2000
2005
2010
2015
2020
2025
Government
British Columbia
Alberta
Saskatchewan
Manitoba
Ontario
Quebec
New Brunswick
Nova Scotia
Prince Edward Island
Newfoundland and Labrador

Tax Rates

- These tax rates determine the statutory incidence of the corporate tax
- We know that statutory incidence is not the same as economic incidence
- Later we will explore who actually bears the burden of the corporate tax
  - As before, it is complicated
  - But generally speaking, the economic incidence falls on capital owners and workers

Wage Payments

- Corporations pay wages to workers
- This is a cost of doing business
- Wage payments to labour are excluded from the corporate tax base

Depreciation

- Business expenses are deductible from taxable income
- But not all expenses are the same
- Some get used up quickly (e.g., office supplies)
- Others last a long time (e.g., machinery, buildings)
- For tax purposes, they are treated differently
  - For long-lasting assets, depreciation (the part consumed in the year) is used to allocate the cost over time
  - The depreciation is deducted from taxable income each year

Depreciation

- How does this work in practice?
- Suppose a firm buys a machine for $1000 that lasts 10 years
- If using the **straight line method** (deductions spread evenly), each year it can deduct $100 from its taxable income as depreciation
- This reduces the firm's taxable income and thus its tax liability
  - If the corporate tax rate is 20%, the firm saves $20 in taxes each year due to the depreciation deduction
- The present value of this stream of tax savings is

$$PV = \frac{20}{(1+r)} + \frac{20}{(1+r)^2} + \ldots + \frac{20}{(1+r)^{10}}$$

Depreciation

- The tax deductions effectively reduce the cost of the asset to the firm

$$\text{After-tax cost} = 1000 - PV$$

- More generally, the present value of the tax savings is

$$PV = \frac{D(1) \times t \times q}{(1+r)} + \frac{D(2) \times t \times q}{(1+r)^2} + \ldots + \frac{D(T) \times t \times q}{(1+r)^T}$$

- where
  - $D(n)$ is the share of the initial asset cost that can be deducted in year n
  - t is the corporate tax rate
  - q is the initial cost of the asset

Depreciation

- If you factor out the initial cost q, you get

$$PV = q \times \left(\frac{D(1) \times t}{(1+r)} + \frac{D(2) \times t}{(1+r)^2} + \ldots + \frac{D(T) \times t}{(1+r)^T} \right)$$

- If we call the term in brackets ψ, then the tax savings is $q \times \psi$
- The after-tax cost of the asset is then

$$\text{After-tax cost} = (1 - \psi)q$$

Depreciation

- From that equation, the tax savings are higher if
  - The total depreciation schedule is shorter (smaller T)
  - The total depreciation schedule is faster ($D(n)$ bigger in earlier years)
- This means that **accelerated depreciation** is more valuable for tax purposes
- The most valuable is **full expensing**, where the entire cost can be deducted in the year of purchase
- In Canada, certain investments are eligible for accelerated depreciation
  - Explained in detail here: https://www.canada.ca/en/revenue-agency/services/tax/businesses/topics/sole-proprietorships-partnerships/report-business-income-expenses/claiming-capital-cost-allowance/accelerated-investment-incentive.html

Depreciation

- An alternative to the straight line method is the **declining balance method**
  - Declining balance is more common in Canada
- Under declining balance, a fixed percentage of the remaining undepreciated value is deducted each year
- For example, if the declining balance rate is 20%, in the first year the firm deducts 20% of the initial cost, in the second year it deducts 20% of the remaining value after the first year's deduction, and so on
- This results in larger deductions in the earlier years and smaller deductions in later years

Investment Tax Credits

- In addition to depreciation deductions, firms may also be eligible for investment tax credits (ITCs)
- Recall: deductions reduce taxable income, while credits reduce tax liability directly
- ITCs are typically a percentage of the purchase price of investments
- Reduce the tax liability in the year the investment is made
- Example: a 10% ITC on a $1000 machine would reduce the firm's tax liability by $100 in the year of purchase
- Canada has used ITCs to enourage investment in certain sectors or regions
  - Manufacturing and processing, clean energy
  - Atlantic region

Interest

- Corporations can deduct interest payments on debt from their taxable income
  - Interest payments are a cost of doing business
- Suppose the firm borrowed the money to buy the $1000 machine
  - Imagine it keeps the loan for all 10 years, repaying at the end
  - Interest rate is 10%
  - Each year, the firm pays $100 in interest (10% of $1000)
- The firm can deduct this $100 interest payment from its taxable income each year
- This reduces the firm's taxable income and thus its tax liability
  - If the corporate tax rate is 20%, the firm saves $20 in taxes each year due to the interest deduction

Interest

- The present value of this stream of tax savings from interest deductions is

$$PV = \frac{20}{(1+r)} + \frac{20}{(1+r)^2} + \ldots + \frac{20}{(1+r)^{10}}$$

- In general, the present value of the tax savings from interest deductions is

$$PV = \frac{i \times q \times t}{(1+r)} + \frac{i \times q \times t}{(1+r)^2} + \ldots + \frac{i \times q \times t}{(1+r)^T}$$

Interest

- Factoring out the initial loan value q, you get

$$PV = q \times \left(\frac{i \times t}{(1+r)} + \frac{i \times t}{(1+r)^2} + \ldots + \frac{i \times t}{(1+r)^T} \right)$$

- If we call the term in brackets λ, then the tax savings is $q \times \lambda$
- The after-tax cost of the loan is then

$$\text{After-tax cost} = (1 - \lambda)q$$

Dividends

- Dividends are a main way to extract profits from a corporation
  - They are payments made to shareholders from the corporation’s earnings
- The value of dividends are taxed as personal income to the shareholders
- They are not deductible from the corporation’s taxable income
- Raises the question of double taxation
  - Corporation pays tax on its earnings
  - Shareholders pay tax on dividends received

Dividends

- To mitigate double taxation, Canada has a **dividend gross-up and tax credit system**
- When shareholders receive dividends, they must “gross up” the dividend amount by a certain percentage to reflect the pre-tax income of the corporation
- They then pay personal income tax on this grossed-up amount
- To offset this, shareholders receive a dividend tax credit that reduces their personal tax liability
- In the end, the total tax paid on corporate earnings distributed as dividends is intended to be roughly equivalent to the tax that would have been paid if the income were earned directly by the shareholders

Dividend Tax Credit System

- Imagine a corporation earns $125 in pre-tax profits
- It pays a corporate tax of 20%, leaving $100 in after-tax profits
- Distributing this $100 as a dividend to a shareholder
- The shareholder grosses up the dividend by 25% (the gross-up rate for eligible dividends), resulting in a grossed-up amount of $125
- The shareholder pays personal income tax on this $125
- If the rate is 40%, the tax owed is $50

Dividend Tax Credit System

- The shareholder then receives a dividend tax credit to offset some of this tax
- If the tax credit is 20% of the grossed-up amount, the credit is $25
- The shareholder's net tax liability on the dividend is then
  - Tax owed: $50
  - Minus tax credit: $25
  - Net tax liability: $25
- Total tax paid on the original $125 of corporate profits is
  - Corporate tax: $25
  - Shareholder tax: $25
  - Total tax: $50

Dividend Tax Credit System

- Notice that this is the same as if the shareholder had earned the $125 directly and paid 40% personal income tax
  - It instead comes partly from the corporation and partly from the shareholder
- This system helps to integrate corporate and personal taxation, reducing the double taxation of dividends
- Currently in Canada for regular businesses
  - The federal gross-up rate for eligible dividends is 38%
  - The federal dividend tax credit rate is 15.02% of the grossed-up amount
- For small byusinesses, the rates are different
  - The federal gross-up rate is 15%
  - The federal dividend tax credit rate is 9.03% of the grossed-up amount
- There are also provincial variations

References

References

- Rosen, Harvey S., and Lindsay M. Tedds, and Trevor Tombe, and Jean-Francois Wen, and Tracy Snoddon. Public Finance in Canada. 6th Canadian edition. McGraw-Hill Ryerson, 2023.
- Gruber, Jonathan. Public Finance and Public Policy. 7th edition. Worth Publishers, 2022.
- Bazel, Philip. Marginal Effective Tax Rates for Working Families in Canada. Fraser Institute, 2024.
- Hansen, Jeff, and Devan Mescall, and Graham Purse. “Policy Forum: The Effects of Indexation and Inflation on Tax System Design.” Canadian Tax Journal 71, no. 2 (2023): 398-404.