

A low-angle, upward-looking photograph of several large, light-colored stone columns of a classical building. The columns are fluted and have ornate capitals. The sky is a clear, pale blue. The perspective creates a sense of height and grandeur.

# **INTRODUCTION TO PUBLIC FINANCE IN CANADA**

## **Chapter 1**

# Learning Objectives

- Summarize the legal framework within which governments in Canada conduct their economic activities.
- Describe the process of how the size of government is measured using annual expenditures.
- Discuss the importance of taking into account population growth, inflation, and growth in the economy when examining how the size of government has changed over time.

## Learning Objectives (Cont.)

- Explain why conventional government budget expenditures may not fully capture the extent to which society's resources are under government control.
- Identify the spending categories that account for the largest share of government spending for the different levels of government—federal and provincial plus local.
- Identify the largest revenue sources for the different levels of government—federal and provincial plus local.

# Introduction

- Topics considered in public finance include the following:
  - What are the roles of the public and private sectors in the delivery of health care?
  - How can social assistance be provided for the poor without curbing incentives for self-reliance?
  - How much should government subsidize post-secondary education?

## Introduction (Cont.)

- How can governments help in the wake of major events such as COVID-19?
- How is the tax burden distributed and what are the implications of globalization for tax policies?
- Are locally raised taxes a good way to pay for services provided by provincial and local governments?

# Public Finance

- Field of economics that analyzes government taxation and spending activities
- Also called public sector economics or public economics
- Considers both actual and desired government spending activities


# Individual vs Group Priorities

- Historically, group priorities took precedence over individual needs from a philosophical standpoint

*It was generally agreed that the interests of the group, whether that of kin, the village, or later the state, took priority over the wishes of the individual and the achievement of his particular ends. "Life, liberty and the pursuit of happiness" were personal ideals which the average, educated 16th-century man would certainly have rejected as the prime goals of a good society*

*-Historian Lawrence Stone (1977: 4-5)*

# Tension Between Individual and Group Priorities Continues

- In the present day, focus on individual pursuits has become more prevalent 
- However, there remain areas where some people feel collaboration through the government is necessary
  - Healthcare (in Canada), national defense
- In part, political and ethical judgements inform government action
  - Economic analyses are also an important factor



# The First Taxes in Canada

*The first recorded taxes under the French regime were export taxes on furs-half of the beaver and one-tenth of the moose, first levied about 1650*

*-Perry (1990: 17)*

- Early in Canada's history, there were also import taxes and excise taxes (taxes on goods when sold) on goods such as tobacco
- These were the main source of government revenues

# The Legal Framework For Taxation In Canada

- Section 91 of the 1867 Constitution Act gives the federal government the power to "make laws for the peace, order, and good government of Canada"
  - This gave power to the federal government can raise money by any system of taxation
- At the time of confederation, import and excise taxes were the main source of tax revenue in Canada
  - Prior to confederation, individual provinces were responsible for their own taxes
  - Provinces were henceforth prevented from using a range of tax methods
  - The Fathers of confederation intended for taxation to occur primarily at the federal level

# Federal Responsibilities At Confederation

- Prior to confederation, the provinces incurred substantial debts to build infrastructure
  - In 1866, 29% of provincial expenditures for Nova Scotia, New Brunswick, Ontario and Quebec went to debt servicing
- After confederation, the federal government assumed responsibility for the provincial public debt
  - It also became responsible for a range of other areas, including national defense, navigation and shipping, regulation of trade and commerce, money and banking, and the criminal justice system
- The federal government provided statutory subsidies to the provinces for general government, justice, education, welfare and internal transport services
  - At the time, future growth for these subsidies were deliberately limited

# Federal Influence on Provincial Spending Increased Over Time

- The federal government issued conditional grants for
  - Agricultural education in 1912
  - Old age pensions in 1927
  - Employment services, highway construction, technical education and disease prevention by 1928
  - Social assistance in the 1930's (due to the great depression)
  - The federal government assumed responsibility for unemployment insurance, and gained shared jurisdiction in old age pensions in 1951
- To avoid violating the constitution, provincial governments had the option to opt out of conditional federal grants
- However, the increasing involvement of the federal government in provincial spending continues to be debated

# Federal Government Tax Operations

- Government bills to tax and spend must originate in the house of commons, and must be introduced by the house to a minister of the government
  - They cannot originate in the senate <sup>参议院</sup> (where members are appointed, not elected)
- Federal expenditure estimates are prepared and approved annually
- Changes in tax legislation are essentially reviewed on an as-needed basis
- The federal government can borrow money if expenditures exceed revenues

# The Provincial Government Expanded Their Taxation Methods Over Time

- At confederation, the federal government had the primary responsibility for raising tax revenue
  - Most provincial revenue came from federal subsidies
- Over time, the provinces began introducing their own taxes to keep up with demand for government services
  - These included personal income tax, succession duties (tax on sale of property), motor vehicle and gasoline taxes, retail sales tax

# Equalization Transfers Between Provincial And Federal Governments

- Disparities in provincial revenues and expenditures emerged over time
- Following World War II, the provincial and federal governments began creating agreements for equalization transfers
  - The goal of these transfers was to establish a standard per-capita revenue for all Canadians
- The 1982 Constitution Act formalized this goal
  - This act also gave the provinces more freedom to tax their natural resources

## 1982 Constitution Act, Section 36(2)

*Parliament and the government of Canada are committed to the principle of making equalization payments to ensure that provincial governments have sufficient revenues to provide reasonably comparable levels of public services at reasonably comparable levels of taxation*



# The Provincial Role In Public Finance Has Grown Substantially

- The ratio of federal to provincial government expenditures has fallen from 4.9 to 1 in 1946 to 0.72 to 1 in 2009
  - Provincial governments combined now spend more than the federal government
- The ratio of federal to provincial government revenue has fallen from 4.86 to 1 in 1946 to 1.32 to 1 in 2009
- This change has been driven by
  - Growth in health, education and welfare spending, which the provinces are responsible for
  - Both federal and provincial government have access to all major taxes

*Federal has less revenue than before*

# Local Governments

- Provincial governments decide what taxing powers local governments can have
- The dominant source of revenue for local governments is property tax

# Measuring The Size Of Government

- We want to estimate the extent to which society's resources are under government control
- One way: the number of public sector employees
  - This way is typically not preferred
  - The number of employees may not reflect the extent of government control on society's resources
- The preferred way: annual expenditures
  - Types of government expenditure
    - Purchases of goods and services
    - Transfers of income
    - Interest payments

# Why Is The Size Of The Government Important?

- How does it affect Canadians?
- How does it relate to philosophical tension between the individual and the state?

# The Federal Budget

- The federal budget is presented each year by the federal minister of finance
  - It includes changes in tax and spending programs
  - It also includes anticipated revenues and expenditures for the coming year
  - Provincial and local governments complete a similar annual process
  - People may infer government growth from changes in the budget, but these can be misleading

# Accounting Issues And Hidden Costs In Government Budgets

- Accounting Issues
  - Loan guarantees
  - Pension plans
  - Environmental liabilities
- Hidden Costs of Government
  - Regulation
  - Tax expenditures
  - Flow of current services from capital investment

# How Might Accounting Issues or Hidden Costs Distort The True Size Of The Government?

- Remember, we want to estimate how much of society's resources are under government control
- Think about the case for loan guarantees. Might similar logic apply to pension plans or environmental liabilities?
- What are the costs of regulation? For pharmaceuticals, banking, workplace health and safety, etc.

# The Size Of The Government

Local, Provincial and Federal Government Expenditures (selected years)

		Adjusting for Inflation	Adjusting for Population	Relative to Economy
	1	2	3	4
	Total Expenditures (\$ millions)	2007 Dollars (\$ millions)	In 2007 Dollars \$ per capita	Percentage of GDP
1991	352,796	493,421	17,559	50.9%
1995	390,496	511,790	17,466	47.5%
1999	418,762	524,764	17,261	41.8%
2003	493,117	557,194	17,610	39.6%
2007	589,927	589,927	17,937	37.7%
2011	720,678	667,913	19,448	40.9%
2014	774,877	685,732	19,294	39.6%
Source: Statistics Canada. CANSIM data from the following series v52531007, v62471023, v466668, v62471340.				

**Table 1.1**



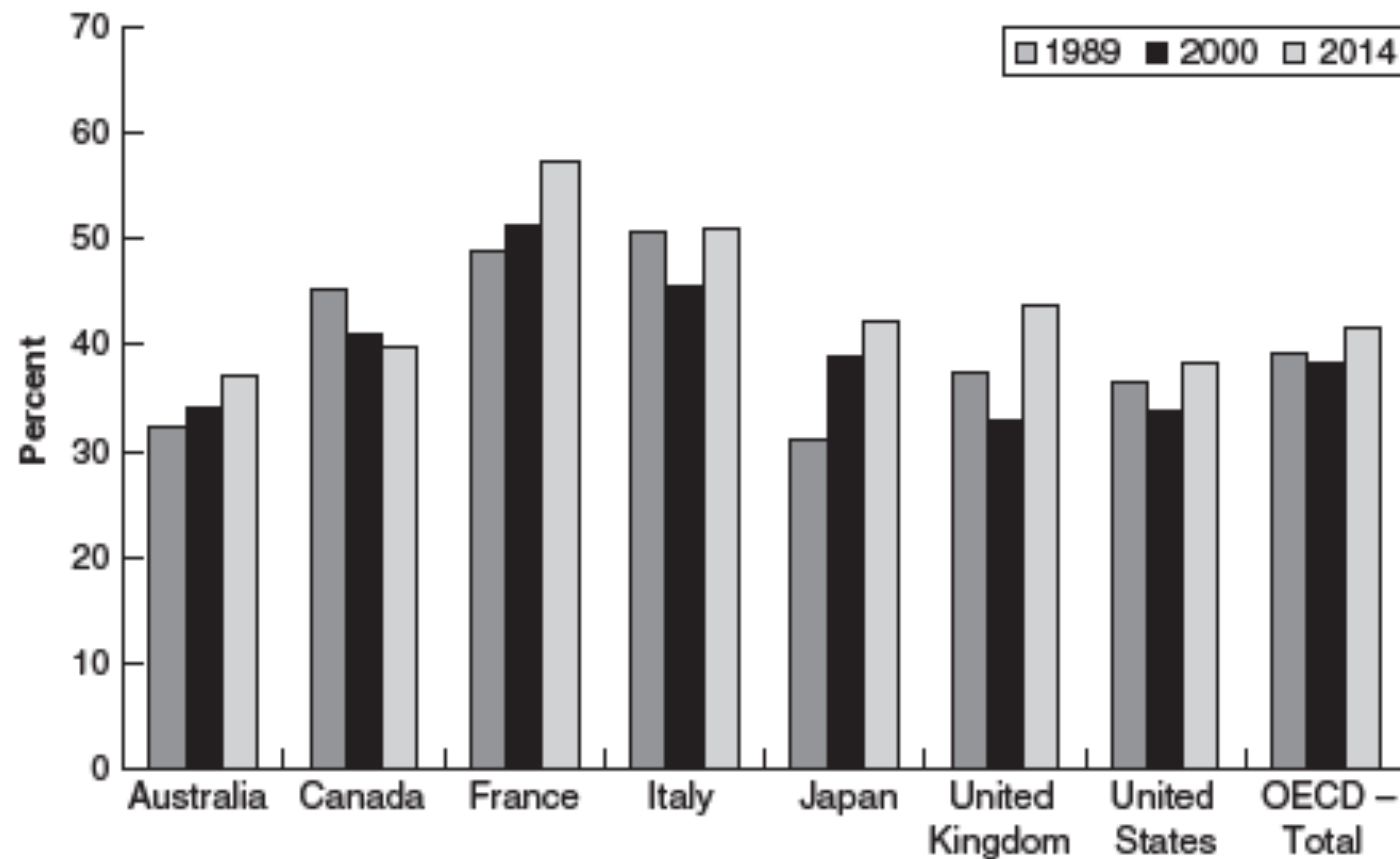
# The Size Of The Government

## Local, Provincial and Federal Government Expenditures

- Government expenditure has grown in real terms by around 39% from 1994 to 2014
- Real per-capita spending grew by around 9.6% from 1994 to 2014
- The decline in the size of a government relative to GDP is relatively new
  - Government spending as a % of GDP increased from 15% in 1929 to 52% in 1992
  - Government spending increased to 52.1% of GDP in 2020

# The Size Of The Government

## Government Expenditures as a Percentage of GDP, Selected Countries



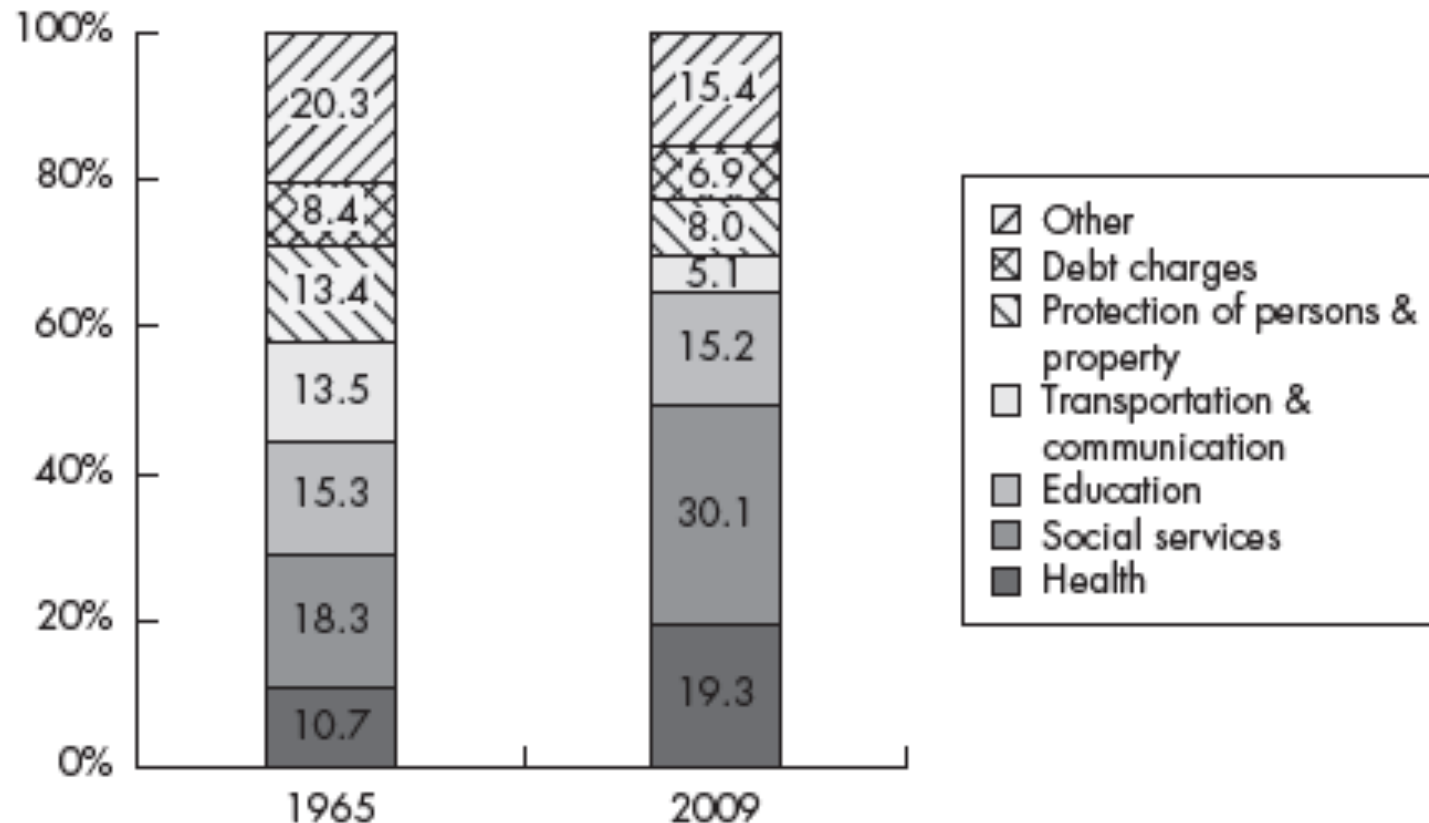
**Figure 1.1**

Sources: OECD (2014), "OECD Economic Outlook, annual data", OECD Economic Outlook: Statistics and Projections (database).

DOI: <http://dx.doi.org/10.1787/data-00729-en> (Accessed on 02 June 2015).

# Expenditures

## Composition of Total Government Expenditures, 1965 and 2009 (percent of total)



**Figure 1.2**

Notes: Total government spending refers here to government spending at all levels of government (known as consolidated government spending). Expenditures include CPP/QPP and nets out intergovernmental transfers.

Sources: Data for 1965 are from M. C. Urquhart and K. A. H. Buckley, *Historical Statistics of Canada*, 2nd ed. (Ottawa, 1983), pp. H148–160; data for 2009 are from Statistics Canada's CANSIM II database <http://cansim2.statcan.ca> Table 385-0001.

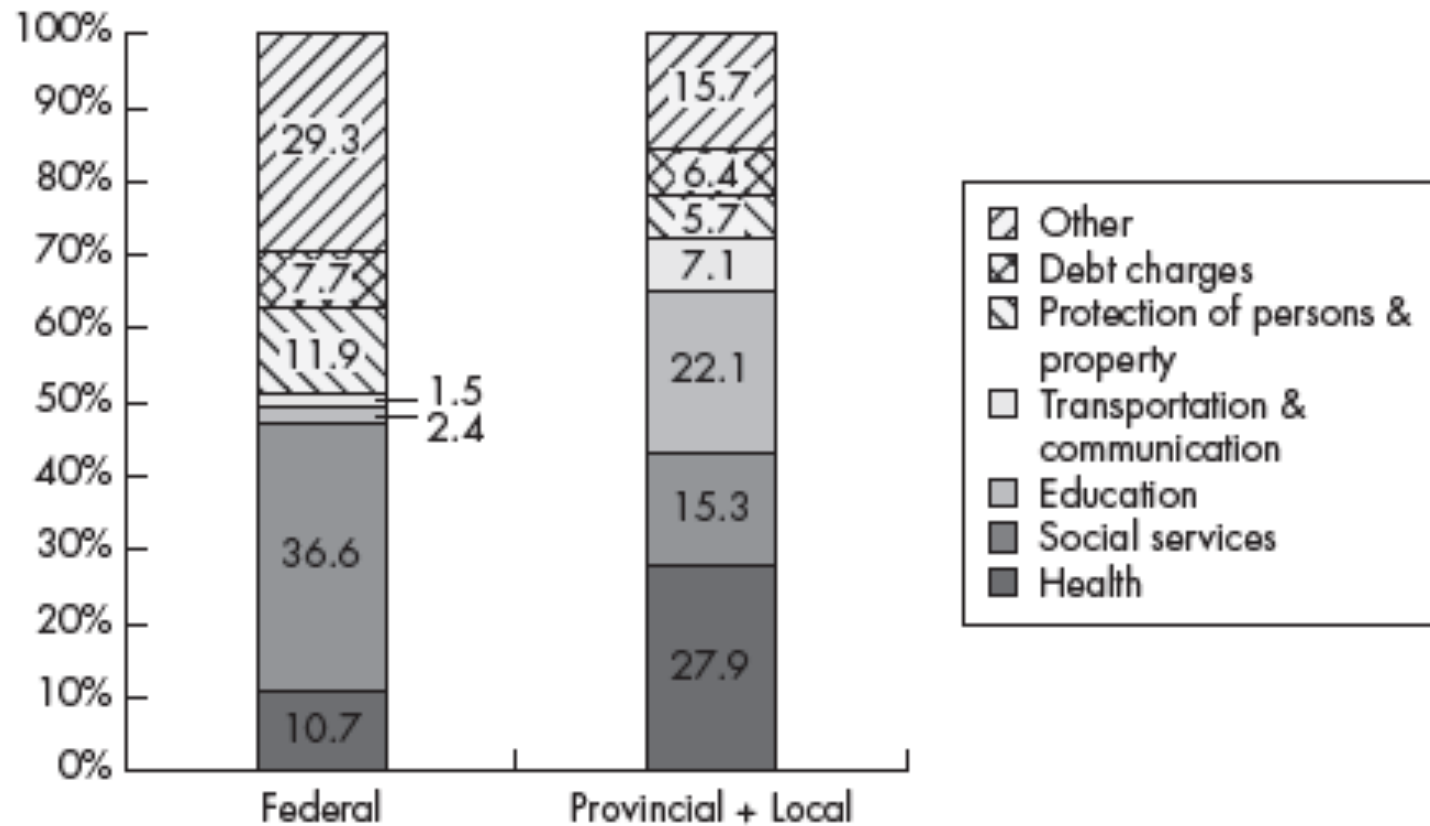
# Expenditures

## Composition of Total Government Expenditures, 1965 and 2009

- Health and social welfare expenditure has increased significantly between 1965 and 2009
  - Rising healthcare costs and an aging population have contributed to healthcare costs
  - Unemployment and welfare programs at federal and provincial levels contributed to social welfare costs
- Government spending on education has been mostly unchanged
- Debt changes accounted for about 7% of government spending in 2009

# Expenditures

Composition of Government Expenditure by Levels of Government, 2009 (percent of total)



**Figure 1.3**

Notes: In the disaggregated data, CPP/QPP are not included and federal spending on transfers to lower levels of government are included. These transfers show up in the “other” category for the federal government.

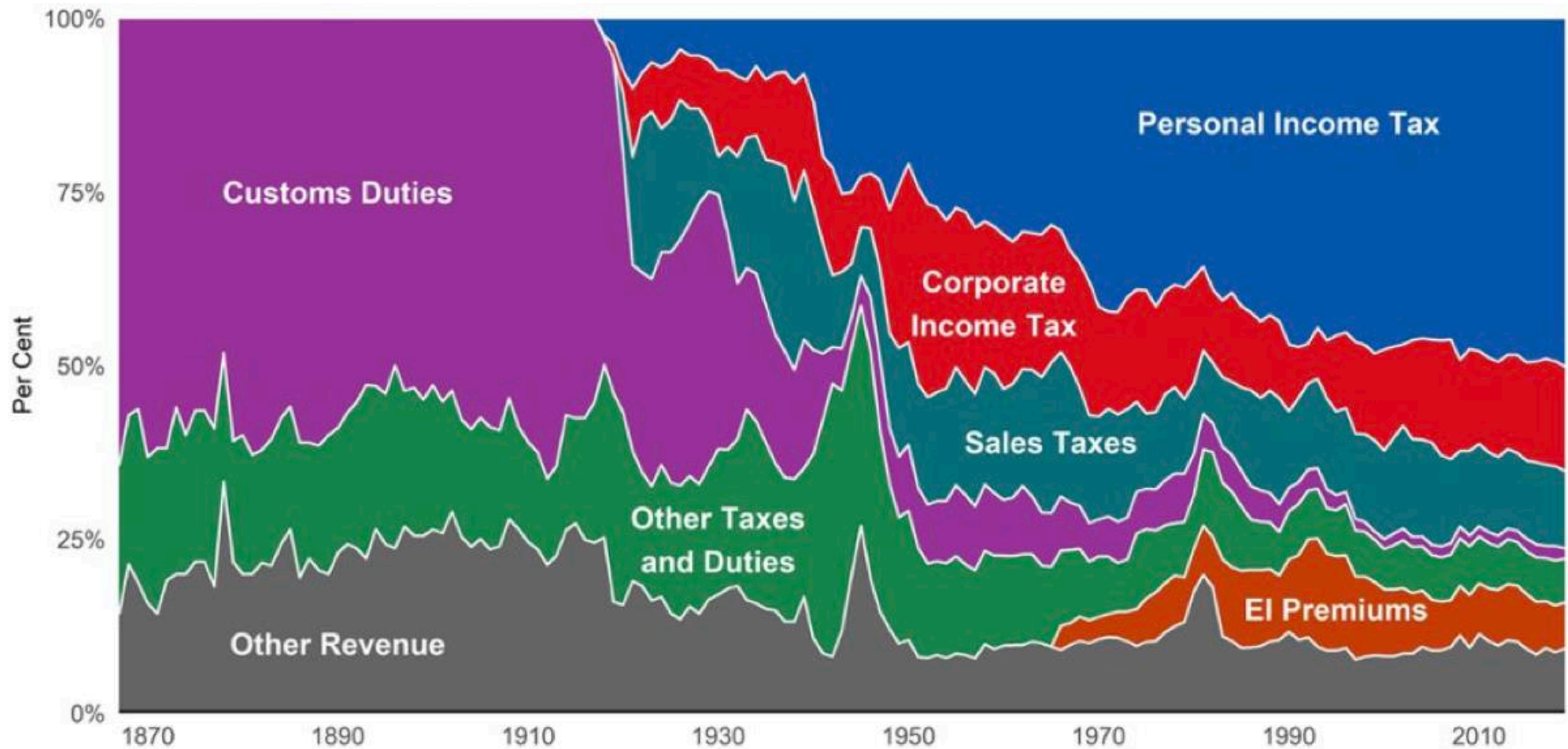
Sources: Data are from Statistics Canada’s CANSIM II database <http://cansim2.statcan.ca> Table 385-0001.

# Expenditures

## Composition of Government Expenditure by Levels of Government, 2009

- Education and social services spending was more prevalent at the provincial level in 2009
- Social services spending was significant at both federal and provincial levels of government in 2009
- Spending on protection of persons and property was higher at the federal level than the provincial level in 2009

# Composition of Federal Revenue 1867-2019



# Revenues

## Composition of Total Government Tax Revenue, 1965 and 2009 (percent of total)



**Figure 1.4**

Notes: Total government tax revenue refers here to tax revenue at all levels of government (known as consolidated government revenue). Payroll taxes include CPP/QPP contributions.

Sources: Data for 1965 are from M. C. Urquhart and K. A. H. Buckley, *Historical Statistics of Canada*, 2nd ed. (Ottawa, 1983), pp. H148–160; data for 2009 are from Statistics Canada's CANSIM II database <http://cansim2.statcan.ca> Table 385-0001.



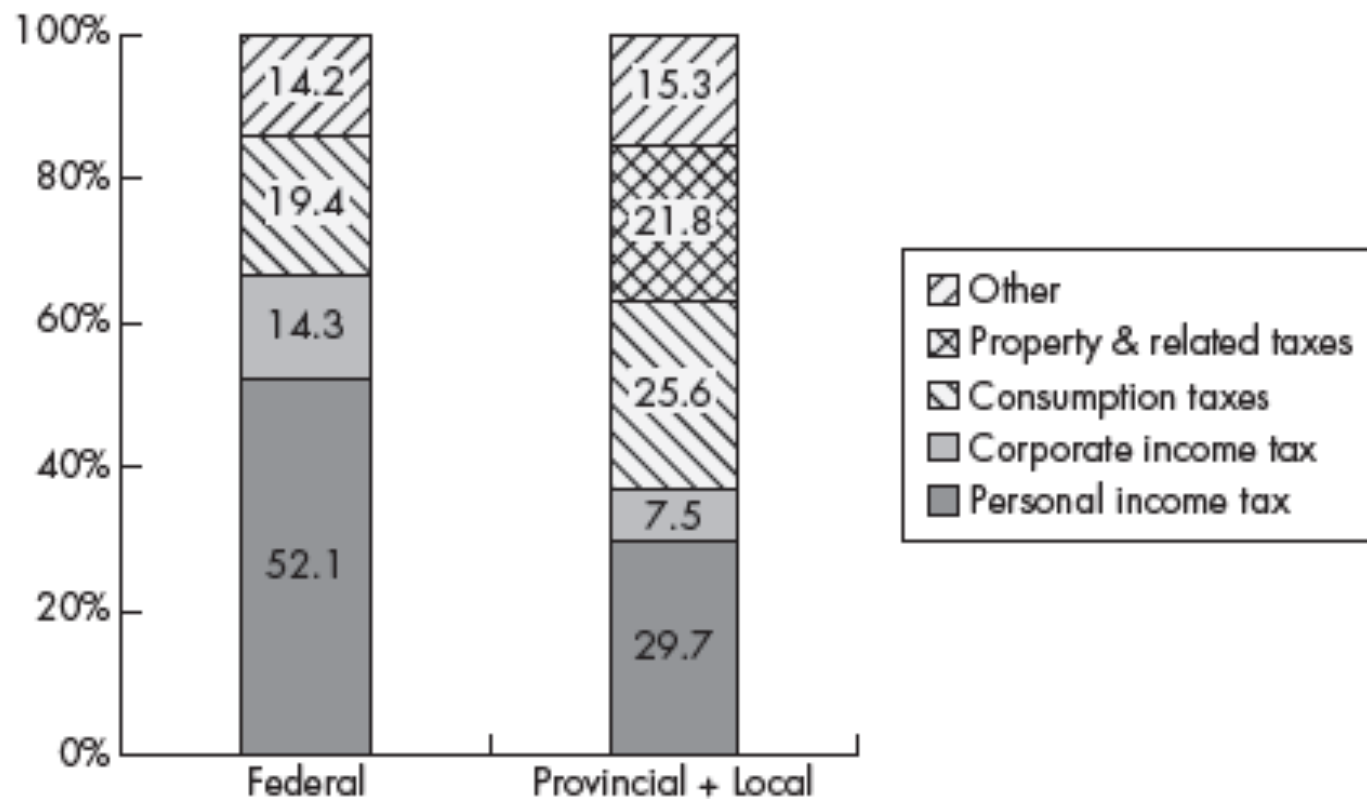
# Revenues

## Composition of Total Government Tax Revenue, 1965 and 2009 (percent of total)

- Personal income tax and consumption taxes was a significant source of revenue at both federal and provincial levels in 2009 and 1965
- Corporate taxes accounted for relatively less of tax revenue in 2009 than in 1965
- Payroll taxes were relatively more important in 2009 than in 1965

# Revenues

Composition of Government Tax Revenue by Level of Government, 2009 (percent of total)



**Figure 1.5**

Notes: In the disaggregated data, CPP/QPP are not included.

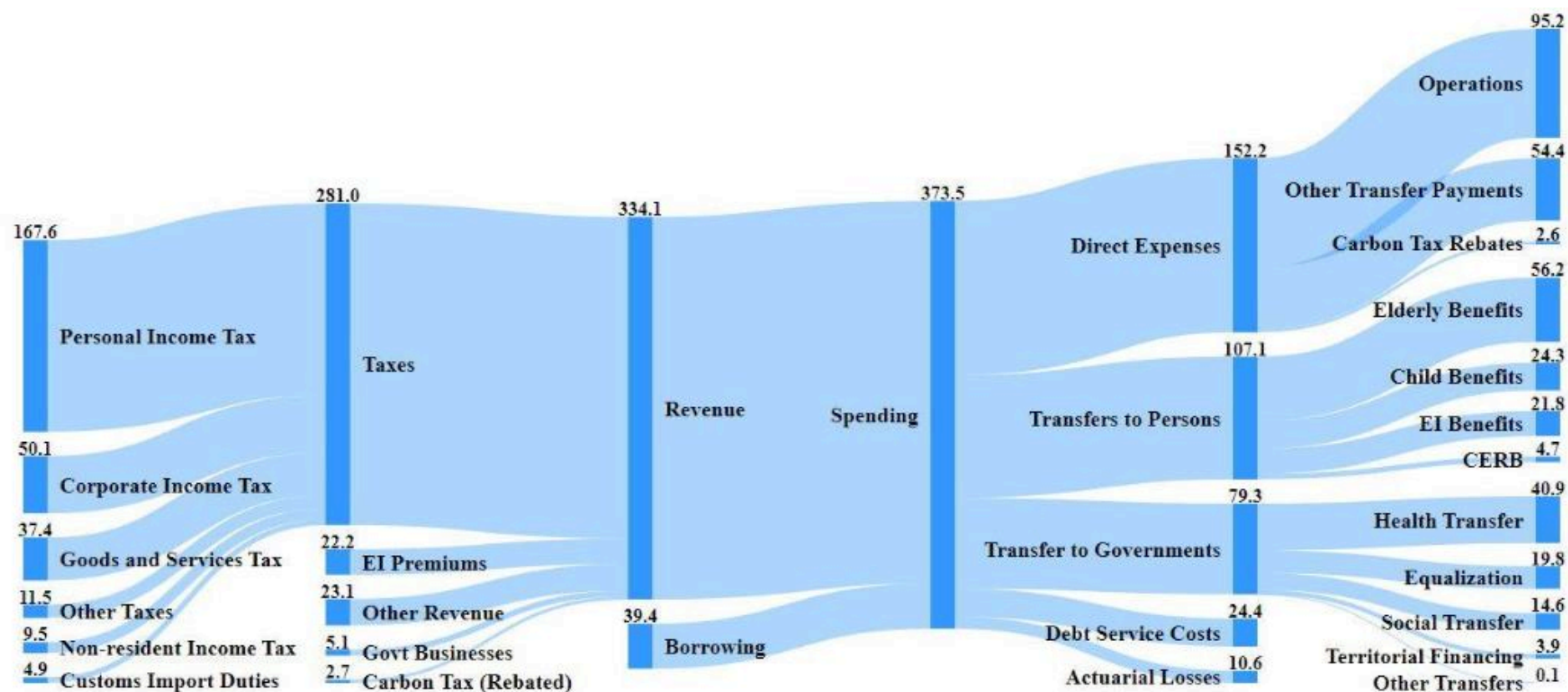
Sources: Data are from Statistics Canada's CANSIM II database <http://cansim2.statcan.ca> Table 385-0001.

# Revenues

Composition of Government Tax Revenue by Level of Government, 2009 (percent of total)

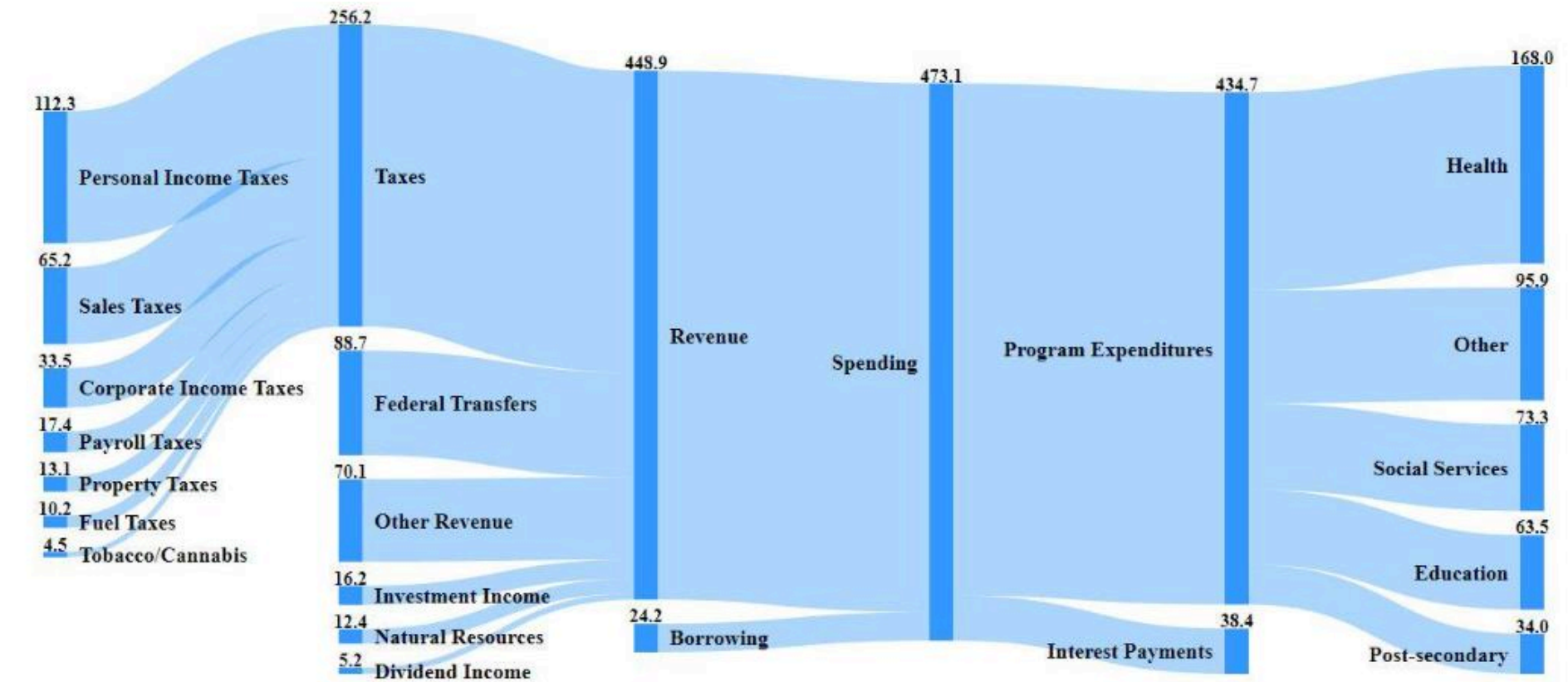
- The federal government relies more on personal income tax than the provincial government does
- The federal government receives no revenue from property tax

# Federal Government Revenue and Expenditures, 2019/20 (\$ Billions)



Source: Government of Canada, Federal Budget 2021, Tables A1.5 and A1.6, <https://www.budget.gc.ca/2021/home-accueil-en.html>.

# Provincial Government Revenue and Expenditures, 2019/20 (\$ Billions)



...

Source: Statistics Canada, data tables 10-10-0017-01 and 10-10-0024-01.

# Transfers

- Transfers between different levels of government are an important component of public spending
  - As of 2009, about 25 percent of federal spending took the form of transfers to provincial, territorial, and local governments.

# Transfers

## Government Revenues and Expenditures by Level of Government\* (percent of total)

	1926		1960		2009	
	Rev.	Exp.	Rev.	Exp.	Rev.	Exp.
Federal	44.9	37.8	60.8	50.5	53.3	33.2
Provincial	18.0	20.2	21.8	24.8	40.3	46.2
Local	37.1	42.0	17.3	24.7	6.4	20.6
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0

\*Includes hospitals with provincial revenues and expenditures and CPP/QPP with federal revenues and expenditures, and excludes grants by governments to other levels of government.

Source: Karin Treff and Deborah Ort, *Finances of the Nation, 2010* (Toronto: Canadian Tax Foundation, 2011), tables B.3 and B.5.

**Table 1.2**

# Transfers

## Government Revenues and Expenditures by Level of Government\* (percent of total)

- As a percentage, federal government revenue has persistently been less than federal spending (due to federal transfers)
- Both provincial and local government spending has been greater than revenue, as a percentage of the respective totals



# Federal Debt And Inflation

- Inflation decreases the federal debt level, which may be viewed as a source of government revenue
- In 2014, the federal government's net public debt was around \$682B and inflation was around 2%
- This reduced the real value of government debt by  $(\$682\text{B} \times 0.02) = 13.6\text{B}$


# Chapter 1 Summary

- Public finance, also known as public sector economics or public economics, focuses on the taxing and spending activities of government and their influence on the allocation of resources and the distribution of income.
- Legal constraints on federal and provincial government economic activity are embodied in the 1867 Constitution Act and the 1982 Constitution Act.
- The federal government may use any form of taxation and may incur debt to finance its expenditures.

# Chapter 1 Summary (Cont.)

- All common measures of the size of government—employees, expenditures, revenues, etc.—involve some deficiency, and miss the impact of off-budget activities such as tax expenditures and regulatory costs.
- The level of government expenditures has increased in both nominal and real absolute terms, and in per capita terms, while government spending as a percentage of gross domestic product fell from the early 1990s to around 2009, then increased in 2020.
- The share of spending on social - public welfare and health has increased in importance.
- Personal income taxes, payroll taxes, and consumption taxes are some of the largest sources of government revenue.

# Questions For Discussion (1 of 4)

Use the data in  **Table 1.1** to calculate the following: the rate of growth in total government expenditures, in real government spending, and in real, per capita spending over the period from 2000 to 2009.

- (i) What do the data tell you about the growth in government spending relative to population growth in Canada over this nine-year period?
- (ii) Based on the data for the period 2000 to 2009, would you argue that the size of government has increased or decreased over this period? Explain.

**Table 1.1** Local, Provincial, and Federal Government Expenditures, Selected Years

	Total Expenditure (\$ millions)	2007 Dollars (\$ millions)	In 2007 \$ Per Capita	Percentage of GDP
1991	352,796	493,421	17,599	50.9%
1995	390,496	511,790	17,466	47.5%
1999	418,762	524,764	17,261	41.8%
2003	493,117	557,194	17,610	39.6%
2007	589,927	589,927	17,937	37.7%
2011	720,678	667,913	19,448	40.9%
2014	774,877	685,732	19,294	39.6%

Sources: Statistics Canada. CANSIM data from the following series v52531007, v62471023, v466668, v62471340 series.

(i) growth

(ii) No. Because using government expenditure to determine changes in the size of the government could be misleading

## Questions For Discussion (2 of 4)

In each of the following circumstances, decide whether the impact of government on the economy increases or decreases and why. In each case, how does your answer compare to that given by standard measures of the size of government?

- a. Provincial governments <sup>se 41</sup> mandate that employers provide daycare centres for the use of their employees.
- b. Provincial governments subsidize daycare centres with parents paying \$5 in user fees per day.
- c. Provincial governments open government-run daycare centres.
- d. The federal budget is brought into balance by reducing grants to provincial governments.

(a) the size of government increase because <sup>mandate</sup>  
↓  
regulation increases  
government influence over social's resource.

(b) same as Q1

(c) the size of government increase. both government expenditure and  
overall government influence on society's resource increase

(d) uncertain since +transfer increase provincial government revenue  
while decrease the size of government in terms of expenditure

↓  
expenditure ++

the size of government — expenditure

↘ government influence (over social res)

## Questions For Discussion (3 of 4)

High and rising health care expenditures are one important element that has contributed to provincial government deficits. New, or additional, payroll taxes may be one way to finance the higher health care costs. If adopted, how would the higher payroll taxes affect the size of the provincial budgets? How would this affect the role of government in the economy?

provincial budget ↑

resource taken ↑

Size of the gov ↑

(likely) provincial revenue ↑

Size of government is uncertain

affect labor market, so the gov's role

change in economic



## Questions For Discussion (4 of 4)

Consider the data presented in the table below. Suppose that the federal government increases <sup>拨款</sup>grants to provincial governments by \$6 billion in 2010. Does the increase in grants necessarily lead to an increase in total government spending? Why or why not?

Government Expenditures before and after Intergovernmental Grants (millions of dollars)

	Federal Government		Provincial Governments		Local Governments		Total
	Including Grants	Excluding Grants	Including Grants	Excluding Grants	Including Grants	Excluding Grants	Excluding Grants
2009	258,209	193,130	377,313	324,778	144,736	144,589	662,497

Source: Data taken from Karin Treff and Deborah Ort, *Finances of the Nation, 2010* (Toronto: Canadian Tax Foundation, 2011), B5. Note that for this example CPP and QPP have not been included in the total. "Excluding grants" refers to grants made to other levels of government.

uncertain.

it depends on how the provincial government use the grant.

# Appendix

# Doing Research In Public Finance (Journals)

- Public Finance journals
  - *Journal of Public Economics*
  - *Canadian Tax Journal*
  - *National Tax Journal*
  - *Public Finance*
  - *Public Finance Quarterly*
- General-interest journals
  - *Canadian Journal of Economics*
  - *American Economic Review*
  - *Canadian Public Policy*
  - *Journal of Economic Perspectives*
  - *Journal of Political Economy*

# Doing Research In Public Finance (Data)

- Data on government spending and taxing activities
  - *The National Finances (annually until 1994)*
  - *Provincial and Municipal Finances (biannually to 1993)*
  - *Finances of the Nation (beginning in 1995)*
- Budget papers prepared annually by the federal minister of finance and counterparts at the provincial level additional data.
- The Department of Finance ([www.fin.gc.ca](http://www.fin.gc.ca)) publishes occasional papers on various topics.
- Regularly published federal and provincial public finance data in Public Sector Statistics ([www.statcan.ca](http://www.statcan.ca))


# Doing Research In Public Finance (Resources)

- Public Finance resources available on Internet
  - Canadian Tax Foundation ([www.ctf.ca](http://www.ctf.ca))
  - Canadian Centre for Policy Alternatives ([www.policyalternatives.ca](http://www.policyalternatives.ca))
  - C.D. Howe Institute ([www.cdhowe.org](http://www.cdhowe.org))
  - Fraser Institute ([www.fraserinstitute.ca](http://www.fraserinstitute.ca))
  - Institute for Research on Public Policy ([www.irpp.org](http://www.irpp.org))

# Welfare Economics

- Framework used by most public finance specialists.
- Branch of economic theory concerned with the social desirability of alternative economic states.
- Makes use of efficiency and equity concepts to evaluate alternatives.

# Pure Exchange Economy

1. **Edgeworth Box** - an analytical device used to model welfare economic theory
  - Depicts distribution of goods in a 2-good/2-person economy
2. **Pareto Efficiency** – an allocation of resources such that no person can be made better off without making another person worse off  

1. **Pareto Improvement** – a reallocation of resources that makes at least one person better off without making anyone else worse off

# Edgeworth Box: 2 Person / 2 Good Economy

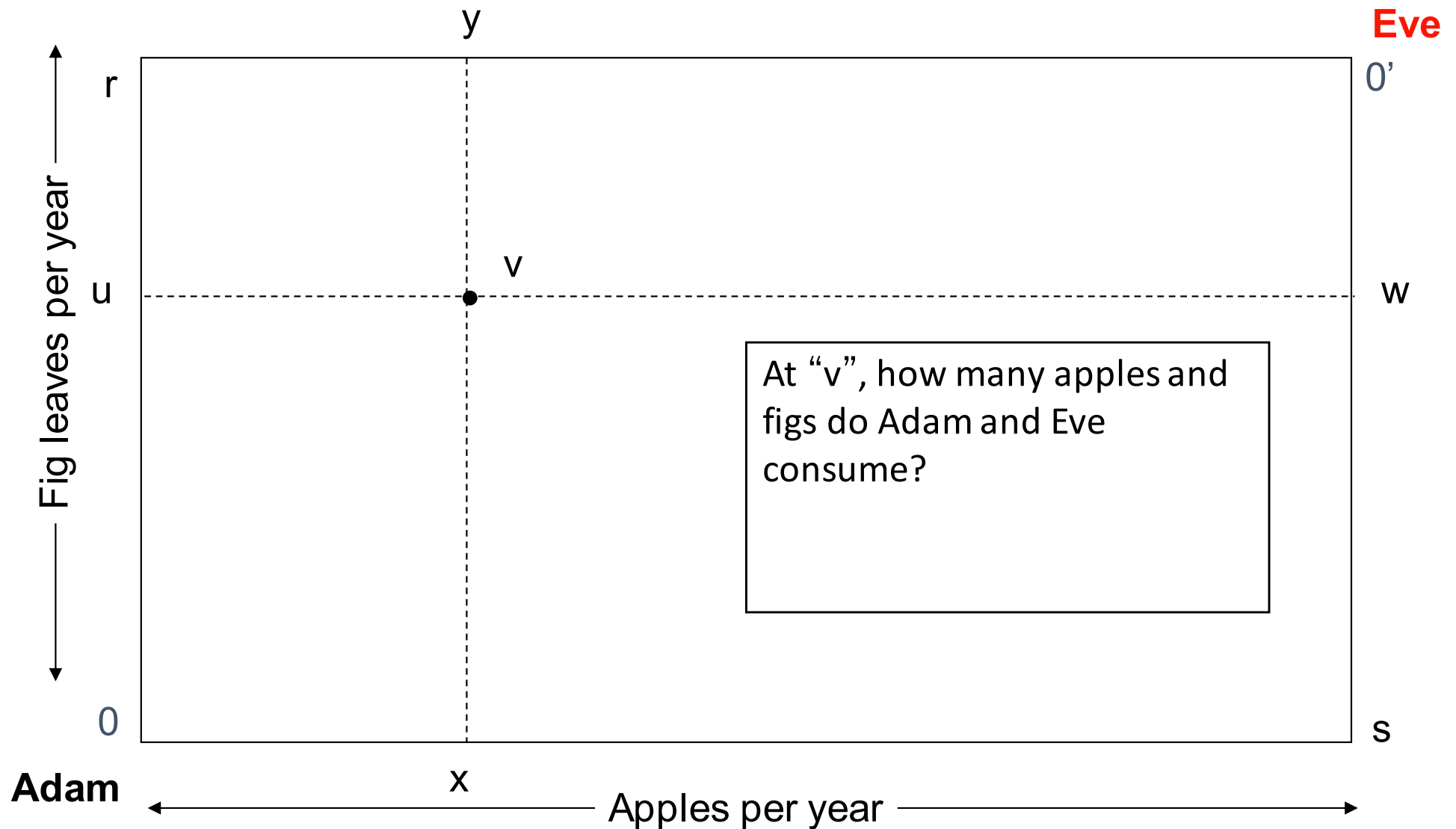


Figure 2.1



# Indifference Curves In An Edgeworth Box

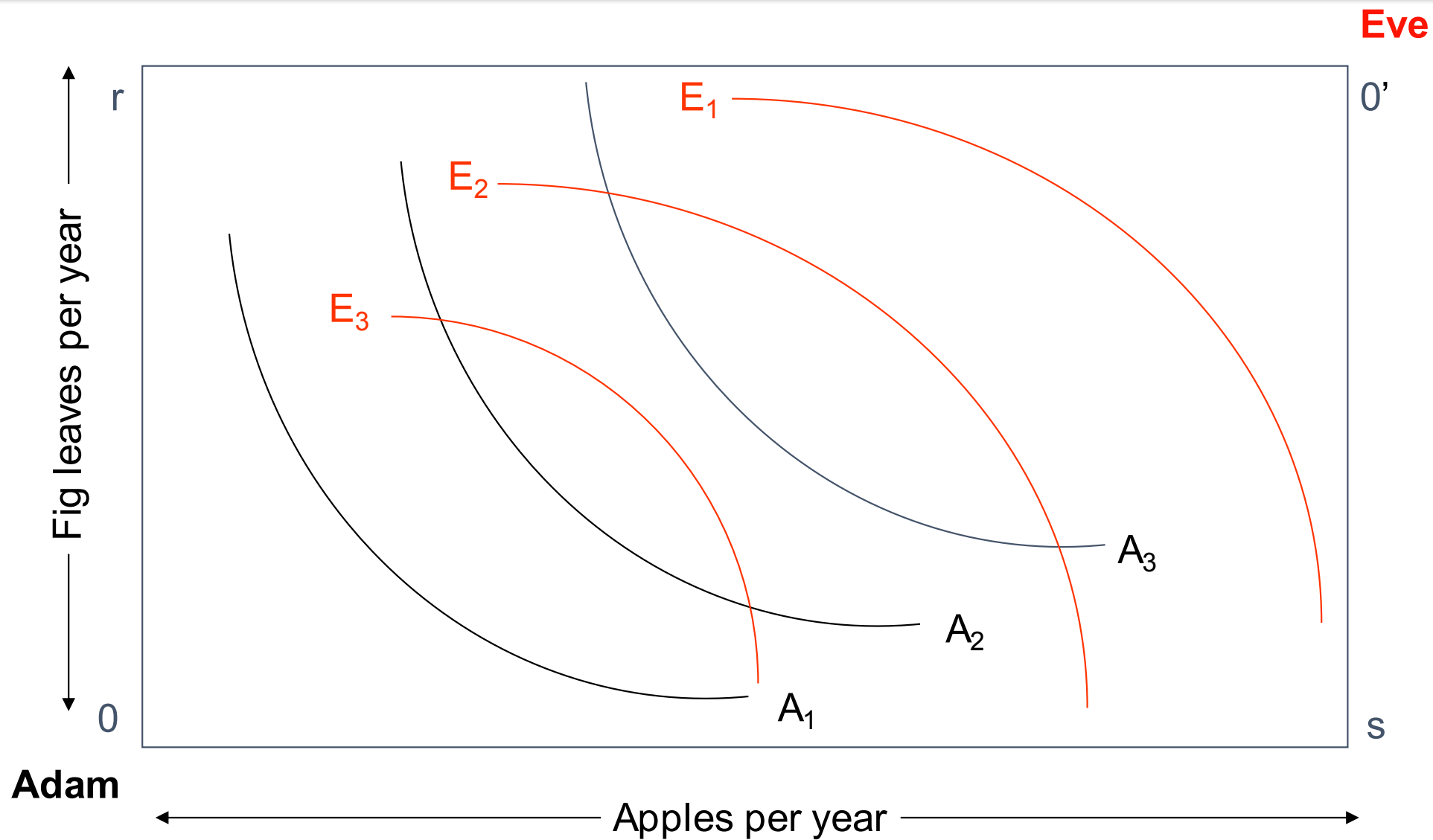


Figure 2.2

# Making Adam Better Off Without Eve Becoming Worse Off

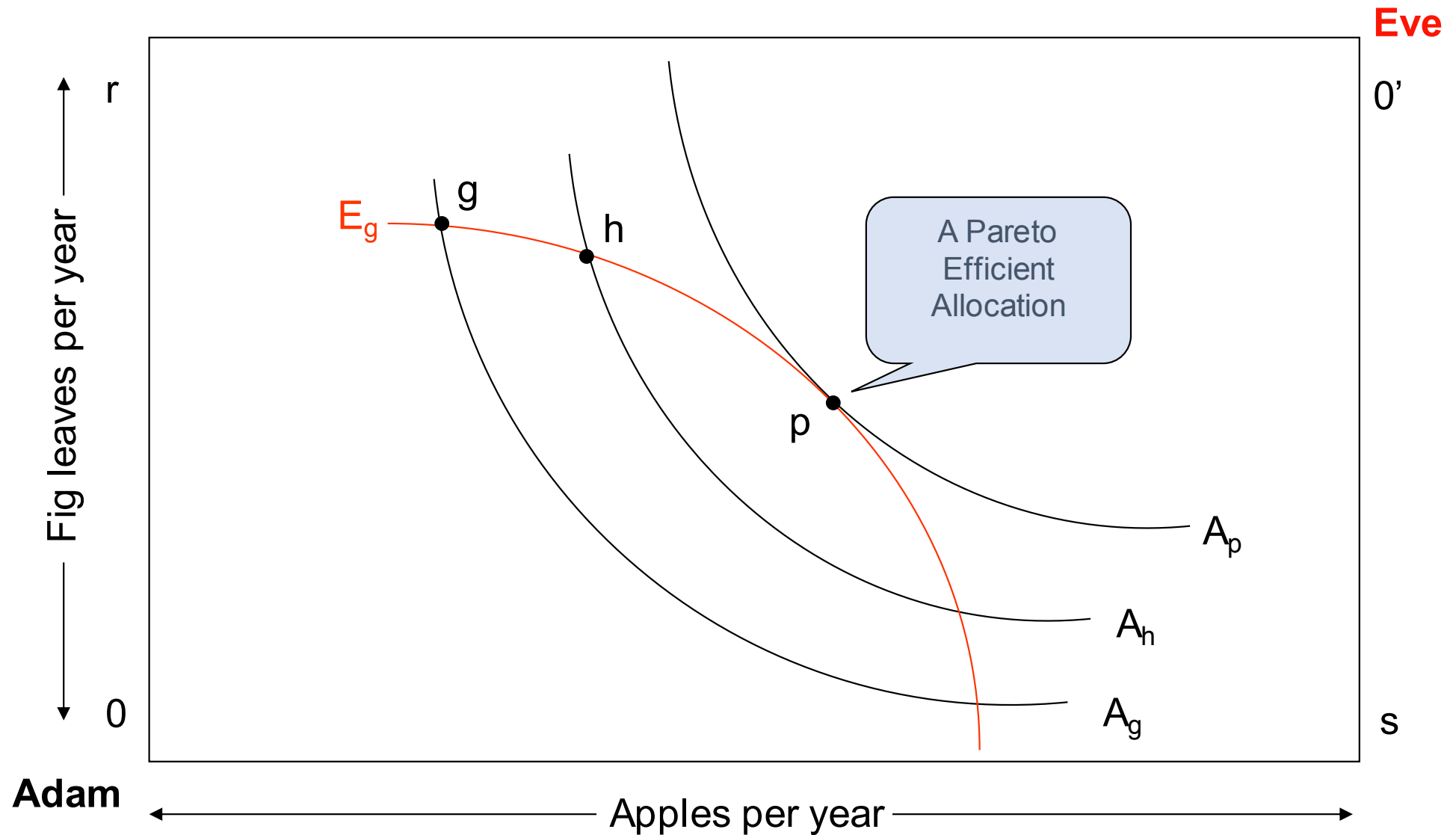


Figure 2.3

# Making Eve Better Off Without Adam Becoming Worse Off

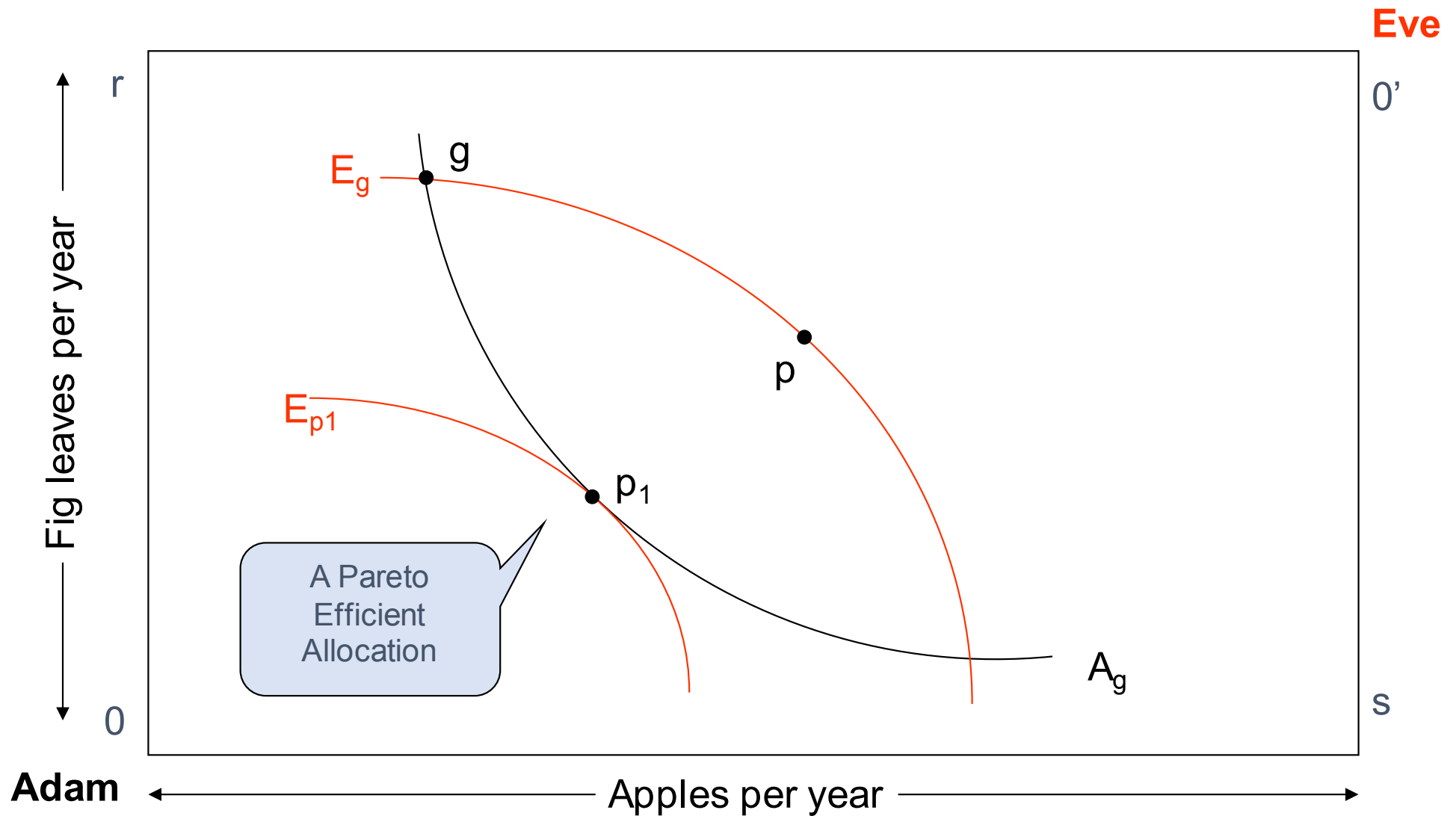


Figure 2.4

# Making Both Adam and Eve Better Off

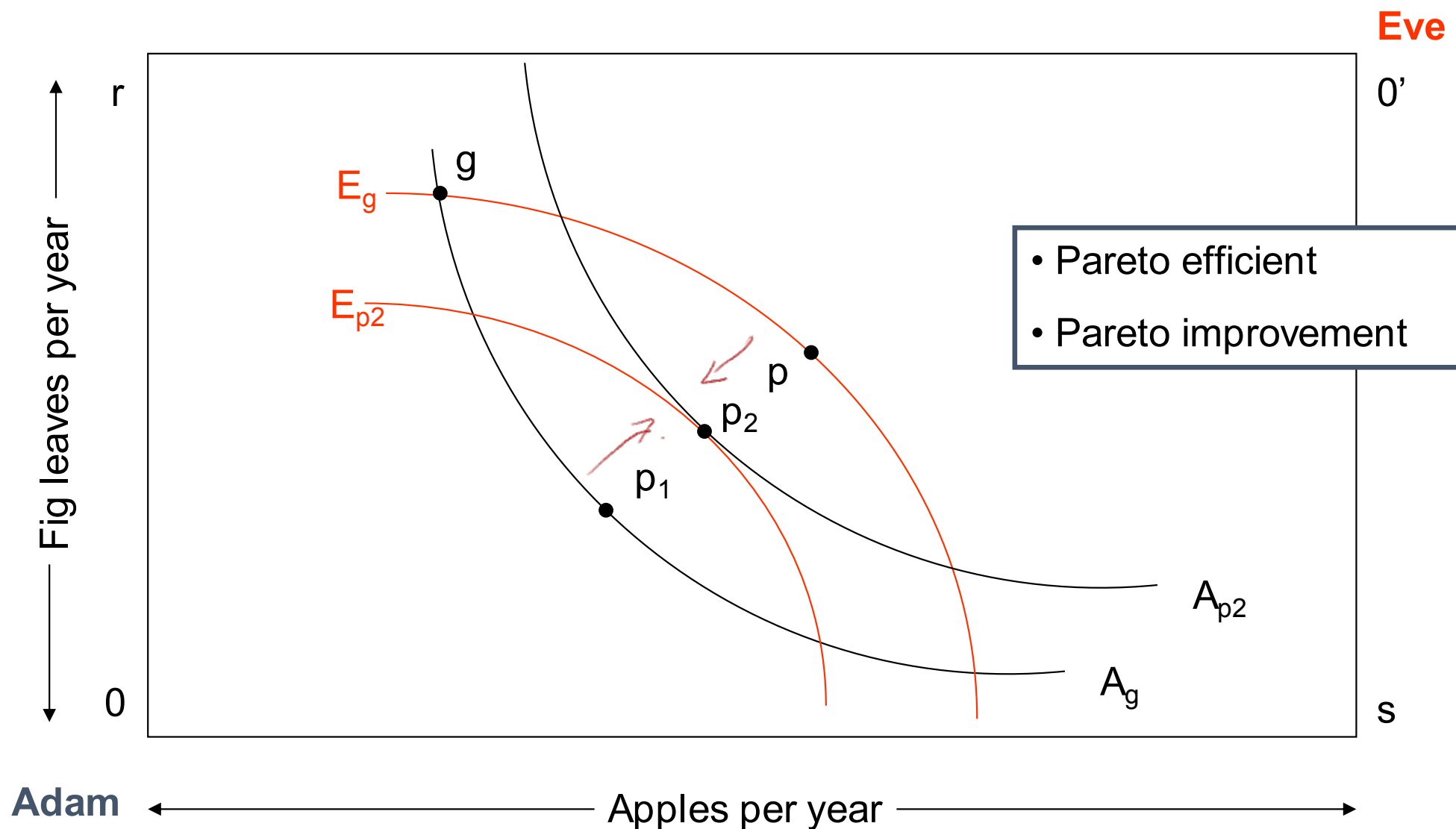


Figure 2.5

# Starting From a Different Initial Point: K

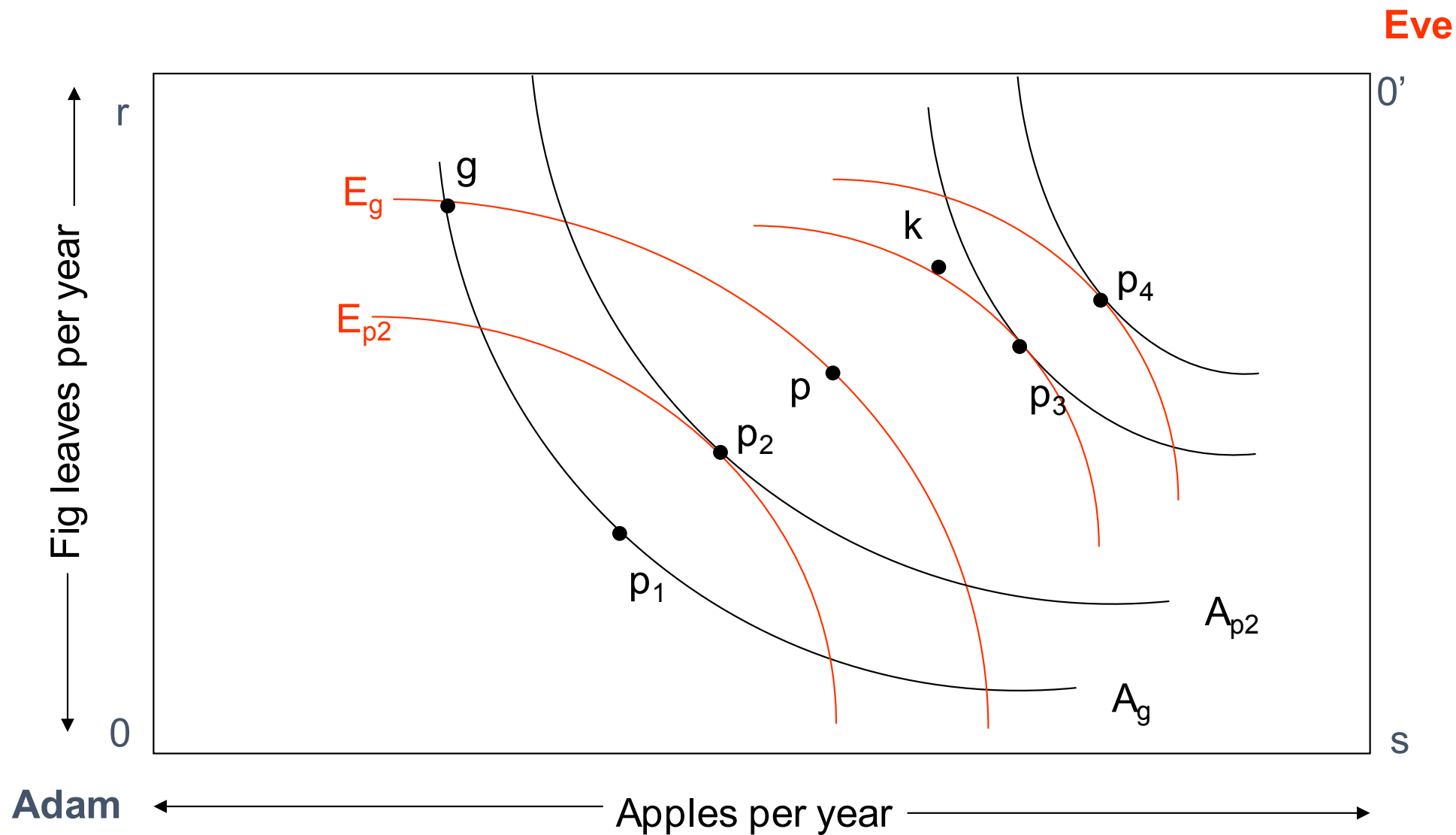


Figure 2.6

# The Contract Curve

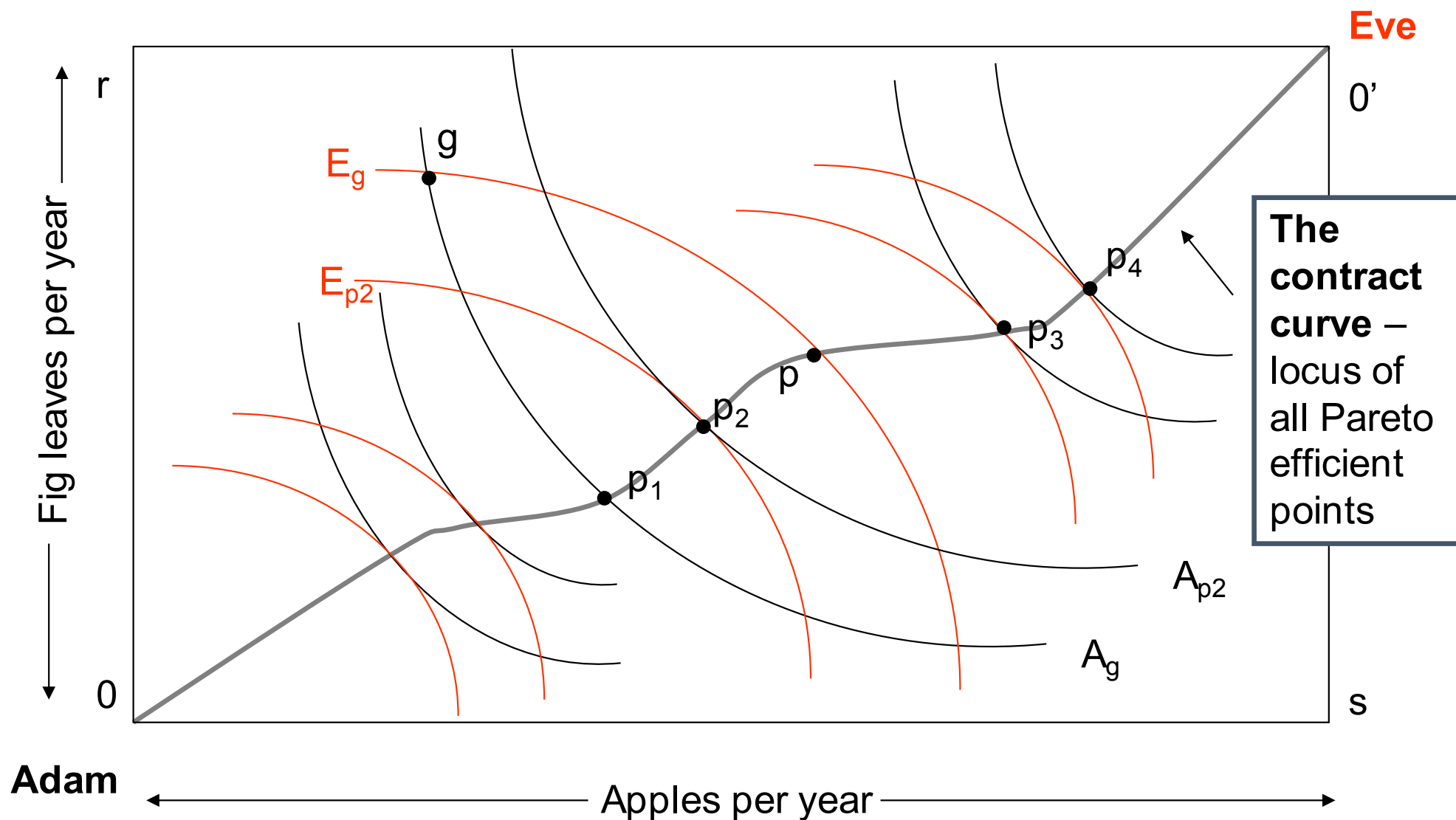


Figure 2.7

# The First Fundamental Theorem of Welfare Economics

## 1. Given:

- All producers and consumers act as perfect competitors; no one has any market power
- A market exists for each and every commodity

## 2. The First Fundamental Theorem of Welfare Economics states that a Pareto Efficient allocation of resources emerges

- A competitive economy “automatically” allocates resources efficiently without any need for centralized direction

# The Second Fundamental Theorem of Welfare Economics

1. Addresses equity concerns in allocations of goods
2. Second Fundamental Theory of Welfare Economics states that society can attain any Pareto efficient allocation of resources – one that is more equitable – by making a suitable assignment of initial endowments and then letting people freely trade with each other
3. Equity can be achieved without inhibiting efficiency