Understanding Economics

2nd edition

by Mark Lovewell and Khoa Nguyen

Chapter 10
Inflation and Unemployment

Chapter Objectives

In this chapter you will:

- learn about inflation, how it is measured, and its effect on nominal and real incomes
- examine the official unemployment rate, the different types of unemployment, and the definition of full employment

The Consumer Price Index

- The consumer price index (CPI)
  - is the most common measure of inflation
  - monitors price changes in a representative "shopping basket" of consumer products
  - includes quantities in a shopping basket determined in a base year
  - compares prices in the current year with those in the base year

Simple Consumer Price Index

Figure 10.1, Page 237

Results of 2000 Survey

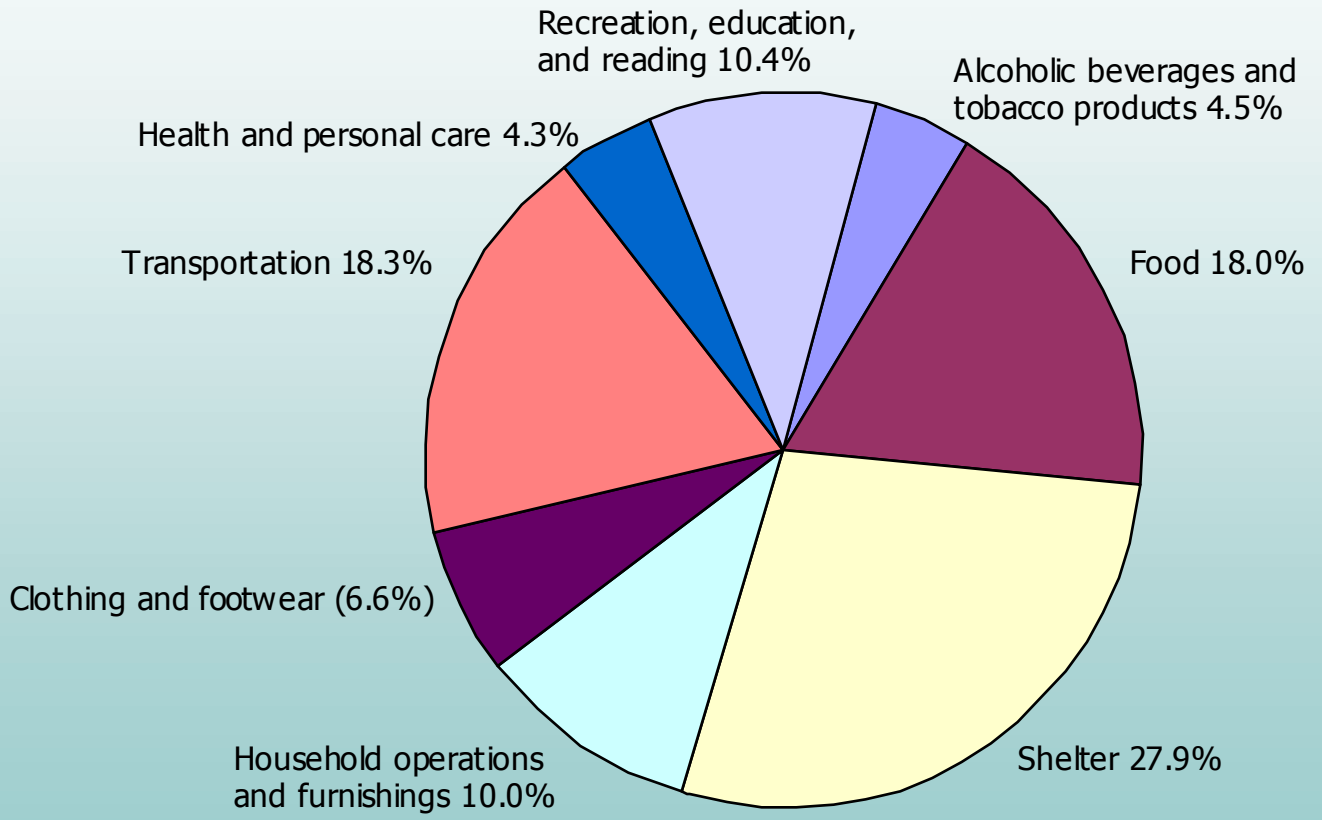
	Prices	Quantity Consumed per Month	Expenditure per Month	Weights
Hamburgers	$2.00	10	$20	$20 ÷ $50 = 0.4
Milkshakes	$1.00	30	$30	$40 ÷ $50 = 0.6
			$50	

Prices in 2001

	Prices	2001 Price 2000 Quantity
Hamburgers	$2.20	$2.20 x 10 = $22.00
Milkshakes	$1.05	$1.05 x 30 = $31.50
		$53.50

Consumer Price Index Weights (1992)

Figure 10.2, Page 238



Nominal Versus Real Income

- Nominal income is expressed in current dollars
- Real income
  - is expressed in base-year dollars
  - equals nominal income divided by CPI (expressed in hundredths)

The Limitations of the CPI

- The CPI does not take full account of
  - consumer differences, since it is based on the consumption patterns of an average household
  - changes in spending patterns since it uses base-year quantities
  - improvements in product quality

The GDP Deflator

- The GDP deflator
  - indicates price changes for all products appearing in GDP
  - includes quantities that change each year
  - compares prices in the current year with those in a base year

Simple GDP Deflator

Figure 10.3

(1) Year	(2) Output of Microchips	(3) Current Price	(4) Output at Current Price (2) X (3)	(5) Output at 2000 Price (2) X $0.20	(6) GDP Deflator [(4) ÷ (5)] x 100
2000	1000	$0.20	$200	$200	100
2001	2000	0.30	600	400	150
2002	2500	0.40	1000	500	200

Finding Real Gross Domestic Product

Figure 10.4, Page 241

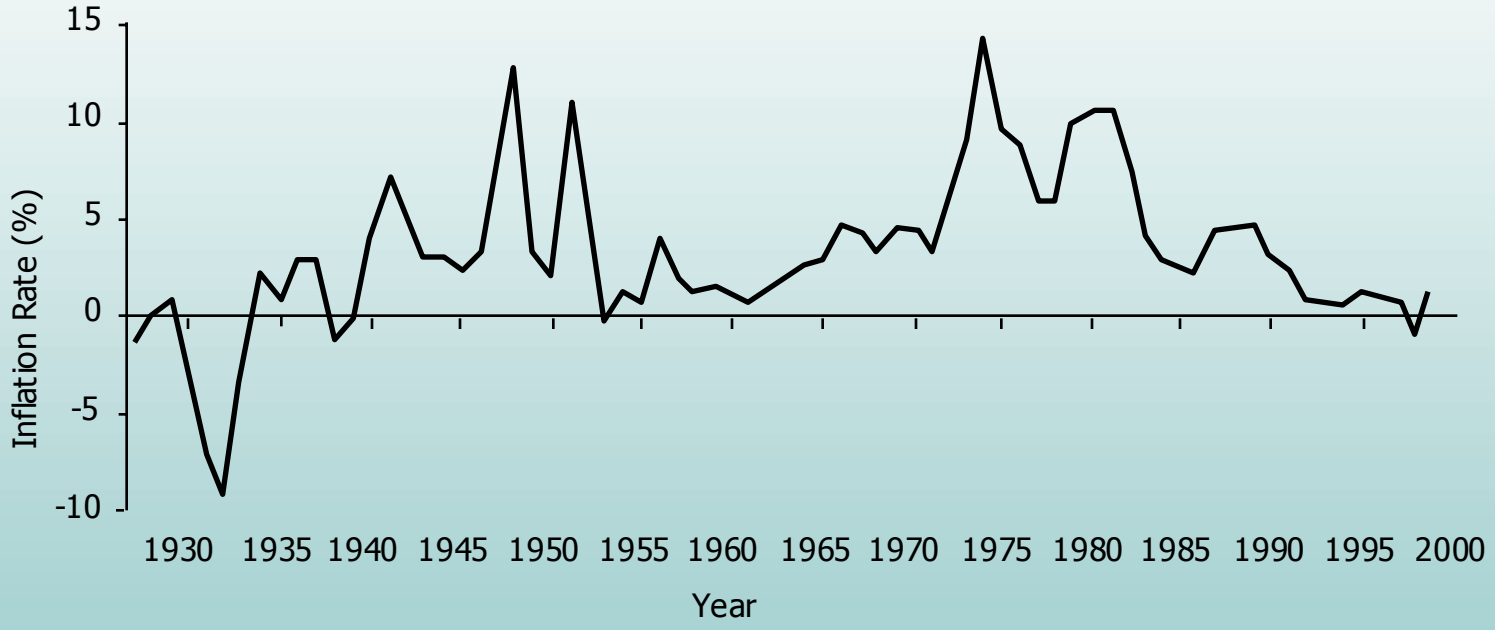
(1) Year	(2) Nominal GDP (current $ billions)	(3) GDP Deflator (1992 = 100)	(4) Real GDP (1992 $ billions) [(2) ÷ (3)] x 100
1968	$76.3	23.47	$325.1
1992	698.5	100.00	698.5
2000	1038.8	112.73	921.5

Nominal Versus Real GDP

- Nominal GDP
  - is expressed in current dollars
- Real GDP
  - is expressed in base-year dollars
  - equals nominal GDP divided by the GDP deflator (expressed in hundredths)

The Inflation Rate

Figure 10.5, Page 242



Inflation's Effects (a)

- Inflation redistributes purchasing power in arbitrary ways because of various types of indexation
  - full indexation (nominal income rises at the inflation rate)
  - partial indexation (nominal income rises at less than the inflation rate)
  - fixed incomes (nominal income stays constant)

Inflation's Effects (b)

- Inflation can also redistribute purchasing power between borrowers and lenders
  - borrowers win if actual inflation > anticipated inflation
  - lenders win if actual inflation < anticipated inflation
  - borrowers and lenders are unaffected if actual inflation = anticipated inflation

The Labour Force Survey (a)

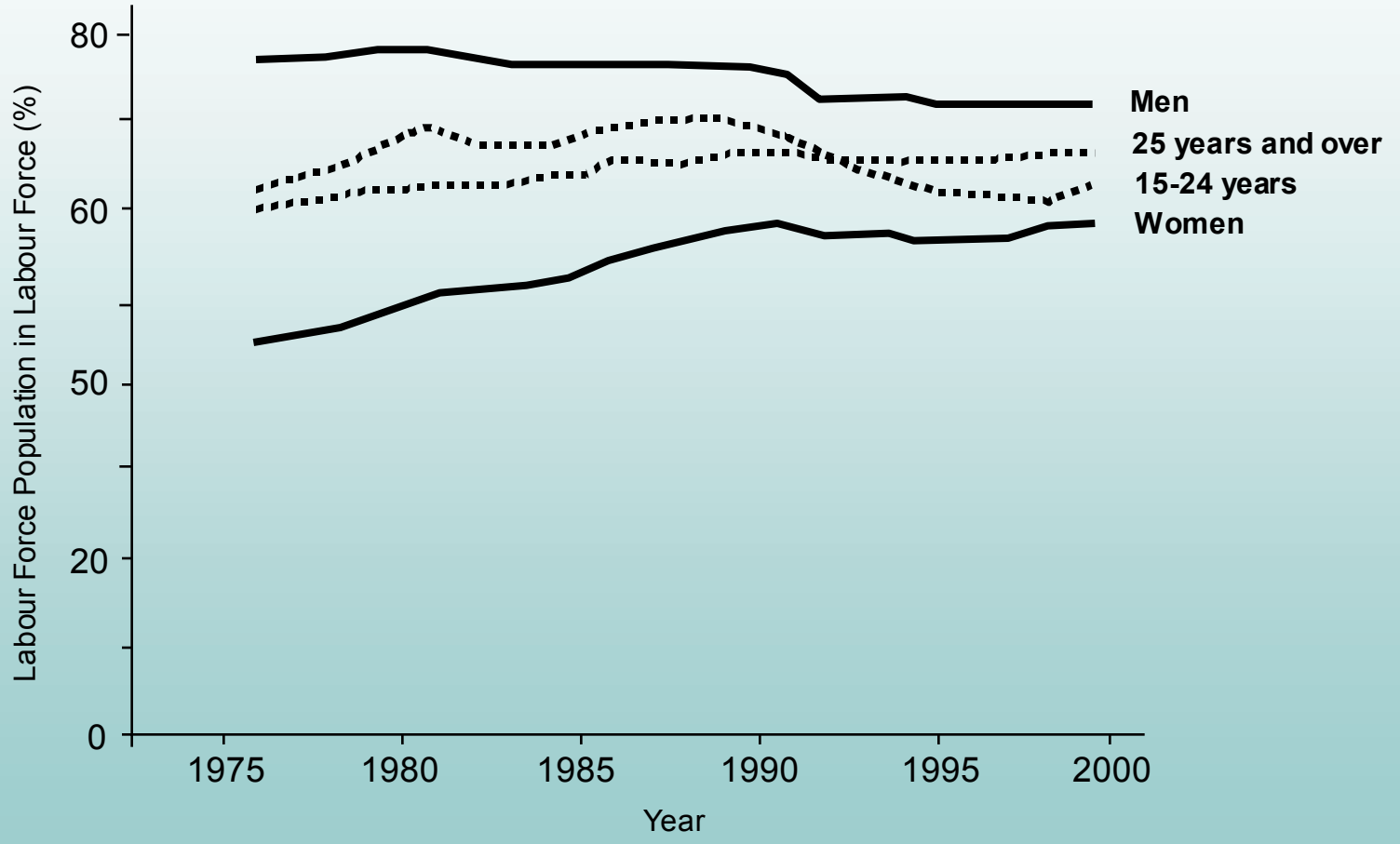
- The labour force survey tracks a randomly selected sample of Canadian households
- The survey measures
  - the labour force population, which includes Canadians 15 years of age or over, with specific exclusions
  - the labour force, which includes all those who either have a job or are actively seeking employment

The Labour Force Survey (b)

- The survey also measures
  - the participation rate which is the percentage of the labour force population that makes up the labour force
  - the official unemployment rate which is the number of unemployed people in the labour force as a percentage of the entire labour force

Participation Rates

Figure 10.6, Page 246



The Canadian Labour Force (2000)

Figure 10.7, Page 246

$$\text{Participation rate} = \frac{\text{labour force}}{\text{labour force population}} \times 100 = \frac{15\,999\,000}{24\,285\,000} \times 100 = 65.9\%$$

$$\text{Unemployment rate (\%)} = \frac{\text{Unemployed in labour force}}{\text{labour force}} \times 100 = \frac{1\,090\,000}{15\,999\,000} \times 100 = 6.8\%$$

Drawbacks of the Official Unemployment Rate

- There are three main drawbacks of the official unemployment rate
  - it does not include underemployed workers who are underutilized either as part-time workers or by working at jobs not appropriate to their skills or education
  - it excludes discouraged workers who are unemployed and have given up looking for work
  - it may depend on dishonest responses

Types of Unemployment

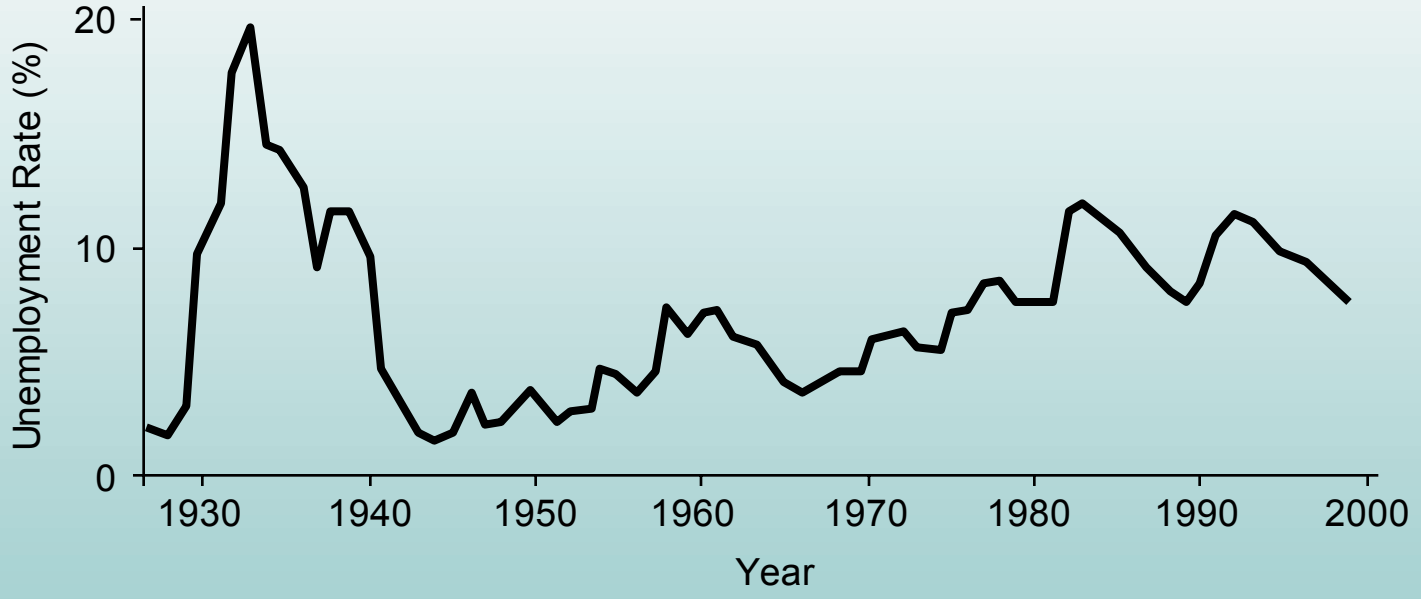
- There are four types of unemployment
  - frictional unemployment is due to being temporarily between jobs or looking for a first job
  - structural unemployment is due to a mismatch between people and jobs
  - cyclical unemployment is due to fluctuations in output and spending
  - seasonal unemployment is due to the seasonal nature of some occupations and industries

Full Employment

- Full employment
  - is the highest reasonable expectation of employment for the economy as a whole
  - is defined in terms of the natural unemployment rate, which includes frictional and at least some structural unemployment
  - in Canada is presently associated with an unemployment rate between 6% and 7%

The Unemployment Rate

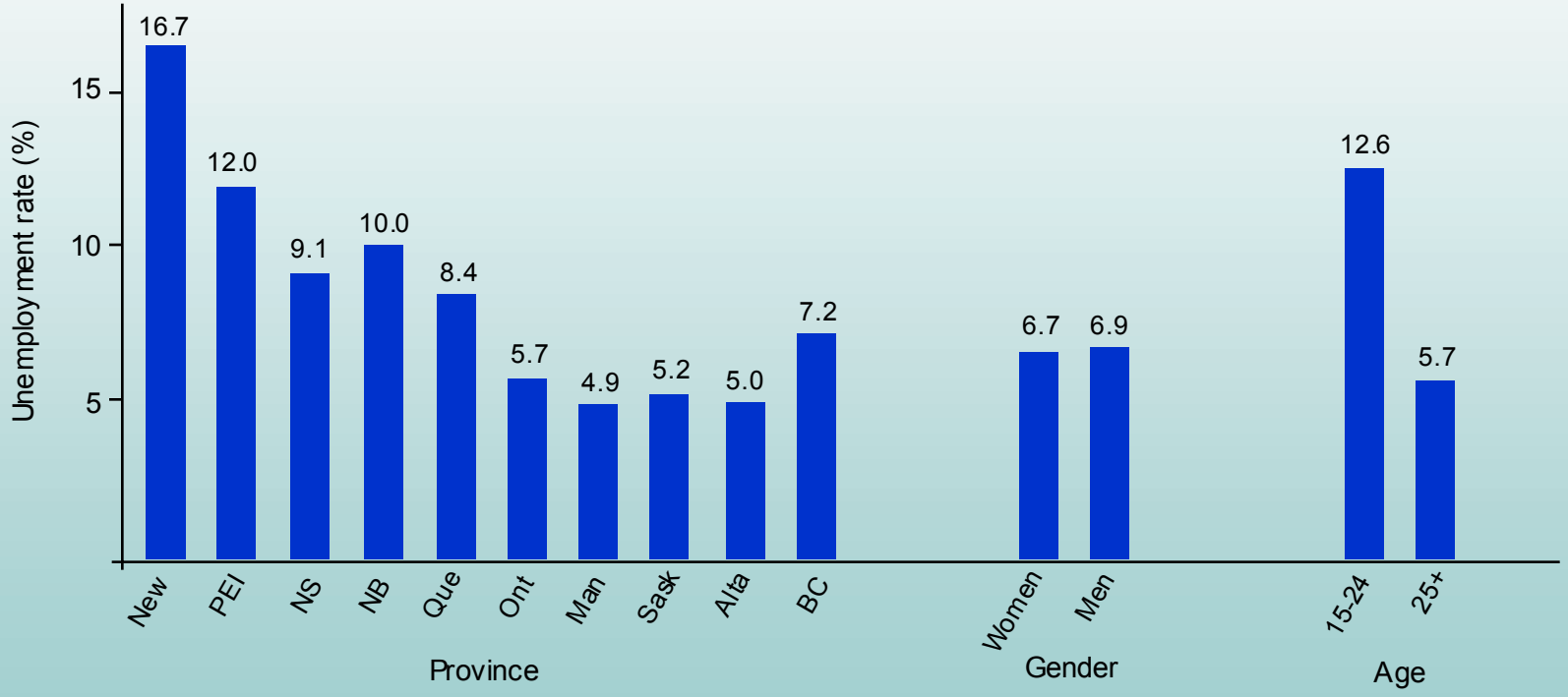
Figure 10.8, Page 249



The Rise in the Natural Unemployment Rate

- In recent decades Canada's estimated natural unemployment rate rose because of several main trends
  - structural change, with shrinking manufacturing and expanding services
  - past reforms to unemployment insurance (some of which have been reversed)
  - higher minimum wages in many provinces

Unemployment Rates by Province, Gender, and Age (2000) Figure 10.9, Page 251



The Costs of Unemployment

- High unemployment hurts individuals and the Canadian economy as a whole
- The cost of unemployment for the entire economy can be measured by the difference between actual real output and potential output which is the real output associated with full employment

Okun's Law

- According to Okun's Law for every % point that the unemployment rate exceeds the natural unemployment rate the gap between potential output and real output is 2.5%

Boom Bust & Echo (a)

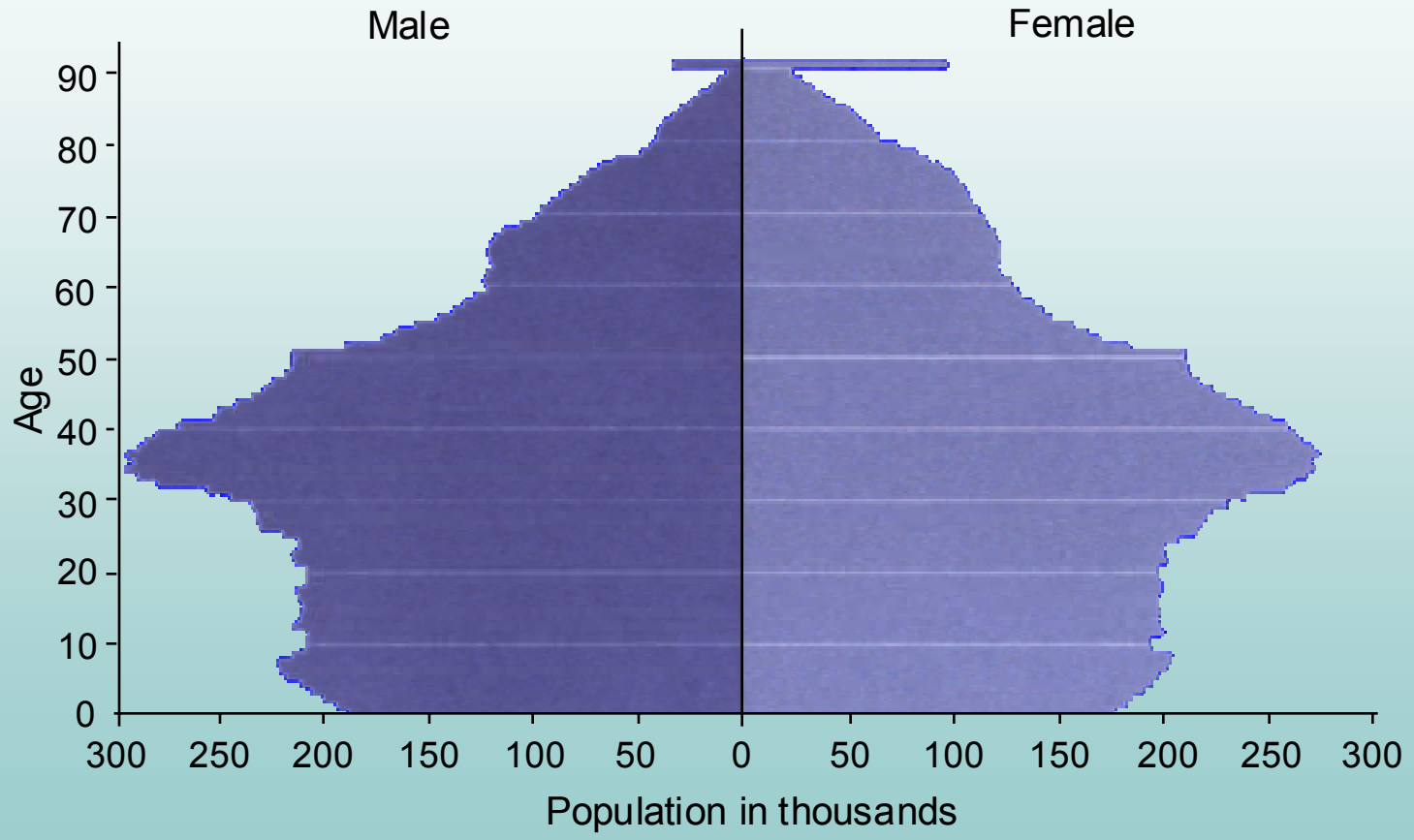
- David Foot suggests that our ages can give us insights into our economic futures
  - the baby boom generation (born between 1947 and 1966) which includes Generation X (born between 1960 and 1966)
  - the baby bust generation (born between 1967 and 1979)
  - the baby boom echo (born between 1980 and 1995) which includes Generation X-II (born between 1990 and 1995)

Boom Bust & Echo (b)

- According to Foot
  - economic conditions are easiest for the baby bust generation and the first parts of the baby boom generation and baby boom echo
  - economic conditions are hardest for Generation X and Generation X-II

Canada's Population Pyramids, 1998

Figure A, Page 257



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The End