

Exercise walk-through

2.3

Unemployment

AP Macroeconomics

Measuring unemployment

Labor force : employed plus unemployed (available and actively looking).

Fictional working-age population: 200 million

Employed 150; unemployed 10; outside the labor force 40.

$$LF = 150 + 10 = 160 \text{ million}$$

$$u = \frac{10}{160} \times 100 = 6.25\%, \quad LFPR = \frac{160}{200} \times 100 = 80\%$$

Part-time workers count as employed, even if they want full-time work. **Discouraged workers** have stopped looking and are outside the labor force.

Three types of unemployment

Classify the cause, not the person

Graduate seeks a first job

Frictional
takes time.

: job search

Factory closes after automation; worker's skills do not match vacancies

Structural
match.

: skills mis-

Hotel cuts jobs as demand falls in a recession

Cyclical
demand.

: weak aggregate

**Natural rate
ment**
be zero.

= frictional + structural. At **full employ-**

, cyclical unemployment is zero; actual unemployment need not

The natural rate, and the business cycle

AP 2024 Set 1, Q1(a)

Actual unemployment 8%; cyclical 3%; frictional 4%.

$$u_n = 8 - 3 = 5\%$$

Structural unemployment:

$$5 - 4 = 1\%$$

Why did the measured rate fall?

Start: 150 employed, 10 unemployed.
Now 5 stop looking; no new jobs.

$$u = \frac{5}{155} \times 100 = 3.23\%$$

$$LFPR = \frac{155}{200} \times 100 = 77.5\%$$

The **natural rate of unemployment** excludes cyclical unemployment.
A lower measured rate alone does not prove job creation.

Exercises 2.1-2.3

2.1 Write the formula for the unemployment rate.

[1]

2.2 A country has 90 million employed and 10 million unemployed. Find the unemployment rate.

[2]

2.3 Name the three types of unemployment.

[2]

Exercises 2.1-2.3

2.1 Write the formula for the unemployment rate.

[1]

2.1

- $$\text{unemployment rate} = \frac{\text{unemployed}}{\text{labour force}} \times 100$$

2.2 A country has 90 million employed and 10 million unemployed. Find the unemployment rate.

[2]

2.2

- labour force = 100 million;
$$\text{rate} = \frac{10}{100} \times 100 = 10\%$$

2.3 Name the three types of unemployment.

[2]

2.3

- frictional, structural, cyclical

Exercises 3.1-3.2

3.1 The natural rate of unemployment equals

[1]

☐

- A cyclical unemployment only
- B frictional plus structural unemployment
- C all three types added together
- D zero

3.2 A worker laid off during a recession is

[1]

☐

- A frictionally unemployed
- B structurally unemployed
- C cyclically unemployed
- D not unemployed

Exercises 3.1-3.2

3.1 The natural rate of unemployment equals

[1]

- ☐ **A** cyclical unemployment only
B frictional plus structural unemployment
C all three types added together
D zero

3.1 B

- frictional plus structural unemployment.

3.2 A worker laid off during a recession is

[1]

- ☐ **A** frictionally unemployed
B structurally unemployed
C cyclically unemployed
D not unemployed

3.2 C

- cyclically unemployed.

Exercise 3.3 (a)

3.3 A country has a labour force of 50 million, of whom 46 million are employed.

(a) Find the number unemployed.

[1]

Exercise 3.3 (a)

3.3 A country has a labour force of 50 million, of whom 46 million are employed.

(a) Find the number unemployed.

[1]

(a)

- $50 - 46 = 4$ million

Exercise 3.3 (b)

3.3 A country has a labour force of 50 million, of whom 46 million are employed.

(b) Find the unemployment rate.

[2]

Exercise 3.3 (b)

3.3 A country has a labour force of 50 million, of whom 46 million are employed.

(b) Find the unemployment rate.

[2]

(b)

- $\frac{4}{50} \times 100 = 8\%$