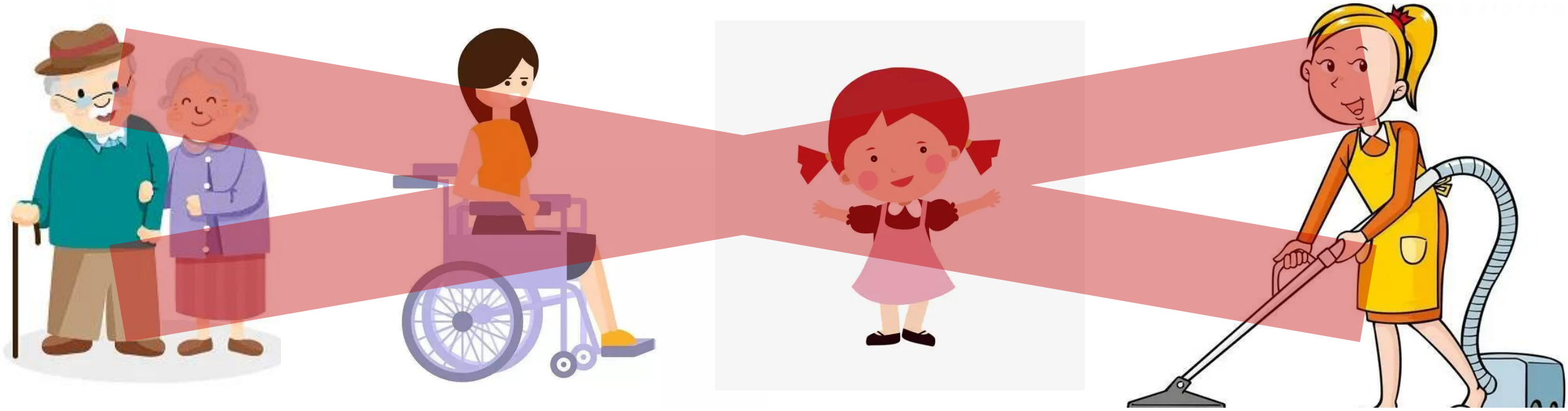


A magnifying glass is positioned over a newspaper's 'JOB MARKET' section. The text 'JOB MARKET' is printed in large, bold, red capital letters. Below it, the word 'EMPLOYMENT' is visible in large, bold, black capital letters. A red rectangular box is overlaid on the lower half of the image, containing the text 'Low unemployment' in white. The background shows various job categories and their corresponding numbers, such as 'Accounting' (107), 'Administrative' (110), 'Automotive' (129), 'Banking' (106), 'Business Development' (150), 'Computer Supply' (111), 'Construction' (199), 'Distribution' (115), 'Food Service' (158), 'Healthcare' (118), 'Hospitality' (132), 'Information Technology' (120), 'Insurance' (110), 'Inventory' (107), 'Legal Administrative' (106), 'Legal Employment' (150), 'Legal Employment/Maintenance' (111), 'Installation/Maintenance' (199), 'Management' (115), 'Manufacturing' (158), 'Marketing' (118), 'Media/Journalism' (132), 'Non-Profit & Social' (120), 'Other' (110), 'Part-Time' (107), 'Pharmaceutical' (150), 'Professional' (111), and 'Public' (158).

**Low
unemployment**

Not included in labour force and unemployment



People who do not belongs to the workforce

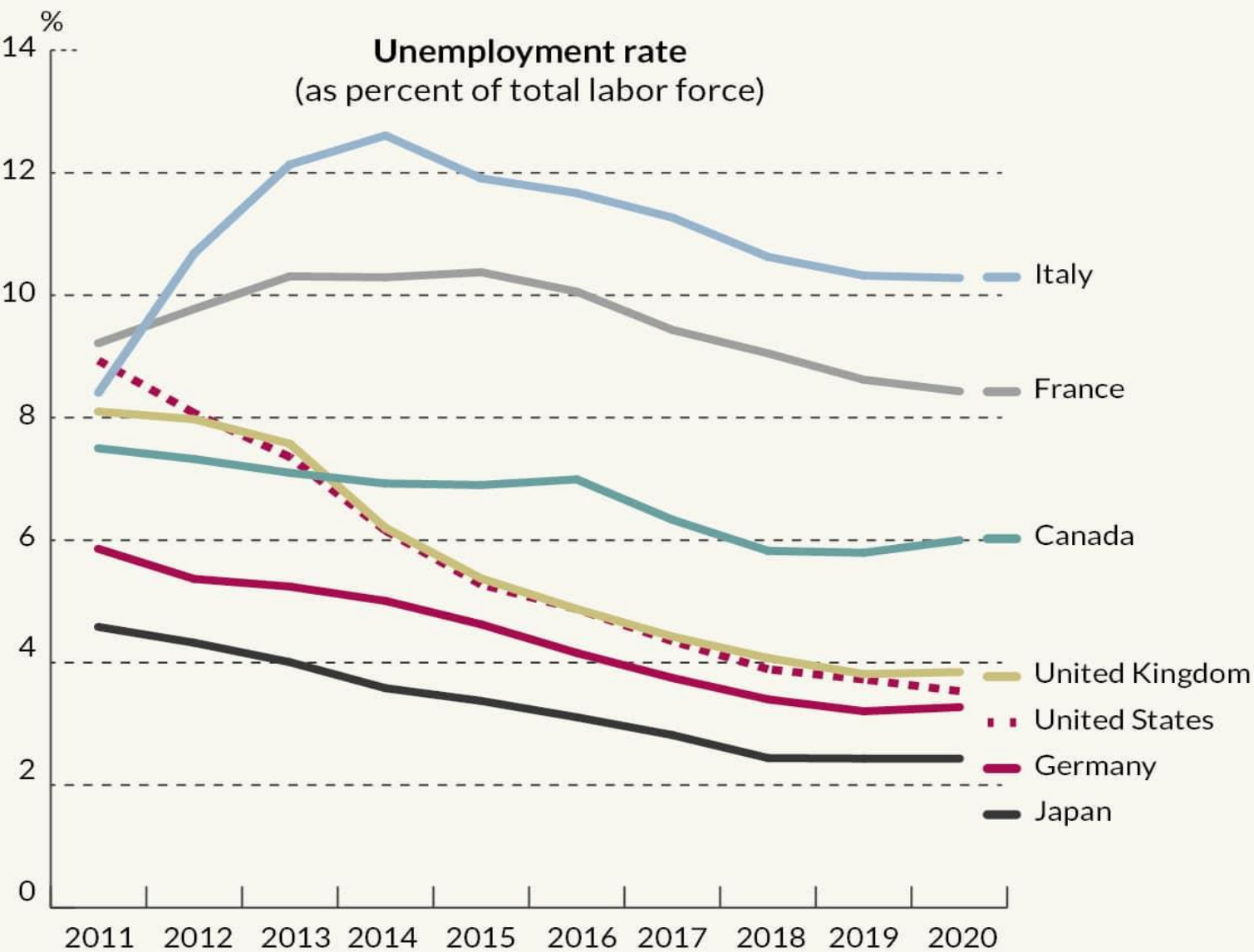
- children
- Students
- Stay at home parents
- Retired people
- Those who choose not to work
- Those who cannot work (e.g. disabled)

Something more about unemployment

- The **legal ages** to start work and to retire vary with countries.
 - The United Nation's international Labour Organization (ILO) states 15 as the minimum age enter the labour force.
 - There is no upper limit, but many countries use a range between 65-70.
- It is surprisingly **difficult to measure** the size of the labour force and the unemployed people.
- Generally, information is gathered from national censuses and surveys as well as unemployment insurance records and social security information.
- Generally, if the unemployment rate is low it would appear that this economy is doing well but there could still be room for improvement.



FIGURE 2: **G7 Unemployment Rates**



Change in unemployment rate
(in percentage points)

	Change between 2011 and 2016	Change between 2011 and 2020
France	3.3	-1.6
Italy	5.0	-1.4
United States	-3.2	-1.3
Canada	0.8	-1.0
United Kingdom	-0.5	-1.0
Germany	-4.1	-0.9
Japan	-1.7	-0.7

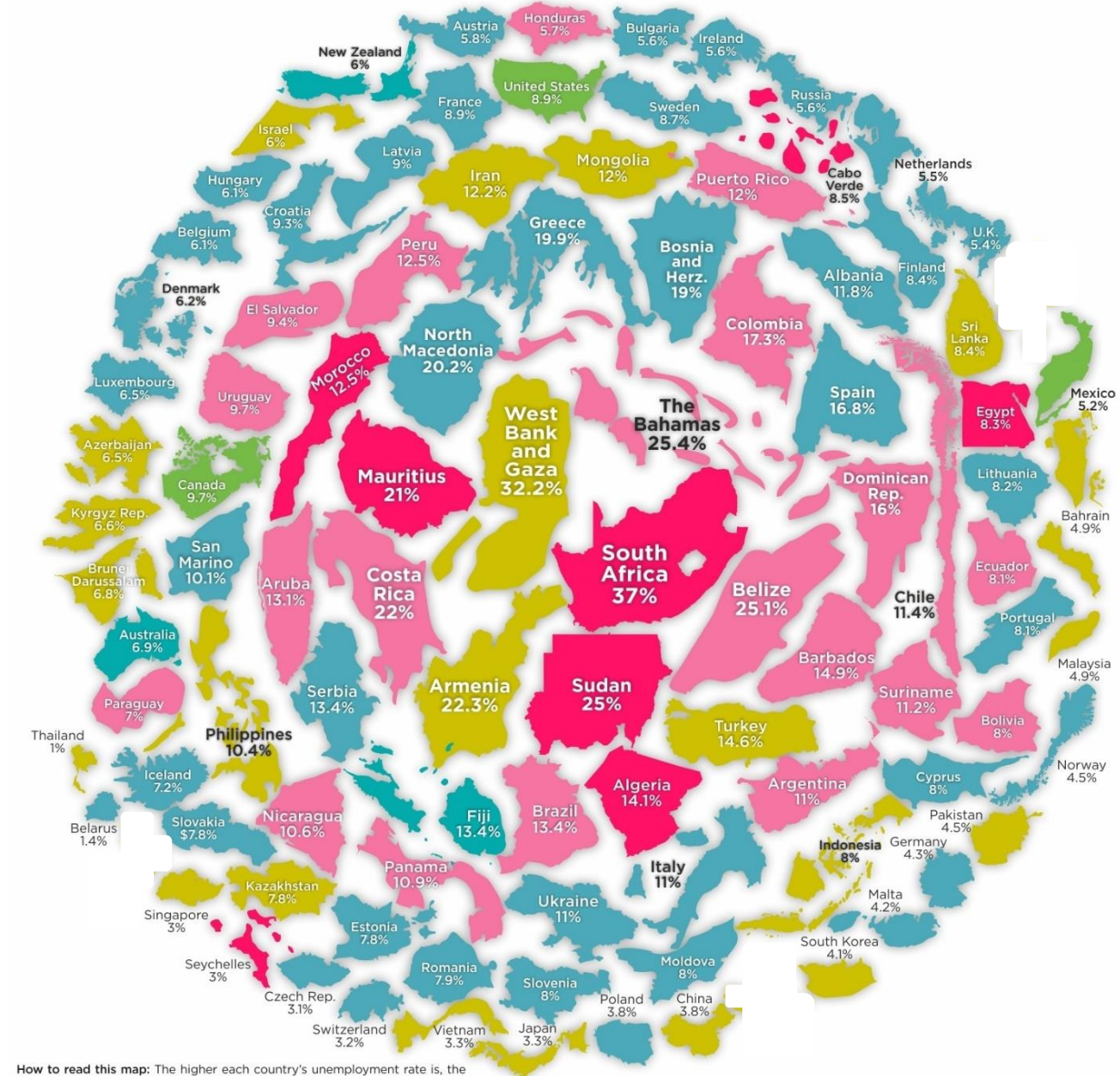
Source: International Monetary Fund, World Economic Outlook Database, October 2019. Estimates start after 2018 (Japan: 2017).

The Snowball of Unemployment in 2020

Unemployment Rate Around the World

World Regions

Europe Asia North America Latin America and the Caribbean Africa Oceania



How to read this map: The higher each country's unemployment rate is, the closer to the center of the map it is. Countries with the highest unemployment

Calculating the Unemployment rate

Unemployment rate is a measure of the amount of unemployment in an economy, expressed as a percentage.

$$\text{Unemployment rate} = \frac{\text{No. of unemployed}}{\text{Labour force}} * 100$$

- The **labour force** is the number of people who are employed (working) + the number of people of working age who are unemployed.
- A fraction of the total population of a country excluding children, retired person, adult students, all people who cannot work and people do not want to work.
- Important indicator of economic performance.

Exercise 1

- Calculate the unemployment rate in an economy with a population of 45.2 million people, of whom 22.5 million are in the labour force, 1.2 million work part-time though they would rather work full time, and 1.8 million are looking for job but cannot find any.

$$\text{Unemployment rate} = 1.8/22.5 \times 100 = 8\%$$

Exercise 2

- Calculate the unemployment rate in an economy with a population of 57.7 million people, of which the labour force is 62%, and the number of employed are 32.9 million.

$$\begin{aligned}\text{Unemployment rate} &= [(57.7 \times 62\%) - 32.9] / (57.7 \times 62\%) \times 100 \\ &= 2.87 / 35.77 \times 100 = 8.02\%\end{aligned}$$

Underemployment

Underemployment refers to people of working age with part-time jobs when they would rather work full-time, or with jobs that do not make full use of their skills and education.



Unemployment

Underemployment

An economy is wasting
scarce resources by
not using them fully.



Difficulties in measuring unemployment

1. Official statistics often **underestimate** true unemployment because of **hidden unemployment**, arising from:

- a. **'Discouraged workers'**, who are unemployed workers who gave up looking for a job.
- b. **Underemployed:**
 - It do not make a distinction between full-time and part-time employment. It count people with part-time jobs as having full-time jobs though they are underemployed.
 - It make no distinction on the type of work done. If a highly trained person works as a waiter, this counts as fully employed.
- c. It do not include people on retraining programmes who previously lost their jobs, as well as people who retire early.

"I'm giving up looking for a job!"



"I wish this job was full-time."



"I am a qualified lawyer."

Difficulties in measuring unemployment

2. Official statistics may **overestimate** true unemployment, because:
- It do not include people working in the underground economy.
 - Unregistered, legally unregulated, not reported to tax authorities.
 - People may be officially registered as unemployed, but they are actually working in an unreported activity.



Difficulties in measuring unemployment

3. National unemployment rate is an **average over the entire population**, it does not account for differences in unemployment that often arise among different population groups in a society.

Unemployment may differ by

- **Region**: developed and underdeveloped industrial region
- **Gender**: male & female
- **Ethnic groups**: possible discrimination, lower levels of education and training
- **Age**: higher unemployment rate for youth group and elder people
- **Occupation and educational attainment**: skillful and unskillful labour

One of the key macroeconomic objectives



Low unemployment is a key macroeconomic objective because of:

- It **complements economic growth** because higher employment tends to lead to greater national expenditure. Hence low unemployment tends to increase economic well-being and the standards of living in an economy.
- **Increases tax revenues** from a range of sources
 - Income tax (from employment)
 - VAT/Sales taxes (from increased expenditure on goods and services)
 - Stamp duty (from the sale and purchase of private and commercial land and property)
 - and so on.
- **Reduces the burden on the government** because there is less need for tax payers to fund welfare benefits as more people are in employment.
- **Prevents a 'brain drain' from the economy**, whereby skilled workers pursue better employment opportunities in other countries.

Cost of unemployment (AO3)

The costs of unemployment can be categorized as economic costs, personal costs, social costs and, although in reality these are all interrelated.

1. Economic costs

① A loss of real output (real GDP)

- Real GDP < potential GDP.
- Unemployment represents an inefficient use of the economy's scarce resources, therefore it hinders the economy's potential output.
- Also it lead to a fall in its international competitiveness to compete with foreign rivals, both domestically and in overseas markets.

② A loss of income for unemployed workers.

- Unemployed labour are financially worse off by only receiving unemployment benefits rather than salary. It results in negative consequences for individuals and their families, and therefore the economy as a whole.
- if prolonged, unemployment can cause mass-scale poverty in the economy and further negative economic growth.

Cost of unemployment (AO3)

③ A **loss of tax revenue** for the government

- Unemployment results in lower income and expenditure, thus resulting in lower tax revenues for the government. (less income tax, less consumption, less indirect tax)
- This limits the ability of the government to take corrective measures to stabilize the economy.

④ Opportunity Costs to the government of **unemployment benefits**

⑤ Cost to the government of **dealing with social problems** resulting from unemployment.

⑥ Larger **budget deficit** or smaller budget surplus → government debt

- Government tax revenue < government expenditure → budget deficit
- Government tax revenue > government expenditure → budget surplus

⑦ More **unequal distribution of income**

- Unemployed people become poorer, employed people are able to maintain their income levels.
- Increasing income inequalities and poverty
- Persisting high unemployment rate will lead to increased social tensions and social unrest.

Cost of unemployment (AO3)

- ⑧ Unemployed people may have **difficulties finding work in the future**.
- hysteresis, “lagging behind of employment”.
 - Unemployed workers partly lose their skills
 - New skills required
 - Firms find ways to manage with fewer workers
- High unemployment rates in the present may mean continued high unemployment rates in the future, even when economic conditions become more favorable.

Cost of unemployment (A03)

2. Personal costs

- **Poverty** – The lack of income means the unemployed may experience poverty, including hunger, lower standards of living, malnutrition and poor health. Prolonged periods of unemployment can lead to personal bankruptcy and homelessness.
- **Loss of self-esteem** – The long-term unemployed may lack self-confidence, self-worth and self-respect. This can be damaging for both their physical and mental well-being.
- **Stress** – Psychological stress and depression, lower levels of health, possible suicide.
- **Family breakdowns** – Family tensions and arguments, lead to family breakdowns of separation and divorce.



Cost of unemployment (AO3)

3. Social costs

- **Crime and anti-social behavior** – as unemployment causes personal costs such as deprivation and desperation, this can lead to increased crime and antisocial behavior, such as theft, alcoholism and vandalism.
- **Indebtedness** – low income, caused by unemployment, leads to increased indebtedness for individuals, firms and the government.
- **Persistent indebtedness**, especially unaffordable debt, can cause **bankruptcies**, which can cause hunger, disease, drug addiction, homeless, crime and other social problems.
- **Social deprivation** – The local community can suffer if there is mass unemployment, such as structural unemployment in a particular region of the country. These social costs include absolute poverty, falling house prices (and other asset values), and increased crime rates.



Main types of unemployment



Seasonal

Regular seasonal changes in employment / labour demand



Structural

Arises from the mismatch of skills and job opportunities as the pattern of labour demand in the economy changes



Frictional

Transitional unemployment due to **people moving between jobs**



Cyclical

Caused by a **fall in aggregate demand** leading to a decline in GDP and employment

Types and causes of unemployment

1. Structural unemployment

Structural unemployment is a type of unemployment that occurs as a result of **technological changes and changing patterns of demand** (causing changes in demand for labour skills), as well as **changes in the geographical location** of industries & jobs, and **labour market rigidities** (lack of labour market flexibility)

→ changing structure of an economy.

- Structural unemployment happens when there is a **mismatch between the skills people have learned and the skills the job market requires.**



Types and causes of unemployment

1. Structural unemployment

Reasons for structural unemployment:

- a. **Changes in demand for particular labour skills** due to:
 - Technological change → need for new types of skills
 - Changes in the structure of the economy → growing industries and declining industries.
- b. **Changes in the geographical location of jobs**
 - Relocation of firms and industries

* A certain amount of structural unemployment is unavoidable in any dynamic, growing economy, and is considered to be part of 'natural unemployment'



Geographical
immobility



Outsourcing of
production
overseas



Decline of
manufacturing



Robotics
replacing jobs



Occupational
immobility



Long term
regional decline

Types and causes of unemployment

1. Structural unemployment

- Structural unemployment is more serious than the other two natural unemployment type. It tends to result in **long term unemployment**.
 - **occupational immobility** - People who lose their jobs in one area lack the necessary skills to take on the newly created jobs
 - **geographical immobility** - If there are other jobs in other parts of the country but people are not willing or able to move
- E.g. The U.K has suffered from structural unemployment in the motor manufacturing, shipbuilding, coal mining, steel manufacturing and textiles industries. Typically, these industries locate in certain areas of regions of the country, so structural unemployment is often associated with regional unemployment.

The labour market

- The demand for labour in an economy is dependent on demand for goods and services (aggregate demand)
- The labour market equilibrium exists when the aggregate demand for labour AD_L is equal to the aggregate supply of the labour AS_L .

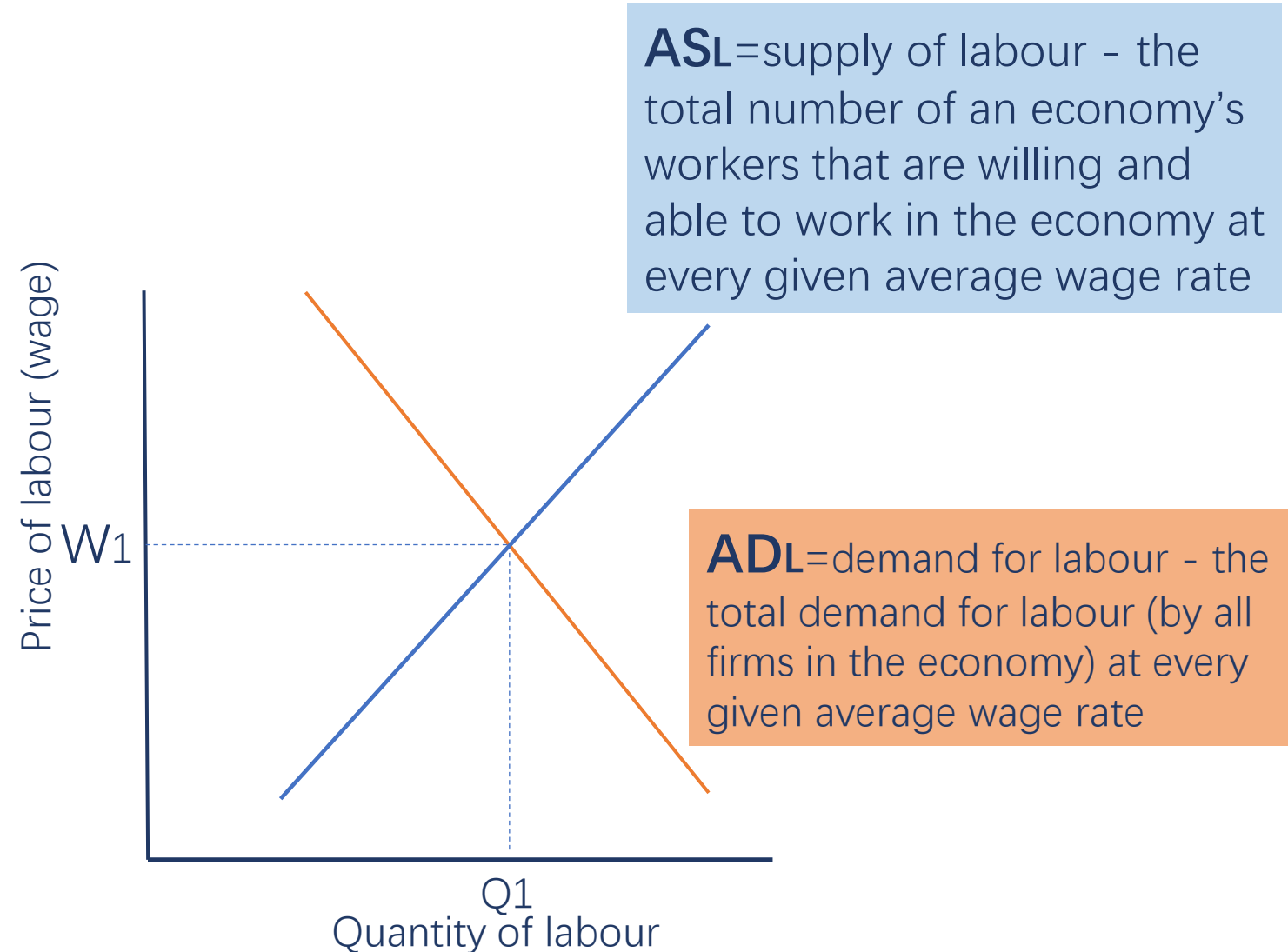
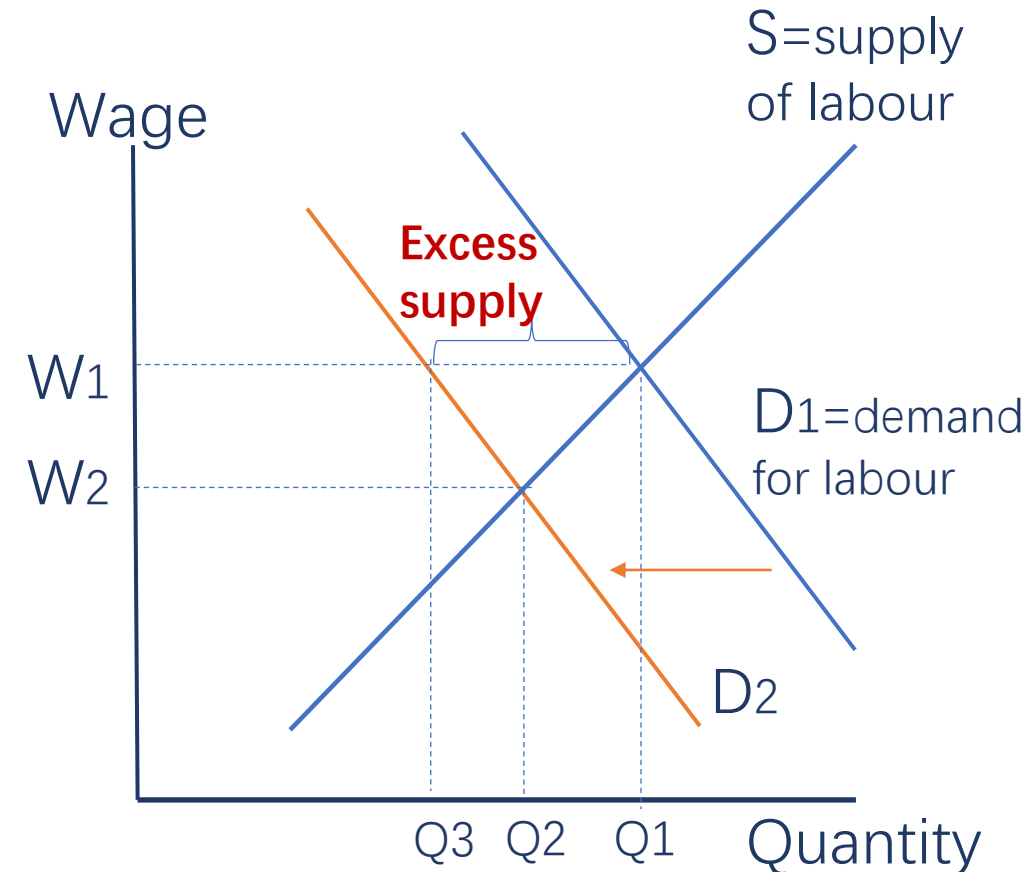


Illustration of structural unemployment

- Diagram shows the labour market for particular industry (or market) or for a particular geographical area.
- Initial equilibrium is determined by S and D_1 at W_1 and Q_1 .
- The demand of Labour decrease due to a change in the structure of the economy shifting from D_1 to D_2 .
- If market forces worked perfectly, at the lower wage W_2 , only Q_2 workers would want to work. → no excess supply.
- But because wage remain at W_1 due to wage inflexibility in short-term, it leads to **excess supply** of $(Q_1 - Q_3)$

→ **structural unemployment.**



Types and causes of unemployment

1. Structural unemployment

- Reasons for structural unemployment:

- c. **Labour market rigidities** are factors preventing the forces of supply and demand from operating in the labour market:

- Minimum wage legislation

- higher than equilibrium wages

- Labour union activities and wage bargaining with employers

- higher than equilibrium wages

- Employment protection laws

- costly for firms to fire workers, making firms more cautious about hiring

- Generous unemployment benefits

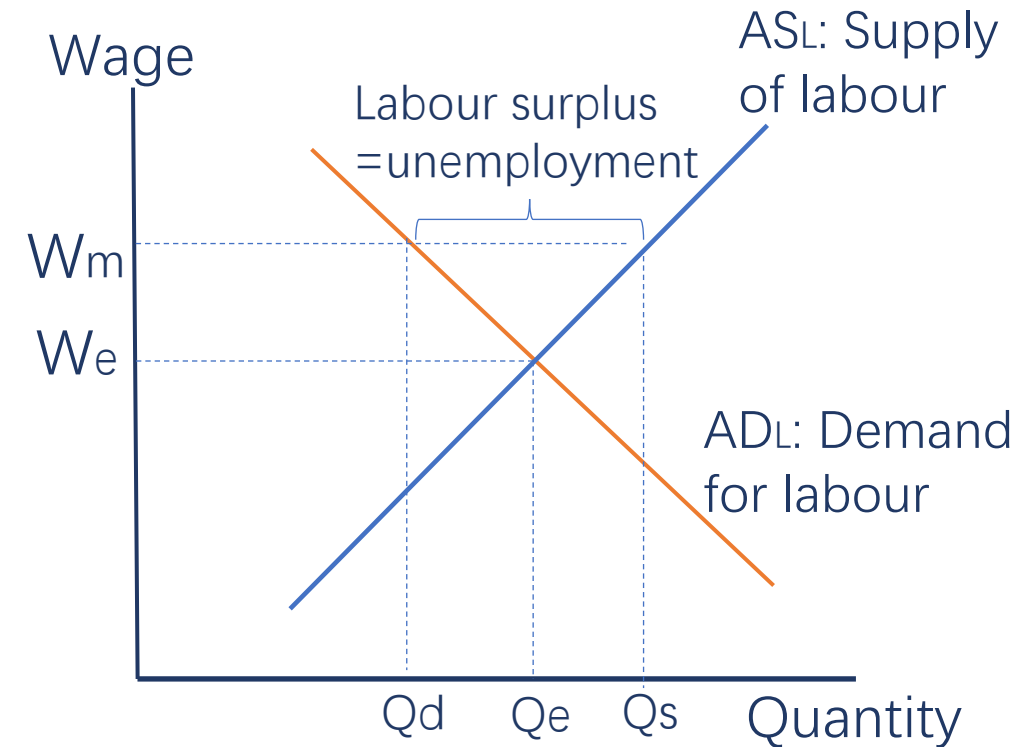
- increase the attractiveness of remaining unemployed



Higher unemployment rate

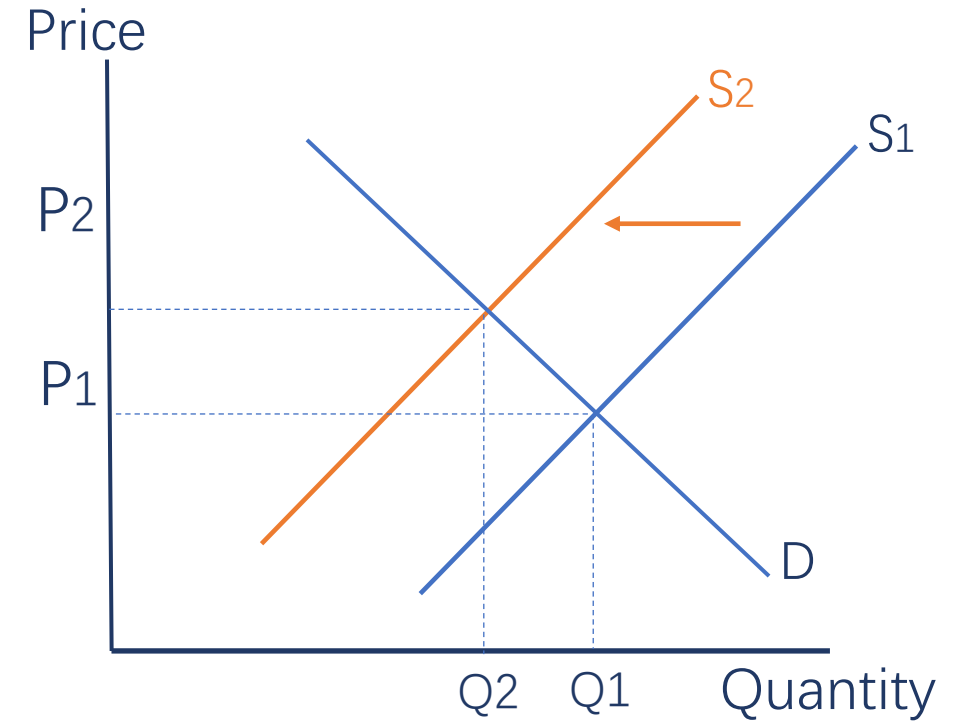
Illustration of labour market rigidities

- Equilibrium exists at a wage rate of W_e , where the AD_L is equal to the AS_L in the economy.
 - The higher wage caused by minimum wages and labour union activities raises labour costs for firms, so reduce the demand for labour to Q_d , on the other hand, there is a greater incentive for workers to offer their labour services thus increasing the supply of labour to Q_s .
 - **Minimum wages and labour union activities** lead to higher than equilibrium wages $W_m > W_e$ in labour market diagram (price floor)
- There is excess supply (surplus). **Unemployment** of labour $Q_s - Q_d$.



Indirect Illustration of labour market rigidities

- The unemployment arising from minimum wage legislation, labour union activities and employment protection laws can also be shown indirectly, through a Product supply and demand curve
- **Higher than equilibrium wage** and **employment protection** lead to higher costs of production for firms
- Firms' supply curve shift to the left from S_1 to S_2 , produce less output from Q_1 to Q_2
- Firms hire smaller quantity of labour
- **Structural Unemployment**



Solutions to structural unemployment

- Encouraging workers to retrain and obtain new skills
 - ✓ An education system that trains people to be more occupationally flexible
 - ✓ Adult retraining programmes
 - Encourage workers to relocate to areas with greater employment opportunities
 - ✓ Enhance geographic mobility by building affordable housing or give subsidies/tax breaks
 - Providing incentives to firms to hire structurally unemployed workers
 - ✓ Government gives subsidies to firms that hire structurally unemployed workers and provide training for workers
- * Will be discussed in details in chapter 13.

Frictional unemployment

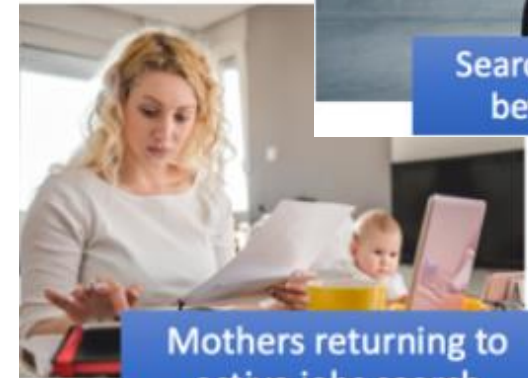
- Frictional unemployment occurs when workers are in-between jobs.
 - Fresh graduates or first time seekers
 - Job resignees leave their old jobs but haven't yet found new ones
 - Re-entrants from a career break
- It tends to be short term and less serious.
- Cause of frictional unemployment: incomplete information between employers and workers regarding job vacancies and required qualifications.
- A certain amount of frictional unemployment is inevitable in any growing, changing economy
- Part of natural unemployment



School and college leavers



Searching for work in between careers



Mothers returning to active jobs search



Early-retired coming back to the labour market

Solutions to frictional unemployment



- Unemployment benefits should not be at a level that removes the incentive to work
 - If unemployment benefits were reduced, unemployed workers might become more willing to work (shift the aggregate supply of labour to the right)
- Improve awareness of available jobs

Seasonal unemployment

- Seasonal unemployment occurs when the demand for labour in certain industries changes on a seasonal basis because of variations in needs.
 - Farm workers
 - Workers in tourist industry
 - Restaurant staff in a resort town in low season
 - Ice-cream retailers during the winter
 - Ski instructors during the summer
 - “Santa Claus in July”...
- Seasonal unemployment is unavoidable in any economy, so it is also part of natural unemployment.



Solutions to seasonal unemployment

- Diversifying the economy to cater for goods and services irrespective of the seasons, such as developing opportunities to provide tourism services during the winter months.
- Government retraining programs to improve the occupational and/or geographical mobility of those who are seasonally unemployed.

Natural unemployment

“natural unemployment is the unemployment under full employment”

- **Natural unemployment** is the unemployment that occurs when the economy is producing at its potential or full employment level of output (real GDP).

Natural
employment

=

Structural
unemployment

+

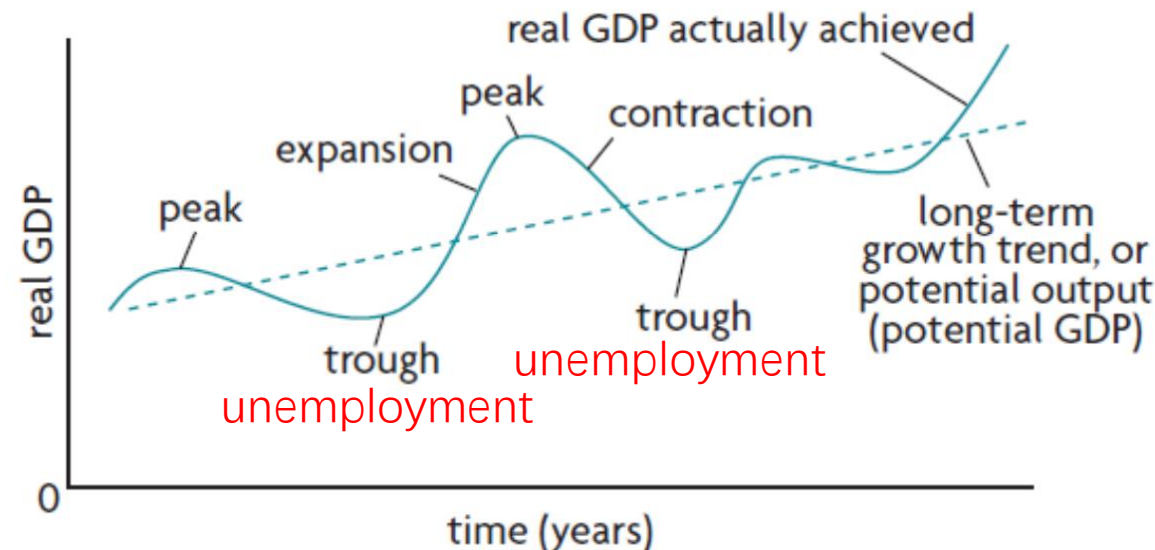
Frictional
unemployment

+

Seasonal
unemployment

Cyclical (demand-deficient) unemployment

- **Cyclical unemployment** occurs during the **downturns** of the **business cycle**, when the economy is in a deflationary/recessionary gap.
- Then downturn is seen as arising from **declining or low aggregate demand (AD)**, so is also known as **demand-deficient unemployment**.
 - Most severe type of unemployment as it can affect every industry in the economy.



Cyclical (demand-deficient) unemployment

Cyclical unemployment usually results in mass job losses as firms cut back on workers due to reduced sales, fears of an economic recession, and insufficient consumer demand.

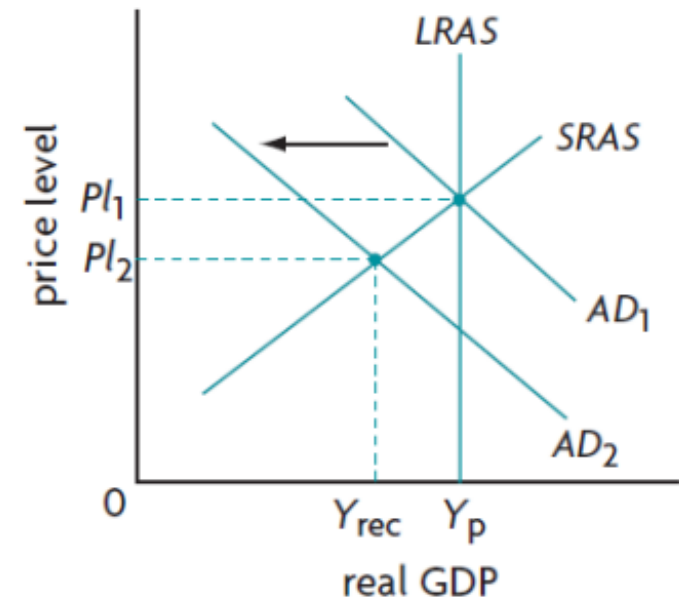
E.g. the global financial crisis of 2008 caused huge unemployment in Spain, rising from 8% before the crisis to 26.94% in 2013.



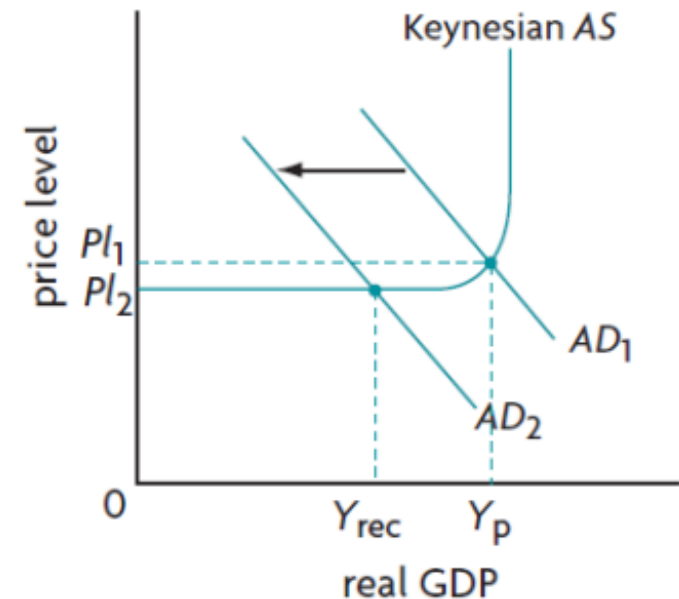
Illustration of cyclical unemployment

- The economy is initially producing potential output Y_p , with zero cyclical unemployment.
 - A fall in aggregate demand, the economy operates below the full employment equilibrium, that is the level of aggregate demand is insufficient(deficient) to create full employment.
 - It causing AD_1 to shift to AD_2 , real GDP decrease from Y_p to Y_{rec} .
- Deflationary/recessionary gap.
- The new unemployment created is **cyclical unemployment**.

a The monetarist/new classical model



b The Keynesian model



The four types of unemployment in relation to the AD-AS model

