

UNEMPLOYMENT

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Introduction

- We talked about GDP (Gross Domestic Product) as the most important measure of macroeconomic performance.
- Note that, as shown by the circular flow diagram, national output cannot be produced without factors of production.
- Factors of production are key in the production process and the specific factor we will focus on in this chapter is *labor*.
- If nations seek to get a higher GDP, they need to do their best to create jobs for more people, so that more output can be produced.
- It follows that if a bigger GDP is the sign of a healthy economy, a low *unemployment rate* (= a high employment rate) is a necessary condition.

Introduction (2)

- The labor force is defined as the total number of individuals in an economy who are either employed or seeking for a job.
- *The unemployment rate (u) is the percentage of the labor force without a job*
- Economists distinguish between 3 types of unemployment:
 - Structural unemployment
 - Frictional unemployment
 - Cyclical unemployment

Structural unemployment

- As economies evolve, new and more efficient methods and techniques for producing or for achieving tasks are developed.
- A long time ago, documents were typed with typewriters. Today, we use computers and printers, which do a much faster job.
- The amount of agricultural products that can be produced from 1 acre of land today is much higher than what could be achieved a century ago because the farming techniques have evolved.

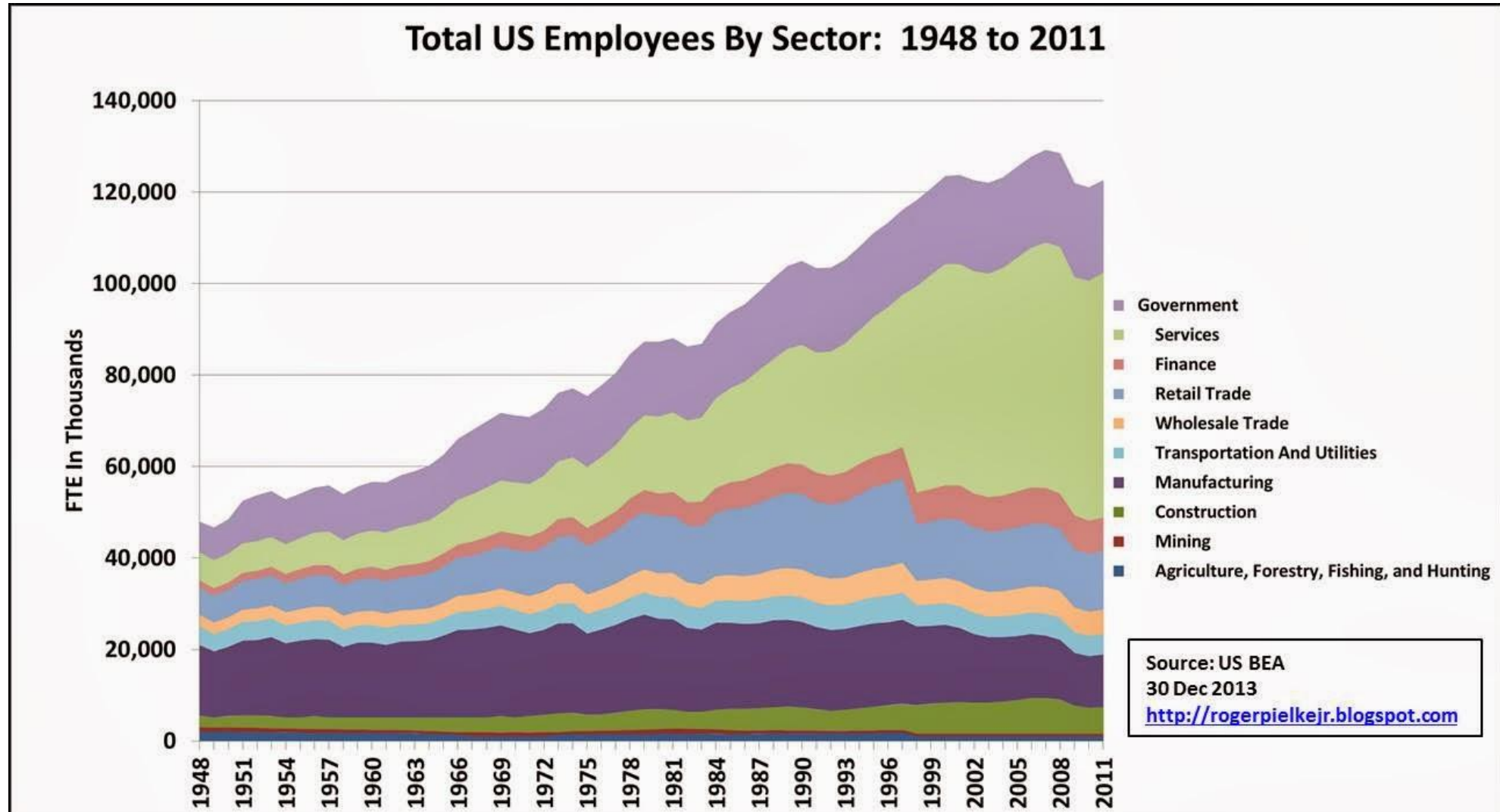
Structural unemployment (2)

- *Structural unemployment is the kind of unemployment that arises as a consequence of dynamic and evolving economies.* It is considered a “natural” type of unemployment.
- As new and advanced ways of working are developed, some sectors of the economy become obsolete.
- The workers in these sectors become inevitably unemployed as a result of changes in the makeup (structure) of the economy.
- Joseph Schumpeter (one of the most influential economists of the 20th century) coined the term *creative destruction* to describe this process of economic evolution.

Structural unemployment (3)

- For instance, some years ago, the post office was the exclusive way to send written messages to people who were far away.
- Today, the post office is mostly used to send packages. Therefore, the extra labor force they required to handle the delivery of letters was laid.
- This is an example of structural unemployment arising from creative destruction.
- The following chart shows how the level of employment changed in different sectors over time:

Structural unemployment (4)



Frictional unemployment

- Even when jobs are available and qualified employees live nearby, it takes time for job seekers and employers to find one another and agree on terms.
- Job seekers are always on the lookout for job opportunities but do not always look for them in the right place, so it takes time to find them.
- Similarly, when a company wants to hire, they do not just hire the first job applicant. They interview as many applicants as possible in order to choose the one best suited for the task... and it also takes time.

Frictional unemployment (2)

- *Frictional unemployment is caused by time delays in matching available jobs and prospective workers.* It is also considered a “natural” type of unemployment; it occurs even in the healthiest economies.
- Even if frictional unemployment is natural, its level can rise or fall over time.
- Let’s talk about two causes of changes in frictional unemployment:
 - Information availability
 - Government policies

Frictional unemployment (3)

- **Information availability**

- Imagine looking for a job in a world without the internet.
- You'd have to read a lot of newspaper ads, make a lot of phone calls, and probably make many in-person visits to firms where you would like to work.
- Today, most job searches are conducted online. Websites like linkedin.com, indeed.com and many others are quick and easy ways to get information about thousands of jobs.

Frictional unemployment (4)

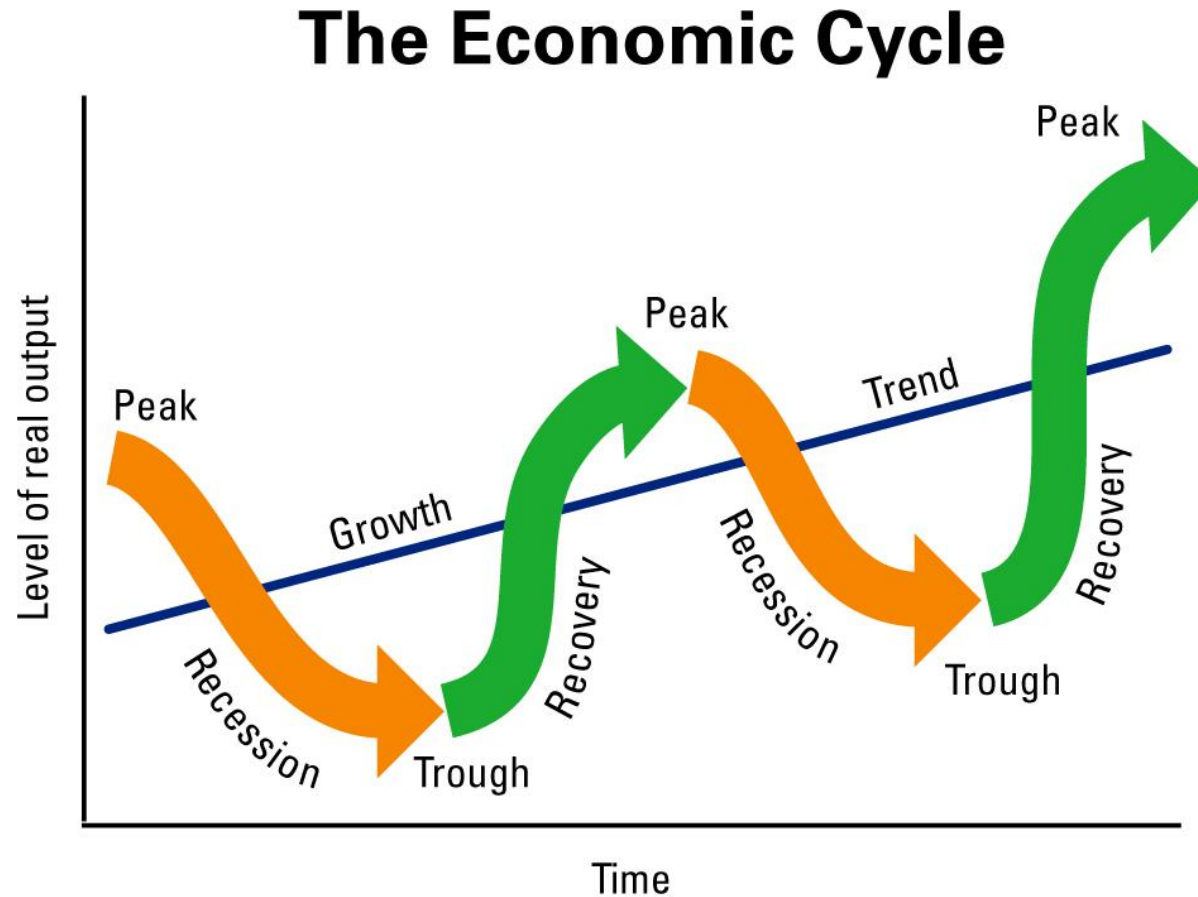
- **Government policies**

- Any factors that lengthen the job-search process increase frictional employment. These factors include government policies such as unemployment compensation and government regulations related to the hiring and firing of employees.
- An example is **unemployment insurance**. It's a government program that reduces the hardship of joblessness by guaranteeing that unemployed workers receive a percentage of their former income while they are unemployed.

Cyclical unemployment

- Every economy experiences a series of short-run fluctuations known as the business/economic cycle.
- The business cycle is marked by economic expansions followed by economic recessions/downturns.
- During economic expansions, the economy becomes healthier, output grows faster, prices become more stable, wages rise and the level of employment rises.
- During economic recessions, on the other hand, the price level rises quickly, firms produce much less output and therefore have to downsize.

Cyclical unemployment (2)



Cyclical unemployment (3)

- *Cyclical unemployment is the kind of unemployment that arises as a consequence of economic recessions/downturns.*
- This kind of unemployment generates the greatest concern among economists and policymakers.
- While both structural and frictional unemployment are both natural and occur as the economy evolves, cyclical unemployment is the result of an unhealthy economy.
- All three types of unemployment are temporary and disappear when workers find jobs; however, the duration of cyclical unemployment is open-ended.

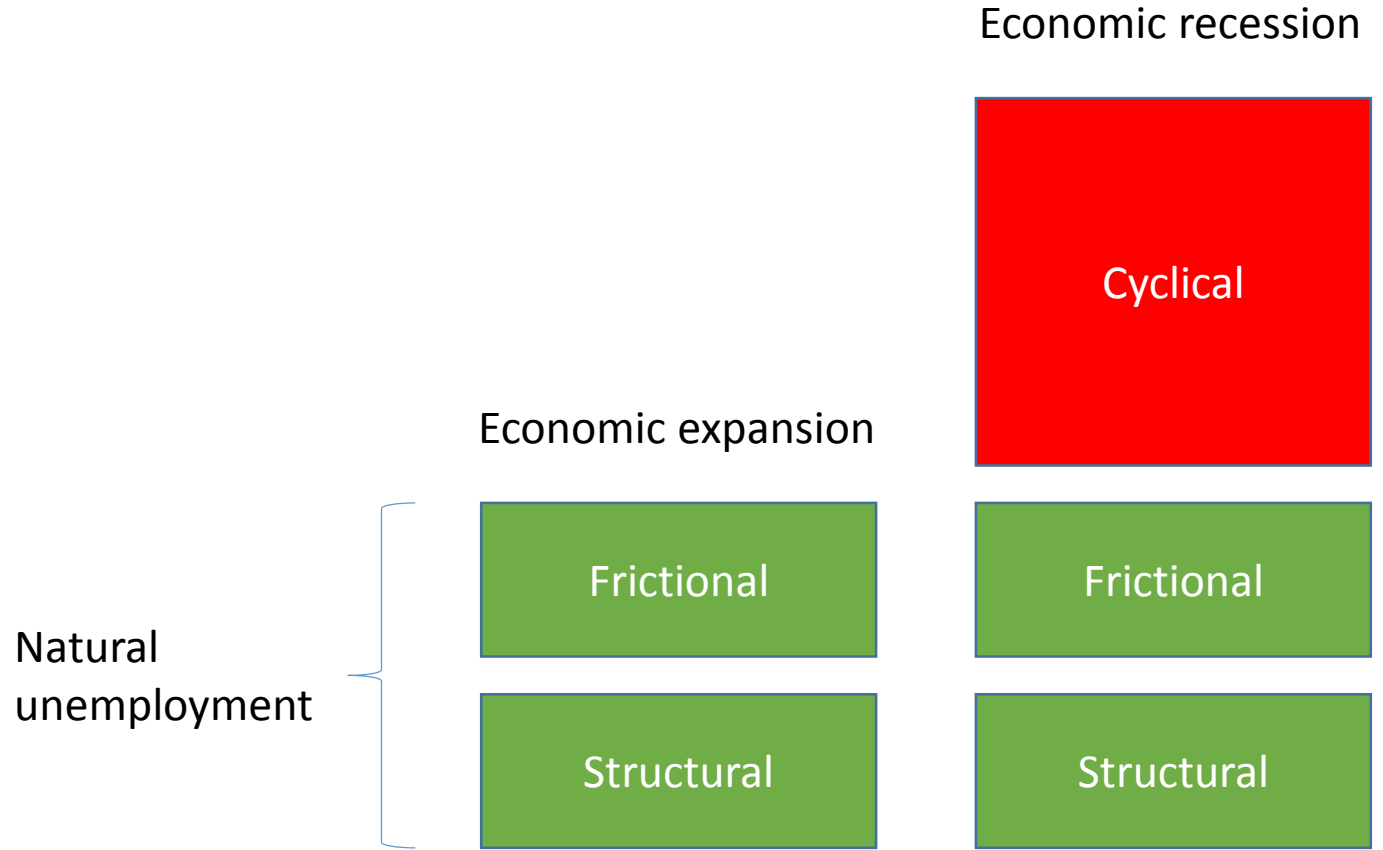
The natural rate of unemployment

- Is it possible to achieve 0% rate of unemployment?
- We have seen three types of unemployment: structural, frictional and cyclical unemployment.
- The first two are natural and are present even in times of economic expansion. The last one is a sign of poor economic performance. It is high during times of recession; however, it falls toward 0% when the economy is doing well.
- Therefore, there is always some level of unemployment in the economy even when the economy is at its best.

The natural rate of unemployment (2)

- The natural rate of unemployment (u^*) is the typical rate of unemployment that occurs when the economy is growing normally.
- The more appropriate goal for policymakers should be to maintain this rate of unemployment and not to achieve 0% unemployment rate.
- It is difficult to know the exact level of the natural rate of unemployment (especially because it changes), but American economists feel that it is 5%.

The natural rate of unemployment (3)



The natural rate of unemployment (4)

- When the unemployment rate is equal to the natural rate, $u = u^*$ (meaning that there is no cyclical unemployment), the output level produced in the economy is called *full employment output (Y^*)* or *potential output*. Recall that national output (Y) = GDP.
- If the unemployment rate is above the natural rate, $u > u^*$, the output the economy produces is below the potential output: $Y < Y^*$.
- It is possible for the national output to be above the potential output, $Y > Y^*$, however this cannot be sustained.
- This occurs, for instance, when the nation's resources are utilized beyond their regular capabilities.

The natural rate of unemployment and full employment output.

Healthy economy	Recession	Exceptional expansion
$u = u^*$	$u > u^*$	$u < u^*$
$Y = Y^*$	$Y < Y^*$	$Y > Y^*$
Cyclical unemployment is 0.	Cyclical unemployment is positive.	Cyclical unemployment is negative.

Who are the unemployed?

- Being “unemployed” implies a certain number of criteria. Not having a job does not suffice.
- A person is officially unemployed because:
 - He/she is in the labor force.
 - He/she has unsuccessfully sought for a job for 4 weeks.
 - He/she is not a retiree.
 - He/she is not in jail.
 - He/she is not in the military.
 - He/she is not under age 16.
 - He/she is not mentally ill.

Measuring the unemployment rate

- We defined the unemployment rate as *the percentage of the labor force without a job*.

$$u = (\text{number of unemployed} / \text{labor force}) * 100$$

Shortcomings of the unemployment rate

- In the USA, the unemployment rate is released every month.
- It is used as a timely and consistent indicator of the health of the economy.
- However it has major shortcomings as an economic indicator.
- Let's talk about 2 of those in details.

Shortcomings of the unemployment rate (2)

- **Exclusions**
- When people look for a job for a long time, they may get tired/frustrated and they may just stop looking.
- However, technically, when they stop looking for a job, they fall out of the labor force and no longer count as unemployed.
- *Discouraged workers are defined as those who are not working, have looked for a job in the past 12 months and are willing to work, but have not sought employment in the past 4 weeks.*
- The unemployment rate which is officially reported includes them even though it shouldn't.

Shortcomings of the unemployment rate (3)

- Another group which is not properly accounted for is the underemployed.
- The underemployed are workers who have part-time jobs, but who would like to work full-time.
- The unemployment statistic excludes both discouraged and part-time workers.
- However, their numbers greatly increase during economic recessions.

Shortcomings of the unemployment rate (4)

- A second shortcoming of the unemployment rate is that it does not tell how long workers have been unemployed.
- It makes a big difference whether unemployment is a short-term or a long-term phenomenon.
- If unemployment is short-term, then workers and policymakers will not be as concerned when there is a high unemployment rate.
- However, if unemployment is long-term, then there is a reason to be concerned with a high unemployment rate.
- The unemployment rate, as it is, cannot provide any info on this.

Other labor market indicators

- The unemployment rate gives us a good idea of the state of the labor market in the economy.
- However, in macroeconomics, we use several other indicators to get a more complete picture of the labor market.

Other labor market indicators (2)

- **Labor force participation**

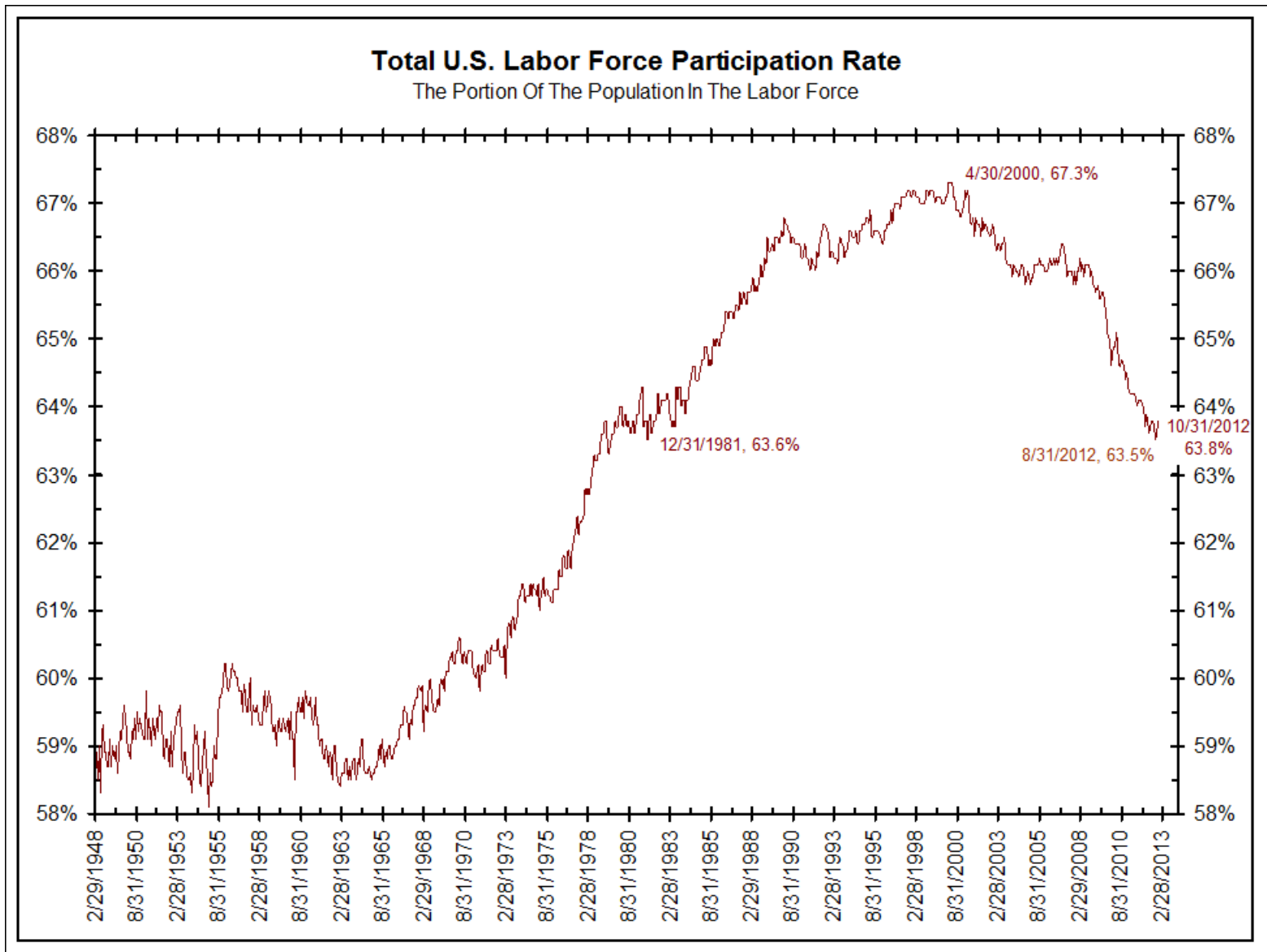
- The size of the labor force is itself a very important macroeconomic statistic.
- China is known as “the factory of the world” because of the size of their labor force.
- Let’s consider 2 economies (A and B) with the same population size (e.g 1000 people). If the labor force of country A is bigger than that of country B, then country A is more likely to produce the bigger national output.

Other labor market indicators (4)

- *The labor force participation rate is the proportion of the population that is in the labor force.*

$$\text{Labor force participation rate} = (\text{labor force} / \text{population}) * 100$$

- LFPR is affected by changing demographics.
- In times of high population growth, the population size increases faster than the labor force and therefore drives LFPR down.

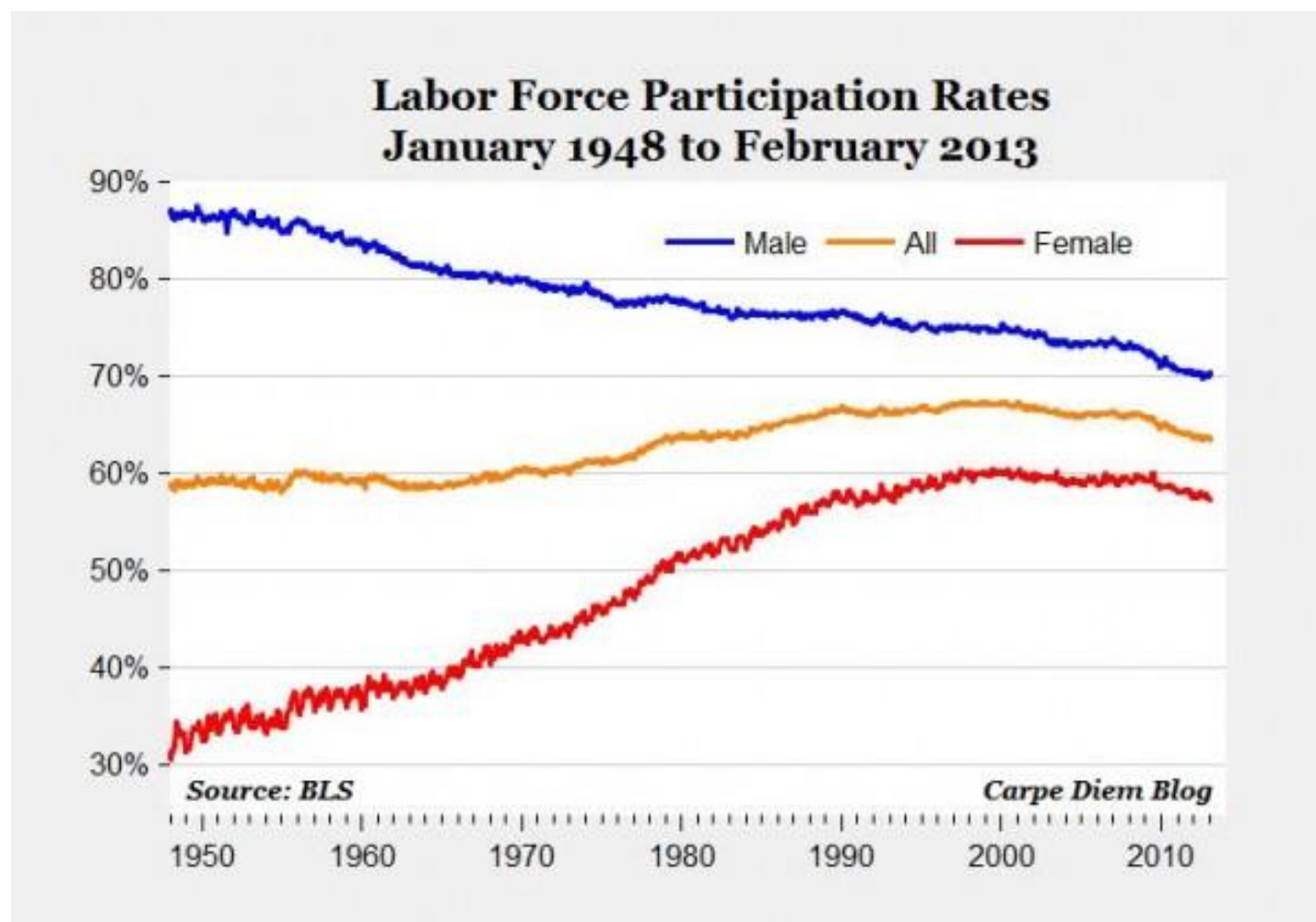


Source: Bianco Research

Other labor market indicators (4)

- Gender and race statistics
 - The composition of the US labor force today is significantly different from what it was it was decades ago.
 - For instance, more women are working now (from 32% in 1948 to almost 60% today) and male labor force participation has drastically fallen (from over 87% to just 70%).
 - Unemployment rates also vary widely across ages and races.

Other labor market indicators (5)



Group	Unemployment rate	Labor force participation rate
Overall	8.1%	63.7%
Adults (age 20+)		
Black males	13.6	67.3
Black females	10.8	62.8
White males	6.8	73.5
White females	6.8	58.8
Teenagers (16-19)		
Black males	39.6	25.7
Black females	36.8	24.5
White males	25.3	36.6
White females	20.3	36.7

You should now be able to...

- Define “unemployment rate” and compute it.
- Define “labor force”
- Identify the 3 types of unemployment and explain them with examples
- Explain what the natural rate of unemployment is and relate it to the concept of potential output.
- State the criteria necessary for someone to be officially unemployed.
- Explain the shortcomings of unemployment as a macroeconomic measure.
- Identify a few other labor market indicators.

THANK YOU 😊