

## Exercise 1

## Introduction to Macroeconomics

1. What are the four macroeconomic agents? What are the three markets in which the agents interact?

1. Households 2. Firms 3. The government 4. The rest of the world

1. The goods and service market
2. The labor market/factor market
3. The money (financial) market

2. What is sticky price? Explain why price may be sticky.

Sticky price is when the price adjust slowly to the equilibrium may be due to minimum wage policy, employment contract and labor union

3. Explain the four main categories of unemployment.

1. Frictional unemployment
  2. Structural unemployment
  3. Cyclical unemployment
  4. Seasonal unemployment
- 1+2+4 = natural rate of unemployment  
3 = problem due to recession

4. Classify the following events into the categories of unemployment.

- Some friends just graduated from college and have been looking for jobs.

Frictional unemployment

- Christine lost her job as a biologist at a biotech-company when the whole industry went into recession.

Cyclical unemployment

- Gerhard, who used to be a taxi driver, stopped looking for a job three months after he lost his job.

Discouraged - worker

- Dirk used to work as a wooden-doll maker. Now all kids want plastic dolls, so he is out of work.

Structural unemployment

- The hotel part-timers were laid off during low season.

Seasonal unemployment

- Aditi, a high-tech engineer, just decided to quit her job; she is being interviewed for a better-paid job in a multinational company.

### Frictional unemployment

- A man lost his job as a public reader as literacy has increased in his village.

### Frictional unemployment

- Suppose there are 100 people in labor force and 60 people currently in employment. Find the unemployment rate. Can we find labor force participation rate? If not, what information do we need?

$$\text{unemployment rate} = \frac{4}{10} = 40\%$$

We can't find the labor force participation rate because we need to have the number of total population 16 years old or older to find

- What is the discouraged-worker effect? How can it affect the unemployment rate?

Discouraged-worker effect is when people who want to work can't find a jobs become stop looking for work. It affects the unemployment rate by reduce the number of numerator and denominator by the amount of people who becomes

- On average, nations in Europe pay higher unemployment benefits for longer <sup>discouraged</sup> periods of time than the US. How would this affect the unemployment rates in these nations? Explain which type of unemployment is most directly affected.

It will make the nation in Europe have higher unemployment rates than US. The type of unemployment that affect the most is frictional unemployment because it increase the number of frictional unemployment

- What is inflation? It is often said that inflation reduces one's purchasing power, and hence inflation is bad. How can inflation reduce one's purchasing power? Is there a case where inflation may not be bad?

Inflation is an increase in the overall price level

For example, you have 1M the price of chicken is 70/Kg but tmr it changes to 100/Kg this mean you have the same 1 m but the value of the money is going down

Yes, when it is the slow inflation with small and constant rate it will make the economic growth faster

9. Who - lender or borrower - is better off, given unanticipated deflation? Explain with examples.

Lender because borrower need to pay back their dept with money worth more than money they borrowed at first for example 100 baht during he borrow can buy 10 eggs but when he return the 100 baht it worth 15 eggs

10. When inflation is anticipated, what will the central bank do with the interest rate? (Hint: Fisher Equation)

Bank will increase the interest rate

11. The CPI is 120 in year 1 and 150 in year 2. All inflation is anticipated. If the bank charges an interest rate of 30%, what is the bank's real interest rate?

$r = \text{unknown}$        $i = 30\%$        $\pi = \text{unknown}$

$$\pi = \frac{150-120}{120} = 25\% \quad \left| \quad \begin{array}{l} r = i - \pi \\ r = 30\% - 25\% = 5\% \end{array} \right.$$

12. Explain why inflation is necessary to a growing economy with reference to the money supply.

Inflation is necessary to growing economy because it helps increase in production and it related to money supply by money supply increase faster than the growth in real output will cause inflation.

13. What are the two administrative costs of inflation? Explain.

1. Menu cost - cost from changing menus/price list frequently

2. Shoe-leather cost - opportunity cost of holding cash outside the bank is high

14. Draw a diagram of business cycles and the trend line. Label the four phases of business cycles. Answer the following questions.

- Which phase do you expect to see inflation?

Inflation decreases during recessions and increase during expansions ; expansions

- Which phase do you expect to see high unemployment?

recession

- Which phase should the government use expansionary policy? Give example.

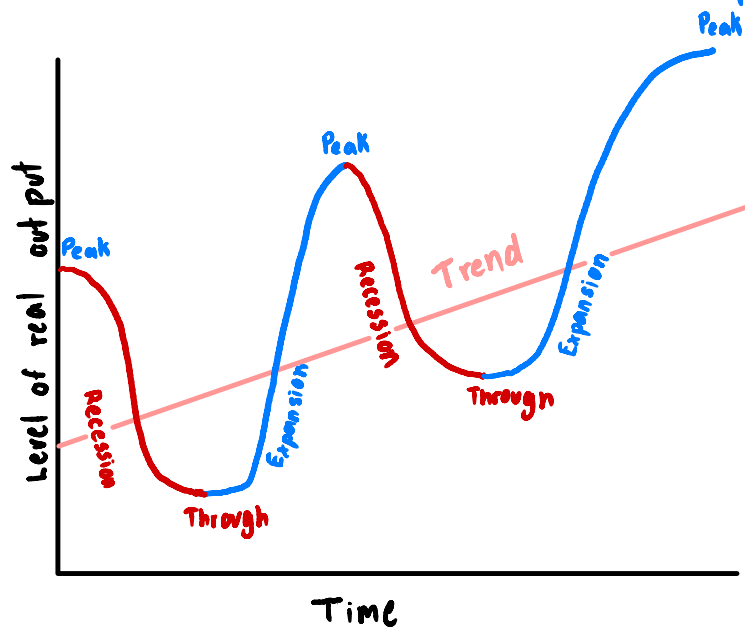
recession

- Which phase should the government use contractionary policy? Give example.

expansion

- What factors determine the trend line?

The quantity and quality of labor and capital



15. An article states that capital stock and labor force are both increasing at an annual rate of 7%. The same article also states that real output is growing by 11%. Explain why this is possible.

This is possible because real output has more factors not just capital stock and labor force like capital goods, human capital, and technology.