Exercise 1
Introduction to Macroeconomics

1. What are the four macroeconomic agents? What are the three markets in which the agents interact?
2. What is sticky price? Explain why price may be sticky.
3. Explain the four main categories of unemployment.
4. Classify the following events into the categories of unemployment.
   - Some friends just graduated from college and have been looking for jobs.
   - Christine lost her job as a biologist at a biotech-company when the whole industry went into recession.
   - Gerhard, who used to be a taxi driver, stopped looking for a job three months after he lost his job.
   - Dirk used to work as a wooden-doll maker. Now all kids want plastic dolls, so he is out of work.
   - The hotel part-timers were laid off (= เลิกจ้าง) during low season.
   - Aditi, a high-tech engineer, just decided to quit her job; she is being interviewed for a better-paid job in a multinational company.
   - A man lost his job as a public reader as literacy (รู้หนังสือ) has increased in his village.
5. 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?

   $\frac{40}{100} = 0.4$

   not, we need amount of working-age population
6. What is the discouraged-worker effect? How can it affect the unemployment rate?
7. On average, nations in Europe pay higher unemployment benefits for longer 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.

8. 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?

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9. Who – lender or borrower – is better off, given unanticipated deflation? Explain with examples.
10. When inflation is anticipated, what will the central bank do with the interest rate? (Hint: Fisher Equation)
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?
12. Explain why inflation is necessary to a growing economy with reference to the money supply.
13. What are the two administrative costs of inflation? Explain.
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?
    - Which phase do you expect to see high unemployment?
    - Which phase should the government use expansionary policy? Give example.
    - Which phase should the government use contractionary policy? Give example.
    - What factors determine the trend line?
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.

Answers sheet

Ratiyakorn Damrongsak 6404640952 (Petch)

1. The four economic agents are households, firms, the government, and the rest of the world. The 3 markets that this four agents interact with are the good-and-services market, the labor market, and the money (financial) market.

2. Sticky price is the price that adjusts slowly to the equilibrium due to many factors such as the government's policies and some contracts. For example, the price of wage become sticky because of the minimum wage policy, employment contract, and labor union which are not easy to change immediately.

3. Frictional unemployment - Unemployment as a result of normal turnover in labor market such as people that are looking for their new job.
   Structural unemployment - Unemployment as a result of changes in the structure of the economy e.g. technological change, change in demand for labor skills, geographical change.
   Cyclical unemployment - Unemployment as a result of fluctuation in business cycles such as recession.
   Seasonal unemployment - Unemployment due to changing seasons.

4. 4.1 Frictional Unemployment.
   4.2 Cyclical Unemployment.
   4.3 Frictional Unemployment.
   4.4 Structural Unemployment.
   4.5 Seasonal Unemployment.
   4.6 Frictional Unemployment.
   4.7 Structural Unemployment.

5. The unemployment rate is 0.4 and we can't find labor force participation rate because we don't have the amount of working-age population.

6. The discouraged-worker effect is the effect that caused by people that gave up to find jops because jops are too hard to find and then they exit labor force, so when we calculate the unemployment rate, it will make the unemployment rate become lower than its actual number. This can mislead us into thinking that more people have got their jobs.

7. In my opinion, I think in Europe, when people can recieve more money than in the US with out working, people will think that may be it doesn't neccessery to them anymore to find the jobs, and this makes Europe's unemployment rate may become higher than the US's. This affects the frictional unemployment directly because it makes people stop finding new jobs.

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8. Inflation is an increasing in the overall price level. For people who receive fixed amount of wage due to employment contract, their purchasing power will reduce because a price of goods & services become more expensive but they still have the same amout of wage. However, there still has a case where inflation may not be bad which is when the price of wage that people receive also become higher along with the inflation. In this case people still have enough money to buy goods & services.

9. When unanticipated deflation happens, lender will better off because when borrower return the money to lender, at that time the overall price will go down. This makes lender can buy more goods than before with the same amount of money.

10. The central bank will charge a higher nominal interest rate.

11. first, find inflation rate (π) from % different of CPI

$$\frac{150-120}{120} \times 100\% = 25\%$$

then use $r = i - \pi$ to find real interest rate

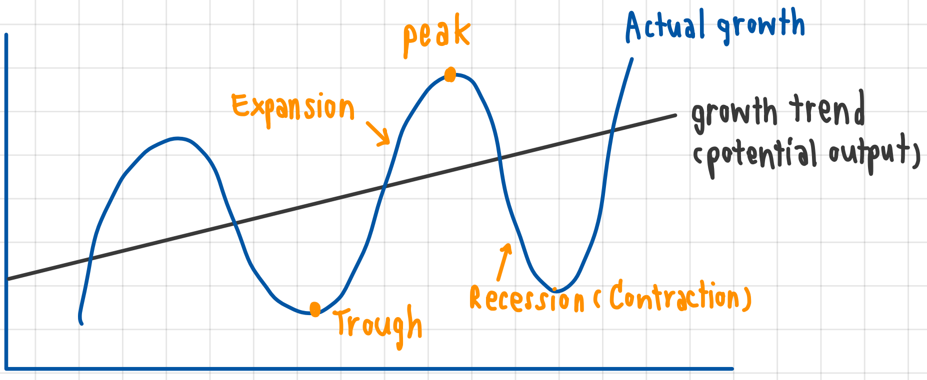
$r = 30\% - 25\%$

$r = 5\%$ Ans

12. If there's too high inflation, the price will also high and people need to use a lot of money to buy the product or people will need money. If the government don't print more money, it may cause scarcity of money because the amount of money supply is too less.

13. The two administrative costs of inflation are menu cost and shoe leather cost. The menu cost is the cost that happens because the restaurant owner have to change the menu because they have to adjust the price to become higher according to the increasing in overall price in the market. The shoe leather cost is the cost when people go to bank in order to deposit the money into the bank because they want to gain interest, they have to pay some money during their way to arrive at the bank such as transportation expenditure.

14.



14.1) which phase we expect to see inflation? ⟶ Expansion, Peak
14.2) which phase we expect to see high unemployment? ⟶ Recession, Trough
14.3) which phase should the government use expansionary policy? ⟶ Recession, Trough
↳ e.g. tax cuts and increased government spending.
14.4) which phase should the government use contractionary policy? ⟶ Expansion, Peak
↳ e.g. increasing taxes and lowering government spending.

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14.5) what factors determine trend line ?

↳ quality & quantity of factors of production (FOP) which consist of
- land (natural resources)
- labor
- capital (tools & machinery)
- entrepreneurship (skill of business man)

15. This situation will possible when capital stock and labor force are become more productive such as better education of labors or better technologies of machines.