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# Problem Set IV

EE212 — Principles of Macroeconomics
Semester 2/2019-2020
Total mark: 20 points
Due date: Friday 8 May 2020 **before midnight** to jenmana@econ.tu.ac.th.
Any late submission **will not** be graded.
Please submit in pdf form, and not word document.

Dear students,
Two weeks are given to complete this assignment. As mentioned, we will have four problem sets, each making up 7.5% of your total grade (30% in total). These will be challenging, and will demand you to revisit the topics that have been mentioned so far in class, as well as to read the mandatory readings.

**Reminder on academic policy:** I encourage you all to work together and exchange ideas out of class. However, I also encourage you all as university scholars to start independently critically approach a topic, a question, or a challenge that will be posed in this class, as well as the future ones.
I expect your independent completion of the short essays, as it would be obvious if they are not your own ideas. Plagiarism and cheating will be treated with disciplinary actions. Thammasat University, our faculty, and I take academic integrity extremely seriously.

## Problem I: true, false, or uncertain – explain your reasoning (7 points)

1. The aggregate supply curve is upward sloping because of the fact that firms want to produce more at a higher price. (1 points)

2. Based on the **money neutrality** theorem which says that changes in the nominal money supply ($M$) does not affect real variables such as *natural rate of employment* and *potential GDP*. Is this true in our long-run AD-AS model? (2 points)

3. Suppose that there is a deflation from $P_1$ to $P_2$. Given that the Bank of Thailand does not change its nominal money supply, this will cause the real money supply to increase – which shifts the LM curve downwards. This implies that the aggregate demand curve will shift to the right. (2 points)

4. In terms of boosting aggregate income, the central bank's monetary policies are comparatively more effective when the aggregate supply curve is relatively flat, while fiscal policies are more effective when the aggregate supply curve is comparatively steep. (2 points)

## Problem II: an unrealistic AD-AS model (8 points)

Let's assume that interest rates do not affect the aggregate level of investment at all.

1. According to your opinion, when could this happen? Under which circumstances? (0.5 point)
2. According to this case, what does the IS curve look like graphically? What is the slope of the IS curve? (0.5 point)
3. What does this also imply about the slope of the LM curve? Show the IS-LM model graphically. (1 point)
4. Based on your previous answers, what should the aggregate demand look like? What does it say about the effectiveness of fiscal and monetary policy? Use diagrams to help answer this question. (2 points)

   Now, let's keep our assumption that the interest rate has no effect on investment. Let's also assume that we are at the *natural rate of output* (the level of output at full employment). Lastly, let's introduce a negative shock to the production side – there is a higher cost of raw commodities.

5. What happens to the short-run IS-LM relation – and hence, the AD curve? What changes? Use figures to answer. (1 point)
6. What happens to overall price levels and output in the short-run based on the AD-AS model? Explain in words. (1 points)
7. What happens over time to price levels and output in the long run? Explain in words. (2 point)
   *Hint: show that price level will increase forever! This shows that this model is absolutely unrealistic and we need to change our core assumption.*

## Problem III: “You shall earn your bread from home while watching Netflix”

One bittersweet beauty of a sudden socio-economic crisis such as the one we are facing is that we get to revisit what we have discussed during the normal times. The mandatory article titled “*A Basic Income Is a Lifeline in This Crisis — But Can’t Solve Everything*” by Emilio Caja and Leonie Hoffman talked about a very specific policy, the **Universal Basic Income** (UBI). My question *is not* about what the UBI is, or what it can do economically apart from boosting or at least smoothing aggregate demand from the shocks. (you should read about all that yourself before approaching this question.)

The writers mentioned that:
*“Broad sections of society would benefit from an emergency UBI right now, which could provide a platform to unify demands for income support.”*

This seems to be a significant change in the political attitudes about *work* from the normal times. **My first question is:** how did the authors explain this possibility of unified support for UBI during and after this crisis, while before, the popular sentiment amongst a large part of the middle class and the elites seems to be that “you have to earn your bread in sweat”?

**My second question is this.** If UBI policy is to be enforced in Thailand, under what conditions could the UBI be actually detrimental to the lives of workers, the underemployed, and the unemployed.
Answer in 700 words. (5 points)