

# Discussion 08

Instructor: Yushang Wei  
Introduction to Macroeconomics

June 30, 2023

**Reading list: Chapter 27, 28**

1. Money
2. Money Multiplier
3. Fiscal Policy and Monetary Policy

## part 1

1. Suppose the federal reserve purchases a US government bond from you for \$10000.
  - a) what is the name of the Fed's action?
  - b) suppose you deposit the \$10,000 in First Student Bank. Show this transaction on the First Student Bank's T-account.
  - c) Suppose the reserve requirement is 20 percent. Show First Student Bank's T-account if they loan out as much as they can.
  - d) At this point, how much money has been created from the Fed's policy action?
  - e) What is the value of the money multiplier?
  - f) After infinite rounds of depositing and lending, how much money could be created from the Fed's policy action?
  - g) If during the rounds of depositing and lending, some people keep extra currency and fail to deposit all of their receipts will there be more or less money created from the Fed's policy action than you found in part f? Why?
  - h) If during the rounds of depositing and lending, some banks fail to loan the maximum amount of reserves allowed but instead keep excess reserves, will there be more or less money created from the Fed's policy action than you found in part f? why?
2. At different times in the past year, the Philippines has enacted the below policies. Classify each as expansionary fiscal policy, contractionary fiscal policy, expansionary monetary policy, or contractionary monetary policy.

- a) Government purchases of COVID-19 tests
  - b) Increased funding for social support programs for low-income households
  - c) Reduction of the required reserve ratio from 14% to 12%
  - d) Increased purchases of government securities
3. Household consumption has increased in the Philippines over the past few months. This has [increased/decreased/not changed/changed ambiguously] aggregate demand, [increased/ decreased/ not changed /changed ambiguously] production, [increased/decreased/ not changed/ changed ambiguously] unemployment, and [increased/ decreased/ not changed/ changed ambiguously] the price level.
4. Oil was poised to become an essential contributor to Guyana's economic health in 2020. However, the collapse of the global price of oil has threatened to push Guyana into a recessionary gap. If the government of Guyana wanted to use fiscal policy to prevent the recession while also causing the smallest increase in the deficit, it should
- a. Increase spending.
  - b. Decrease taxes.
  - c. Decrease the required reserve ratio.
  - d. Buy government securities.

## Part 2

The Canadian Economy in 2023: A Snapshot In January 2023, Canada's monetary aggregates were as follows:

Currency in circulation: \$307.3 billion

Demand deposits: \$1,222.5 billion

Savings and other less liquid deposits: \$890.1 billion

Canada's inflation rate is 5.2% (compared to a target of 2%), its real GDP growth rate is 2.1%, its unemployment rate is 5.0% (compared to a natural rate of unemployment of 6.2%). The Bank of Canada is targeting an interest rate of 4.5%. Canada's budget deficit for the past year was \$5.5 billion (down from \$70.1 billion in 2021).

- 1. Calculate Canada's M1 and M2.**
- 2. How do discretionary monetary policy tools work to counteract business cycles? What monetary policy tools could Canada use to return their economy to long-run macroeconomic equilibrium and why?**
- 3. What are the benefits and drawbacks of discretionary monetary policy?**