Principles of Economics

Macroeconomics

Using Aggregate Demand-Aggregate Supply

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Setup: Forecasting

- Suppose that the aggregate supply curve for 2020 is given by:
  - P = 1.02 for Y < $25.0T (2019)
  - P > 1.02 for Y = $25.0T (2019)
  - No possibility of Y > $25.0T (2019)
- With the price level in 2019 being 1.10, so that expected inflation over the year from 2019 and 2020 is 2.0%.

Setup: Forecasting II

- You are working in New York forecasting the 2020 economy for Medium-Sized Hedge Fund Named After a Local Geographic Feature. Your bosses want you to inform them about the likely shape of the economy in 2020. Your baseline forecast is:
  - X: Exports: $3.0T (2019)
  - G: Government Purchases: $4.0T (2019)
  - I: Investment Spending: $4.0T (2019)
  - C: Consumption of Domestically-Produced Commodities: $12.0T (2009)
  - Y: TOTAL: $23.0T (2009)
- and your estimate of the marginal propensity to consume c_y=0.667.
- Your principals find themselves besieged by phone calls from legislators of both parties begging them to commit massive donations to their campaigns so that they can protect America from the other party. In the course of these phone calls, the legislators ask for advice…

Ladies and Gentlemen, to Your iClickers

- What should you tell the politicians if they ask you by how much they should try to expand spending above baseline in 2020?
  - A. +$2T
  - B. -$2T
  - C. They should keep spending unchanged
  - D. It cannot be determined from the information given
  - E. None of the Above

Ladies and Gentlemen, to Your iClickers: ANSWER

- What should you tell the politicians if they ask you by how much they should try to expand spending above baseline in 2020?

  - **A. +$2T.** B. -$2T. C. They should keep spending unchanged. D. It cannot be determined from the information given. E. None of the Above

- **Baseline is $23T, but the AS curve is flat out to $25T.**

- **You have a $2T output gap.**

- **You should close it.**

Ladies and Gentlemen, to Your iClickers

- Suppose that you know that the Federal Reserve will keep interest rates constant—that if the federal government embarks on an infrastructure investment program to boost production, the Federal Reserve will not get in the way. (And remember, c_y=0.667).

- If the politicians ask for a size of an infrastructure investment program, what do you say?

  - A. +$2T
  - B. $0T
  - C. $667B
  - D. It cannot be determined from the information given
  - E. None of the Above

Ladies and Gentlemen, to Your iClickers: ANSWER

- Suppose that you know that the Federal Reserve will keep interest rates constant—that if the federal government embarks on an infrastructure investment program to boost production, the Federal Reserve will not get in the way. (And remember, c_y=0.667).

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    - A. +$2T. B. $0T. **C. $667B.** D. It cannot be determined from the information given. E. None of the Above

- **I am looking for C. $667B.**

- **Multiplier μ = 3.**

- **Boost government purchases by $667B, boost consumption by $1,333B, boost output by $2T, close the output gap**

Ladies and Gentlemen, to Your iClickers

- Suppose the actual program boosts spending in 2020 not by $2T but by $2.5T. What happens?
  - A. Real GDP grows to $25.5T, prices remain at 1.02 with 2% inflation
  - B. Real GDP stays at $25T but prices grow to 1.0404—you have not 2% inflation but 4.04% inflation
  - C. Real GDP stays at $25T but prices grow to 1.10—double-digit inflation returns because inflation expectations have been disanchored
  - D. It cannot be determined
  - E. None of the above

Ladies and Gentlemen, to Your iClickers: ANSWER

- Suppose the actual program boosts spending in 2020 not by $2T but by $2.5T. What happens?

  - A. Real GDP grows to $25.5T, prices remain at 1.02 with 2% inflation. **B. Real GDP stays at $25T but prices grow to 1.0404—you have not 2% inflation but 4.04% inflation.** C. Real GDP stays at $25T but prices grow to 1.10—double-digit inflation returns because inflation expectations have been disanchored. D. It cannot be determined. E. None of the above

- **I'm looking for answer (B)…**

- **In the real world, it is not this neat…**

Ladies and Gentlemen, to Your iClickers

- Suppose the actual program boosts spending in 2020 not by $2T but by $2.5T, but the Federal Reserve swings into action and raises interest rates to prevent inflation from accelerating. What happens?

  - A. Real GDP grows to $25.5T, prices remain at 1.02 with 2% inflation
  - B. Real GDP stays at $25T but prices grow to 1.0404—you have not 2% inflation but 4.04% inflation
  - C. Real GDP stays at $25T but prices grow to 1.10—double-digit inflation returns because inflation expectations have been disanchored
  - D. It cannot be determined
  - E. None of the above

Ladies and Gentlemen, to Your iClickers: ANSWER

- Suppose the actual program boosts spending in 2020 not by $2T but by $2.5T, but the Federal Reserve swings into action and raises interest rates to prevent inflation from accelerating. What happens?
  - **A. Real GDP grows to $25.5T, prices remain at 1.02 with 2% inflation.** B. Real GDP stays at $25T but prices grow to 1.0404—you have not 2% inflation but 4.04% inflation. C. Real GDP stays at $25T but prices grow to 1.10—double-digit inflation returns because inflation expectations have been disanchored. D. It cannot be determined. E. None of the above

- **I am looking for (A). Federal Reserve moves last…**