Student: ______________________
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Course: Summer 2020: ECON-UA 231 - Money & Banking
Assignment: Problem Set 3

1. According to the text, the most important goal of monetary policy[1] is thought to be:

   - ◉ **A. price stability**
   - ○ **B.** low interest rates
   - ○ **C.** eliminating deflation
   - ○ **D.** high economic growth rates

1: Definition

Monetary policy

The management of the money supply and interest rates.

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2. The problems that are created by inflation[2] can be mainly attributed to:

   - ◉ **A. uncertainty.**
   - ○ **B.** menu costs.
   - ○ **C.** greed.
   - ○ **D.** corporations.

2: Definition

Inflation

The condition of a continually rising price level.

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3. Which of the following is an example of a nominal anchor?

   - ○ **A.** Inflation rate
   - ○ **B.** Money supply
   - ○ **C.** Exchange rate
   - ○ **D.** Both A and B are correct
   - ◉ **E. All of the above are correct**

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4. Which of the following best illustrates the time-inconsistency problem[3]?

- **A. A parent says that he or she will punish a child whenever the child breaks a rule. Afterward, when the child misbehaves, the parent forgives the misbehavior because punishment is unpleasant for both the parent and child.**
- **B.** Your professor says that this course will end with a final exam. After you have studied and learned all the material, you are surprised to find the exam easier than you expected.
- **C.** A nation states that they will not negotiate over hostages. Once hostages are taken, policymakers do not make any concessions to obtain the hostages' release.
- **D.** Both A and B are correct.
- **E.** All of the above are correct.

3: Definition

Time-Inconsistency Problem

The problem that occurs when monetary policymakers conduct monetary policy in a discretionary way and pursue expansionary policies that are attractive in the short run but lead to bad long-run outcomes.

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5. Which of the following is an example of a nominal variable:

- **A.** output
- **B.** consumption
- **C.** the labor supply
- **D. the money supply**

What is the purpose of a nominal anchor?

- **A.** To allow discretionary monetary policy
- **B.** To provide an unexpected constraint on discretionary policy
- **C. To prevent the time-inconsistency problem**
- **D.** To have a time-inconsistency problem

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6. When an economy is at its natural rate of unemployment[4]:

- **A.** the rate of unemployment is zero.
- **B.** the economy is at a full-employment level.
- **C.** the demand for labor is equal to the supply of labor.
- **D. Both B and C are correct.**
- **E.** All of the above are correct.

4: Definition

Natural Rate of Unemployment

The rate of unemployment consistent with full employment at which the demand for labor equals the supply of labor.

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7. 'Unemployment is a bad thing, and the government should make every effort to eliminate it.' Is this statement true or false? Explain your answer.

- **A. False. Some unemployment is beneficial to the economy because the availability of vacant jobs makes it more likely that a worker will find the right job and the employer will find the right worker for the job**
- **B.** False. Our culture finds the unemployment of children and the elderly to be desirable and humane
- **C.** True. Not every member of society is capable of participating in the labour force and the government can provide jobs to these people and eliminate unemployment
- **D.** True. Not every member of society has marketable skills and the government can provide training to these people and eliminate unemployment
- **E.** Both A and B are correct

8. "Because inflation targeting focuses on achieving the inflation target, it will lead to excessive output fluctuations." Is this statement true, false, or uncertain? Explain your answer.

A common fear of inflation targeting is that it will lead to excessive output fluctuations. This fear is overstated because inflation targeting (1) ____________ a sole focus on inflation.

In practice, inflation targeters may (2) ____________ output fluctuations since inflation targeting allows monetary policymakers to respond to declines in demand without facing a sharp rise in inflation expectations.

Inflation targeting (3) ____________ ignore traditional stabilization goals.

Inflation targeters typically use (4) ____________ for an inflation-rate target.

(1) ◉ **does not require** ○ requires

(2) ◉ **be able to reduce** ○ create additional

(3) ◉ **does not** ○ tends to

(4) ○ an exact percentage ◉ **a percentage range**

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9. New Zealand was the first nation to adopt inflation targeting in 1991. The graph to the right shows the inflation rate (black line) and unemployment rate (maroon dashed line) for New Zealand before and after inflation targeting was initiated. The target range for inflation is shown by the gray lines.

Use the graph to help identify which of the following statements accurately describes New Zealand's experience with inflation targeting.

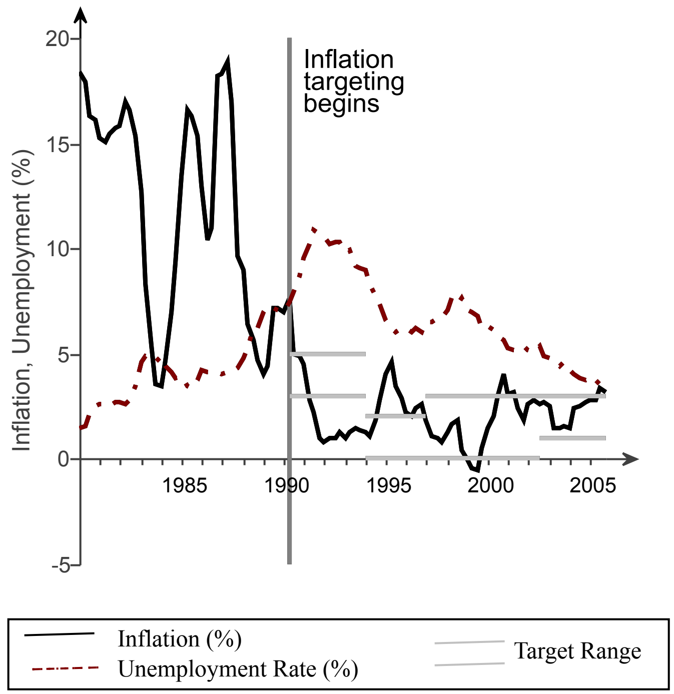
○ **A.** Inflation has typically remained in the targeted range.

○ **B.** Inflation targeting brought about a decline in inflation rates.

○ **C.** Inflation targeting brought about a decline in unemployment rates.

◉ **D. Only A and B are correct.**

○ **E.** All of the above are correct.



Source: www.rbnz.govt.nz/statistics/econind

10. Disadvantages of inflation targeting include:

- **A.** too much rigidity.
- **B.** delayed signaling.
- **C.** low economic growth.
- **D.** Only A and B are correct.
- **E.** **All of the above are correct.**

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11. Which of the following is not an essential element of inflation targeting?

- **A.** an institutional commitment to price stability as the primary, long-run goal of monetary policy
- **B.** public announcement of a numerical target for inflation
- **C.** **a mechanism for firing the head of the central bank if the inflation target is not achieved**
- **D.** increased transparency of monetary policy

Flexible inflation targeting is best described as

- **A.** **allowing short-run deviations in inflation from target to better promote output stability.**
- **B.** an intermediate target which is rarely used by central banks.
- **C.** changing the desired inflation target as economic conditions change.
- **D.** the monetary policy strategy employed by the Federal Reserve.

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12. Which of the following is a reason why monetary policy should *not* be used to prick asset-price bubbles?

- **A.** Monetary policy actions to prick bubbles can have harmful effects on the aggregate economy.
- **B.** There are many different asset prices, and at any one time a bubble may be present in only a fraction of assets.
- **C.** The effect of raising interest rates on asset prices is highly uncertain.
- **D.** **All of the above are correct.**
- **E.** None of the above are correct.

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13. "The zero-lower-bound on short-term interest rates is not a problem, since the central bank can just use quantitative easing to lower intermediate and longer-term interest rates instead." Is this statement true, false, or uncertain? Explain your answer.

- **A.** True. Quantitative easing can be used once the zero-lower-bound is reached on short-term interest rates.
- **B.** **False. The zero-lower-bound problem can be coupled with deflationary conditions, which can be hard to design effective policies for.**
- **C.** Uncertain. The answer depends on whether quantitative easing is easy or difficult to implement under existing conditions.

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14. ______________ is not directly affected by the tools of monetary policy, but links the policy instrument and the goals of monetary policy.

- **A.** **An intermediate target**
- **B.** An operating instrument
- **C.** Output growth
- **D.** All of the above are correct.

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15. The Fed's game plan is best described as follows:

- **A.** The Fed uses policy instruments to impact its operating targets in a way that allows the Fed to achieve its goals.
- **B.** **The Fed uses policy instruments to impact its intermediate targets in a way that allows the Fed to achieve its goals.**
- **C.** The Fed uses intermediate targets to impact its policy instruments in a way that allows the Fed to achieve its goals.
- **D.** None of the above are correct.

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16. **Match the following definitions to the appropriate term:**

Pronounced increases in asset prices that depart from fundamental values: (1) ____________

Regulatory policy to affect what is happening in credit markets in the aggregate: (2) ____________

Any of a set of variables such as reserve aggregates or interest rates that the Fed seeks to influence and that are responsive to its policy tools: (3) ____________

An alternative term used to describe a policy instrument: (4) ____________

Any of a set of variables, such as monetary aggregates or interest rates, that have a direct effect on employment and the price level and that the Fed seeks to influence: (5) ____________

(1)
- ○ policy instrument
- ○ macroprudential regulation
- ○ intermediate target
- ○ operating instrument
- ◉ **asset-price bubble**

(2)
- ○ policy instrument
- ◉ **macroprudential regulation**
- ○ intermediate target
- ○ asset-price bubble
- ○ operating instrument

(3)
- ○ macroprudential regulation
- ○ intermediate target
- ○ operating instrument
- ◉ **policy instrument**
- ○ asset-price bubble

(4)
- ○ asset-price bubble
- ◉ **operating instrument**
- ○ policy instrument
- ○ macroprudential regulation
- ○ intermediate target

(5)
- ○ operating instrument
- ○ policy instrument
- ◉ **intermediate target**
- ○ macroprudential regulation
- ○ asset-price bubble

17. Intermediate targets

- A. stand between policy tools and policy instruments.
- B. are inconsistent with inflation targeting.
- C. indicate whether policy is tight or easy.
- **D. stand between policy instruments and policy goals.**

The most important characteristic of a policy instrument is that it

- **A. has a predictable impact on goals.**
- B. is controllable.
- C. is observable and measurable.
- D. is a nominal anchor.

Which of the following is a policy instrument?

- A. discount rate
- B. open market operations
- **C. reserve aggregates**
- D. inflation

18. Since monetary policy changes through the fed funds rate occur with a lag, policymakers are usually more concerned with adjusting policy according to changes in the forecasted or expected inflation rate, rather than the current inflation rate. In light of this, suppose that monetary policymakers employ the Taylor rule to set the fed funds rate, where the inflation gap is defined as the difference between expected inflation and the target inflation rate. Assume that the weights on both the inflation and output gaps are $\frac{1}{2}$, the equilibrium real fed funds rate is 2%, the inflation rate target is 2%, and the output gap is 1%.

If the expected inflation rate is 3%, according to the Taylor rule, the fed funds rate should be set at **6.0** %. *(Round your response to one decimal place.)*

Suppose half of Fed economists forecast inflation to be 2%, and half of Fed economists forecast inflation to be 4%.

If the Fed uses the average of these two forecasts as its measure of expected inflation, according to the Taylor rule, the fed funds rate should be set at **6.0** %. *(Round your response to one decimal place.)*

Now suppose half of Fed economists forecast inflation to be 0%, and half forecast inflation to be 6%.

If the Fed uses the average of these two forecasts as its measure of expected inflation, according to the Taylor rule, the fed funds rate should be set at **6.0** %. *(Round your response to one decimal place.)*

Given your answers to the previous steps, do you think it is a good idea for monetary policymakers to use a strict interpretation of the Taylor rule as a basis for setting policy?

- **A. Probably not. The Taylor rule doesn't take into account the possibility of a wide variation in forecasts.**
- **B.** Definitely yes. A strict interpretation of the Taylor rule helps the Fed to pursue highly accurate monetary policy.
- **C.** Probably yes. Despite the regular inaccuracy, the Taylor rule is still the best rule for forecasting.
- **D.** Definitely not. The empirical data show the Taylor rule is inefficient in monetary policymaking.

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19. Assume that the equilibrium real federal funds rate is 2% and the target for inflation is 2.0%. Suppose that the inflation rate is at 5.0%, leading to an inflation gap of 3.0% (equal to 5.0% − 2.0%), and real GDP is 1.0% above its potential, resulting in a positive output gap of 1.0%. The Taylor rule suggests that the federal funds rate should be set at:

- **A.** 10.00%.
- **B. 9.00%.**
- **C.** 7.00%.
- **D.** 5.00%.

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20. **Match the following definitions to the appropriate term:**

A monetary policy rule that describes the setting of the federal funds rate target under Chairmen Greenspan and Bernanke: (1) ____________

The practice of conducting monetary policy so that the nominal interest changes by more than changes in the inflation rate: (2) ____________

A theory suggesting that changes in inflation are influenced by the state of the economy relative to its production capacity, as well as other factors: (3) ____________

The rate of unemployment when demand for labor equals supply, consequently eliminating the tendency for the inflation rate to change: (4) ____________

(1)
- ○ Phillips curve theory
- ◉ **Taylor rule**
- ○ nonaccelerating inflation rate of unemployment (NAIRU)
- ○ Taylor principle

(2)
- ○ Taylor rule
- ◉ **Taylor principle**
- ○ nonaccelerating inflation rate of unemployment (NAIRU)
- ○ Phillips curve theory

(3)
- ○ Taylor principle
- ○ nonaccelerating inflation rate of unemployment (NAIRU)
- ○ Taylor rule
- ◉ **Phillips curve theory**

(4)
- ○ Phillips curve theory
- ○ Taylor rule
- ○ Taylor principle
- ◉ **nonaccelerating inflation rate of unemployment (NAIRU)**

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21. "A country is always worse off when its currency is weak (falls in value)." Is this statement true, false, or uncertain? Why?

- ○ **A.** True. A weaker currency makes exports more expensive, hurting domestic producers in the global economy, and makes imports cheaper, making domestically produced goods less competitive.
- ◉ **B. False. A weaker currency makes domestically produced goods cheaper to foreign consumers, helping export industries. A weaker currency makes foreign produced goods more expensive to domestic consumers.**
- ○ **C.** False. A weaker currency makes domestic producers and domestic consumers better off.
- ○ **D.** Uncertain. A weaker currency makes goods produced abroad cheaper to domestic consumers. A weaker currency makes domestically produced goods more expensive to foreign consumers.

22. When the U.S. dollar depreciates, what happens to exports and imports in the United States?

As the U.S. dollar depreciates, domestic goods become (1) ____________ and imported goods become (2) ____________, thus (3) ____________ will buy more of the U.S.-produced goods. Hence, U.S. exports will (4) ____________ and U.S. imports will (5) ____________.

(1)
- (•) **cheaper**
- ( ) more expensive

(2)
- (•) **more expensive**
- ( ) cheaper

(3)
- (•) **domestic consumers and foreigners**
- ( ) domestic consumers
- ( ) foreigners
- ( ) neither domestic consumers nor foreigners

(4)
- (•) **increase**
- ( ) not change
- ( ) decrease

(5)
- (•) **decrease**
- ( ) not change
- ( ) increase

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23. A German sports car is selling for 75,000 euros. What is the dollar price in the United States for the German car if the exchange rate is 0.90 euro per dollar?

The price in U.S. dollars is $ **83,333** . *(Round your response to the nearest whole number.)*

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24. The New Zealand dollar to U.S. dollar exchange rate is 1.4, and the British pound to U.S. dollar exchange rate is 0.62. If you find that the British pound to New Zealand dollar were trading at 0.47, what would be the riskless profit per U.S. dollar invested?

The riskless profit is $ **0.06** per U.S. dollar invested. *(Round your response to two decimal places.)*

25.
In 1999, the euro was trading at $0.90 per euro. If the euro is now trading at $1.13 per euro, the euro has (1) ____________ by **25.56** %. *(Round your response to two decimal places.)*

(1)
- (•) **appreciated**
- ( ) depreciated

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26. Given the exchange rates and prices of a digital music player (produced in the United States) on the following two dates:

Date	Exchange Rate	Price of a Digital Music Player
June 30, 2005	¥120 = $1.00	$119
June 30, 2006	¥110 = $1.00	$119

Complete the following table:

Date	Yen Price	Dollar Price
June 30, 2005	¥ **14280**	$119
June 30, 2006	¥ **13090**	$ **119**

U.S. exports of digital music players are likely to (1) ______.

(1) ◯ remain unchanged
◉ **increase**
◯ decrease

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27. The Mexican peso is trading at 8 pesos per dollar. If the expected U.S. inflation rate is 4% while the expected Mexican inflation rate is 19% over the next year, given PPP, what is the expected exchange rate in one year?

The expected exchange rate is **9.15** pesos per dollar. *(Round your response to two decimal places.)*

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28. *The Economist* magazine is famous for its publication of the Big Mac index—a table of Big Mac™ prices in different countries around the world. The use of the Big Mac allows for a highly standardized product sold throughout the world.

Given the following abbreviated table:

Country	$\text{Price}_{\text{Big Mac}}$
China	12,000 yuan
Indonesia	Rp. 20,000
U.K.	£1.25
U.S.	$2.50

If the law of one price holds, what are the following implied exchange rates?

$ **2.00** = £1.00. *(Round your response to the nearest cent.)*

Rp **8000** = $1.00. *(Round your response to the nearest rupee.)*

29. *The Economist* magazine is famous for its publication of the Big Mac index—a table of Big Mac™ prices in different countries around the world. The use of the Big Mac allows for a highly standardized product sold throughout the world. Given the following abbreviated table:

Country	**Price$_{\text{Big Mac}}$**
China	10,000 yuan
U.K.	£1.25
U.S.	$2.50

Suppose that the exchange rate between China and the U.K. is:

15,000 yuan = £1.00

and that the Big Mac™ could be used as a standardized commodity—easily transported and not perishable. Complete the following:

£1,000 = **15,000,000** yuan = **1,500** Big Macs™ = £ **1,875**

Sell pounds and buy yuan on foreign exchange markets | *Use yuan to buy Big Macs in China* | *Transport (at no cost) and sell the Big Macs in London*

Purchasing power parity would imply that the British pound should (1) __________ against the Chinese yuan.

(1)
- ○ appreciate
- ○ remain unchanged
- ◉ **depreciate**

30. **Match the following definitions to the appropriate term:**

The idea that the prices of identical goods should be identical throughout the world:	(1) ________
The price of domestic goods relative to the price of foreign goods denominated in the domestic currency:	(2) ________
Taxes on imported goods:	(3) ________
Restrictions on the quantity of foreign goods that can be imported:	(4) ________
The theory that exchange rates between any two countries will adjust to reflect changes in the price levels of the two countries:	(5) ________

(1)
- ◉ **Law of one price**
- ○ Real exchange rate
- ○ Theory of purchasing power parity
- ○ Quotas
- ○ Tariffs

(2)
- ○ Quotas
- ○ Law of one price
- ○ Tariffs
- ○ Theory of purchasing power parity
- ◉ **Real exchange rate**

(3)
- ◉ **Tariffs**
- ○ Real exchange rate
- ○ Law of one price
- ○ Theory of purchasing power parity
- ○ Quotas

(4)
- ○ Theory of purchasing power parity
- ○ Real exchange rate
- ○ Law of one price
- ○ Tariffs
- ◉ **Quotas**

(5)
- ○ Tariffs
- ○ Quotas
- ○ Law of one price
- ◉ **Theory of purchasing power parity**
- ○ Real exchange rate

31. The following data are given:

E_t = ¥115 = \$1.00

E_{t+1} = ¥107 = \$1.00

$i_{U.S.}$ = 13%

If the interest parity condition is expected to hold, interest rates in Japan should equal **6.04** %. *(Round your response to two decimal places.)*

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32. The following data are given:

E_t = ¥110 = \$1.00

E_{t+1} = ¥130 = \$1.00 *(one year later)*

i_{Japan} = 8% annually

$i_{U.S.}$ = 5% annually

Calculate the future value of \$1,000 in one year invested in the United States and Japan.

If invested in the United States, the future value is \$ **1,050.00** . *(Round your response to the nearest penny.)*

If invested in Japan (and repatriated back to dollars), the future value is \$ **913.85** . *(Round your response to the nearest penny.)*

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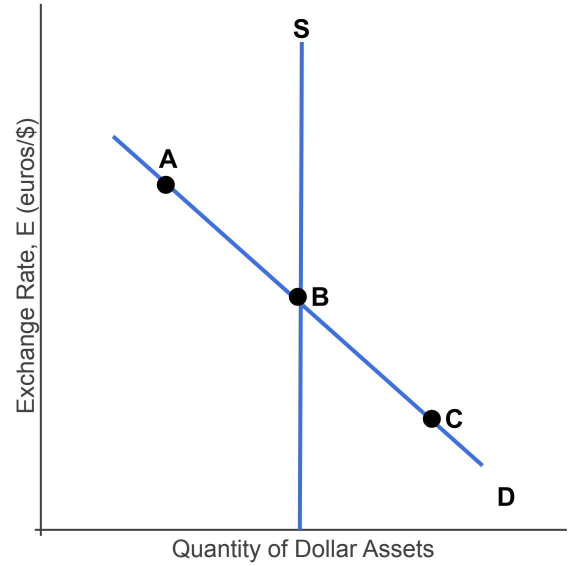
33. If the exchange rate is below the equilibrium exchange rate, then

- A. the quantity of domestic assets supplied is greater than the quantity of domestic assets demanded, and the domestic currency will depreciate.
- B. the quantity of domestic assets supplied is greater than the quantity of domestic assets demanded, and the domestic currency will appreciate.
- **C. the quantity of domestic assets supplied is less than the quantity of domestic assets demanded, and the domestic currency will appreciate.**
- D. the quantity of domestic assets supplied is less than the quantity of domestic assets demanded, and the domestic currency will depreciate.



Based on the figure, equilibrium in the foreign exchange market occurs at

(1) ______. (2) ______ shows excess supply and

(3) ______ shows excess demand.

(1)	(2)	(3)
Point A	**Point A**	Point A
Point D	Point D	Point D
Point C	Point B	Point B
Point B	Point C	**Point C**

34. The quantity of dollar assets supplied is primarily the quantity of bank deposits, bonds, and equities in the United States, and for all practical purposes we can take this amount as ______ with respect to the exchange rate.

- A. increasing
- B. decreasing
- C. increasing at a constant rate
- **D. fixed**

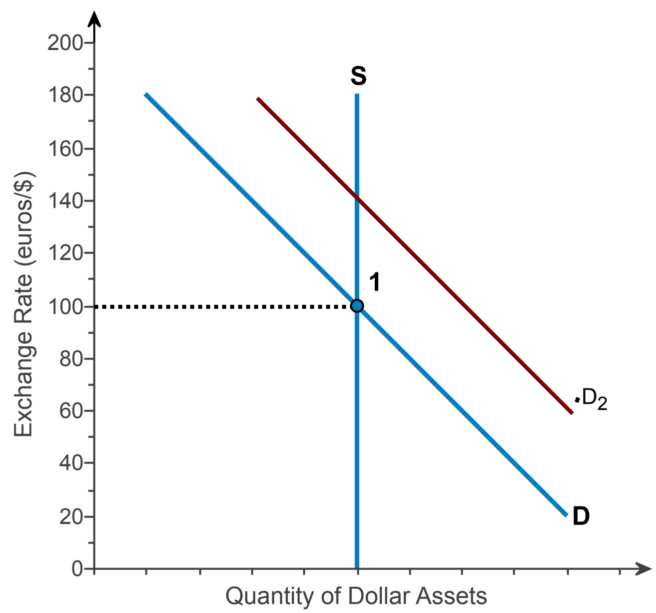
The most important determinant of the quantity of domestic (dollar) assets demanded is ________ .

- A. the relative expected return of domestic assets
- B. the expected return of foreign assets
- **C. the expected return of domestic assets**
- D. the expected cost of foreign liabilities

35. *Using the line drawing tool*, show the effect of an increase in the domestic interest rate i^D. Properly label your new line.

Carefully follow the instructions above, and only draw the required object.

This shock will cause the dollar to (1) ______________.



(1) depreciate
appreciate

36. In the second column of the following table, indicate whether the exchange rate will rise (↑) or fall (↓) as a result of the change in the factor. (Recall that a rise in the exchange rate is viewed as an appreciation of the domestic currency).

Change in Factor	Response of the Exchange Rate
Domestic interest rate ↓	(1) ________
Foreign interest rate ↓	(2) ________
Domestic price level ↓	(3) ________
Tariffs and quotas ↓	(4) ________
Import demand ↓	(5) ________
Export demand ↓	(6) ________
Domestic productivity ↓	(7) ________

(1)
- (selected) **fall**
- rise
- no change

(2)
- no change
- (selected) **rise**
- fall

(3)
- no change
- (selected) **rise**
- fall

(4)
- (selected) **fall**
- no change
- rise

(5)
- (selected) **rise**
- fall
- no change

(6)
- (selected) **fall**
- no change
- rise

(7)
- (selected) **fall**
- no change
- rise

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37. If the interest rate on euro − denominated assets is 13 percent and it is 15 percent on peso − denominated assets, and if the euro is expected to appreciate at a 4 percent rate, for Manuel the Mexican the expected rate of return on euro − denominated assets is

- **A.** 11 percent.
- **B.** 13 percent.
- (selected) **C. 17 percent.**
- **D.** 19 percent.

38. Suppose the Federal Reserve sells dollars in the foreign exchange market but conducts an offsetting open market operation to sterilize the intervention.

If the Federal Reserve sells dollars in the foreign exchange market but conducts an offsetting open market operation to sterilize the intervention, what will be the effect on international reserves, the money supply, and the exchange rate?

Based on the information given above, which of the following statements are likely to be true? *(Select all that apply.)*

- [ ] **A.** Reserves in the banking system are likely to decrease.
- [ ] **B.** The domestic interest rate is likely to increase.
- [x] **C. The exchange rate is likely to remain the same.**
- [x] **D. International reserves are likely to increase.**

39. Suppose the Federal Reserve purchases $1,000,000 worth of foreign assets.

If the Federal Reserve purchases the foreign assets with $1,000,000 in currency, show the effect of this open market operation using T-accounts. *(Use a minus sign to indicate a decrease in assets or liabilities, if any.)*

Federal Reserve System			
Assets		**Liabilities**	
Foreign assets (international reserves)	$ **1** million	Currency in circulation	$ **1** million

What happens to the monetary base?

- ◯ **A.** The monetary base decreases by $1 million.
- ◉ **B. The monetary base increases by $1 million.**
- ◯ **C.** The monetary base remains unchanged.

If the Federal Reserve purchases the foreign assets by selling $1,000,000 in T-bills, show the effect of this open market operation using T-accounts. *(Use a minus sign to indicate a decrease in assets or liabilities, if any.)*

Federal Reserve System			
Assets		**Liabilities**	
Foreign assets (international reserves)	$ **1** million	Currency in circulation	$ **0** million
Government bonds	$ **−1** million		

What happens to the monetary base?

- ◯ **A.** The monetary base increases by $1 million.
- ◯ **B.** The monetary base decreases by $1 million.
- ◉ **C. The monetary base remains unchanged.**

40. When a central bank buys its currency in the foreign exchange market,

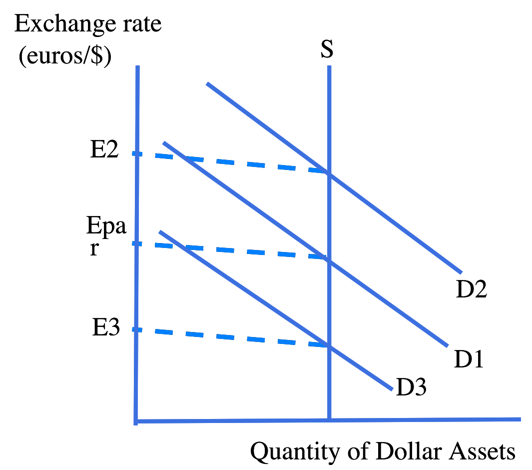
- A. the quantity of international reserves remains unchanged.
- **B. it loses international reserves.**
- C. it acquires international reserves.
- D. the money supply increases.

The Fed's purchase of dollars has two effects. First, it reduces the Fed's holding of international reserves. Second,

- A. the money supply increases.
- B. the quantity of international reserves remains unchanged.
- C. it acquires international reserves.
- **D. the money supply decreases.**

41. Starting from exchange rate E_{par} in the figure the right, an decrease in the foreign interest rate, holding everything else constant, will

- **A. shift the demand curve for domestic assets right causing the exchange rate to become undervalued.**
- B. shift the demand for domestic assets left causing the exchange rate to become overvalued.
- C. shift the demand for domestic assets right causing the exchange rate to become overvalued.
- D. shift the demand curve for domestic assets left causing the exchange rate to become undervalued.



In the figure the right, which of the following will most likely lead to an increase in the exchange rate from E_{par} to E_2?

- A. The U.S. Federal Reserve buys U.S. Treasury bonds.
- **B. The European central bank buys international reserves.**
- C. The U.S. Federal Reserve sells dollars.
- D. The European central bank sells European government bonds.

42. For each of the following, identify whether they increase or decrease the current account balance:

An American citizen's purchase of an airline ticket from Air France will (1) ____________ the current account balance.

A Japanese citizen's purchase of California oranges will (2) ____________ the current account balance.

$50 million of foreign aid to Honduras will (3) ____________ the current account balance.

A worker in California who sends money to his parents in Mexico will (4) ____________ the current account balance.

The services an American accounting firm provides to a German firm will (5) ____________ the current account balance.

(1) ○ increase
◉ **decrease**

(2) ○ decrease
◉ **increase**

(3) ○ increase
◉ **decrease**

(4) ◉ **decrease**
○ increase

(5) ◉ **increase**
○ decrease

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43. What are the key advantages of exchange-rate targeting as a monetary policy strategy? *(Check all that apply.)*

- [x] **A. It helps keep inflation under control.**
- [ ] **B.** It imports monetary policy from the anchor country.
- [x] **C. It is simple and clear.**
- [ ] **D.** There is no need to measure price inflation.
- [ ] **E.** It allows interest rates to be determined by the markets.
- [x] **F. It mitigates the time-inconsistency problem.**

---

44. The official reserve transactions balance equals

○ **A.** Current account + capital account - official reserve transactions balance
◉ **B. Current account + capital account**
○ **C.** Current account + capital account + official reserve transactions balance
○ **D.** Current account - capital account

If the current account balance is −$470 billion and the capital account balance is $510 billion, then the official reserve transactions balance is **40** .

---

45. Which of the following appears in the current account part of the balance of payments?

- A. a loan by a Swiss bank to an American corporation
- **B. income earned by Barclay's Bank of London England from subsidiaries in the United States**
- C. a German's purchase of a share of Google stock
- D. a purchase by the Federal Reserve System of a U.K. Treasury bond

If the current account balance is −$500 billion and the official reserve transactions balance is $10 billion, then the capital account balance is **510**.

---

46. Suppose that you travel to Cali (Colombia), where the exchange rate is 1 USD to 2,900 Colombian pesos. As you enter a McDonald's restaurant, you realize you need 17,400 Colombian pesos to buy a Big Mac.

Assuming a Big Mac costs $5 in the United States, which of the following are likely to be true? *(Select all that apply.)*

- **A. The Colombian peso is currently overvalued.**
- **B. The Big Mac should cost 14,500 Colombian pesos in Cali.**
- C. The Big Mac should cost 16,500 Colombian pesos in Cali.
- D. The Colombian peso is currently undervalued.

---

47. Suppose you travel to Cali, Colombia, where the fixed exchange rate is 1 USD to 2,900 Colombian pesos. Assume that a Big Mac costs $5 in the United States. As you enter a McDonald's restaurant, you realize you need 17,400 Colombian pesos to buy a Big Mac.

Which type of foreign market intervention must the central bank of Colombia conduct to keep the exchange rate at a level where the currency is not under- or overvalued in terms of PPP?

- A. The central bank of Columbia should undertake a sterilized foreign market intervention in which it tries to influence the interest differential between domestic and foreign assets.
- **B. The central bank of Columbia should undertake an unsterilized foreign market intervention in which it buys the domestic currency (COP) and sells foreign reserves.**
- C. The central bank of Columbia should undertake an unsterilized foreign market intervention in which it sells the domestic currency (COP) and purchases foreign assets.
- D. The central bank of Columbia should undertake a sterilized foreign market intervention in which it reduces the amount of foreign securities relative to domestic securities in the hands of the public.

---

48. What is the exchange rate between dollars and Swiss francs if one dollar is convertible into $\frac{1}{15}$ ounce of gold and one Swiss franc is convertible into $\frac{1}{10}$ ounce of gold?

Fr_{Swiss} **0.67** = \$1.00. *(Round your response to two decimal places.)*

---

49. "Inflation is not possible under the gold standard." Is this statement true, false, or uncertain?

- (selected) **A. False. Inflation can occur if the supply of gold increases.**
- **B.** False. Inflation can occur due to high economic growth.
- **C.** True. Because production always increases faster than the supply of gold, only deflation is possible.
- **D.** Uncertain. It depends on whether all prices are fixed to gold.

---

50. **Match the following definitions to the appropriate term:**

A regime in which central banks buy and sell their own currencies to keep their exchange rate fixed at a certain level: (1) ____________

A regime in which central banks buy and sell their own currencies to influence (but not fix) the value of their currency relative to another country's currency: (2) ____________

A regime in which central banks allow their currencies to fluctuate in value against all other currencies: (3) ____________

A regime under which currency is directly convertible into gold**:** (4) ____________

A currency such as the U.S. dollar which is used by other countries to denominate the assets they hold as international reserves: (5) ____________

The inability of monetary policymakers to pursue simultaneously the goals of a fixed exchange rate, free capital mobility, and independent monetary policy: (6) ____________

(1)
- ○ floating exchange rate regime
- ○ reserve currency
- ◉ **fixed exchange rate regime**
- ○ managed float regime (dirty float)
- ○ gold standard
- ○ policy trilemma

(2)
- ○ floating exchange rate regime
- ◉ **managed float regime (dirty float)**
- ○ reserve currency
- ○ gold standard
- ○ policy trilemma
- ○ fixed exchange rate regime

(3)
- ○ fixed exchange rate regime
- ○ gold standard
- ◉ **floating exchange rate regime**
- ○ managed float regime (dirty float)
- ○ policy trilemma
- ○ reserve currency

(4)
- ○ reserve currency
- ○ managed float regime (dirty float)
- ○ floating exchange rate regime
- ◉ **gold standard**
- ○ fixed exchange rate regime
- ○ policy trilemma

(5)
- ○ managed float regime (dirty float)
- ○ fixed exchange rate regime
- ◉ **reserve currency**
- ○ policy trilemma
- ○ gold standard
- ○ floating exchange rate regime

(6)
- ○ floating exchange rate regime
- ○ fixed exchange rate regime
- ○ managed float regime (dirty float)
- ○ reserve currency
- ○ gold standard
- ◉ **policy trilemma**

51. If there is perfect capital mobility, then a sterilized exchange rate intervention

- ◉ **A. cannot keep the exchange rate at par.**
- ○ **B.** can only be used for revaluation.
- ○ **C.** can only be used for devaluation.
- ○ **D.** is much more effective than an unsterilized exchange rate intervention.

If the exchange rate decreases below the exchange rate peg, the central bank must intervene by (1) __________ domestic currency and (2) __________ international reserves.

(1) ◉ **buying**
○ selling
○ leaving unchanged

(2) ○ buying
○ leaving unchanged
◉ **selling**

---

52. A case can be made for controls on capital inflows because capital inflows

- ○ **A.** never go to financing productive investments.
- ○ **B.** do more harm than good.
- ○ **C.** are easier to control than capital outflows.
- ◉ **D. can lead to a lending boom and encourage excessive risk taking.**

Which of the following is a disadvantage of controls on capital inflows:

- ○ **A.** may not actually be effective during a crisis due to efforts to evade the controls
- ◉ **B. can discourage foreign direct investment**
- ○ **C.** promote financial stability
- ○ **D.** limit lending booms and excessive risk taking

---

53. The IMF does not enjoy a great reputation in many countries that were recipients of IMF loans or bailouts.

Which of the following is likely to be a reason that many citizens were not happy with the role played by the IMF?

- (selected) **A. The loans provided by the IMF forced the recipient nations to reduce expenditures, and citizens had to cope with the harsh burden of the crisis.**
- **B.** The loans provided by the IMF forced the central banks of the recipient nations to adopt the U.S dollar as the country's currency, and this led to a sharp reduction in the export of goods.
- **C.** The loans provided by the IMF forced the recipient nations to implement exchange-rate targeting, and this increased the expected inflation in the recipient nations.

---

54. A criticism of the activities of the IMF is that it creates a serious ________ problem because depositors and other creditors of banking institutions expect that they will be protected if a crisis occurs.

- (selected) **A. moral hazard**
- **B.** adverse selection
- **C.** nepotism
- **D.** corruption

---

55. Critics of the IMF contend that its bail-out of the Mexican economy in the mid-1990s set the stage for the Asian crisis of the late 1990s because (1) ______________ expected to be bailed out if things went wrong.

(1)
- foreign borrowers
- government authorities
- domestic borrowers
- (selected) **foreign lenders**

---

56. The IMF has stepped into the role of lender-of-last-resort because

- **A.** central banks in emerging markets lack experience with open market operations.
- **B.** it is less likely to create a moral hazard problem than the World Bank.
- **C.** it has been authorized by the world trade organization to perform this function.
- **D. central banks in emerging markets often lack credibility as inflation fighters.**

Action by the IMF might create a (1) ____________ problem for emerging market economies.

(1)
- transparency
- **moral hazard**
- time-inconsistency
- commitment

---

57. An important advantage for a reserve currency country is that

- **A.** it will always have a balance of payments surplus.
- **B. it has more control of its monetary policy than nonreserve currency countries.**
- **C.** it has more control over its exchange rate than nonreserve countries.
- **D.** it will experience lower inflation than nonreserve currency countries.

Why is a balance of payments crisis less of a problem for reserve currency countries?

- **A.** They don't suffer from a time-inconsistency problem.
- **B.** They can sell off large amounts of international reserves.
- **C. It is not necessary to sell off large amounts of international reserves.**
- **D.** They don't suffer from a moral hazard problem.

---

58. What are some of the disadvantages of China's pegging of the yuan to the dollar? *(Check all that apply.)*

- [x] **A. The Chinese own a very large amount of U.S. assets, including low − yielding U.S. Treasury securities.**
- [x] **B. An increase in the Chinese monetary base and money supply can produce high inflation.**
- [ ] **C.** China had to erect trade barriers to protect its domestic market because the yuan is overvalued.
- [ ] **D.** A constant increase in Chinese exports can lead to a shortage of goods available for domestic consumption.

---

59. When is exchange-rate targeting likely to be a sensible strategy for industrialized countries? *(Check all that apply.)*

- [ ] **A.** When the economy does not experience substantial downturns for over 10 years.
- [x] **B. When domestic monetary institutions are unlikely to provide good policymaking.**
- [x] **C. When there are benefits of an exchange-rate target unrelated to monetary policy.**
- [ ] **D.** When the exchange rate does not fluctuate much.

When is exchange-rate targeting likely to be a sensible strategy for emerging market countries? *(Check all that apply.)*

- [ ] **A.** When the country depends on imported inputs.
- [ ] **B.** When the country liberalizes international capital flows.
- [ ] **C.** When the economy is experiencing a fast period of economic growth.
- [x] **D. When it is the only way to break inflationary psychology and stabilize the economy.**

---

60. What are the advantages and disadvantages of currency boards over a monetary policy that uses only an exchange-rate target? *(Check all that apply.)*

Advantages

- [x] **A. It is a stronger commitment to a fixed exchange rate.**
- [x] **B. The central bank cannot create inflation.**
- [ ] C. Hedging the currency risk is easier.
- [ ] D. Foreign currency can be used with domestic currency.

Disadvantages

- [ ] A. Central banks will have to borrow foreign reserves.
- [x] **B. It limits the ability of the central bank to act as a lender of last resort.**
- [x] **C. It is still subject to the threat of a speculative attack.**
- [ ] D. International capital flows are likely to decline.

What are the advantages and disadvantages of dollarization over other forms of exchange-rate targeting? *(Check all that apply.)*

Advantages

- [ ] A. Prices of imports and exports are stable.
- [x] **B. There is no possibility of a speculative attack.**
- [ ] C. There is no foreign exchange market.

Disadvantages

- [x] **A. Loss of seignorage.**
- [ ] B. International capital flows are likely to decline.
- [ ] C. The banking system will be taken over by foreign banks.

---

61. A key disadvantage of exchange-rate targeting is the targeting country can no longer pursue its own independent monetary policy and use it to respond to domestic shocks that are independent of those hitting the anchor country.

However, for emerging market countries this policy may be:

- ( ) A. more advantageous when the economies of emerging market countries are very different from "anchor" countries.
- ( ) B. less advantageous when emerging market countries tend to be smaller in size.
- ( ) C. more advantageous when emerging market countries do not have independent fiscal policy either.
- (•) **D. more advantageous when domestic monetary and political institutions are not conducive to good monetary policy making.**
- ( ) E. less advantageous when emerging market countries are less integrated with global financial markets.

---

62. **Match the following definitions to the appropriate term:**

The adoption of a sound currency, like the U.S. dollar, as a country's money: (1) ________

The revenue a government receives by issuing money: (2) ________

A monetary regime in which the domestic currency is backed 100% by a foreign currency: (3) ________

Fixing the value of the domestic currency to the value of another currency: (4) ________

A monetary policy strategy designed to provide a strong nominal anchor to promote price stability through pegging of its currency: (5) ________

(1)
- ○ exchange rate peg
- ○ exchange rate targeting
- ○ seignorage
- ○ currency board
- ◉ **dollarization**

(2)
- ○ dollarization
- ◉ **seignorage**
- ○ exchange rate targeting
- ○ exchange rate peg
- ○ currency board

(3)
- ◉ **currency board**
- ○ seignorage
- ○ exchange rate peg
- ○ exchange rate targeting
- ○ dollarization

(4)
- ○ currency board
- ◉ **exchange rate peg**
- ○ seignorage
- ○ exchange rate targeting
- ○ dollarization

(5)
- ○ seignorage
- ○ currency board
- ○ exchange rate peg
- ◉ **exchange rate targeting**
- ○ dollarization

63. A disadvantage of exchange rate targeting is that

- **A.** it helps reduce the time–inconsistency problem
- **B.** it is likely to cause monetary policy to be time inconsistent.
- **C.** **the central bank loses the ability to conduct independent monetary policy.**
- **D.** the exchange rate is more difficult to target than either inflation or the money supply.

Industrialized economies typically are not better off targeting exchange rates as a monetary policy strategy unless

- **A.** monetary policymaking is time consistent.
- **B.** the central bank has the ability to conduct independent monetary policy.
- **C.** domestic monetary institutions are conducive to good monetary policymaking
- **D.** **domestic monetary institutions are not conducive to good monetary policymaking**

---

64. The main difference between a currency board and dollarization is that

- **A.** a currency board is a firmer commitment to a fixed exchange rate than dollarization.
- **B.** with dollarization a country's currency is 100% backed by the dollar, but with a currency board it is less than 100% backed by the dollar.
- **C.** with a currency board a country gives up seignorage, but with dollarization it does not.
- **D.** **with dollarization a country gives up seignorage, but with a currency board it does not.**

Which of the following is NOT a disadvantage of a currency board:

- **A.** are subject to greater exposure to anchor country shocks
- **B.** there is no ability for lender-of-last resort functions by the central bank
- **C.** loss of monetary policy independence
- **D.** **transparency and commitment problems inherent in an exchange rate targeting regime**

---

65. Suppose the money supply M has been growing at 10% per year, and nominal GDP, PY, has been growing at 20% per year. The data are as follows (in billions of dollars):

	2010	**2011**	**2012**
M	100	110	121
PY	1,000	1,200	1,440
V	**10**	**11**	**12**

Complete the table above by calculating the velocity V in each year. *(Round your responses to the nearest whole number.)*

Velocity is growing at a rate of **10** % per year. *(Round your response to the nearest whole number.)*

66. Calculate what happens to nominal GDP if velocity remains constant at 5 and the money supply increases from $300 billion to $450 billion.

Originally, nominal GDP is $ **1.5** trillion. *(Round your response to two decimal places.)*

After the money supply increases, nominal GDP is $ **2.25** trillion. *(Round your response to two decimal places.)*

67. If velocity *(V)* and aggregate output *(Y)* remain constant at $5 and $1,250 billion, respectively, what happens to the price level *(P)* if the money supply *(M)* declines from $450 billion to $350 billion?

Originally, the price level is **1.8** . *(Round your response to two decimal places.)*

After the money supply decreases, the price level is **1.4** . *(Round your response to two decimal places.)*

68. Suppose the liquidity preference function is given by:

$$L(i,Y) = \frac{Y}{5} - 1{,}000i$$

Calculate velocity for each period, using the money demand equation:

$$V = \frac{Y}{L(i,Y)}$$

along with the following table of values. *(Round your responses to two decimal places.)*

	Period 1	**Period 2**	**Period 3**	**Period 4**	**Period 5**	**Period 6**	**Period 7**
Y (in billions)	12,000	12,600	12,450	12,600	12,700	13,100	13,300
Interest rate	0.04	0.06	0.02	0.05	0.06	0.03	0.06
Velocity	**5.08**	**5.12**	**5.04**	**5.1**	**5.12**	**5.06**	**5.12**

69. According to the quantity theory of money, in the long run:

- ◯ **A.** the inflation rate is the growth rate of velocity minus the growth rate of aggregate output.
- ◯ **B.** the growth rate of aggregate output is the growth rate of velocity minus the inflation rate.
- ◯ **C.** the growth rate of aggregate output is the growth rate of the money supply plus the inflation rate.
- ◉ **D. the inflation rate is the growth rate of the money supply minus the growth rate of aggregate output.**

---

70. If nominal GDP is $10 trillion and the quantity of money is $5 trillion, then the velocity of money is **2**.

If the velocity is 5 and nominal GDP is $50 trillion, then the quantity of money is $ **10** trillion.

If the velocity is 5 and quantity of money is $9 trillion, then the nominal GDP is $ **45** trillion.

---

71. If the growth rate of the money supply is 12%, velocity is constant, and real GDP grows at 2% per year on average, then the inflation rate will be **10** %.

If the growth rate of the money supply increases to 18%, velocity is constant, and real GDP grows at 4% per year on average, then the inflation rate will be **14** %.

If the growth rate of the money supply increases to 17%, velocity grows at 1%, and real GDP grows at 5% per year on average, then the inflation rate will be **13** %.

---

72. It was noted in the preceding analysis that the relationship between money growth and inflation is considerably stronger in the long run than the short run. The primary reason for this variable relationship has to do with the degree of wage and price flexibility. More specifically, wages and prices tend to exhibit

- ◯ **A.** perfect inflexibility in the short run.
- ◯ **B.** perfect flexibility in the long run.
- ◉ **C. more flexibility in the long run than in the short run.**
- ◯ **D.** more flexibility in the short run than in the long run.

Since the strength of the relationship between money growth and inflation hinges on wage/price flexibility, it follows that policies that impair the flexibility of, say wages, can be expected to (1) ________ the ability of the quantity theory to provide a theory of inflation.

(1) ◉ **weaken**
◯ strengthen

---

73. When monetizing the debt, the monetary base will (1) ____________.

Financing a persistent (2) ____________ by money creation will lead to a sustained inflation.

(1) ◉ **increase** (2) ○ surplus
○ decrease ◉ **deficit**

---

74. If a government deficit is financed by an increase in bond holdings by the public, the monetary base

○ **A.** decreases.
◉ **B. does not change.**
○ **C.** increases.
○ **D.** could increase or decrease.

If government spending is $9 trillion and tax revenue is $4 trillion, then the government can monetize the debt by issuing $ **5** trillion in new bonds, then having the central bank conduct an equivalent open market purchase of bonds.

Financing a persistent budget deficit. by money creation will

○ **A.** lead to a sustained stagnation.
○ **B.** lead to a sustained deflation.
○ **C.** not affect prices.
◉ **D. lead to a sustained inflation.**

---

75. The Zimbabwean government's decision to fund its budget deficit by printing money was necessitated by

- **A.** its inability to raise taxes due to political opposition and the economy's poor health.
- **B.** the unwillingness of the public to lend to a government it mistrusted.
- **C.** its refusal to accept a "strings-attached" bailout from the World Bank.
- **D.** all of the above.
- **E. A and B but not C.**

One deficit-reduction option available to the Zimbabwean government (or any government) not mentioned in the preceding synopsis is (1) ____________ .

According to the quantity theory of money, the rate of inflation can be approximated by the excess of

- **A. money supply growth over the growth of real output.**
- **B.** output growth over the growth of the money supply.
- **C.** money supply growth over money demand growth.
- **D.** money demand growth over money supply growth.

(1) **spending cuts**
selling bonds

76. What does Keynes's liquidity preference theory predict about the relationship between interest rates and the velocity of money?

- ◉ **A. As interest rates rise, people will reduce their money holdings and therefore velocity will rise.**
- ◯ **B.** As interest rates rise, people will increase their money holdings and therefore velocity will decrease.
- ◯ **C.** As interest rates rise, people will reduce their money holdings and therefore velocity will decrease.
- ◯ **D.** As interest rates rise, people will increase their money holdings and therefore velocity will rise.

Keynes's liquidity preference theory implies that velocity

- ◯ **A.** is zero in the long-run.
- ◯ **B.** is not constant but is predictable.
- ◉ **C. has substantial fluctuations.**
- ◯ **D.** is constant.

Keynes's liquidity preference theory explains why velocity is expected to rise when

- ◯ **A.** wealth increases.
- ◯ **B.** income increases.
- ◯ **C.** brokerage commissions increase.
- ◉ **D. interest rates increase.**

---

77. What would be the effect of a stock market crash on the demand for money according to the portfolio theories of money demand? (*Hint:* Consider both the increase in stock price volatility following a market crash and the decrease in wealth of stockholders.)

- ◯ **A.** The demand for money decreases.
- ◯ **B.** The demand for money increases.
- ◯ **C.** The demand for money does not change.
- ◉ **D. There is not enough information available to determine the effect on money demand.**

78.
During inflationary periods, assets such as TIPS, gold, and real estate are used as (1) ____________ hedges.

Money demand will decrease when interest rates, payment technology, inflation risk, and the liquidity of other assets (2) ____________.

(1) ○ deflation
◉ **inflation**

(2) ○ decrease
◉ **increase**

---

79. According to the theory of portfolio choice, what would happen to money demand if wealth increases and inflation also increases substantially?

○ **A.** lower money demand
○ **B.** higher money demand
◉ **C. It is unclear**
○ **D.** Nothing, the two effects cancel each other.

When payment technologies improve, what does the theory of portfolio choice predict will happen to money demand?

◉ **A. decrease**
○ **B.** increase
○ **C.** It depend on the technology
○ **D.** No change

When wealth rises, money demand is likely to (1) ____________; however, this effect is likely to be small because money is a dominated asset.

(1) ○ decreases
◉ **increases**

---

80. A liquidity trap exists when the demand for money is (1) ____________ to interest rates.

When nominal interest rates hit zero, which of the following is not true:

- **A.** the demand for money is completely flat.
- **B.** nonconventional monetary policy must be used instead.
- **C.** **conventional monetary policy can be used.**
- **D.** a liquidity trap has occurred.

What case of interest sensitivity of the demand of money is supported by the data?

- **A.** There is ultransensitivity of the demand for money to interest rates.
- **B.** Interest rates do not affect the demand of money.
- **C.** **Neither extreme case is supported by the data.**

(1) **ultrasensitive**
not sensitive