

Answer Key

Economics 1012B
Introduction to Macroeconomics
Spring 2006
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Third Midterm Examination
March 30, 2006

Answer all of the following questions by selecting the most appropriate answer on your bubble sheet. Be sure to read each question carefully. Each question is worth 2 points (100 points total) and will count as 20 per cent of your final course grade.

NOTE: The use of calculators and electronic translators is prohibited.

1. The aggregate expenditure model assumes that the aggregate supply curve is:
- A) flat - the price level is fixed.
 - B) upward sloping - the price level is semi-flexible.
 - C) vertical - the price level is perfectly flexible.
 - D) irrelevant - only aggregate expenditures matter in this model.

Ans: A

Feedback: This question requires students to draw on material from both chapters 8 and 9. The multiplier model focuses on how autonomous changes in expenditures affect output. It assumes that the price level is constant throughout. In other words, the SAS curve is in the Keynesian range.

2. If you knew from the aggregate expenditure model that a change in autonomous expenditures of 10 increased equilibrium income by 40, you would know:
- A) the slope of the AD curve.
 - B) the position of the AD curve.
 - C) the shift in the AD curve.
 - D) the rotation of the AD curve.

Ans: C

Feedback: This question requires students to draw on material from both chapters 8 and 9. The aggregate expenditure model allows us to compute the change in equilibrium income, but this change must be consistent with AD/AS model. Since expenditures increase by 40 in this case, the AD curve must also shift by 40 to maintain equilibrium.

3. If the AE curve is represented by $AE = 1000 + 0.8Y$, a shift in the AE curve of 20, will be depicted as a shift in the AD curve of:
- A) 100.
 - B) 200.
 - C) 800.
 - D) 5000.

Ans: A

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Feedback: Multiply the multiplier (5) by the change in autonomous expenditures (20) to find the shift in the AD curve.

4. The _____ occurs because as prices fall, people become richer, so they buy more.
- A) international effect
 - B) multiplier effect
 - C) interest rate effect
 - D) wealth effect

Ans: D

Feedback: As the price level falls, the dollars people hold can buy more, making people wealthier.

5. If the price level rises, the interest rate effect will cause:
- A) investment and the quantity of aggregate demand to increase.
 - B) investment and the quantity of aggregate demand to decrease.
 - C) investment to increase and the quantity of aggregate demand to decrease.
 - D) investment to decrease and the quantity of aggregate demand to increase.

Ans: B

Feedback: A higher price level reduces real cash balances, causing people to save less. The result is higher interest rates, lower investment, and a lower level of aggregate demand.

6. A rise in the Canadian price level will cause:
- A) both exports and imports to increase.
 - B) both exports and imports to decrease.
 - C) exports to increase and imports to decrease.
 - D) exports to decrease and imports to increase.

Ans: D

Feedback: As the price level rises, Canadian goods become more expensive than foreign goods and foreigners substitute foreign goods for Canadian goods. Canadian citizens, also substitute foreign goods for domestic goods.

7. The wealth effect, the interest rate effect, and the international effect cause the AD curve to:
- A) shift to the right.
 - B) shift to the left.
 - C) slope downward.
 - D) slope upward.

Ans: C

Feedback: These effects explain why a lower price level raises aggregate demand.

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8. The multiplier effect makes the aggregate demand curve:

- A) steeper.
- B) flatter.
- C) horizontal.
- D) vertical.

Ans: B

Feedback: The multiplier effect augments the effect of a change in the price level on aggregate expenditures due to the wealth, interest rate, and international effects. It makes the AD curve flatter.

9. A rise in foreign income will most likely cause:

- A) a reduction in Canadian exports, so the Canadian aggregate demand curve shifts left.
- B) a reduction in Canadian exports, so the Canadian aggregate demand curve shifts right.
- C) an increase in Canadian exports, so the Canadian aggregate demand curve shifts left.
- D) an increase in Canadian exports, so the Canadian aggregate demand curve shifts right.

Ans: D

Feedback: A rise in foreign income increases Canadian aggregate demand, shifting its AD curve right.

10.. If the government increases its expenditures (without any change in taxes) and at the same time the Bank of Canada increases the money supply, the AD curve would:

- A) shift to the left.
- B) shift to the right.
- C) become flatter.
- D) become steeper.

Ans: B

Feedback: An increase in government expenditures increases economic activity and shifts the AD curve to the right. An increase in the money supply lowers interest rates and increases economic activity; this also shifts the AD curve to the right.

11. The short-run aggregate supply curve developed in the text assumes that firms adjust:

- A) quantity and price in response to changes in aggregate demand.
- B) quantity but not price in response to changes in aggregate demand.
- C) price but not quantity in response to changes in aggregate demand.
- D) neither price nor quantity in response to changes in aggregate demand.

Ans: A

Feedback: The model in the text assumes that markets are quantity and price adjusting in the short-run.

12. Consider the case where firms have long-term collective agreements with their employees which establish future nominal wage rates. If there is an unexpected decrease in the price level, such firms would tend to:

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- A) decrease output in the short run.
- B) increase output in the short run.
- C) decrease output but only in the long run.
- D) increase output but only in the long run.

Ans: A

Feedback: An unexpected decrease in the price level will increase the real cost of hiring workers and firms will tend to decrease output.

13. If productivity decreases by 4% but wages decrease by 2%, then it is most likely that:
- A) the SAS curve will shift to the left.
 - B) the SAS curve will shift to the right.
 - C) the SAS curve will not shift.
 - D) the AD curve will shift to the left.

Ans: A

Feedback: This combination raises production costs since wages are not falling as fast as productivity. Firms raise prices as a result, causing the SAS curve to shift up.

14. A doubling of prices:
- A) doubles potential output.
 - B) more than doubles potential output.
 - C) increases potential output but by less than double.
 - D) does not affect potential output.

Ans: D

Feedback: Potential output is unaffected by the price level.

15. In the long run, the position of the aggregate demand curve determines:
- A) output.
 - B) the price level.
 - C) both output and the price level.
 - D) neither output nor the price level.

Ans: B

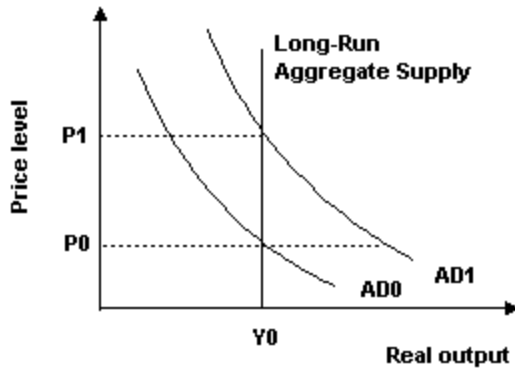
Feedback: In the long run, output attains its potential, so aggregate demand determines only the price level.

16. If potential output is less than aggregate demand, eventually the short-run aggregate supply curve will shift:
- A) left and eliminate the recessionary gap.
 - B) right and eliminate the recessionary gap.
 - C) left and eliminate the inflationary gap.
 - D) right and eliminate the inflationary gap.

Ans: C

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Feedback: In this case, input prices will be bid up, raising production costs and forcing firms to increase output prices. As this occurs, the short-run aggregate supply curve shifts to the left.



17. Refer to the graph above. In the graph, if the price level is P_1 and the aggregate demand curve is AD_0 then the economy:

- A) is in a recessionary gap.
- B) is in an inflationary gap.
- C) is in a long-run equilibrium.
- D) is fully employed.

Ans: A

Feedback: Since aggregate demand is less than potential output at this combination, the economy is in a recessionary gap.

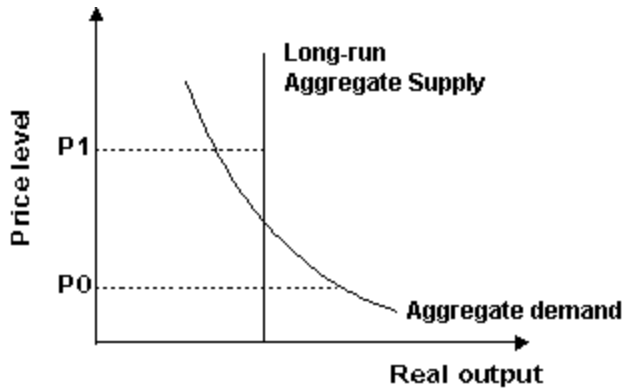
18. If the Canadian economy is producing above its potential income, all of the following are likely to happen *except*:

- A) production will continue to increase.
- B) there will be a shortage of labour and raw materials.
- C) prices will rise.
- D) inventories will decline.

Ans: A

Feedback: There will not be enough resources available to increase production.

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19. Refer to the graph above. If the price level is P_0 :
- A) the short-run aggregate supply curve will shift up in the long run to restore equilibrium.
 - B) the short-run aggregate supply curve will shift down in the long run to restore equilibrium.
 - C) the aggregate demand curve will shift up in the long run to restore equilibrium.
 - D) the aggregate demand curve will shift down in the long run to restore equilibrium.

Ans: A

Feedback: Because there is an inflationary gap at P_0 , the short-run aggregate supply curve will shift up in the long run as input prices rise.

20. In the late 1990s, the Canadian budget went into surplus and there was a lengthy debate about what should be done with the surplus. Suppose the government used the surplus to finance tax cuts. If the Canadian economy was at potential output before the tax cut, the short-run effect of the tax cut would most likely be:

- A) higher output and higher prices.
- B) higher output without higher prices.
- C) higher prices without higher output.
- D) no change in output or prices.

Ans: A

Feedback: In the short run, the tax cut would boost aggregate demand, generating higher output and higher prices.

21. In late 2005, the federal government announced increases in expenditures and cuts in taxes. At the same time, the Bank of Canada raised interest rates. In the long run, this combination will:

- A) increase output above its potential.
- B) reduce output beneath its potential.
- C) have an indeterminate effect on potential output.
- D) not cause output to deviate from its potential.

Ans: D

Feedback: Monetary and fiscal policy affect the position of the aggregate demand curve,

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but they do not affect the level of potential output, which is determined on the supply side of the economy. Since prices adjust in the long run to bring output to its potential, output in the long run will not be affected by this policy combination.

22. If an economy is in the Keynesian range and consumer and business expectations about the future improve, output will:

- A) rise in the short run and the long run.
- B) rise in the short run but not the long run.
- C) rise in the long run but not the short run.
- D) fall in the short run and the long run.

Ans: A

Feedback: Because improved expectations raise aggregate demand, and because output is beneath its potential in the Keynesian range, the increase in aggregate demand should lead to an increase in output in both the short run and the long run.

23. If the target rate of unemployment falls, potential income will:

- A) first decrease, then increase.
- B) increase.
- C) decrease.
- D) first increase, then decrease.

Ans: B

Feedback: Potential income varies inversely with unemployment.

24. Which of the following would *not* be an expansionary fiscal policy?

- A) Increased welfare payments to the poor.
- B) Decreases in federal taxes on corporations.
- C) A balanced budget.
- D) Increased government expenditures on goods and services.

Ans: C

Feedback: Balancing spending and taxes is not an expansionary fiscal policy.

25. Fiscal policy is used to "manage":

- A) aggregate demand.
- B) aggregate supply.
- C) both aggregate demand and aggregate supply.
- D) neither aggregate demand nor aggregate supply.

Ans: A

Feedback: Fiscal policy is one type of demand management policy. The purpose of these policies is to alter aggregate demand in such a way as to bring the economy to its potential output level.

26. If an economy is in a recession, one fiscal policy that might help it recover is:

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- A) a cut in social security payments.
- B) a cut in the income tax rate.
- C) a cut in education spending.
- D) an increase in property taxes.

Ans: B

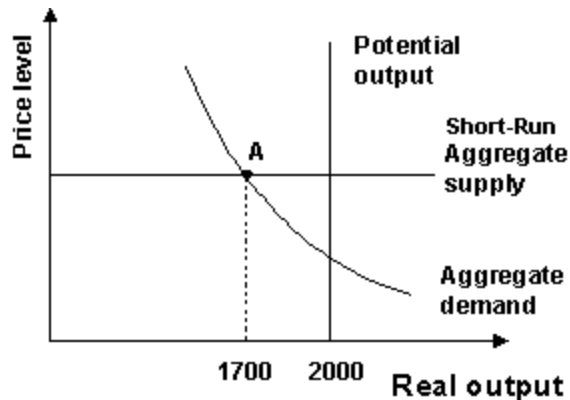
Feedback: Cutting income taxes will increase the incomes of consumers, leading to an increase in aggregate demand and income.

27. Suppose equilibrium income is \$3,000 billion and government policy makers determine that potential income is \$3,400 billion. If the $mpc = 0.75$ and the price level is constant, by how much must government spending change to close the GDP gap?

- A) increase by \$400 billion.
- B) decrease by \$300 billion.
- C) increase by \$100 billion.
- D) decrease by \$50 billion.

Ans: C

Feedback: In this case, the multiplier equals $1/(1-mpc)$ or four, so government spending must increase by \$100 billion.



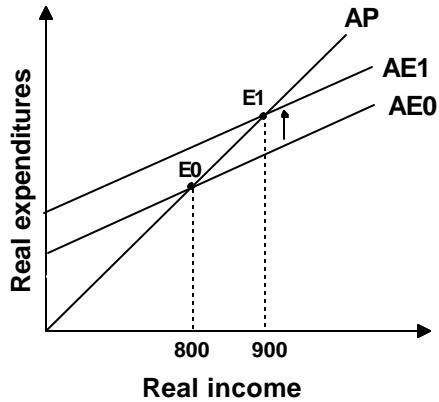
28. Refer to the graph above. If the economy in the graph is at point A and the mpc is $2/3$, then the most appropriate fiscal policy would be:

- A) an increase in government expenditures of 100.
- B) a decrease in government expenditures of 100.
- C) an increase in government expenditures of 300.
- D) a cut in taxes of 300.

Ans: A

Feedback: Since the multiplier is 3 in this case, an increase in government spending of 100 will raise aggregate demand and output by 300, moving output to its potential.

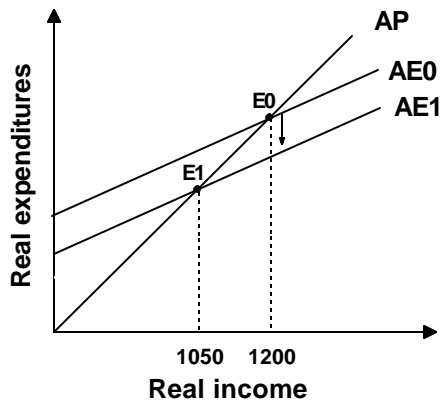
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29. Refer to the graph above. A shift in the aggregate expenditure curve from AE0 to AE1 could be caused by:
- A) an increase in income taxes.
 - B) an increase in government spending on education.
 - C) a decrease in welfare payments.
 - D) an increase in the corporate profits tax.

Ans: B

Feedback: Higher spending on education increases aggregate expenditure at each income level, which shifts the AE curve up.



30. Refer to the graph above. A shift in the aggregate expenditure curve from AE0 to AE1 could *not* be caused by:
- A) an increase in income taxes.
 - B) a decrease in defence spending.
 - C) an increase in social assistance payments.
 - D) an increase in the corporate profits tax.

Ans: C

Feedback: An increase in social assistance payments shifts the AE curve up by

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increasing aggregate expenditure at each income level.

31. Refer to the graph above. If the government spending multiplier is 5, the shift from AE0 to AE1 could be explained by a:

- A) \$150 increase in government spending.
- B) \$150 decrease in government spending.
- C) \$30 increase in government spending.
- D) \$30 decrease in government spending.

Ans: D

Feedback: The shift in the AE curve causes equilibrium income to fall by \$150. Since the government spending multiplier is 5, government spending has to change by only one-fifth of the change in income.

32. Which of the following is an example of countercyclical fiscal policy?

- A) A reduction in taxes when the economy is booming.
- B) An increase in government spending when the economy is booming.
- C) An increase in taxes when the economy is in a recession.
- D) An increase in government spending when the economy is in a recession.

Ans: D

Feedback: An increase in government spending will increase aggregate expenditure and income and help the economy recover from the recession.

33. The multiplier in Singapore is 4 and there is an inflationary gap of 150. Singapore should:

- A) decrease autonomous spending by 37.5.
- B) decrease autonomous spending by 600.
- C) increase autonomous spending by 37.5.
- D) increase autonomous spending by 600.

Ans: A

Feedback: Since the gap is inflationary, contractionary policy is called for. As the multiplier is 4, Singapore should decrease autonomous spending by 37.5 to achieve an overall reduction of 150.

34. If the $mpc = 0.8$ and government spending decreases by 40, then the AE curve shifts _____ while the AD curve shifts _____.

- A) down by 40; in by 40.
- B) down by 40; in by 200.
- C) down by 200; in by 200.
- D) up by 40; out by 200.

Ans: B

Feedback: The decrease in government spending decreases aggregate expenditure by 40 at each income level, causing the AE curve to shift down by 40. The multiplier effect

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then translates the initial decrease in income into a decrease in aggregate demand equal to the multiplier ($1/(1-mpc)$ or 5) times the initial decrease in government expenditures.

35. All of the following policies are alternatives to fiscal policy *except*:

- A) exchange rate policies.
- B) spending policies.
- C) directed investment policies.
- D) trade policies.

Ans: B

Feedback: Spending policies are one type of fiscal policy.

36. Export-led growth policies:

- A) benefit all countries.
- B) benefit the countries that adopt them at the expense of other countries.
- C) harm the countries that adopt them but benefit other countries.
- D) harm all countries.

Ans: B

Feedback: A country that boosts its own economy by increasing its exports necessarily increases another country's imports and undercuts that country's economy.

37. If wage and price controls had not been introduced during the Second World War and the economy still experienced a recessionary gap, the massive increase in military spending would have ultimately:

- A) increased both output and the price level.
- B) increased only output.
- C) increased only the price level.
- D) had no effect on output or the price level.

Ans: A

Feedback: The huge increase in defence spending would have eliminated the recessionary gap produced by the Depression and created an inflationary gap instead, leading to both a higher level of output and a higher price level.

38. The budget surpluses of the late 1990s and early 2000s:

- A) harmed the economy by producing a recession.
- B) harmed the economy by increasing inflationary pressures.
- C) helped the economy by producing an economic expansion.
- D) helped the economy by reducing inflationary pressures.

Ans: D

Feedback: The budget surpluses of the late 1990s and early 2000s served to brake the economy, which might otherwise have overheated.

39. Fine tuning the economy with fiscal policy:

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- A) is relatively simple because the government has access to the best information available.
- B) is difficult because the government lacks important information about the economy.
- C) is relatively simple because the political process usually works smoothly and without significant lags.
- D) is difficult because economists haven't developed theoretical models of the macroeconomy.

Ans: B

Feedback: Theoretical models of the macroeconomy like the aggregate expenditure model are well developed but their practical reliability is limited because key information about the economy is either unavailable or cannot be obtained in a timely fashion.

40. Crowding out is associated with:

- A) a reduction in business investment resulting from an increase in government borrowing and higher interest rates.
- B) an increase in business investment resulting from an increase in government borrowing and higher interest rates.
- C) an increase in private savings caused by higher future tax liabilities when government increases borrowing.
- D) a decrease in government spending caused by a shortage of available credit.

Ans: A

Feedback: Crowding out arises when government bond sales drive up interest rates and depress business investment.

41. When the price level is flexible, the multiplier is:

- A) smaller than in the case where prices are constant.
- B) larger than in the case where prices are constant.
- C) the same as in the case where prices are constant.
- D) larger in the case of expansionary fiscal policy and smaller in the case of contractionary fiscal policy.

Ans: A

Feedback: The multiplier is smaller than in the fixed-price case. This occurs for both expansionary and contractionary fiscal policy.

42. If government has no debt initially but then has annual revenues of \$1.5 billion for 10 years and annual expenditures of \$1.6 billion for 10 years, then the government has a:

- A) deficit of \$100 million per year and a debt of \$1 billion.
- B) surplus of \$100 million per year and a debt of \$1 billion.
- C) deficit of \$100 million and a debt of \$1 billion per year.
- D) surplus of \$100 million and a debt of \$1 billion per year.

Ans: A

Feedback: A deficit of \$100 million exists because spending exceeds revenues by this

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amount in each year. Since the debt is just the accumulation of deficits over the period, it equals \$1 billion (10 x \$100 million).

43. Holding the nominal deficit and total debt constant, an increase in the inflation rate will:

- A) not affect the real deficit.
- B) raise the real deficit.
- C) lower the real deficit.
- D) either raise or lower the real deficit depending on the real interest rate.

Ans: C

Feedback: Since higher inflation wipes out more debt, the real deficit declines.

44. A budget deficit that would exist even if the economy were at potential income is called:

- A) a passive deficit.
- B) a real deficit.
- C) a structural deficit.
- D) a nominal deficit.

Ans: C

Feedback: The structural deficit is the portion of the budget deficit that exists when the economy is at potential income.

45. If an economy operates below potential income, the actual deficit is _____ the structural deficit.

- A) smaller than
- B) larger than
- C) the same as
- D) comparable to

Ans: B

Feedback: As income falls below its potential, the passive deficit increases, causing the total deficit to exceed the structural deficit.

46. Suppose that the economy has a structural surplus of \$100 billion and is operating above potential output. From this we can infer that the budget as a whole:

- A) is in deficit.
- B) is balanced.
- C) is in surplus.
- D) could be in deficit or surplus depending on the size of the passive deficit.

Ans: C

Feedback: The sum of the passive and structural deficits equals the budget deficit. Since there is both a structural deficit and a passive surplus (output is above potential output), the budget as a whole must be in surplus.

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47. A constant debt to GDP ratio in a growing economy is consistent with:

- A) a continual surplus.
- B) a continual deficit.
- C) a balanced budget.
- D) a falling level of total debt.

Ans: B

Feedback: If GDP is rising, the debt can rise (i.e. the budget can be in continual deficit) by the same percent as the rise in GDP and still maintain a constant debt to GDP ratio.

48. 120. The advent of Keynesian economics:

- A) increased the pressure to eliminate budget deficits.
- B) increased the pressure to run budget surpluses.
- C) reduced the pressure to eliminate budget surpluses.
- D) reduced the pressure to eliminate budget deficits.

Ans: D

Feedback: Keynesian economics viewed deficits as a way of providing a short-run stimulus to an economy in which output was beneath potential output. This reduced the pressure to eliminate deficits.

49. In the mid-1990s the Canadian government cut many social programs and redesigned others. These changes were designed to address the problem of:

- A) inflation.
- B) unemployment.
- C) the passive deficit.
- D) the structural deficit.

Ans: D

Feedback: In the 1990s the federal government cut many social programs in order to reduce the structural deficit.

50. Suppose the real rate of interest is 5 percent and the rate of annual inflation is 3 percent. What is the nominal rate of interest?

- A) 2 percent.
- B) 8 percent.
- C) -2 percent.
- D) 15 percent.

Ans: B

Feedback: Substituting numbers into the Fisher equation ($i = r + p^e$). This is the same example given in the chapter.