Chapter 31

DEFICITS AND DEBT

Principles of Economics in Context (Goodwin, et al.), 2nd Edition

Chapter Overview

This chapter expands on the material from Chapter 25, from a less theoretical and more applied perspective. It begins by going over the difference between deficits and debts, and reviewing some of the history of U.S. indebtedness. Included in this is a brief discussion of "supply-side" economics and its role in altering the fiscal position of the United States. The chapter also goes into significant detail explaining the differences among different debt "terminologies" that are often confused, clarifying what we mean by terms such as "external debt" or "public debt." It then reviews some of the basic problems with excessive borrowing, including political considerations and issues related to the foreign holding of government debt. This discussion includes a contrast between the European Union (EU) and US approaches to their respective budget problems. The chapter concludes with future projections of deficits and debt in the United States, and a discussion of some policies to reduce future deficits and long-term growth of debt.

Chapter Objectives

After reading and reviewing this chapter, you should be able to:

1. Understand the difference between a deficit and a debt, and how the two are related.
2. Explain how the national debt in the United States has evolved over the years.
3. Have a basic understanding of how "supply side" economics changed the debt situation in the United States.
4. State the differences among the different debt classifications
5. Understand the main problems with excessive borrowing
6. Explain the different ways in which a country's debt infiltrates its politics, both domestic and international.
7. Explain what future projections are, both for U.S. deficits and debt.
8. Discuss the revenue and spending side policies for reducing future deficits.

Key Terms

gross federal debt
debt held by the public
internal debt
external debt
monetizing the debt
deficit ceiling
debt ceiling
functional finance
sovereign debt
convergence criteria
austerity

Active Review

Fill in the Blank

1. We say that whereas the government deficit is a flow variable, the debt is a ________ variable.

2. The gross federal debt results from an accumulation of _____________ over the years.

3. The Department of the Treasury issues ___________ in order to pay for its budget deficits.

4. President Reagan favored policies based on _____________ economics, which presumed that offering more benefits to the rich would help the economy.

5. The _____________ debt refers to the total amount owed by the federal government to *all* claimants.

6. When the Federal Reserve buys the government debt as it is issued, it is referred to as _________ the debt.

7. Were it not for low _____________ in recent years, the growing debt would have been a greater burden on the annual federal budget.

8. The two countries that hold the greatest share of the U.S. gross federal debt are _______ and _______.

9. A policy of ________ involves cutting deficits by cutting social spending and/or raising taxes.

10. The rules by which EU member countries must abide as a condition for participating in the Eurozone are known as the _____________.

True or False

11. An accumulation of government debts will ultimately lead to a deficit.

12. Alexander Hamilton believed that the national debt had the potential to strengthen the country.

13. The debt held by the public refers to the portion of the debt not held by foreign countries.

14. China holds a minority of the external debt of the United States.

15. The United States recently passed a balanced budget amendment to the Constitution.

16. United States policy has, over the past 10 years, preferred deficit spending to austerity.

Short Answer

17. Explain the difference between deficits and debt, and discuss how they are related.

18. Has the federal debt increased over the past century in absolute terms? How about as a percentage of GDP? Discuss.

19. Explain how supply-side economic policies have impacted the U.S. federal budget.

20. Discuss in detail how ‘gross federal debt’ is different from ‘total U.S. indebtedness.’

21. What are some of the main problems associated with too much borrowing by the federal government?

22. Many believe that most of our government debt is owed to foreigners, especially to the Chinese. Is this true? Discuss.

23. Should the United States “balance its budget?” Discuss, contrasting the United States and the European Union.

24. What does the future hold for the U.S. federal budget? Why, according to the Congressional Budget Office, are deficits likely to increase significantly in the next few years?

25. Do taxes on carbon or other greenhouse make sense from the standpoint of reducing U.S. deficits? Explain.

Problems

1. Given the following hypothetical budget data for "Budgetland," fill in the "total spending" column (which, for the time being, is just military and civilian spending). Then calculate the surplus/deficit for each year and, based on this calculation, the existing debt at the start of the next year. Comment.

Year	Tax Revenue	Military Spending	Civilian Spending	Total Spending	Surplus or Deficit	Existing Debt
2015	7.0	4.0	4.0			100.0
2016	7.2	4.0	4.1			
2017	7.2	4.2	4.3			
2018	7.3	4.0	4.5			
2019	7.0	3.7	4.7			
2020	7.1	3.5	4.9			
2021	6.8	3.6	5.1			
2022	7.0	3.7	5.3			
2023	7.2	3.8	5.5			
2024	7.3	3.9	5.7			
2025	7.4	4.0	5.9			

2. Now expand this problem by adding a column that includes Budgetland's interest payments (another component of total spending). For now, assume a constant interest rate of 2 percent, so that interest payment for the first year equals .02 times the existing debt of 100.0. (Interest payments for subsequent years will be based on updated debt numbers). Notice that the debt numbers will themselves change now since the interest payments will add to the annual deficit. Comment on what you observe.

3. Now let's compare Budgetland's debt to its GDP. Add two columns—GDP, and "debt-GDP ratio." Let GDP in the year 2015 equal 200.0, and assume that it grows by 3 percent annually. Then calculate the debt-GDP ratio for each year. What trend do you notice?

4. Finally, redo the entire exercise assuming an interest rate of 5 percent instead of 2 percent. Then try it assuming an interest rate of 10 percent. What differences do you notice? Prepare a graph that shows the Budgetland's debt-GDP ratio under each of the three interest rate assumptions over the period.

Self Test

1. A deficit in a given year signifies…

   a. a shrinking surplus.
   b. a growing debt.
   c. a surplus in the year to follow.
   d. higher taxes.
   e. Both (a) and (b)

2. Which of the following is NOT an argument for not worrying about the size of the debt?

   a. Every country's government is indebted.
   b. Half of government debt is owed to U.S. citizens.
   c. The U.S. government pays interest in dollars, a desirable currency internationally.
   d. Government debt never even has to be paid off.
   e. All of the above are valid arguments.

3. Our national debt as a percentage of GDP reached its highest point during…

   a. the Viet Nam war.
   b. the Great Depression.
   c. the Reagan Administration.
   d. World War II.
   e. the Obama Administration.

4. What was the importance of the Great Depression in relation to the history of the U.S. federal debt?

   a. It thereafter became more manageable than it had been previously.
   b. Higher taxes since then have wreaked havoc with the federal budget.
   c. Social spending started to make a meaningful impact on the overall debt.
   d. It was from this point forward that the Treasury Department would start borrowing at lower interest rates.
   e. None of the above is true.

5. Reagan's 1981 Economic Recovery Act…

   a. substantially reduced income and corporate tax rates.
   b. was in keeping with his preferred supply-side policies.
   c. contributed to a sizable increases in federal budget deficits.
   d. coincided with an increased in military spending.
   e. All of the above are true.

6. Which of the following was NOT a factor in the record deficits seen during President Obama's first term in office?

    a. The Great Recession
    b. Automatic stabilizers
    c. Wars in Iraq and Afghanistan
    d. Tax increases
    e. All of the above were factors.

7. The "debt held by the public" refers to…

    a. the gross federal debt minus the debt held by the Federal Reserve.
    b. the gross federal debt minus the debt owed to other government accounts.
    c. the gross federal debt plus the debt held in credit cards and household mortgages.
    d. the portion of the federal debt held by U.S. citizens.
    e. household credit card and mortgage debt.

8. Total U.S. indebtedness, including both public and private debt, reached _____ percent of GDP in the aftermath of the financial crisis of 2007-08.

    a. 500
    b. 140
    c. 350
    d. 57
    e. 18

9. Monetizing the debt means that…

    a. the Fed buys new government debt as it is issued.
    b. the Treasury Department issues new bonds to finance the federal budget deficits.
    c. the Defense Department sells some of its aircraft for cash in order to help finance the deficit.
    d. the Fed "cashes in" its debt holdings.
    e. None of the above.

10. The Federal Reserve holds approximately _____ percent of the gross federal debt.

    a. 10
    b. 20
    c. 5
    d. 50
    e. 2

11. After China and Japan, the three single greatest foreign holders of U.S. federal debt are…

    a. Brazil, India, and Russia.
    b. Russia, India, and Saudi Arabia.
    c. Brazil, Switzerland, and the Congo.
    d. Brazil, Russia, and Kenya.
    e. Ireland, Brazil, and Switzerland.

12. As of 2016, the EU nation with the greatest debt-GDP ratio was…

    a. Portugal.
    b. Germany.
    c. Greece.
    d. Spain.
    e. Italy.

13. Austerity…

    a. means that deficits are cut through either spending cuts or tax hikes.
    b. accurately describes recent U.S. fiscal policy.
    c. tends to cause deficits to rise rapidly.
    d. describes a set of policies that a government would pursue if it wanted to promote job growth.
    e. was favored by the Reagan Administration.

14. The Congressional Budget expects U.S. deficits to…

    a. decline until 2025 and rise steeply thereafter.
    b. rise until 2025 and then decline steeply thereafter.
    c. decline until the debt is fully paid off by 2055.
    d. more or less stabilize by 2025.
    e. rise to about 5% of GDP by 2022 and remain close to 5-6% for the next six years.

15. The debt ceiling refers to…

    a. the debt level at which the U.S. government runs out of money.
    b. the congressionally mandated limit on the size of the federal debt.
    c. the point at which the federal debt reaches 100 percent of GDP.
    d. a limit on federal debt imposed by the Treasury Department.
    e. the point at which interest payments on the debt fully exhaust next year's budget.

16. A balanced budget amendment to the Constitution…

    a. would likely increase the annual inflation rate.
    b. would probably make fiscal policy a more powerful tool.
    c. was passed in 2013 but awaits ratification.
    d. All of the above are true.
    e. None of the above is true.

17. Which of the following is NOT a reason given by the CBO for its expectation that deficits in the United States will remain high in the near future?

    a. An increase in healthcare costs.
    b. An aging population.
    c. An increase in interest payments on the federal debt.
    d. The 2017 tax cuts by the Trump administration.
    e. All of the above are reasons given by the CBO.

18. The reduction in "mandatory" spending would require the federal government to cut spending on …

    a. the military.
    b. retirement programs and unemployment.
    c. education and research and development.
    d. the environment.
    e. All of the above.

19. Which of the following is a revenue side policy for reducing future deficits?

    a. lowering payroll taxes
    b. imposing new, possibly environmentally-oriented, taxes
    c. reducing spending on military.
    d. repealing tax cuts for high-income individuals and corporations
    e. Both b. and d.

20. The spending side policies on reducing deficits include all the following, *except:*

    a. increasing taxes for high-income individuals
    b. reducing spending on social welfare programs
    c. reducing discretionary spending on military and infrastructure
    d. increase efficiency of spending on healthcare
    e. reduce spending on scientific research

Answers to Active Review Questions

1. stock
2. deficits
3. bonds
4. supply-side
5. gross federal
6. monetizing
7. interest rates
8. China, Japan
9. austerity
10. convergence criteria
11. False, it is the other way round—an accumulation of deficits results in a debt.
12. True
13. False, that would be the internal debt. The public debt refers to the gross federal debt minus the debt owed to other government accounts such as Social Security and Medicare.
14. True
15. False, only a minority of Congress members believes that the United States should do so.
16. True
17. A deficit occurs whenever available tax revenue is insufficient to finance government spending for that year. The money borrowed by the government to make up the difference adds to the existing debt. Hence, debt is the accumulation of deficit over many years.
18. In terms of dollars, yes, the debt has more or less risen throughout the 20th century, to its present level of over $21 trillion. But in relation to the size of the economy (GDP)—which is what we care more about—it has fluctuated considerably. It reached its highest point, more than 100 percent of GDP, during World War II, but since then declined to under 40 percent in the late 1970s. Since then it has again been on the rise, recently again reaching over 100 percent of GDP.
19. In short, supply-side economics involves tax cuts—and starting in the 1980s these were substantial. Reduced tax revenue results in budget deficits (unless spending declines commensurately, which was far from the case), and with deficits a perennial phenomenon the debt can become very large indeed.
20. The gross federal debt refers to the total amount of money owed by the federal government—what is often referred to as the national debt. Total indebtedness is a much broader concept, which includes the national debt, but also all corporate debt from financial and non-financial businesses, all debt from state and local governments, and all debt from households (including credit card and mortgage debt) and non-profits.
21. One problem is that borrowing sometimes is for "low-multiplier" activities, such as tax cuts for the wealthy, or spending on projects that might disproportionately benefit the wealthy, who spend a much smaller share of their income than the poor. Another problem is that if debt grew too large, creditors might begin to doubt the U.S. government's continued ability to finance its debt. Thus far there is not much

evidence of this, but it is not inconceivable. Third, mounting debt requires either that taxes be raised or that more money be borrowed to finance existing debt. Often this leads to monetizing the debt—which means that the Fed stands ready to buy the new bonds—which has monetary policy impacts that might not always be desirable.

22. This is not true. As of 2016, foreigners held about one-third (32.5%) of the debt, of which the Chinese and the Japanese held over 35 percent. This is not to say that it is not a problem. Foreign ownership of U.S. debt has increased substantially over the past 30-40 years, and seems likely to continue increasing. Interest payments on this portion of the debt must be made to those outside the country.
23. Balancing the budget and, ultimately, paying off the debt would likely create more problems than it solves. There is nothing inherently wrong with a national government having a debt, as long as it is "manageable." What this means is that the cost of servicing the debt (i.e., paying interest on it) is not too burdensome on the next budget (in that it requires cuts in other types of spending or an increase in the amount of borrowing). The problem with balancing the budget is that doing so would require tax increases, spending cuts, or both. And such policies may have to be implemented at times when the economy is in a downturn (which might worsen the crisis), or when there is severe need for government funds for recovery from a natural disaster. So, while reducing the deficit is probably a good idea, caution is required so that doing so does not produce too contractionary an effect on the economy. In contrast to the United States, the European Union had adopted a strict deficit-reducing (austerity) strategy, which only deepened the already suffering economy with countries such as Greece, Spain and Portugal experiencing considerable social unrest and economic hardship. Unfortunately, countries in the Eurozone had little choice, since their deficit and debt levels must satisfy the euro's convergence criteria. However, since 2017 these austerity policies have been relaxed and EU has encouraged fiscal expansion.
24. The 2017 tax cuts by the Trump administration that includes tax cuts for everyone, with greater and more permanent tax cuts going to the high-income individuals and corporations, is likely to increase the deficits in the coming years significantly. Moreover, the CBO finds that deficits are likely to remain high—for four other reasons. First, an aging U.S. population means that more funds than earlier will be needed to finance retirement programs like Social Security and Medicare, and the tax base is likely to shrink as the retired become a greater percentage of the overall population. Second, and related, with health care costs rising much more rapidly than the general inflation rate, Medicare expenditures will only increase even more rapidly. Expenditures on Medicaid, a program that provides medical coverage for poor families, would also increase significantly. Third, federal subsidies for health care are likely to rise commensurately. Finally, as interest rates are not expected to remain at historical lows forever, any modest rise in the interest rate would translate to much larger annual interest payments, also worsening budget deficits.
25. They do make sense, at least potentially. Such taxes increase revenue for the government, so if nothing else changed, deficits would be smaller, possibly by $100 billion or more. And if such taxes raised sufficient revenue, they could even carry the additional benefit of allowing a reduction in the income tax, which would likely increase overall economic efficiency (since instead of taxing income, a "desirable," we would tax pollution, an "undesirable.")

Answers to Problems

1.

Year	Tax Revenue	Military Spending	Civilian Spending	Total Spending	Surplus or Deficit	Existing Debt
2015	7.0	4.0	4.0	8.0	-1.0	100.0
2016	7.2	4.0	4.1	8.1	-0.9	101.0
2017	7.2	4.2	4.3	8.5	-1.3	101.9
2018	7.3	4.0	4.5	8.5	-1.2	103.2
2019	7.0	3.7	4.7	8.4	-1.4	104.4
2020	7.1	3.5	4.9	8.4	-1.3	105.8
2021	6.8	3.6	5.1	8.7	-1.9	107.1
2022	7.0	3.7	5.3	9.0	-2.0	109.0
2023	7.2	3.8	5.5	9.3	-2.1	111.0
2024	7.3	3.9	5.7	9.6	-2.3	113.1
2025	7.4	4.0	5.9	9.9	-2.5	115.4

Budgetland runs a deficit every year, so its debt gradually increases over the period, from 100.0 to 115.4.

2.

Year	Interest Payment	Total Spending	Surplus or Deficit	Existing Debt
2015	2.0	10.0	-3.0	100.0
2016	2.1	10.2	-3.0	103.0
2017	2.1	10.6	-3.4	106.0
2018	2.2	10.7	-3.4	109.4
2019	2.3	10.7	-3.7	112.8
2020	2.3	10.7	-3.6	116.4
2021	2.4	11.1	-4.3	120.1
2022	2.5	11.5	-4.5	124.4
2023	2.6	11.9	-4.7	128.8
2024	2.7	12.3	-5.0	133.5
2025	2.8	12.7	-5.3	138.5

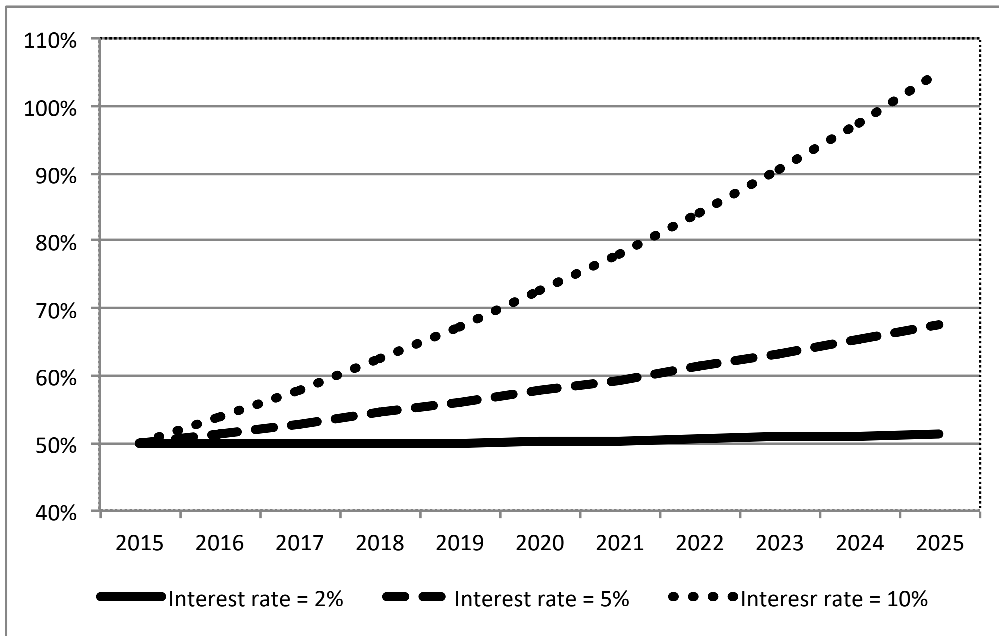
Including interest payments increase spending each year, which increases the size of the deficit, and the size of the existing debt for each year.

3.

Year	Existing Debt	GDP	Debt-GDP Ratio
2015	100.0	200.0	50.0%
2016	103.0	206.0	50.0%
2017	106.0	212.2	49.9%
2018	109.4	218.5	50.0%
2019	112.8	225.1	50.1%
2020	116.4	231.9	50.2%
2021	120.1	238.8	50.3%
2022	124.4	246.0	50.6%
2023	128.8	253.4	50.9%
2024	133.5	261.0	51.2%
2025	138.5	268.8	51.5%

The earlier drop in military spending results in the debt increase not keeping pace with the 3 percent rate of growth in GDP. This makes the debt-GDP ratio decline slightly and remain mostly flat until about 2021. After this, continued increased in the interest payment cause debt to rise more rapidly than GDP, so the debt-GDP ratio increases to 51.5% by 2025.

4.



Increasing the annual interest rate changes matters substantially. Assuming a rate of 5 percent, the debt-GDP ratio is at about two-thirds by 2025, and assuming a rate of 10 percent, debt actually *exceeds* GDP by the year 2025. This clearly illustrates how the burden of having to pay interest on existing debt could make it even more difficult to keep from running deficits (hence borrowing more!) in the future.

Answers to Self Test Questions

1. b
2. a
3. d
4. c
5. e
6. d
7. b
8. c
9. a
10. a
11. e
12. c
13. a
14. e
15. b
16. e
17. e
18. b
19. e
20. a