

Macroeconomics: an Introduction

Chapter 10

Government Spending, Taxation, and Deficits

Internet Edition **Revised** April 10, 2011
Copyright © 2005-2011 by Charles R. Nelson
All rights reserved.

Outline

Preview

10.1 What About that Federal Budget Deficit?

Putting the Federal Budget in Perspective

The National Debt

10.2 Growth in the Role of the Federal Government

The Income Tax

Trends in Federal Spending

The Social Security System

Medicare

10.3 Long Term Consequences of Budget Deficits

Preview

Government at all levels - federal, state, and local - collects taxes, provides services, makes transfer payments, and borrows when its expenditures exceed its tax revenues. In a course on macroeconomics we focus on the federal government because its actions most directly affect the entire national economy. Congress and the President determine what taxes are collected, what expenditures are undertaken, and how a gap between expenditures and tax revenues is to be financed. Collectively these actions of government are referred to as **fiscal policy**.

A conspicuous fact about fiscal policy in recent decades has been the large and persistent deficit. To many Americans, this suggests an inability to get government spending under control. To others, it is symptomatic of an unwillingness of Americans to face up to the real costs of government and the higher taxes it requires. It is important that we, as citizens, try to understand how this deficit came about, how it temporarily turned to surplus in the late 1990s, and how it is that in 2011 we face the largest peace-time deficit ever. What is likely to happen in the future? What might be the long run consequences?

Taxes, spending, and the federal deficit are major issues in every Presidential campaign and are sure to be again in 2012. Congress struggles with how to respond to a record-breaking deficit, whether with spending cuts (but whose favorite program gets cut?) or higher taxes (always unpopular, especially during a time of high unemployment). There is no more volatile political issue because so much is at stake for everyone.

10.1 What About that Federal Budget Deficit!?

During the period since World War II the federal government has had a large and persistent budget deficit. The arithmetic of deficits is simple. The federal government has spent more, for example, about \$450 billion more in election year 2008, than it was collecting from taxpayers. The question "What can be done to reduce the deficit?" never has an easy answer: Congress would have to reduce spending, or increase taxes, or some of both. Congress and the President both play a crucial role in this process. The role of the President is to propose a budget to Congress, but it is only Congress that can enact the laws that make taxes and spending a reality. Of course, the President can threaten to veto a tax or spending bill and thereby influence the course of legislation. And any President, and especially a popular one, has a great deal of 'clout' with which to persuade Congress.

Every attempt to bring the deficit under control runs into the same fundamental conflicts: which spending programs are to shrink, and whose taxes are to be increased? We are all in favor of reducing the deficit, but few of us are eager to see programs we benefit from curtailed or the taxes we pay increased. There is no shortage of blame to be passed around, but there is an acute shortage of politically acceptable solutions to the deficit problem. By the mid-1990s most observers had concluded that the deficit problem was simply intractable.

Then came one of the biggest surprises of recent history. Somehow, the deficit suddenly disappeared. For 2000 the federal government actually had a surplus, over \$200 billion! How did that happen, when no massive spending cuts were mandated by Congress and no major new taxes enacted? But then, just when it looked like there was light at the end of the tunnel, the deficit expanded rapidly until it now seems to many to be out of control. Before we see some of the reasons for these remarkable turns of events, a few basic facts:

Spending by the federal government includes two major categories: **purchases of goods and services** and **transfer payments**. Goods and services include durable items that represent an investment by government in plant and equipment, such as new military aircraft and Post Office buildings. Also included are items that are consumed quickly such as jet fuel for the Air Force and the services of the National Park rangers that guide your hike (or rescue you if you went on your own).

Both types of goods and services are the part of the output of the economy that is used by the federal government.

Transfer payments go to individuals and firms entitled to receive them under laws enacted by Congress. These are also called **entitlements**. They are a transfer of purchasing power from taxpayers to entitled groups. Transfer payments include **Social Security, Medicare, Medicaid, income security** (welfare), **unemployment benefits**, and other programs such as food stamps. In addition, the federal government makes **grants-in-aid to state and local governments** that help fund specific programs. For example, Medicaid, which pays medical expenses of low income households, is administered by the states but is jointly funded by the states and the federal government.

Together, both kinds of expenditure by the federal government are called **outlays**. In principle, Congress has distinguished between on-budget outlays and off-budget outlays, the latter being primarily Social Security. This distinction was intended to isolate the Social Security system from political wrangling over the budget, but deficit or surplus numbers are almost always for the combined budget. The recent surplus is due to the large surplus in the Social Security fund, that is, off-budget.

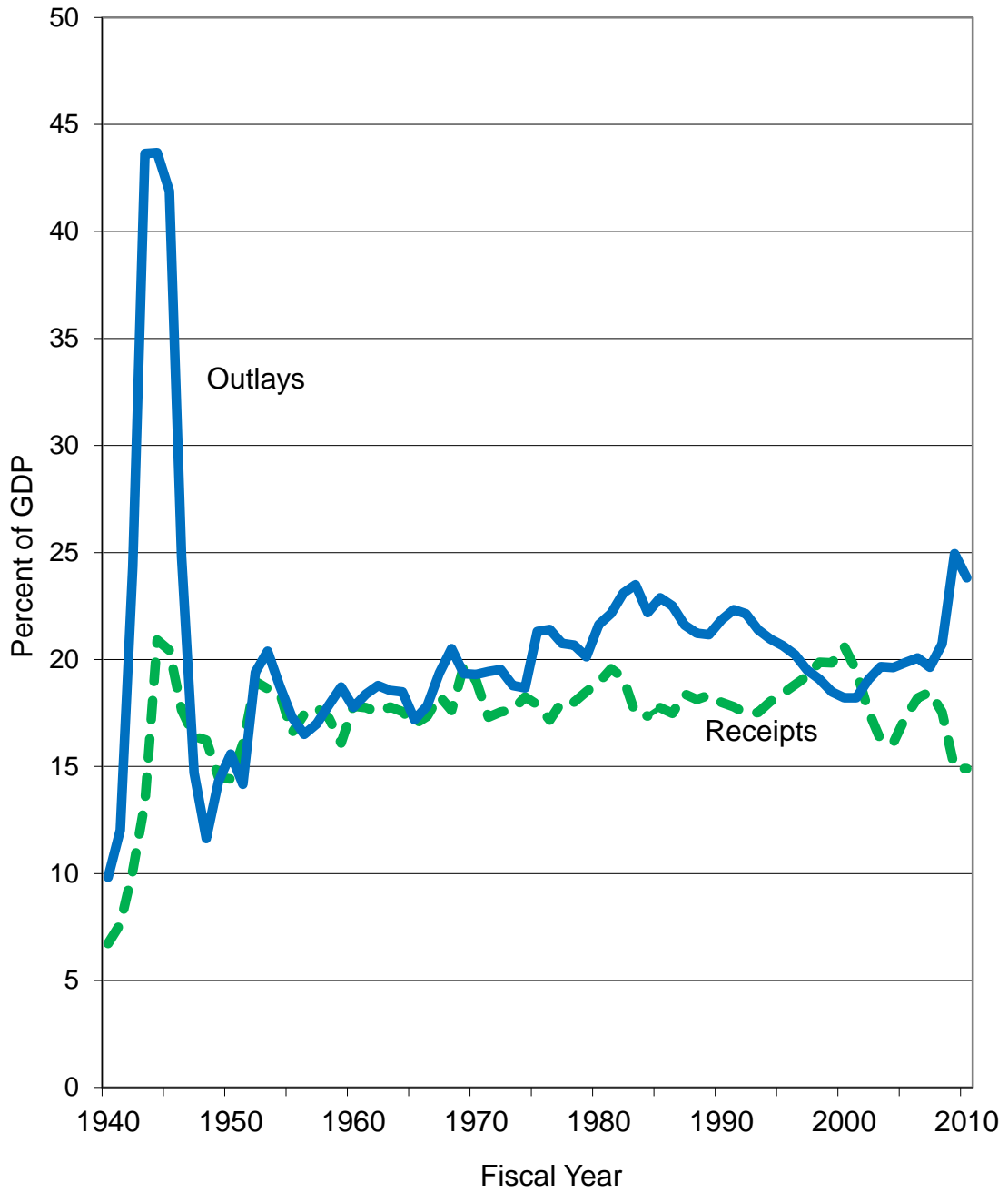
The federal government collects **taxes** from households, primarily through the **personal income tax**, and from firms, primarily through the **corporate profits tax**. Social Security and Medicare are financed by separate **payroll taxes** that are a percentage of wages and salaries and are paid by both employees and employers. There is also excise tax on the sale of certain items such as tires, customs duty on imports, and the estate tax on inheritances. The total of all federal revenues from these sources is called **total receipts**.

The magnitude of the federal budget is simply staggering. Outlays now exceed \$3 trillion per year, about \$10,000 on average for every American!

Putting the Federal Budget in Perspective

A challenge of presenting historical data is to do it in a way that has some consistent meaning over time. Government spending is a number so large that few, if any, of us can really comprehend its meaning. If we plot those numbers in a chart they soar ever upwards in most part because of the long term growth of all sectors of the economy. In Figure 10.1 we plot federal outlays and receipts expressed as a percent of GDP to get an idea of their magnitude relative to the size of the whole economy, and trends in their relative size over time. The period covered starts in 1940, including WWII had (at the height of the war effort, military spending approached 40% of GDP!). The data are annual by fiscal year which ends in September rather than in December. The source of the data is the *Economic Report of the President* which available online at <http://www.gpoaccess.gov/eop/index.html>.

Figure 10.1: Federal Outlays and Receipts as a Percent of GDP; 1940 - 2010



As you look at Figure 10.1, note that there is little apparent trend in the tax receipts of the federal government; they have averaged about 18 percent of GDP since World War II. Federal outlays spiked sharply during WWII then settled back to about 15% of GDP by 1950. Since then outlays have grown faster than GDP, and have been generally been above 20% of GDP since the mid-1970s. Thus a deficit, the gap between outlays and receipts, emerged during the 1970s and expanded in the 1980s as outlays soared, growing much faster than the economy, while receipts remained a fairly stable fraction of GDP. There was a small decline in receipts following President Reagan's tax cut of the early 1980s, but it was quickly followed by tax law changes that raised payroll taxes and closed many tax "loopholes." Although the 1980s are frequently portrayed as a period of spending cuts by the Reagan administration, we see that it was actually a decade during which federal expenditures took a quantum leap upward, opening up the wide gap between expenditures and receipts that we see here.

During the Clinton years, expenditures declined relative to GDP quite dramatically, reflecting large cuts in defense spending following the end of the **Cold War**. Tax receipts rose more rapidly than GDP, partially because of higher income tax rates enacted at President Clinton's instigation. The net effect was a budget surplus, a situation that few economists had expected ever to see.

Following the terrorist attack of 9/11/2001, President George W. Bush persuaded Congress to enact tax cuts, which combined with a weaker economy caused receipts to lag behind. On the outlays side, the Iraq war and the end to the defense build-down of the 1990s started to push outlays upward. Another important factor pushing up outlays was the aging of the baby-boomers who started to qualify for Social Security and Medicare.

By the start of the administration of President Barack Obama we were well into a widening gap between rapidly growing outlays and faltering tax receipts. Recession always prompts larger outlays for unemployment benefits and welfare; meanwhile tax receipts fall as taxpayers' incomes fall and are subject to lower tax rates at lower income levels. While an end to the recession was declared early in the Obama administration, recovery has been very slow. In an effort to speed recovery the administration persuaded Congress to enact a 'stimulus package' of spending programs that totals over \$800 billion. Meanwhile, continuing conflict in Iraq and Afghanistan continue to swell military spending. Fearing a weakening economy in 2011 Congress enacted at President Obama's behest an extension of the Bush tax cuts that had been scheduled to expire at the end of 2010. The result is the largest deficit, relative to the size of our economy, since WWII.

Changes in the magnitude of federal deficit are even more apparent in Figure 10.2 where the **budget balance**, positive for a surplus, negative for a deficit, is expressed as a percent of GDP. The stupendous deficit of WWII, an amazing 30% of GDP, was very brief and entirely connected with the intense war effort. But a more persistent deficit emerged by the 1960s.

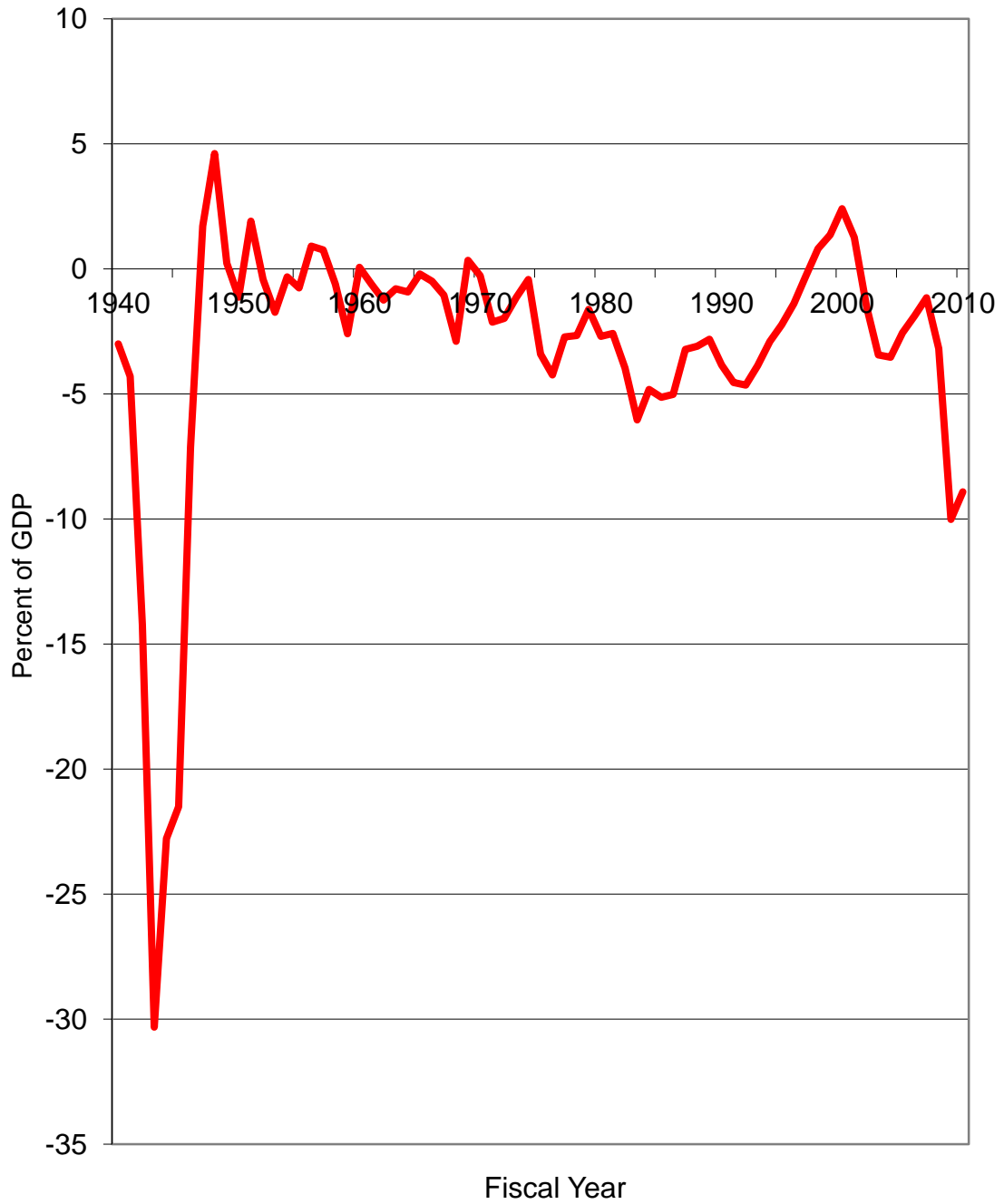
Notice that during the 1960s the federal budget was more often in deficit than in surplus, but the magnitude of the deficit was only about 2 percent of GDP. A large deficit occurred briefly in the mid-1970s but that was associated with the very severe recession of 1974-75. It was after 1980 that a large deficit became stubbornly persistent. Then we see the dramatic if short-lived swing to surplus at the end of the 1990s. However by 2010 we were seeing deficits unprecedented in peacetime.

Notice too that the budget balance slumps into deficit, or deeper deficit, when the economy slumps into recession. But recovery and expansion in the economy bring a positive swing in the budget balance toward surplus even if not always reaching a surplus. Evidently the *budget balance is pro-cyclical*. Why?

During a recession, tax revenues shrink more rapidly than does GDP. The decline in personal income tax receipts is accentuated by **progressive tax** rates which rise with a household's income. As the incomes of many households decline during a recession, the percent of that income that they pay in federal income tax also declines. Thus, receipts from the income tax become a smaller percentage of a smaller GDP. The negative impact of recession on tax receipts is also accentuated by corporate profits being strongly pro-cyclical, as we saw in Chapter 5. Conversely, during an expansion incomes rise and households climb up the ladder of higher tax brackets, while corporate profits rise rapidly. Also, Congress has often enacted special tax cuts during recession to stimulate private spending. The resulting pro-cyclical behavior of tax revenues as a fraction of GDP was apparent in Figure 10.1.

On the expenditure side, the unemployment associated with a recession puts greater demands on federal programs that provide income security, so expenditures tend to rise as GDP falls. Also, Congress often has enacted special spending programs during recessions to try to put people back to work. When the economy recovers from a recession, these forces are reversed and unemployment benefit payments decrease. The counter-cyclical pattern of federal outlays is apparent in Figure 10.1. The combined effect of the pro-cyclical behavior of tax revenues and the counter cyclical behavior of expenditures is to make the budget balance strongly pro-cyclical and, equivalently, the *budget deficit is strongly counter-cyclical*.

Figure 10.2: Federal Budget Balance



Now we can understand the primary forces causing the huge deficit that emerged during 2010. The very deep and prolonged slump in the economy, the worst since the Great Depression of the 1930s, slashed tax receipts sharply. An unemployment rate hovering near 10% pushed public spending on benefits, income security, and medical care up sharply. Congress at the behest of President Obama enacted spending programs and extended tax cuts in hopes of hastening recovery. Thus, we have had a combination of the usual cyclical behavior of the budget balance, combined with the exceptional severity of this episode and fiscal policy actions designed to combat the underlying economic slump. Put these all together, and the red line plunges to -10%, a budget deficit one tenth the size of the entire economy.

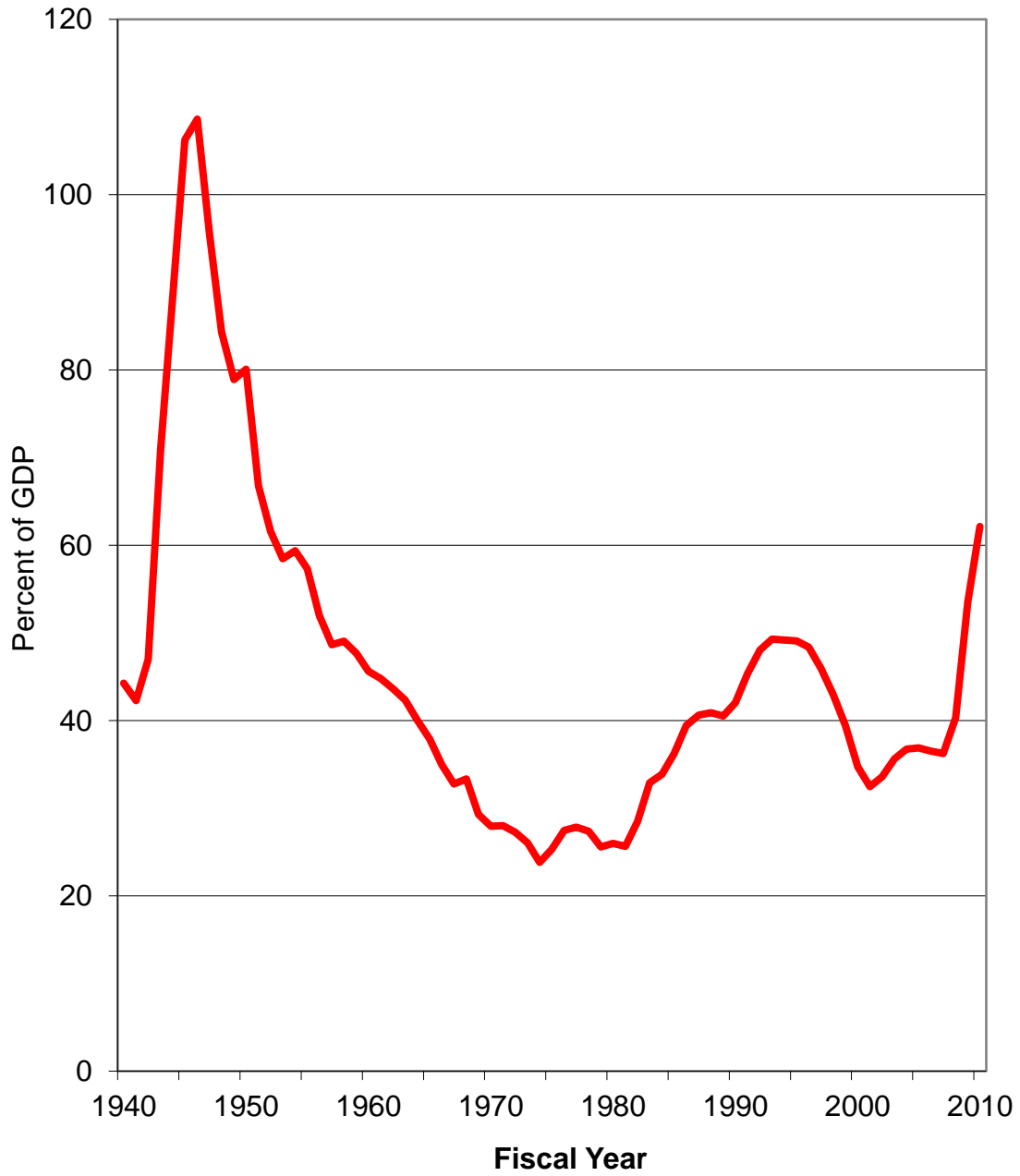
The National Debt

When the federal government spends more that it receives in taxes it is obliged to borrow the difference. It does this by selling U.S. Treasury bills, notes, and bonds to households, financial intermediaries, corporations, and foreigners. The Federal Reserve also is a buyer of federal securities through its open market operations. The accumulated value of outstanding U.S. Treasury securities is referred to as the federal debt or more often in the media as the national debt. Some of the debt is held in Social Security and other government trust funds; the remainder is held by the public. We will focus on this latter amount.

The national debt had reached \$9 trillion by 2010, a huge number by any standard, amounting to about \$30,000 for every American! This is triple the level of only ten years earlier, an astonishing rate of increase. To put this number in perspective and help identify trends we expressing it as a percent of GDP in Figure 10.3.

The data are annual, back to 1940 to show the impact of WWII when the federal government incurred very large deficits to finance the massive war effort. That debt briefly hit 100% of GDP. It was never paid off, but declined as a fraction of GDP during the post-war period, as economic growth outpaced deficits. The deficit fell relative to GDP until 1975 when it began to grow faster than the economy, reflecting the widening and increasingly chronic budget deficit. From a post-war low of 24% of GDP in 1975, the federal debt had soared to nearly 50% of GDP by 1996. The budget surpluses of the 1990s combined with rapid growth in the economy whittled this down to 32% by 2001. What we have seen since then is a rapid rise to a new peacetime high of over 60% by 2010.

**Figure 10.3: Federal Debt (Held by Public)
as a Percent of GDP**



What are the consequences of this huge debt? To whom do we owe it? The national debt of 50 years ago was often shrugged off as just "money that we owe to ourselves", though skeptics often countered that it was really "money borrowed from future generations." Since then it has increasingly become money that we owe to foreign investors. How are we going to pay it back? When, if ever, are we going to pay it back? What will happen if foreign owners of U.S. Treasury securities decide that they want their money? These are some of the toughest questions facing America today and ones on which economists and others often disagree. We will come back to these questions again later in the chapter.

Finally, we should say a few words about **state and local governments**. Because the federal budget is national news but state and local budgets are only local news, we tend to be unaware of just how large these governments are in aggregate. In 2002 total outlays by state and local governments were \$1.3 trillion, about two thirds the size of the federal budget and about 13% of GDP. Local but, taken together, not small!

As in the case of the federal government, transfer payments are a growing component of state and local budgets, currently about one third, with Medicaid being the primary force in that growth. State and local budgets are usually in surplus, reflecting the fact that most state constitutions require that the operating budget be balanced, allowing borrowing only for capital projects such as bridges. Also, local governments cannot count on being able to sell bonds as readily as does the U.S. Treasury, nor does the Federal Reserve buy their bonds.

Significantly, about 15% of the receipts of state and local governments are in the form of grants-in-aid from the federal government.

Government at all levels collects taxes of all kinds equivalent to about one third of GDP.

Exercises 10.1

A. One hears that "Bushcut taxes" or "Clinton raised taxes." In the American system of government, what is the process by which federal taxes are changed, and what is actually the role of the President.

B. Give a concrete example of an action that could be taken that would reduce the federal deficit. Which groups in society do you think would be in favor of your proposal? Which opposed? What are the chances that your proposal could actually become law?

C. How large are federal expenditures today, expressed as a percentage of GDP? How large are government expenditures at all levels together? Do you expect these to rise or fall over the next decade? Explain briefly.

D. If a major recession were to occur next year, what would be your forecast of the direction of the budget balance? the deficit? Explain why you would be confident in your prediction or why not.

E. If every American were to devote 10% of their disposable income to reducing the national debt, how long would it take to pay that debt off, assuming we incurred no further budget deficits. Hint: use the *Economic Report of the President*

F. Does the government of the state you live in run up a large debt? What restrains your state legislature from acting like the U.S. Congress in this regard?

10.2 Growth in the Role of the Federal Government

One of the most significant developments in the last century was the enormous growth in the size and influence of the federal government.

At the dawn of the twentieth century, there was no income tax. Both the Union and the Confederacy had enacted an income tax during the Civil War (1860s), but the tax was unpopular and was dropped after the war. The need for tax revenues was modest in peace-time because there was little that the federal government did beyond national defense. Until World War I the U.S. faced no serious threat to its security from abroad. Modern entitlement programs did not exist; Social Security was not adopted until the 1930s and Medicare not until the 1960s.

The Income Tax

An income tax passed Congress in 1894, but was declared unconstitutional by the Supreme Court. The door to an income tax was finally opened by the 16th Amendment to the Constitution in 1913, and President Wilson signed the income tax into law that year. Wisconsin, however, had beaten the federal government to the punch, adopting the first state income tax in 1911.

President Wilson's income tax was 1% on incomes above \$20,000, a very substantial income in those days, and the percentage went as high as 6% for the very wealthy. Only a few years later, the financial burden of fighting World War I led to a sharp increase in tax rates, as high as 65% on the highest incomes. After falling again between the wars, the federal income tax rate soared again in World War II, the rate on the highest incomes reaching a peak of 91%. These very high marginal tax rates did not end with the war and were reduced in steps, beginning with President Kennedy's tax cuts in the early 1960s.

Today, the federal income tax rate starts at 10% on the income of a married couple up to about \$17,000 and rises progressively to 35% on income above \$379,150. The tax on an income of \$69,000 is \$9,500, so the average tax rate is 13.8%. The tax rate on the last dollar of that income was 15%, reflecting the fact that in a **progressive tax** system each additional dollar is taxed at a rate that is higher than the average rate. Keep in mind that taxable income reflects various deductions and

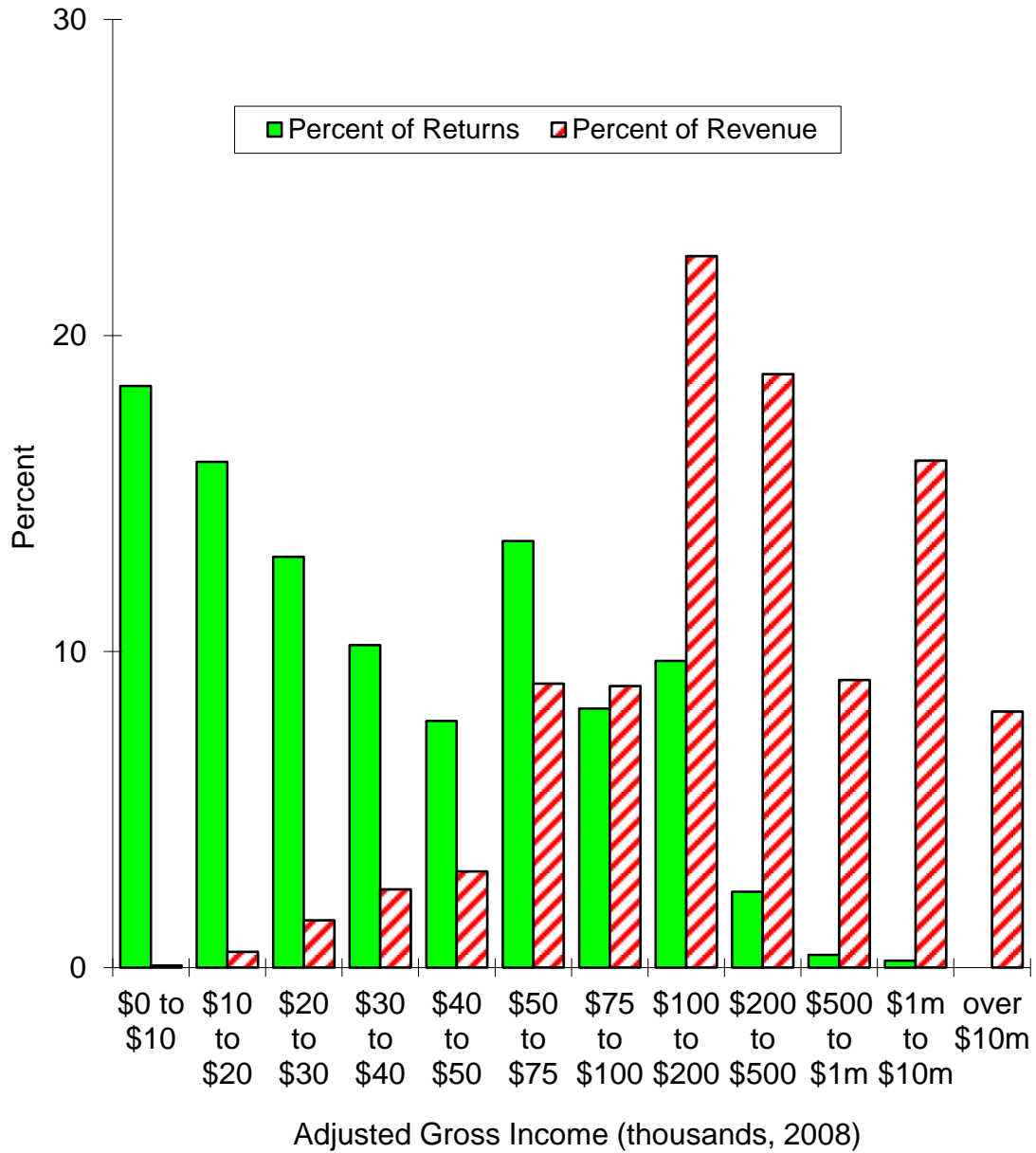
exemptions, including interest on home mortgages and charitable contributions.

Figure 10.4 shows the fraction of tax returns at various income levels and how much of tax revenue they accounted for, based on Internal Revenue Service data for 2008. While most returns show taxable income of less than \$50,000, we see that the bulk of the income tax is paid by the relatively small fraction of taxpayers with incomes above \$75,000. During the Reagan administration the income tax for those with very low incomes was virtually eliminated, leaving Social Security, Medicare, state and local taxes as the primary burden.

Contrary to popular impression, the average income tax rate does rise as income rises, reaching about 25% for the highest income group. Figure 10.4 shows that people reporting an income over \$10 million pay almost 10% of the entire personal income tax. Although they are less than 1/10 % of all returns there were about 13,000 of them! Clearly, the rest of us owe those folks a heartfelt “thank you!”

While it is fun to think about the problems of the very rich, it is important to notice that the middle class carries most of the burden of the income tax. Returns reporting incomes between \$75,000 and \$500,000 account of about half of all the personal income tax paid.

Figure 10.4: Percent of Tax Returns and Revenue by Income Level



Trends in Federal Spending

Let's now look at the major programs within the federal budget to see where it has grown and what has enabled outlays to shrink as a fraction of GDP in recent years.

Figure 10.5 shows total outlays and the part due to **defense** since 1940. Notice that the war effort consumed almost 40% of GDP at its maximum, and represented the bulk of all federal outlays. After dropping sharply and temporarily at the end of WWII, defense spending has drifted downward, punctuated by a Korean War peak of 14% of GDP, a Vietnam War peak of 9%, a Reagan build-up peak of 6%, to a post Cold War low of about 3% at the end of the Clinton administration. Since 9/11 and the Iraq and Afghanistan involvements, defense spending has been rising rapidly, bouncing back to 5% of GDP by 210. But the trend has been that defense is a decreasing portion federal spending, and a decreasing fraction of the whole economy. But what is the other 15% or so of GDP that the federal government spends?

Entitlements are the fastest growing part of the federal budget, and the major entitlement programs are shown in Figure 10.6. Notice that Social Security was not significant until after 1950. That was because so few people had qualified for retirement until then, and benefits were initially very modest. Medicare dates only from 1966. Income security, including welfare programs such as Aid to Families of Dependent Children, has grown (with a sharp boost during the recent recession), but is being eclipsed over the longer term by entitlements that are not linked to income level, Social Security and Medicare.

The growth in entitlements reflects the emergence of the federal government as the guarantor of minimum levels of income and health services, sometimes referred to as the **safety net**. Transfer payments overall have grown from being about 5% of GDP in the 1960s to over 12% today. It is almost certain that, with the aging of the baby boomers and the increasing cost of health care, this role will continue to grow.

**Figure 10.5: Federal Outlays:
Total and Defense**

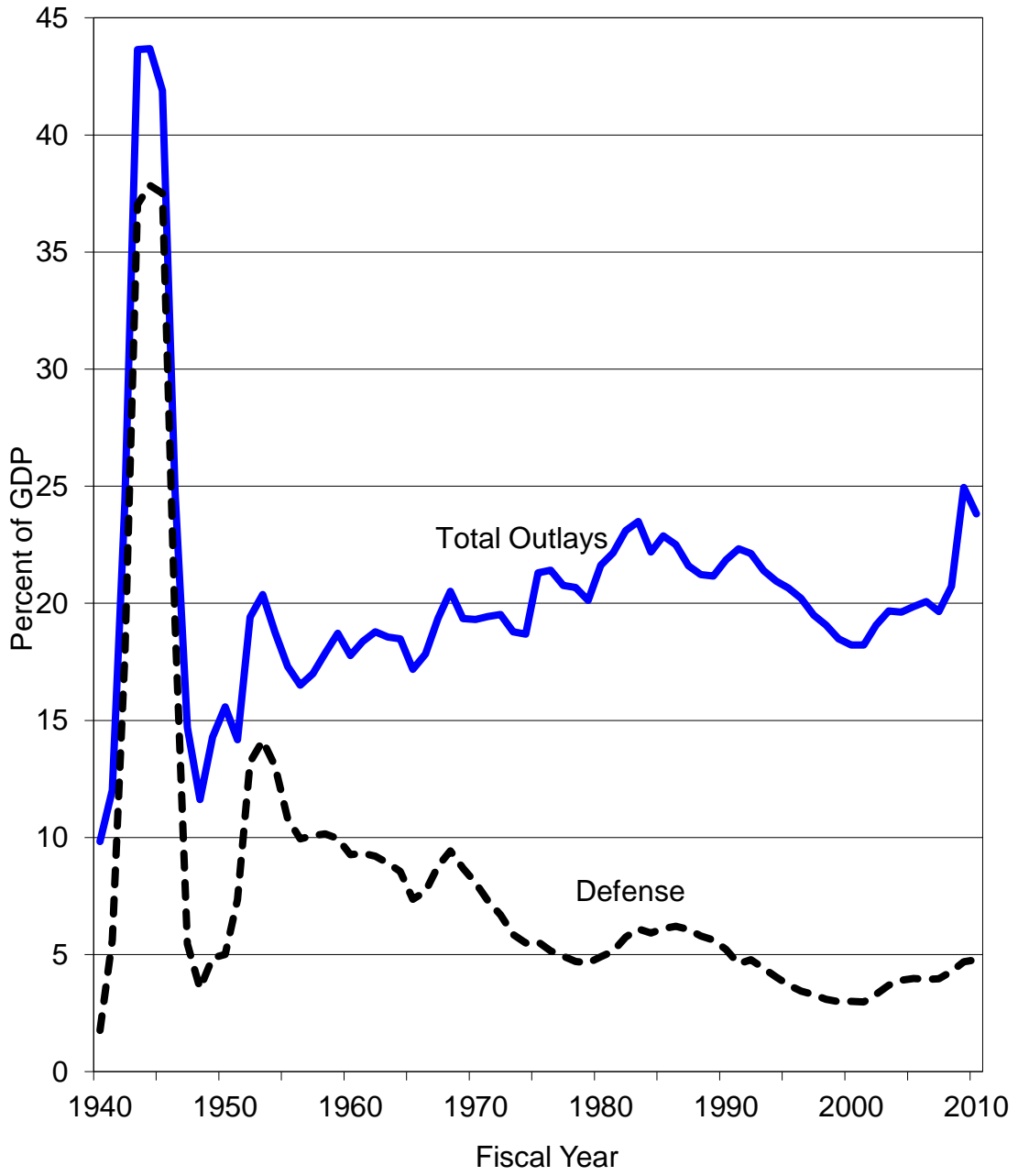
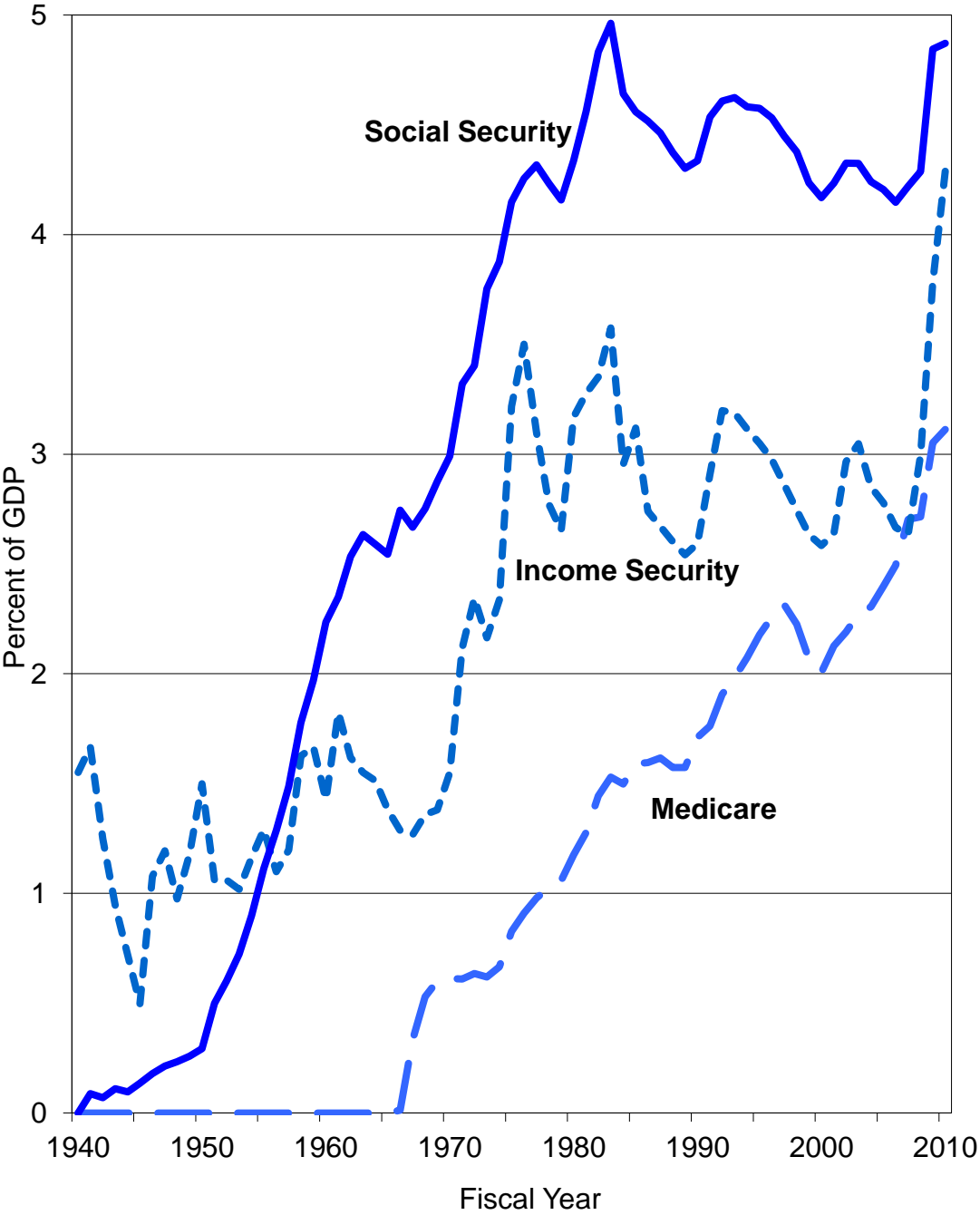


Figure 10.6: Federal Entitlements



The Social Security System

Social Security, which accounts for most of the growth in transfer payments, dates back to 1935 when it was conceived as a retirement program funded by a tax on payrolls. Initially the tax rate was only 1 percent and applied to only the first \$3,000 of wages. In accordance with the concept of a retirement plan, people did not qualify to receive social security benefits until they had paid into the plan and reached retirement age.

Thus in the early years of social security very few individuals were receiving benefits while a very large number were paying the payroll tax. This enabled the system to pay out to early beneficiaries far more in benefits than they had paid in Social Security taxes prior to retirement.

The first individual to receive benefits under Social Security was Mary Fuller who retired in 1940 after having paid an accumulated total of \$22 in Social Security taxes. Her first monthly check was for slightly more than \$22. Over more than three decades of retirement her benefits totaled more than \$20,000!

As time went on, Congress saw fit to broaden Social Security benefits and loosen the connection between an individual's eligibility for benefits and the Social Security taxes they had paid. By the 1980's the Social Security system was dispersing about 36 million checks each month to not only retired participants in the system but also to elderly who had not paid into the system, to disabled workers and their dependents, and to deceased workers' widows and widowers. Social Security is not a retirement plan which puts away the savings of workers for their use in retirement. Rather, it is a **pay-as-you-go** system that transfers funds collected by payroll taxes from those working to its beneficiaries.

Some observers have likened the social security system to a **Ponzi scheme**, named after a Boston confidence man of the 1920s. Charles Ponzi promised to pay investors far more than the market rate of interest and assured them that they could withdraw their principal plus interest at any time. Initially the scheme appeared to be enormously profitable for those who invested their money with Ponzi. The amount of money entrusted to Ponzi grew rapidly, and few chose to withdraw their money. In reality, he had not discovered a new way to earn more than the market rate of interest.

Of course, Ponzi was able to make the scheme work only as long as the amount of money received from new investors exceeded the amount being paid out to old investors. Eventually the scheme collapsed when too many investors tried to cash in. Some analysts fear that the Social Security system will suffer the same fate.

As the Social Security system enters the twenty-first century, the large baby boom generation born between the mid-1940s and the mid-1960s will reach retirement age and will be expecting to receive the same level of retirement benefits that the smaller generations before it enjoyed. Meanwhile, the age groups paying taxes will be smaller because of the

"birth dearth" after 1965. How the Social Security system can remain financially and politically viable under those circumstances remains a very open question. It seems very probably that, like Ponzi's investors, later participants in the Social Security system will not reap the benefits that they envisioned when they entered it. Already, 85% of an individual's benefits are subject to personal income tax (though income tax was paid on the contribution at the time it was earned) and there is serious talk of making benefits subject to a means test, that is, reducing benefits as an individual's income from other sources rises.

Medicare

Medicare was enacted in the mid-1960s as part of President Johnson's **Great Society** program. It provides medical insurance coverage for the elderly over age 65. The growth in Medicare benefits has been breathtaking, exceeding the original projections of its proponents by a factor of ten (even after taking inflation into account). The factors contributing to this explosion are several.

First of all, there is the "law of demand" which says that the demand for any good or service varies inversely with price. When Medicare reduced the price of medical services *to the patient*, much more service was demanded. At the same time, health care providers have an economic incentive to perform more procedures and raise their prices at the expense of Medicare. In response, Medicare has begun an aggressive program of cost containment, but other forces are at work to keep expenditures growing.

Because of advances in medical technology people are living longer as new and ever more expensive procedures have become available to prolong life. One of the striking developments in modern American medicine is the great concentration of medical care resources on the terminally ill. It is estimated that about one third of all of the medical expenditures in the US are incurred by the elderly during the last year of life.

Clearly, modern technology poses not only economic challenges but also grave ethical ones. Until antibiotics and modern surgery appeared in the 1930s, physicians could do little to alter the course of disease or injury. People either died or got better on their own. Expending economic resources had little effect. All the king's horses and all the king's men simply couldn't put Humpty-Dumpty back together again.

Today, Humpty may possibly be put back together again, and those are the greatest accomplishments of modern medicine. However, in other situations, Humpty can only be kept alive, perhaps indefinitely, and a substantial fraction of the king's budget will be required. Should every effort be made to prolong life regardless of the quality of that life? The ethical dilemma posed by modern medicine is not one that our ancestors faced, but is one that our society will have to come to terms with.

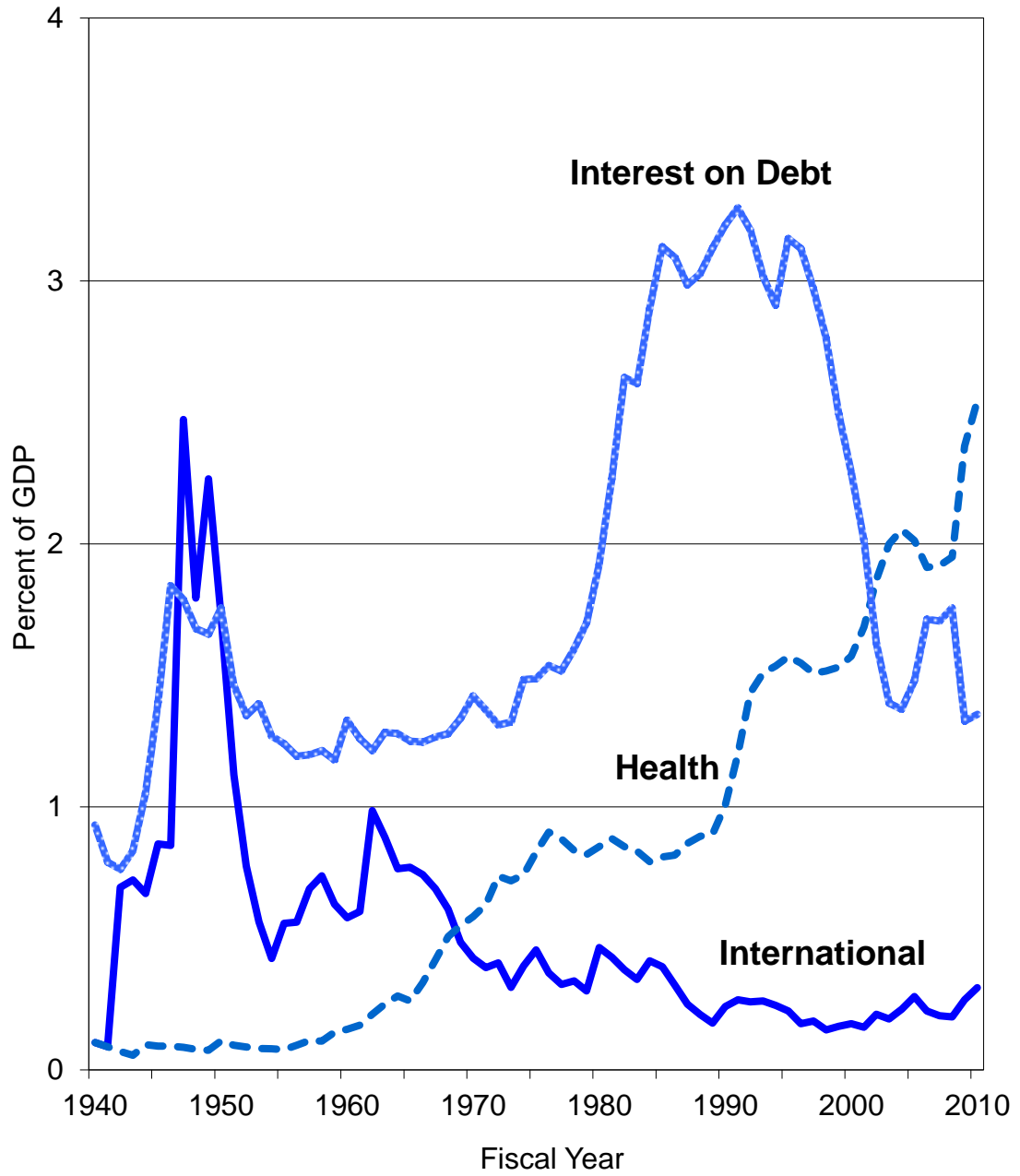
We have seen that federal government expenditures have shifted during the last five decades away from national defense, and towards transfer payments. Now we take a look at how spending on three other major federal budget items has shifted over this period. Figure 10.7 tracks spending on international affairs, health, and interest on the federal debt.

Notice that we spent a lot on **international affairs** immediately following WWII, partly for rebuilding and partly to counter what was perceived a major threat by the then-formidable Soviet Union. However, foreign aid programs have shrunk dramatically in relative size to the point where they are hardly significant.

Not surprisingly, **health care** is a major area of growth. This is not Medicare, but rather the other federally supported programs such as National Institutes of Health. It seems likely that an aging population and exciting opportunities in biotechnology will drive further growth in the health area.

Finally, the **interest on the national debt** is perhaps surprisingly not a growing fraction of GDP, in spite of the rising amount of the debt. The interest peaked in about 1990 and has been mostly declining since then. How can this possibly be? The key is the sharp fall in the rate of interest paid by the U.S. Treasury, as we saw in Chapter 5. By 2010 the Treasury was able to borrow at historically low rates as international investors bid aggressively to buy all the bills, notes and bonds being issued. The rate on Treasury bills indeed were barely above zero, often around .1% (one tenth of one percent!). This astonishing development reflected the very depressed state of the economy, very low levels of inflation, and the efforts of the Federal Reserve to revive it by very aggressive monetary policy.

Figure 10.7: Other Major Federal Outlays



Exercises 10.2

A. Characterize briefly how the role of the federal government has changed in the twentieth century.

B. What are the demographic trends in America that will have a dramatic effect on the finances of the Social Security system in the coming decades?

C. Suggest three options for keeping the Social Security system financially viable, and evaluate the political chances of their being adopted by Congress.

10.3 Long Term Consequences of Budget Deficits

Although the federal budget is in the black at present, demographic trends suggest that spending on entitlements will grow rapidly in the decades ahead. It seems unlikely that we will avoid future deficits, and we all wonder what will be the long-term consequences will be for ourselves and for our country. The U.S. is not unique; several other major industrialized nations have an even larger national debt relative to their GDP. However, history offers little guidance for our situation. Large deficits in the past have usually been due to wars, after which government spending shrank back to normal. This is what we have seen happen after WWII. But the forces driving the growth in transfer payments show no signs of diminishing. Where, then, do we go from here?

Recall from Chapter 2 that we have been financing our large federal deficit in significant part by borrowing from the Rest-of-the-World. If foreigners should become less interested in buying U.S. assets than they have been, then there must either be greater savings by U.S. households and business, or reduced investment in new capital goods. If the latter happens, then the growth of the economy will slow since more and newer tools of production are an important source of increased productivity.

Some observers fear that the growing burden of the national debt may ultimately lead to its monetization, meaning that the government would cover the deficit not by borrowing but by printing more money. This would require either the cooperation of the Fed or its abolishment by Congress as an independent body. The resulting inflation would remove the burden of the debt by eroding the real value of bonds, but at the cost of monetary, economic, and perhaps social chaos.

Economists Auerbach, Gokhale, and Kotlikoff have estimated the percentage of income that would have to be paid in taxes by future generations if government at all levels is to make good on all the promises it has made to those already alive. This "intergenerational accounting" makes use of government projections of population and economic growth. Their findings, reported in the *Budget of the U. S. Government, Analytical Perspective, 1995*, are that future generations

would have to surrender 93% of their income in taxes to finance all the programs now in place! It hardly seems likely that our children will be willing to make such a severe sacrifice. Many of us will probably have to settle for much less in benefits than current law now provides, and will also be paying higher taxes than we do now.

Exercises 10.3

A. Suppose that the Fed agreed to buy all newly issued U.S. bonds directly from the Treasury using newly printed money. What do you think would happen to 1) the rate of inflation, 2) the rate of interest, 3) the value of the US dollar in terms of Swiss francs, 4) the growth rate of real GDP?

End
