2

A Look Ahead

To evaluate US taxation of business, the place to start is the federal fiscal deficit, a gap that will almost certainly widen over time. Table 2.1 presents our forecasts, based largely on Congressional Budget Office (CBO) baseline estimates and alternative policy adjustments (CBO 2005b). Alternative estimates are summarized in box 2.1. The baseline estimates assume that current tax and entitlement laws remain unchanged, and that discretionary spending expands only at the rate of inflation.[1] We modify both assumptions as explained in the table notes. Based on its labor force and productivity assumptions, the CBO projects that the real GDP growth of 4.4 percent in 2004 will fall to 3.8 percent in 2005, to 2.9 percent in 2010, and to 2.5 percent by 2015.[2] We adhere to the CBO's real GDP growth and interest rate assumptions.[3] Significant deviations from these assumptions will have a huge effect on the fiscal outlook. Our forecasts for entitlement

1. The CBO projects that inflation, as reflected in the consumer price index (CPI), will be 2.4 percent in 2005, 1.9 percent in 2006, and 2.2 percent until 2012 (CBO 2005a). For long-range projections, we adopt the Social Security Trustees' intermediate assumption that CPI will increase at an annual rate of 2.8 percent annually (OASDI Trustees 2005).

2. The CBO projects long-term productivity growth of 2.1 percent annually, but a gradual decline in labor force growth (which starts at 1.1 percent) because of the aging US population causes a corresponding decline in real GDP growth (CBO 2005a).

3. The CBO assumes that the interest rate on the 10-year Treasury note, roughly 4.3 percent in 2004, will rise to 4.8 percent in 2005 and 5.5 percent in 2007 and thereafter (CBO 2005a). However, despite Federal Reserve tightening of short-term interest rates, the yield on the 10-year note fell below 4 percent in early June 2005.

Table 2.1 Projected federal fiscal budget to 2020 and 2050 (billions of dollars, percent of GDP in parentheses)

Category	Actual 2003	Actual 2004	2005	2006	2007	2008	2009	2010	2011	2012	2020[a]	2050[a]
Revenues												
Individual income taxes[b]	794	809	898	968	1,032	1,102	1,171	1,257	1,298	1,340	2,518	9,299
	(7.3)	(7.0)	(7.3)	(7.5)	(7.6)	(7.7)	(7.8)	(8.0)	(7.9)	(7.8)	(10.0)	(10.2)
Corporate income taxes	132	189	216	226	226	237	246	249	254	261	490	1,811
	(1.2)	(1.6)	(1.8)	(1.8)	(1.7)	(1.7)	(1.6)	(1.6)	(1.5)	(1.5)	(1.9)	(2.0)
Social insurance taxes	713	733	790	833	876	918	962	1,009	1,054	1,102	1,605	5,657
	(6.6)	(6.3)	(6.5)	(6.5)	(6.4)	(6.4)	(6.4)	(6.4)	(6.4)	(6.4)	(6.4)	(6.2)
Other	144	148	153	167	173	181	188	188	193	222	417	1,541
	(1.3)	(1.3)	(1.3)	(1.3)	(1.3)	(1.3)	(1.3)	(1.2)	(1.2)	(1.3)	(1.7)	(1.7)
Total revenues	1,783	1,879	2,057	2,194	2,307	2,438	2,567	2,703	2,799	2,925	5,030	18,309
	(16.4)	(16.3)	(16.8)	(17.0)	(17.0)	(17.0)	(17.1)	(17.2)	(17.0)	(17.0)	(20.0)	(20.0)
Outlays												
Discretionary spending[c]	825	895	960	993	1,012	1,043	1,074	1,106	1,145	1,173	1,755	6,387
	(7.6)	(7.7)	(7.8)	(7.7)	(7.4)	(7.3)	(7.1)	(7.0)	(6.9)	(6.8)	(7.0)	(7.0)
Defense	405	454	494	512	518	536	554	572	594	605	907	3,302
	(3.7)	(3.9)	(4.0)	(4.0)	(3.8)	(3.7)	(3.7)	(3.6)	(3.6)	(3.5)	(3.6)	(3.6)
Nondefense[d]	420	441	466	481	494	507	520	534	551	568	848	3,086
	(3.9)	(3.8)	(3.8)	(3.7)	(3.6)	(3.5)	(3.5)	(3.4)	(3.3)	(3.3)	(3.4)	(3.4)
Mandatory entitlement spending	1,179	1,237	1,316	1,385	1,456	1,539	1,631	1,724	1,838	1,908	3,600	18,324
	(10.9)	(10.7)	(10.8)	(10.7)	(10.7)	(10.8)	(10.9)	(10.9)	(11.1)	(11.1)	(14.3)	(20.0)
Social Security	470	492	516	540	565	593	625	660	699	741	1,318	5,712
	(4.3)	(4.3)	(4.2)	(4.2)	(4.2)	(4.1)	(4.2)	(4.2)	(4.2)	(4.3)	(5.2)	(6.2)
Medicare	274	297	327	379	428	456	486	521	567	598	1,247	8,468
	(2.5)	(2.6)	(2.7)	(2.9)	(3.2)	(3.2)	(3.2)	(3.3)	(3.4)	(3.5)	(5.0)	(9.3)

Medicaid	161	176	183	191	202	220	239	260	282	305	542	2,351
	(1.5)	(1.5)	(1.5)	(1.5)	(1.5)	(1.5)	(1.6)	(1.7)	(1.7)	(1.8)	(2.2)	(2.6)
Other[e]	274	272	290	275	261	270	281	283	290	264	492	1,792
	(2.5)	(2.4)	(2.4)	(2.1)	(1.9)	(1.9)	(1.9)	(1.8)	(1.8)	(1.5)	(2.0)	(2.0)
Net interest	153	160	177	214	258	292	320	346	374	403	734	11,201
	(1.4)	(1.4)	(1.4)	(1.7)	(1.9)	(2.0)	(2.1)	(2.2)	(2.3)	(2.3)	(2.9)	(12.2)
Total outlays	2,157	2,292	2,453	2,592	2,726	2,874	3,025	3,176	3,357	3,484	6,089	35,912
	(19.9)	(19.8)	(20.1)	(20.1)	(20.1)	(20.1)	(20.1)	(20.2)	(20.4)	(20.2)	(24.2)	(39.2)
Deficit (–)	–374	–413	–396	–398	–419	–436	–458	–473	–558	–559	–1,059	–17,603
	(–3.4)	(–3.6)	(–3.2)	(–3.1)	(–3.1)	(–3.0)	(–3.0)	(–3.0)	(–3.4)	(–3.2)	(–4.2)	(–19.2)
Memorandum:												
Nominal GDP	10,841	11,553	12,233	12,888	13,586	14,307	15,029	15,757	16,494	17,245	25,150	91,544
Debt held by the public	3,913	4,297	4,687	5,067	5,404	5,712	6,002	6,260	6,571	6,700	13,500	209,468
	(36.1)	(37.2)	(38.3)	(39.3)	(39.8)	(39.9)	(39.9)	(39.7)	(39.8)	(38.8)	(53.7)	(228.8)

Note: The starting point for our projections from 2005–2012 is the CBO baseline as of March 2005. Important adjustments are mentioned in the notes that follow.

a. For 2020 and 2050 projections: GDP, social insurance taxes (FICA and SECA), and Social Security and Medicare outlays are based on the intermediate estimates that appear in the 2005 Social Security Trustee Report and 2005 Medicare Trustee Report. Medicaid is conservatively assumed to grow at the same rate as Social Security expenditure. Remaining entitlements are assumed to maintain their average shares in terms of GDP over 2004–2012. Total revenue is assumed to be 20 percent of GDP; we distribute the non-social insurance revenue in proportions based on the 2012 projection, while social insurance revenue estimates are taken from the Trustee Reports. Discretionary expenditure is assumed to be the average of the 2008–2012 period. Interest costs and debt held by the public are calculated assuming that the deficit grows at a constant rate in terms of GDP from 2012 and 2020 to 2050 with an interest rate of 5.5 percent.
b. 2005–2012 estimates are adjusted to reflect extension of JGTRRA and EGTRRA and likely legislation to slow the revenue intake of the alternative minimum tax as reported in Penner and Rivlin (2005).
c. 2005–2012 estimates are adjusted upward to keep per capita discretionary spending constant and include supplementary spending on Iraq, Afghanistan, and the war on terrorism. Our estimates are derived by inflating the CBO's estimated peak cost for supplementary spending by inflation and population growth as reported in Penner and Rivlin (2005).
d. Includes spending from Highway Trust Fund and Airport and Airway Trust Fund, although these are not considered discretionary, because they are subject to obligation limits. We assume that discretionary spending will grow at the rate of nominal GDP, with an exception for Iraq and Afghanistan supplementals (see note c).
e. Includes income-support programs, federal retirement and disability programs (including veterans benefits), Commodity Credit Corporation, TRICARE for Life, student loan programs, Universal Service Fund, State Children's Health Insurance, and other social services.

Sources: CBO (2005), OASDI Trustees (2005), Medicare Trustees (2005), Penner and Rivlin (2005), and authors' calculations.

Box 2.1 Alternative fiscal forecasts from 2004

More pessimistic: Goldman Sachs

Deeper adjustments in the Congressional Budget Office (CBO) baseline than we have made (table 2.1) result in an earlier onset of the projected fiscal crisis. William Dudley and Edward McKelvey at Goldman Sachs (2004) forecast several adverse adjustments to the CBO's published baseline for 2009: making the 2001 tax cuts permanent (–$59 billion); indexing the alternative minimum tax (AMT) for inflation (–$61 billion); spending 4 percent of GDP on defense (–$95 billion);[1] and increasing nondefense discretionary spending by 2 percent annually in real terms (–$35 billion). The result is a deficit of $445 billion in 2009 versus the CBO figure of $281 billion. The same adjustments carried to 2014 portend a deficit of $770 billion versus the CBO baseline of $15 billion, or a fiscal deficit of 4.3 percent of GDP versus a nearly balanced budget.[2]

1. The Goldman Sachs adjustment of $95 billion for higher defense spending is contrasted with the March 2004 CBO baseline. The baseline includes the $87 billion spent on Iraq and Afghanistan, which brought total defense spending to 3.9 percent of GDP. The CBO assumes defense spending will grow at the rate of inflation (thus declining to 3.2 percent of GDP by 2014), whereas the analysts at Goldman Sachs assume that defense spending will remain at 4 percent of GDP throughout the period. The Office of Management and Budget (OMB) is even more sanguine about defense spending than the CBO, since the OMB assumes that no future supplemental spending will occur, and that defense spending will fall to "normal" (i.e., pre-2003) levels. See Dudley and McKelvey (2004).

2. When updating this analysis, Goldman Sachs (see Dudley et al. 2005) removed the assumption that defense spending would remain at 4 percent of GDP. As a

(box continues next page)

spending in 2020 and 2050 rely on estimates from the 2005 Social Security and Medicare Trustee Reports (OASDI Trustees 2005, Medicare Trustees 2005) for major entitlement incomes and outlays. We assume that total government revenue will be held at the historic high-water mark of 20 percent of GDP, and that all other government outlays will be capped at current expenditure levels, measured as a percentage of GDP.[4]

From the forecasts in table 2.1, an optimist could conclude that fiscal deficits are manageable through 2012, as they remain below 4 percent of GDP.[5] Thanks to buoyant tax receipts, the latest unofficial projection of

4. From a historical perspective, this is an extremely conservative assumption.

5. The "pure" CBO (2005) baseline projects a surplus of 0.3 percent of GDP in 2012, but this reflects the unrealistic assumption that all the Bush tax cuts will "sunset" on schedule, as written in current law. Peterson (2004, 44–47) is far less sanguine about the recent fiscal performance of the United States, arguing that the fiscal stimulus of the first Bush administration has been akin to "using steroids to manage the economy."

Box 2.1 *(continued)*

More optimistic: JPMorgan

John Lipsky and James Glassman at JPMorgan (2004) offer a decidedly more optimistic outlook. They believe the CBO baseline underestimates long-run GDP growth. GDP growth can be expressed as the sum of labor force growth and productivity growth. The CBO projects a decline in the annual rate of labor force growth (starting at 1.2 percent in 2004) on account of the "senior boom." Lipsky and Glassman believe both that newly minted seniors will stay in the labor force longer than their predecessors, and that robust immigration will buoy the labor market.[3] They also believe that the strong nonfarm business sector productivity, recently in excess of 4 percent, is not a "flash in the pan." They thus contend that with appropriate procompetitive policies, long-term GDP growth will attain the average for the past century, around 3.75 percent per year. The CBO assumes GDP growth of 2.2 percent; if its projections had been based on Lipsky's and Glassman's sunnier outlook, the long-term challenge would appear significantly less daunting.

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consequence, their projection of the budget deficit from 2010 to 2015 declined to roughly 3 percent of GDP. The authors note that the improvement reflects their reconsideration "rather than any underlying improvement in the US budget outlook."

3. Despite the better health and longer lives of Americans, the trend has been toward earlier rather than later retirements. According to Social Security data, from 1950 to 1955, the average retirement age was 68.5 years for men and 67.9 years for women. From 1995 to 2000, the average ages were 62.6 years and 61.5 years respectively (Gendell 2001, table 1). While the average retirement age has steadily declined, the pace of decline has slowed since the late 1970s. JPMorgan sees in this record an impending reversal of the long-term trend.

the FY 2005 deficit, as of June 2005, is $350 billion, down from an earlier figure of $427 billion. However, the director of the CBO, Douglas Holtz-Eakin, has been quoted as saying that "these are the best of times . . . after this, it gets worse" (Jackie Calmes, "Deficit Is Arriving Under Forecasts," *Wall Street Journal,* June 9, 2005, A3). If still smaller fiscal deficits are required to balance US external accounts,[6] if productivity growth fails

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6. In 2004, the US external deficit (current account deficit) was 5.7 percent of GDP, or $666 billion. Federal Reserve Chairman Alan Greenspan, former Treasury Secretary Robert Rubin, former Federal Reserve Chairman Paul Volcker, the International Monetary Fund (IMF), and Peter G. Peterson (2004), chairman of the Blackstone Group, have all expressed concern that the United States is living beyond its means. Observers such as Catherine Mann (2002, 2004) believe that continued external deficits of this magnitude—a product of internal structural imbalances in both the United States and the rest of the world—may eventually spark a financial crisis when foreign investors (individuals, corporations, pension funds) collectively refuse to increase the proportion of dollar assets in their portfolios. Edward M. Truman (2004) notes that the fiscal and external deficits are not "twins" in the sense that changing one of the deficits will provoke a change in

to maintain the assumed rate of 2.1 percent annually,[7] if national security requirements exceed budget forecasts,[8] or if individual income tax payments fail to rebound from their depressed 2003 levels,[9] a sanguine near-term outlook is questionable.

Moreover, between 2012 and 2020, US fiscal problems are destined to become more severe. As entitlement spending grows with boomer retirement, projected interest on national debt drifts up to 2.9 percent of GDP. Interest payments will begin to snowball between 2020 and 2050, if their current trajectory holds. Combined with a continued fiscal deficit, this might very well create a crisis, as the federal deficit, driven by entitlement spending promised under current law, soars to 19 percent of GDP.

Regardless of which budget estimate you prefer, the end result is the same: Over the longer term—2020 and beyond—entitlement outlays will surely expand the fiscal gap. As the population ages, health care costs will rise, and federal promises to elderly Americans will grow more expensive.[10] Barring technological miracles, such as a genetic breakthrough that prolongs youth,[11] this combination of forces practically guarantees fiscal stress. If the demands of national security push defense spending above 4 percent of GDP, the fiscal stress will be that much greater.

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the other (as the late 1990s can attest). Nevertheless, he argues, "if one believes the US current account deficit is unsustainable over the next three to five years, then the United States would be well advised to address its fiscal deficit sooner rather than later in order to sustain investment and potential growth."

7. Productivity growth remained above 3 percent during the recession of 2001 and 2002, and continues at a high pace. The CBO assumption of 2.1 percent seems safe, and perhaps too low.

8. Our projections adopt the assumption of Penner and Rivlin (2005) that defense spending in relation to Iraq, Afghanistan, and the war on terror will be higher than those projected by the CBO, which increases discretionary spending at the rate of inflation. Analysts at Goldman Sachs (see box 2.1) also think the figure could be higher than the CBO projects.

9. Individual income tax payments fell sharply in the wake of the recession—from 10.2 percent of GDP in 2000 to 7 percent in 2004—because of the stock market bust and the collapse of option values. A booming stock market was largely responsible for the robust individual tax receipts collected by the Treasury in the late 1990s. Various forms of relief written into the individual income tax mean that sharply rising home prices generate little tax revenue.

10. Demographic trends toward an older population guarantee more than fiscal stress. Cultural, economic, and political tensions could also lie ahead. In one of the first works on the impact of global aging, Peterson (1999, 4) suggests that the impact of aging may "do more to reshape our collective future" than terrorism, superviruses, climate change, globalization, or the proliferation of weapons of mass destruction.

11. Even wonder genes could be a mixed fiscal blessing, if Medicare pays for the Ponce de Leon treatment protocol.

As Herbert Stein famously pronounced in the 1980s, "If something cannot go on forever, it will stop."[12] This maxim, known as Stein's Law, assures us that the fiscal deficit will eventually stop growing, but it does not say how or when. To sensibly evaluate US taxation of business, we first need to guess how and when entitlement claims will be checked, and to what extent higher tax revenues will pay for growing claims. "Guess" is an apt descriptor of the exercise carried out in the next section, because the United States, like other industrial countries, is entering uncharted fiscal territory. We believe, however, that entitlement claims can only be capped in the relatively distant future—not at current levels—and that tax revenues must rise to pay a significant part of the mounting old-age entitlement bill over the next three decades.

Closing the Fiscal Gap

The widening gap in the federal budget fundamentally arises from conflict between three elements in the American social compact. First, the US government has explicitly promised Social Security and Medicare benefits to elderly and disabled Americans. Congress can reduce future benefits, but only at its peril. Second, since World War II, the federal government has seldom collected more than 20 percent of GDP in tax revenue.[13] Political forces against federal taxation crystallized in the Reagan revolution and Speaker Newt Gingrich's "Contract with America"; they are now strong enough to consider a tax revenue cap as part of the social compact. The final promise, that the federal government will pay its debts in real terms, has been essential since the days of Alexander Hamilton. US Treasury bonds are the world's premier risk-free investment because of both low inflation and the economic size of the United States. Downgrading their status—which will be inevitable if the fiscal gap is ignored for too long—would send a shockwave through the global financial system.[14]

Barring debt default,[15] the United States is left with a contest between the two most powerful constituencies in Washington: taxpayers and the elderly. In the end, both will need to accept changes in the social compact, as the federal government cannot possibly meet all of the entitlement

12. Kenneth Boulding said much the same thing.

13. In 2000, reflecting the strong economy and extraordinary capital gains, federal revenues claimed 20.9 percent of GDP. Otherwise, 20 percent has been the practical limit. Since 1946, this figure has been breached only in 1998, 1999, and 2000 (OMB 2004).

14. Foreign holders already own more than $1.8 trillion in Treasury securities, of which $1 trillion is held by official sources, such as central banks and pension funds. The total amount is over 40 percent of the US debt held by the public; see US Treasury (2005).

15. We assume that neither outright default nor creeping default via high inflation are options.

promises now on the table. Medicare expenditures as a share of GDP are projected to grow permanently, a logical impossibility.[16] However, old-age entitlements are probably the only nondefense program popular enough to force taxpayers to accept a break in the implicit 20 percent revenue cap.[17] The question is, how high will taxes rise? Our projections of future rates of taxation assume that benefit spending must eventually be slowed to a sustainable rate (i.e., stabilize outlays as a percentage of GDP). We assume all other programs, including defense outlays, are held at today's level as a share of GDP.[18] We assume that the residual fiscal gap, if it exceeds 2 to 3 percent of GDP, will be financed by higher federal taxes, suggesting a major breach in the customary revenue cap of 20 percent of GDP.

Before turning to increasing taxes, however, we need to investigate the possible extent of cuts to planned entitlement benefits. In early 2005, President George W. Bush launched a public campaign to build support for "Social Security reform." Critics charged, and Bush concurred, that the personal savings accounts that were the centerpiece of the reform plan would do nothing to rein in the shortfall in the Social Security system. The accounts would allow taxpayers to divert 4 percentage points of the 6.2 percent employee share of payroll taxes, up to a cap initially set at $1,000, into tax-free retirement investments.[19] Supporters hoped that the benefits of the accounts would persuade the public to swallow other benefit cuts or payroll tax increases.[20] President Bush has also endorsed

16. Unlike most industries, new health care technology does not usually lead to a reduction in prices; rather it spurs demand for novel treatment protocols. Beginning in 2001, the Medicare Trustees (2004) adopted the assumption that Medicare costs will increase at 1 percentage point faster than the growth rate of GDP per capita. See also Heffler et al. (2004).

17. Recall that in 1983, President Reagan himself opted for an accelerated increase in Social Security taxes. Reagan strongly supported the Greenspan Commission "compromise" and took credit for saving Social Security in the 1984 election. In one of his statements, he said that "with the enactment of the Social Security Amendments of 1983, the Social Security system's financial soundness has been assured, both in this decade and for many decades to come" (Reagan 1985).

18. In the past two decades, decreased discretionary (and especially defense) spending has paid for increased entitlement spending. Discretionary spending is now so low that even eliminating it completely could not pay for the projected entitlement increases. See Penner and Steuerle (2003).

19. Employers also pay a 6.2 percent payroll tax. Since the distinction is purely political, we and other tax commentators often refer to the payroll tax as a single 12.4 percent levy on labor inputs. Allowing workers to divert 4 percent of their wages to private accounts would reduce the worker's total Social Security contribution by about one third.

20. The experience of "Medicare reform" in 2003, when Congress and the president swallowed a Medicare drug benefit (Plan D) without any reforms to improve the system's financial footing, cautions against this analysis. Indeed, by enacting politically popular proposals without addressing the underlying fiscal shortfalls, "reform" merely exacerbates the long-term problem.

"progressive indexing" as a method of reducing benefits (see box 2.2); however, the joint proposal has met stiff opposition in the Congress.

In box 2.2, we review some of the proposed methods for lowering the cost of Social Security benefits. Any solution entails the politically unpleasant combination of increased taxation and reduced benefits. Curtailing Medicare outlays will be far more difficult than reining in Social Security, both because medical entitlement demands are growing faster, and because the cure, again, is higher taxes and lower benefits.[21] The shortfall in the Medicare system promises to dwarf the Social Security deficit. While long-term forecasts are hazardous, experts foresee that Medicare spending under current law will dominate the budget by 2050 (again see table 2.1). To get off this trajectory, severe program limitations will be needed, even though the implication is some form of health care rationing.[22] Unlike Social Security, no concrete policy prescriptions have yet emerged for limiting program growth, even among experts. But limits will be required to stabilize entitlement expenditure as a share of GDP.

The Social Security Amendments of 1983, following the recommendations of the Greenspan Commission,[23] represent the only meaningful cost reduction of an entitlement program in the history of the United States. Based on this episode—admittedly, a single data point more relevant to Social Security than to Medicare—we speculate on the likely budget trajectory of entitlement reforms. Our projections are based on several assumptions drawn from the political economy of 1983.

Crisis atmosphere. In 1983, it was widely feared that, within months, the Social Security system would stop mailing checks to millions of

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21. Currently, however, the political winds are in the direction of increasing health-related entitlements. In 2003, President George W. Bush signed into law the largest expansion of Medicare since the Great Society. In the 2004 vice presidential debates, Democratic candidate Senator John Edwards (NC) promised that a Democratic administration would take an even more expansive approach to health care: "5 million people losing their health care—everyone who's watching this knows health insurance premiums are through the roof. We need to talk about what we will do that they haven't done. First, we're going to make the same health care that's available to members of Congress available to all Americans. We're going to cover all kids. Not only that, we're going to bring down costs by pooling the catastrophic costs so we bring down premiums. And we're going to give tax breaks directly to families, save them up to $1,000 a year, and to businesses—the vice president talked about that a few minutes ago—so that they can provide health care to their employees. And we're also going to finally do something about the cost of prescription drugs" (Commission on Presidential Debates 2004).

22. Private companies are already experimenting with low-premium, high-deductible health plans to make workers more conscious of costs when making health care decisions (Ron Lieber, "Healthy Trend—New Way to Curb Medical Costs: Make Employees Feel the Sting," *Wall Street Journal*, May 23, 2004, A1).

23. The Greenspan Commission's official title was the National Commission on Social Security Reform.

Box 2.2 Politically salable cuts to Social Security

Possible compromises on Social Security are conceivable if not yet acceptable.[1] Leaving aside far-reaching solutions, such as complete privatization or moving the system to a fully funded basis (as opposed to the current pay-as-you-go arrangement), several orthodox compromises could postpone the day of reckoning by several decades. The wage index used to determine benefits at retirement could be blended with a price index in a way that reduces benefits; the cost of living used to determine postretirement benefit increases could be adjusted; the retirement age for benefit eligibility could be raised further; and a greater percentage of Social Security benefits could be included in taxable income (sometimes referred to as "clawback"). Any and all of these changes could complement President Bush's proposal to allow younger workers to divert a portion of their Social Security tax payments into personal accounts (Robin Toner and David Rosenbaum, "Bush Revisiting Social Security, and Fight Is On," *New York Times,* September 18, 2004, 1).

As part of the 1983 Social Security Amendments, the normal retirement age (NRA)—the age at which workers receive full annual benefits—is scheduled to rise from 65 to 67 by 2027. Raising the retirement age both increases OASDI tax receipts (since more old workers are employed) and reduces expenditure, without changing the annual postretirement benefit.[2] Politically, there is precedent for raising the normal retirement age (65 years, 6 months in 2005), and an increase may also be possible for the earliest eligibility age (EEA, currently 62 years).[3] In 1999, the GAO (1999, figure 2) calculated that raising the NRA to 70 by 2029 while maintaining the current EEA at 62 would erase half the long-term (75-year) actuarial deficit.

While they are still working, wealthy workers could be made to shoulder more of the burden of Social Security. Currently, wages above $90,000 (indexed to inflation) are exempt from FICA taxes, so the tax falls on only 85 percent of all wage earningsl. The cutoff is the counterpart to Social Security's progressive benefit structure, which reduces the rate at which benefits increase as a worker's earnings rise. According to Edith Fierst ("Easy Fixes for Social Security," *Washington Post,* November 18, 2004, A39), moving the cutoff to 90 percent of earnings would raise payroll taxes on 6 percent of wage earners and eliminate about one-third of the actuarial deficit (assuming the benefit formula remained unchanged). Increasing the cutoff is basically a means-tested premium increase for Social Security. It does not affect outlays, and avoids raising tax rates on the majority of wage earners.

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1. Peter Diamond and Peter Orszag (2004) propose to save Social Security through a benefit cut of less than 10 percent for current 25-year-olds, coupled with payroll tax increases and a new "legacy tax" on high-income taxpayers.

2. OASDI, the legislative acronym for Social Security, stands for Old-Age and Survivors Insurance, and Disability Insurance.

3. Increasing the NRA or EEA could be particularly hard on manual workers, who are more likely to have health problems as they get older. A higher EEA will inevitably increase claims on disability insurance (DI).

(box continues next page)

Box 2.2 *(continued)*

Once a worker reaches retirement age, the calculation of his or her initial benefit could be adjusted. Currently, an individual's benefit formula is linked to both the average wage of the retiring cohort and his or her own averaged indexed monthly earnings (AIME), namely, the wage-indexed earnings of the individual's 35 highest-earning years. Instead of increasing the average initial benefit in line with wage increases, it could be partly indexed to changes in the price level. Historically, wage increases have outstripped prices, causing the average initial benefit to steadily increase in constant dollars. Between 2001 and 2031, the average worker's real benefit will increase 39 percent under current law (Peterson 2004, 199). Critics of price indexing charge that it will reopen the gap in living standards between workers and retirees. To blunt the effect on low-income workers, Robert Pozen has suggested "progressive indexing," which would determine initial benefits based on a weighted average of wage and price indexes, with the weights determined by the worker's income level.[4] President Bush has expressed support for this approach to reducing Social Security outlays. Whatever the indexing method, the benefit formula itself could also be adjusted to lower initial benefits and maintain progressivity.[5]

During retirement, further adjustments could slow the rate of increase in benefits. One reason that Social Security outlays rise faster than GDP is an upward bias in the cost of living adjustment (COLA), which was designed to maintain real benefits. The COLA is determined by the Bureau of Labor Statistics (BLS) consumer price index for urban wage earners and clerical workers (CPI-W). This metric overstates inflation because it ignores the tendency of consumers to partly escape rising prices by shifting to lower-priced substitutes. Correcting the CPI-W would permanently slow the growth of Social Security spending by a small amount annually, but with a large compound effect. Over a 75-year period, the present-value cost of Social Security would decline by approximately 8 percent, enough to eliminate almost two-thirds of the actuarial deficit.[6]

As a final cost-cutting measure, the government could increase the proportion of Social Security counted as taxable income, a concept first introduced in 1983. Taxing benefits received by well-to-do beneficiaries is effectively a means-tested benefit cut, dressed in more acceptable packaging. Under current law,

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4. For a more detailed description, see Robert C. Pozen, "A Progressive Solution for Social Security." *Wall Street Journal,* March 15, 2005, A20; and Ruth Marcus, "The Right Questions on Social Security," *Washington Post,* March 9, 2005, A21.

5. The benefit formula is designed to maintain a minimum level of protection while paying higher benefits to those who contributed more during there working years. Adjustments could make the formula more progressive and reduce total outlays.

6. This calculation assumes that COLA reform would slow the rate of expenditure growth by 0.25 percent annually. The actuarial deficit is the difference between the present value of Social Security's liabilities (administrative costs and benefits paid) and assets (trust fund principal, trust fund interest, and social insurance tax collections) over the next 75 years.

(box continues next page)

Box 2.2 Politically salable cuts to Social Security *(continued)*

one-half of Social Security benefits are taxed if the sum of half the benefits plus all other income exceeds $25,000 ($32,000 if married, filing jointly). The proceeds are credited to Social Security rather than to the general fund. When half the benefits plus all other income exceed $34,000 ($44,000 if married, filing jointly), then a progressively larger fraction of benefits is taxed, up to a maximum of 85 percent. Additional proceeds from taxation of benefits in excess of 50 percent are currently credited to the Medicare program. The fraction of benefits taxed could be increased, with the maximum inclusion rate at 100 percent rather than 85 percent. Increasing the proportion of benefits taxed could make a small contribution to the long-term deficit. The OASDI Trustees (2005) estimate the present value of income from taxation of benefits to be $1.6 trillion. As a rough estimate, maintaining the current cutoffs for benefit taxation while raising the base proportion of benefits taxed from 50 to 65 percent (leaving the final 35 percent to be taxed by the Medicare program) would yield tax proceeds to Social Security with a present-value benefit of about $492 billion, reducing the actuarial deficit of $4.3 trillion by about 11.4 percent.[7]

7. Introducing an NRST or VAT would tax Social Security income at the point of consumption. However, if tax rebates for basic levels of consumption are included as part of a consumption tax system ("demogrants," discussed later), the government could plausibly claim that a large portion of Social Security benefits were untaxed.

pensioners (Kollmann and Nuschler 2003), giving a powerful boost to reform. Lacking a similar sense of urgency, no subsequent entitlement reform has gained traction, despite the best efforts of several blue-ribbon commissions. The Social Security and Medicare Trustees have publicly projected potential crisis dates (OASDI Trustees 2005, Medicare Trustees 2005). The earliest was in 2004, but it was a quiet crisis, as the Treasury transferred general revenue to maintain the size of the Medicare hospital insurance (HI) trust fund.[24]

The next potential crisis date is 2012, when the HI trust fund begins to shrink. The final crisis date for Medicare Part A is 2020, when HI funds will be exhausted. Social Security trust funds are projected to start shrinking in 2027 and be exhausted by 2041.[25] The most urgent crisis trigger, however, could turn out to be the market for US Treasury bonds. Recent

24. Medicare premiums rose by 17.5 percent in 2005 to ensure that beneficiaries cover 25 percent of the program. When the hike was announced in September 2004, the initial reaction of both presidential candidates was far from an in-depth assessment of health care costs. Instead, each candidate blamed his opponent for the increase (Thomas R. Saving, "How Are We to Pay for All This?" *Wall Street Journal,* September 22, 2004, A28).

25. According to the CBO (2004), the central estimate of the date when OASDI trust funds will be depleted is 2052. However, the 80 percent confidence interval is as early as 2034, and as late as 2085.

analysis by Standard and Poor's suggests that if current trends continue, the US government's credit rating will lose its AAA status around 2017, decline to A by 2023, and cease to be investment grade by 2026 (Paivi Munter, "US, Germany, France, and UK Face Junk Debt Status within 30 Years, Warns S&P," *Financial Times*, March 21, 2005, 1).

Each of these events is unprecedented in the modern era, and any one could catalyze a financial and political crisis. We assume that, by 2020, one or more of them will force limits on future entitlement expenditure.

Large benefit cuts pushed into the future. In 1983, immediate net outlays were reduced by delaying cost of living adjustments (COLAs) and taxing a portion of Social Security benefits. However, the largest cuts were to future benefits, which were reduced by raising the normal retirement age (NRA) from 65 to 67. The NRA hike did not begin to take effect until 2002, when the last cohort to gain NRA benefits at 65 reached that age, and the adjustment will not be completed until 2027, when those born in 1960 turn 67. The 1983 legislation cut the lifetime benefits of then-25-year-olds by 10 percent (Diamond and Orszag 2004), but it gave this cohort 40 years to prepare.

Tax increases phased in gradually. A 1977 reform scheduled an increase in the Federal Insurance Contributions Act (FICA) payroll tax from 5.85 percent to 7.65 percent by 1990.[26] The 1983 reform quickened the pace of increase, but FICA still did not reach 7.65 percent until 1990. The reform also raised the self-employment payroll tax (Self-Employment Contributions Act or SECA) to be double the FICA rate, thereby fully making up the employer contribution, but again, the increase was phased in over seven years.

Not a permanent fix. The 1983 reforms did not attempt to put Social Security on a fully funded basis, nor did they ensure pay-as-you-go solvency over a 75-year horizon. They sought to shelve the crisis for a generation, thereby delivering peace of mind to Congress and voters.

Drawing on the 1983 Social Security episode, we assume that little can be done to limit entitlement claims until fiscal problems reach crisis proportions.[27] The crisis date is impossible to predict, but the danger zone

26. A tax of 7.65 percent is paid by both the employer and the employee to fund Social Security and Medicare; hence the total FICA tax is 15.3 percent of covered payroll (12.4 percent of which is reserved to Social Security). Congress passed legislation to increase FICA without an accompanying increase in Social Security benefits for the first time in 1977. Before that year, the FICA tax was scheduled to increase to 7.45 percent in 1990. See Social Security Online (2004).

27. Both the Bill Clinton and George W. Bush administrations established blue-ribbon commissions on Social Security reform. Neither commission report (issued in 1997 and 2001, respectively) resulted in political action.

appears to lie between 2010, when the HI trust fund begins its decline, and 2025, when bond yields will soar if the widening fiscal deficit has not been addressed.[28]

We assume that Congress will react to the crisis, when it occurs, by cutting entitlements moderately in the near term and significantly a generation out. On this assumption, Social Security and Medicare outlays will be allowed to grow to their projected levels between 2035 and 2050.[29] Under current law, they are projected to consume about 14 percent of GDP in 2035 and 16 percent in 2050 (OASDI Trustees 2005, Medicare Trustees 2005).[30] They consumed less than 7 percent of GDP in 2004.

By current US standards, old-age entitlements that claim 16 percent of GDP appear outlandish. However, Canada and the United Kingdom already devote about 20 percent of GDP to entitlements, and Germany devotes around 30 percent.[31] In other words, our estimate that US Social Security and Medicare claims will be capped at 16 percent of GDP in 2050 may be optimistic.[32]

If old-age entitlement outlays, which cost nearly 7 percent of GDP in 2004, expand to reach 16 percent, we calculate that federal tax revenues must increase by roughly 9 percent of GDP to keep the fiscal gap from widening further.[33] Built into this arithmetic is an assumption that the fiscal deficit continues to average 2 to 3 percent of GDP, thereby ensuring that federal debt is not an ever-rising proportion of GDP.[34]

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28. We believe the crisis will be triggered well before 2041—the date projected for the exhaustion of the OASDI trust fund—because the trust fund itself merely consists of government IOUs in the form of Treasury bonds. The economic effect of depleting the trust fund's bonds, predicted to begin in 2027, would very likely precipitate a crisis long before the stock of trust fund bonds is exhausted. The S&P analysis on the prospective credit ratings on US Treasury bonds supports this conclusion.

29. Under our assumption, it takes roughly 25 years after the crisis before major cuts in entitlement programs succeed in capping future growth, expressed as a percentage of GDP.

30. As shown in table 2.1, spending on all entitlements comes to 20 percent of GDP in 2050 once Medicaid and other entitlement spending (such as income-support programs) are taken into account.

31. Foreign entitlement claims as a percentage of GDP are based on data for health, Social Security, and welfare expenditures for central, state, and local governments (IMF 2002).

32. This projection does not include any increase (as a percent of GDP) in spending for Medicaid or any other government program besides Social Security and Medicare. We adopt the estimate of 16 percent as a conservative, but alarming, figure.

33. Our estimate could prove optimistic. Peterson (1999, 118) anticipated that G-7 countries would need to raise tax revenue by 9 to 16 percent of GDP to cover the costs of social insurance programs. In the United States, he projected that a payroll tax rate of 31.9 percent of payroll, about double the current rate, would be required as early as 2030 to meet expenditures on pension and health benefits promised under current law.

34. In 2004, federal tax revenue was only 16.3 percent of GDP, low by historical standards, owing partially to the aftereffects of the stock market collapse and partially to the Bush tax cuts. We add our 9 percent increase to the federal revenue level Tax Relief

Which Taxes: Individual, Social Insurance, or Business?

If federal taxes will need to rise by about 9 percent of GDP over the next several decades to avert a fiscal crisis, how will the increases be divided among individual income taxes, social insurance taxes, and business taxes? The division we are addressing is not tax incidence—that is, whether the burden of increased taxation falls on workers, consumers, or owners of land or capital. The incidence of a corporate tax is difficult to assess, as firms share their tax burden in an obscure way among owners, employees, and the purchasers of the goods and services that the firms supply.[35] It is commonly believed that the main burden falls on corporate owners (i.e., shareholders).[36] There is not much evidence to support this as an economic fact, but widespread belief makes it a political fact that must be taken into account if the corporate income tax is replaced by another system.

Tax Liability, not Incidence

Accordingly, what we analyze here is not the incidence, but rather the legal liability for tax payments—whether the primary liability rests on individuals (as with taxes on individual incomes, estates, and residential properties), business firms (as with corporate taxes, VATs, and retail sales taxes), or a combination of both (as with Social Security and Medicare taxes).[37] The tripartite division of the question is important because it seems to mirror the way political coalitions are often forged, both to fight tax increases and lobby for tax cuts.[38]

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of 20.6 percent of GDP reached in 2000 (a figure above the historic norm). This arithmetic indicates that projected federal revenues will reach 29.5 percent of GDP. If state and local revenues remain constant at about 9 percent of GDP, as we assume, total general revenues would reach 38.6 percent of GDP. This figure appears extremely large in the US context. However in 2000, the simple average of tax revenue as a percent of GDP among OECD countries was 37.1 percent (OECD 2003).

35. In the end, of course, individuals rather than legal entities bear the incidence of all taxes, either through lower factor incomes (wages, dividends, etc.), higher prices, or fewer services from nonprofit institutions (universities, hospitals, etc.).

36. The obscure nature of corporate tax incidence has historically been a political selling point: A story could always be told that the tax did not particularly burden a certain group. However, as global competition has come to play a larger role in tax politics, obscurity has lost its luster for raising revenue through higher corporate taxes.

37. Some will argue that the public is more likely to identify corporate income taxes with business than it would an RST or VAT. This may be true, but we draw the line between business and individual taxation by identifying the entity actually responsible for remitting payment to the government.

38. For example, the lobby for individual tax cuts was highly successful in the Economic Growth and Tax Relief Reconciliation Act (EGTRRA) of 2001 and the Jobs and Growth

A tax increase of 9 percent of GDP is a dramatic change that will raise the level of federal taxation to new heights.[39] To make a speculative guess on the division of its burden among individual, business, and social insurance taxes (assuming those divisions remain intact), we estimate simple models of tax collection in OECD countries, using data for five-year intervals between 1965 and 2000 (OECD 2003).[40] The rationale for our approach is that the political economy of tax battles has similar characteristics across OECD countries, all of which have market economies, high and growing entitlement claims, and parliamentary or congressional systems in which majority votes are required to enact tax legislation.

Model of Tax Shares

Many OECD countries already have tax levels well above those we anticipate for the United States, reflecting the obvious fact that public attitudes differ over the appropriate size of government and the level of services it provides. To control for these differences, we use a fixed-effects model that accounts for country variation with a set of dummy variables, one for each OECD country.[41] We assume that the remaining variation reflects political economy forces at play across OECD countries.

With this database and framework, we estimate two equations. The first attempts to predict the share of business taxation in general tax revenue as a function of total general revenue expressed as a percentage of GDP.[42]

Tax Relief Reconciliation Act (JGTRRA) of 2003: the Bush tax cuts were totally directed at individual rather than business taxes. In the 1970s, individual taxpayers drove California's Proposition 13 and clones in other states that capped property taxes. The political link between Social Security taxes and entitlement checks was forged by Franklin Roosevelt, and in 1983 President Reagan—no friend of higher taxes—endorsed a faster phase-in of higher FICA taxes.

39. During World War II, in 1944, federal taxation reached 20.9 percent of GDP, nearly double the level in 1941 (OMB 2004, historical tables). This was still well below the level we envisage.

40. The models use data on general tax revenues (divided between individual, business, and social insurance taxes) from OECD countries from 1965 to 2000 at five-year intervals, for a total of 198 observations. General revenues include state, local, and central government taxes. Since the OECD area includes both federal and unitary countries, general revenues seem the more appropriate dependent variable. We assume that state and local revenues within the United States remain constant as a percentage of GDP.

41. In our fixed effects models, the United States is taken as the reference country, meaning that there is no dummy variable for the United States. The dummy coefficients for the other countries thus reflect their step differences from US tax experience, everything else being equal.

42. Business taxes are defined as taxes on corporate income (line 1200 in the OECD revenue statistics) plus all taxes on goods and services (line 5000). We attribute all property taxes to individuals, an exaggeration (OECD 2003).

Table 2.2 Results of OECD tax share regressions

Statistic	Dependent variable: Business taxes	Dependent variable: Social insurance taxes
Revenue coefficient	–0.487	0.298
Standard error	0.073	0.058
t-statistic	–6.690	5.150
R-squared	0.785	0.929
Adjusted R-squared	0.749	0.918
Observations	198	198

Note: Dependent variables are measured as a share of general tax revenue. Government revenue is measured as a share of GDP. Twenty-eight country dummies for fixed effects are suppressed for space.

Sources: OECD (2003) and authors' calculations.

The second equation uses the same data to predict the share of social insurance taxes in general tax revenue, again as a function of total general revenue expressed as percent of GDP.[43] Since all taxes are divided among individual, business, and social insurance taxation, the predicted share of individual taxes can be estimated as a residual.

The revenue coefficients of both models are statistically significant at the 1 percent level, the regression equations appear to be good fits (see table 2.2), and the models themselves have highly significant test statistics.[44] The equations indicate that, as the percentage of GDP claimed in taxes rises, the share of business taxes in total revenue tends to fall, while the share of social insurance taxes tends to increase. Holding all else constant, a 1 percentage point increase in tax revenue (expressed as a percent of GDP) results in a 0.5 percentage point drop in the share of business taxes in total revenues, and a 0.3 percentage point rise in the share of social insurance taxes. By implication, the share of individual taxes in total revenues rises 0.2 percentage points.

This rising share of social insurance taxes is easy to explain: They are politically linked to the popular entitlement programs that drive the increase in general tax revenues. The falling share of business taxes seems

43. Social insurance taxes include all taxes defined as social security contributions (line 2000). Many countries do not use "trust fund" accounting (the US method), but instead supplement social security contributions with general revenues (OECD 2003).

44. Model variables (revenue as a percent of GDP and fixed effects) explain 75 percent of the variation in business tax shares and 92 percent of the variation in social insurance tax shares within the observed data.

counterintuitive; it may reflect legislative recognition that the cost of economic distortion in the face of global competition rises with a larger tax share. A sensible response, and one pursued by many legislative bodies, is to raise business taxes in absolute terms, but cut their share of total revenue. Thus, they do not rise as much as social insurance and individual taxes.

To estimate how the forecasted 9 percent tax increase will be divided between individual, business, and social insurance taxes by 2050, we use 2000 as a base year, when general taxation (federal, state, and local) claimed 29.6 percent of GDP.[45] Starting with this base, general revenue is assumed to increase to 38.6 percent of GDP in 2050. At this level, our model predicts that business taxes will contribute 23.7 percent of total taxation (with a standard error of 1.9 percent), social insurance taxes will contribute 24.9 percent (with a standard error of 1.5 percent), and individual taxes will pay the remaining share, 51.4 percent.

These shares refer to general revenue, which, as mentioned above, includes state and local taxes. Our focus is the division of federal taxes. Since the principal motivation for the increase is federal entitlement spending, we assume that state and local tax revenues are held constant at the baseline percentage of 9.0.

Based on these assumptions, our results appear in table 2.3. Federal business taxes rise from 3.1 percent to 5.0 percent of GDP, social insurance taxes rise from 6.9 percent to 9.6 percent, and individual taxes rise from 10.7 percent to 15.0 percent.[46] Considering the painful implications of the tax-sharing model for social insurance and individual income taxes, we believe that our projected increase in business taxes (based on OECD norms) is conservative. If revenue must be raised to avert a fiscal crisis, the political economy of recent elections suggests that businesses are a softer target than individuals or payrolls. We thus focus on the consequences of the projected rise in business taxes. However, it is worth considering for a moment the implications of our calculations for social insurance and

45. In 2001, the latest year in the OECD database, general revenue fell to 28.9 percent of GDP, reflecting the recession. Although revenue collection may have been inflated in 2000 on account of extraordinary stock market returns, we think the year 2000 better portrays normal tax collections under the tax law as it stood prior to the Bush tax cuts of 2001 and 2003.

46. Differences between projected business tax collections as a percentage of GDP in 2050 and actual collections in 2000 come from three sources. First, there is the effect of the overall increase in revenues as a percent of GDP. This translates into adding 2.2 percent of GDP for business taxes. Second, there is the effect of the change in the share of total revenues paid by each category of taxpayer (business, individual, and social insurance). This roughly translates into subtracting 1.4 percent of GDP for business taxes. Third, there is the effect of the difference between predicted tax collections in 2000, using the model, and actual collections in 2000. This translates into adding 1.1 percent of GDP for business taxes. Note that the model predicted federal business taxes, in 2000, at 4.2 percent of GDP, while actual business taxes were 3.1 percent of GDP.

Table 2.3 Taxes by type, actual 2000 and projected 2050
(percent of GDP)

Type	Federal	State and local	Total
Actual 2000			
Business	3.1	4.1	7.2
Social insurance	6.9	0	6.9
Individual	10.7	4.9	15.5
Total	20.6	9.0	29.6
After revenue increase, projected for 2050			
Business	5.0	4.1	9.1
Social insurance	9.6	0	9.6
Individual	15.0	4.9	19.9
Total	29.6	9.0	38.6

Note: The projected allocation between business, social insurance, and individual taxes in 2050 is determineed using a panel regression of general (federal plus subfederal) revenue of OECD countries. The projected allocation between federal and subfederal collections in 2050 holds the state and local tax share of GDP constant from 2000.

Sources: OECD (2003) and authors' calculations.

individual taxes. In box 2.3, we explore briefly the possible substitution of a consumption tax for part of the individual income tax.

Social Security taxes are currently 12.4 percent of covered payroll, with liability equally divided between the employer and the employee.[47] Medicare taxes are 2.9 percent of total payroll,[48] again split equally. According to our model, Social Security and Medicare taxes together will rise from 15.3 percent of covered payroll to about 21.3 percent. Rates above 20 percent are already common in Europe, but they will unleash an epic legislative battle in the United States.

Projected increases in revenue collected from individual income taxes are even more unsettling. Our estimates indicate an individual tax hike from 12.5 percent of personal income to 17.2 percent.[49] This increase would

47. In terms of tax incidence, all Social Security and Medicare taxes fall on labor income. The 50-50 division between employer and employee is politically convenient, but does not affect the ultimate tax incidence. Moreover, employers are required to withhold the employee's FICA tax and remit the money directly to the Treasury.

48. For Social Security taxes, the current limit on covered payroll is $90,000. For Medicare taxes, there is no limit: the hospital insurance (HI) tax of 1.45 percent each for the employer and employee applies to all labor earnings.

49. This figure is calculated from the projected increase in individual income taxes as a percent of GDP.

Box 2.3 Graetz's plan for individual income tax reform

While we recommend a consumption tax to replace the corporate income tax, other scholars urge that consumption taxes should be used to replace the individual income tax. Michael J. Graetz (2002a) offers a radical plan: Only individuals with incomes greater than $50,000, or married couples filing joint returns with incomes greater than $100,000, would be required to pay income tax.

Graetz would then reform the income tax by allowing only a standard exemption ($50,000 for individuals, or $100,000 for couples filing jointly), and taxing remaining income at a flat 25 percent rate. Essentially this amounts to using the alternative minimum tax (AMT) base for the individual income tax.

As shown in table 2.4, Graetz's criteria would eliminate approximately 112 million tax returns, or 86 percent of all returns filed (the IRS would continue to collect income information in order to enforce filing requirements). The populist appeal is evident. However, the result is to restore the "soak the rich" character of the individual income tax that prevailed from the time of its original advocacy by William Jennings Bryan through World War II.

Reducing the exemption level would give the plan a slightly less revolutionary look, yet still eliminate huge numbers of tax returns.[1] Table 2.4 illustrates alternate versions of Graetz's plan, where we vary the exemption level.[2] The required consumption tax rates of a plan that exempted $25,000 (individuals) and $50,000 (married, filing jointly) would be 3 to 4 percent. Such a plan might accompany replacement of the corporate tax, reduce the reach of individual income tax, and yet entail consumption tax rates well below levels seen in Europe. However, it would also require policy compromises beyond those we address.

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1. Included among returns eliminated are roughly 20 million filers of less affluent households who receive the earned income tax credit (EITC) and therefore would lose an income transfer by not filing. Graetz (2002a) makes special provision for them in his plan, which is one reason why his proposed consumption tax rate is higher than ours. We deal with progressivity issues in the main text, and do not duplicate that analysis here.

2. Graetz's (2002a) full plan includes provisions to replace the EITC, allow additional relief for low- and middle-income families facing the consumption tax, integrate the corporate and individual income tax, allow a state and local income tax deduction, add a tax on large gifts to the income tax, and progressively bracket the payroll tax. Graetz calculates his full plan would require a 14 percent VAT rate, assuming a VAT base equivalent to 50 percent of GDP.

enlarge individual income tax revenues by some 40 percent, a jump that portends serious pain, especially among upper-income households. The income tax is already extremely unpopular and difficult to administer: It requires individual taxpayers—or the accountants they hire—to decipher and file over 130 million tax returns annually (IRS 2003c). As rising incomes push more households into the dreaded embrace of the alternative minimum tax (AMT), a tidal wave of hostility threatens to engulf the tax system.

Table 2.4 Estimated individual income tax reform from 2000

Exemption level (adjusted gross income)				
Married, filing jointly	20,000	50,000	75,000	100,000
Other	10,000	25,000	40,000	50,000
Tax returns eliminated				
Millions of returns	31	73	100	112
Percent of all returns filed	24.2	56.7	76.9	86.3
Revenue from eliminated returns				
Billions of dollars	3	61	172	277
Percent of individual income tax revenue	0.3	6.2	17.6	28.3
Revenue of 25 percent flat tax on adjusted gross income base, allowing full exemption (billions of dollars)	1,202	782	571	467
Revenue shortfall compared with current regime[a]				
Billions of dollars	–221	198	409	513
Percent of individual income tax revenue	–22.6	20.2	41.7	52.3
CAT replacement rate[b]	n.a.	3.1	6.4	8.0
NRST replacement rate[c]	n.a.	3.9	8.1	10.2

n.a. = not applicable
CAT = corporate activity tax
NRST = national retail sales tax

a. Negative figures indicate a revenue surplus compared with the current regime.
b. Rate of CAT required to make Graetz reform revenue-neutral at given exemption level. See table 5.2.
c. Tax-inclusive rate of NRST required to make Graetz reform revenue-neutral at given exemption level. See table 5.1.

Sources: IRS (2004) and authors' calculations.

Adverse reactions have already spawned movements for a flat tax (which Steve Forbes famously claimed would reduce the 1040 form to a postcard), or a consumption tax, which would eliminate the form altogether and make April 15 "just another spring day" (Tauzin 1998). In box 2.3, we examine a hybrid proposal offered by Michael J. Graetz (2002a). Graetz's proposal would eliminate the income tax for the vast majority of Americans, using a consumption tax to recover the lost revenue. In the framework of our tax model, Graetz's plan would shift tax liability from individuals to businesses, and because the plan is revenue-neutral, the increase in business taxation would be in addition to any increase required to narrow the looming fiscal gap.

Recognizing its political appeal, we nevertheless offer three criticisms of Graetz's plan. First, it would restore the individual income tax to its character before World War II—a "soak the rich" tax. Graetz proposes a

single rate of 25 percent, using the AMT base, but it is altogether possible that his plan, if enacted, could revive the populist environment that enabled the top marginal rate to rise from 7 percent in 1913 (when it was introduced following the passage of the Sixteenth Amendment) to 63 percent in 1932 (IRS 2002).[50] Second, it would enable Congress to postpone the hard political trade-off between capping entitlement spending, particularly Medicare, and raising more revenue through taxation painful to a broad range of households. Instead, at least for a while, more of the entitlement burden could be placed on upper-income households. Delaying the trade-off would allow social insurance expenditures to rise even further. Third, to the extent that the plan substitutes for, rather than supplements, our proposal for replacing the corporate income tax, it may entrench deadweight loss in the tax system. By focusing on the individual rather than corporate income tax, it may actually perpetuate the worst inefficiencies of the tax code.

Nevertheless, we agree that the tax code must be dramatically reformed. Not only for purposes of simplification, but also to meet fiscal challenges and reduce inefficiencies, the corporate income tax needs drastic surgery. In the following chapter, we explore several options for taxing business firms.

50. The top rate peaked at 77 percent in 1918 to finance World War I and later peaked at 94 percent in 1946. It was during World War II that the income tax began to reach the middle class.