

An Innovation and Competitiveness-Centered Approach to Deficit Reduction

BY ROBERT D. ATKINSON | JANUARY 2014

Policymakers should be guided by the need to reduce the debt-to-GDP level over the medium term, in part by ensuring that budget policies support investments and tax expenditures that drive GDP growth.

In an earlier paper, ITIF discussed the three dominant theories underlying analyses of the economic and fiscal problems facing America, arguing that each did a poor job of addressing the root causes of these problems.¹ That paper argued for a new approach, termed “Innovation Economics,” which stresses why decisions on taxes and spending should be driven by the need to promote economic growth.

Rather than concentrating on boosting aggregate demand or reducing the federal debt, policymakers should be guided by the need to reduce the debt-to-GDP level over the medium term, in part by ensuring that budget policies support investments and tax expenditures that drive GDP growth and that boost overall work effort. In addition to the fiscal deficit, America also faces deficits in investment and competitiveness that are equally important.² The best solution is to choose a mix of regulatory reforms, investment increases, spending cuts and tax increases that promote investment and make America a more competitive place to do business. Merely increasing federal spending to boost aggregate demand or treating all spending and taxes the same (e.g., putting “everything on the table”) can easily weaken the economy over the medium term, making it harder to reduce the debt-to-GDP ratio.

This paper provides more detail on the specifics of what an innovation and competitive-based approach to the budget would mean for taxes and spending. To start with, it is focused on increasing GDP. Why focus on growth? Besides increasing standards of living, GDP growth reduces the burden of the budget deficit. First, it reduces demand for public services, such as welfare. Second, higher incomes mean that more taxes will be paid, even if tax rates remain the same. And third, by expanding GDP, growth reduces the debt-to-GDP ratio, which is the most appropriate measure of the economic burden imposed by federal debt. Yet, many of the budget proposals of the last several years focus on the

absolute budget deficit, not on the budget-to-GDP ratio, treating deficit reduction as an end in and of itself.³ In so doing they focus too much on cutting spending and raising taxes rather than on ways to increase economic growth. In addition, their proposals for spending and taxes seem to treat all outlays and revenues the same, regardless of their effect on growth. Yet cutting public investment (including increasing certain business tax expenditures) in the name of fiscal discipline will slow growth, leading to increased government entitlement spending and reduced tax revenues. Take, for example, cutting federal funding for research and development (R&D). This action would reduce the budget deficit, but it would also increase the investment deficit, reducing the rate of innovation and productivity growth. It would also increase the trade deficit by making U.S. exporters less competitive. Both effects would reduce economic growth, resulting in total budget savings significantly lower than what would be achieved by cutting true “non-investment” spending.

Instead of focusing solely on the budget deficit, Congress and the Administration should take a more focused approach to reducing the budget deficit by adopting policies that boost economic growth, even if in the short run they contribute to the budget deficit, while also cutting unproductive spending and raising taxes on individuals.

DISTINGUISHING BETWEEN PRODUCTIVE INVESTMENT AND CONSUMPTIVE SPENDING BUDGET POLICIES

To effectively address the budget while also growing the economy, policymakers should do four things. The first two focus on increasing GDP growth rates, the second two on reducing the budget deficit.

1. Increase investments, including business tax expenditures, which spur productivity, innovation and competitiveness (PIC) by boosting spending on public investment and cutting taxes on business (including cutting statutory rates, expanding pro-growth incentives, and also rolling back ineffective tax breaks). This includes:
 - a. Creating a comprehensive tax credit for business investments in R&D, new equipment, and software and workforce training;
 - b. Lowering the federal corporate tax rate significantly, to around 20 percent;
 - c. Increasing federal funding for research and technology by at least \$50 billion per year;
 - d. Increasing federal funding for worker training by at least \$10 billion per year;
 - e. Increasing the gas tax by 35 cents per gallon and devoting it to the Highway Trust Fund; and
 - f. Increasing spending on federal IT infrastructure
2. Change policies that reduce labor force participation, including making it harder for workers to receive disability benefits, while also providing incentives for workers to retire at a later age. This includes:

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- a. Increasing the Social Security (and Medicare) full retirement age to 67 for workers born in 1954 and continuing to increase it by two months every year until it reaches 70;
 - b. Increasing the minimum retirement age for receiving a federal pension to the proposed Social Security age rules;
 - c. Making it more difficult to receive Social Security Disability Insurance;
 - d. Increasing the minimum wage to at least \$9.00; and
 - e. Reducing the U.S. prison population
3. Cut spending on activities that function as consumption, as opposed to investment. The focus should largely be on cutting entitlements to seniors, but also on areas of spending that lower productivity (e.g., agricultural subsidies). This includes:
- a. Instituting progressive indexing that indexes SSI benefits to wages for low-income workers and to inflation for high-income workers;
 - b. Indexing cost-of-living-adjustments to chain-weighted CPI;
 - c. Eliminating all agricultural subsidies; and
 - d. Cutting fossil fuel subsidies
4. Raise taxes on activities, and in ways that will have either no or a limited negative impact on growth. This will mean raising existing taxes on individuals as opposed to business; introducing new taxes that boost efficiency, such as a carbon tax; and eliminating deductions that neither spur growth nor have a strong social purpose. This includes:
- a. Introducing a border-adjustable business activity tax, a financial transaction tax, or a carbon tax;
 - b. Extending the top marginal rate of 39.6 percent to all households making \$250,000 or more and individuals making \$150,000 or more;
 - c. Increasing the tax rate on dividends and capital gains so that they are taxed at the same rate as regular income;
 - d. Eliminating the lower tax rate for carried interest;
 - e. Phasing out the mortgage interest deduction; and
 - f. Eliminating employment related tax benefits, including the health care insurance tax benefit and the transportation tax benefit

Taking these four steps will help reduce all three of America's deficits – the budget, investment and trade deficits – and will also spur growth which will help reduce the debt-to-GDP ratio.⁴ An increase of just 0.1 percent in the GDP growth rate would reduce the budget deficit by as much as \$300 billion cumulatively over the next decade.⁵ Given the economy's poor performance over the last few years, a determined focus on policies to promote growth could boost GDP by as much as one percentage point each year.

To do this, policymakers need to not only develop much more focused productivity enhancement policies, they also need to distinguish between productive investment (expenditures that expand productive capacity, drive economic growth and increase future incomes) and consumptive spending (expenditures that finance consumption of goods and services but do not lead to increased future productivity). To distinguish between taxes and

spending that support investment versus consumption, policymakers should consider four criteria:

- **Productivity:** Does the program or policy encourage organizations to produce more goods and services with fewer inputs?⁶
- **Innovation:** Does the program or policy encourage organizations to create new products, services, processes, or business models that add value or create new industries?
- **Competitiveness:** Does the program or policy reduce the trade deficit by making it more attractive to locate productive activity in the United States rather than other countries, thereby increasing exports and/or reducing imports?
- **Work Hours:** Does the program or policy increase the amount of work hours per-capita by encouraging those workers who are able to work to enter into or remain in the labor force, including staying longer at the end of their working life? This is important because GDP is a function of work hours multiplied by productivity; increasing work hours, especially for people not working, is a key way to boost GDP and, by definition, lower the debt-to-GDP ratio.

This does not mean that spending that does not increase one or more of these four factors should by default be cut. There are other reasons for public spending (e.g., national and homeland security, environmental protection, assisting the needy); but by increasing investment and spurring more work effort, America can begin closing its three deficits and once again become the most productive, innovative and competitive nation in the world.

Tax Cuts and Investment Increases	Tax Increases and Spending Cuts
Corporate Tax Reductions	Tax Increases
<ul style="list-style-type: none"> ■ Establish an innovation and investment tax credit ■ Lower the corporate tax rate 	<ul style="list-style-type: none"> ■ Increase taxes on individuals ■ Introduce new taxes (e.g., carbon taxes) that do not significantly slow growth ■ Broaden the tax base
Increased Outlays	Reduced Outlays
<ul style="list-style-type: none"> ■ Research and development ■ Education ■ Transportation infrastructure ■ Federal IT investment 	<ul style="list-style-type: none"> ■ Limit entitlements ■ Boost government efficiency ■ Reduce industry subsidies

Table 1: ITIF's Growth-Centered Deficit Reduction Plan

This report lists a number of recommendations that, if adopted, would go a long way toward putting America back on track. The recent publication of the Congressional Budget Office (CBO) "Options Book" provides estimates of the budget savings for many of these

recommendations.⁷ It does not, however, measure the effect they would have on GDP growth, which, for many of the tax reductions and investment increases, we believe would be significant. In addition, in some cases the options in this paper have been modified to fit the option that CBO estimated. For some of the recommendations there may be cross effects so that merely adding the CBO savings for two policy changes may not equal the actual savings if both were adopted. Nevertheless, using the CBO numbers provides a fairly good idea of the budget effect of these recommendations.

INCREASE INVESTMENTS, INCLUDING CUTTING BUSINESS TAXES

A growth-oriented budget plan needs to encourage productivity-enhancing investments by the private and public sectors. This means reduced taxes on business, particularly on investments, and increased public spending in areas that are known to boost productivity growth (e.g., research, skills, and infrastructure). Although these expenditures will increase the budget deficit in the short run, they will reduce the debt-to-GDP ratio in the moderate and long run.

One debate over corporate tax reform is whether Congress should increase tax incentives for investment or reduce the corporate tax rate. Congress should do both.

Reduce Effective Business Taxes

Expanding business tax incentives while also cutting the corporate rate will help move the United States away from a consumption-centered economy to an investment-centered one. This will also increase productivity, innovation and competitiveness.

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Increase Tax Incentives for Investment

Business investment in R&D, new equipment and software and workforce training drive PIC. However, in the last decade, the United States has fallen behind other nations in investment in these key building blocks.⁸ **As a result, Congress should create a comprehensive tax credit for business investments in R&D, new equipment and software, and workforce training. Such action would provide a tax credit of 45 percent of business investments on R&D and skills training, and a 25 percent credit on new equipment and software.** Both credits should be modeled on the current Alternative Simplified R&D credit but with expenditures in excess of 75 percent of base-period expenditures (rather than the current 50 percent level) qualifying for the credit. Doing this would provide a strong incentive for businesses in the United States to invest more in the building blocks of productivity, innovation and competitiveness.

In an earlier report, ITIF estimated that this expanded credit would cost approximately \$72 billion per year on average over the next 15 years, with the expanded R&D credit costing \$8.5 billion, the new training credit costing \$12 billion, and the machinery and software credit costing \$51.5 billion. However, once the effects of induced investment and higher economic growth were taken into account, ITIF estimated that the expanded credit would pay for itself after 15 years.⁹ In other words, on a dynamic basis, the expanded credits would generate a net present value rate of return to government tax revenues in excess of direct tax credit costs.

Lower the Statutory Corporate Tax Rate

For the corporate tax rate itself, at a combined state-federal rate of 39 percent, the United States has the highest statutory corporate tax rate in the world. There is also evidence that the United States has one of the highest effective corporate tax rates in the world, including for manufacturers.¹⁰ The evidence shows that higher corporate rates reduce economic growth, including reduced international competitiveness.¹¹ As a result, **Congress should lower the federal corporate tax rate significantly, to around 20 percent**, which would move the United States from the highest statutory corporate tax rate in the Organization of Economic Cooperation and Development (OECD) to a tie for ninth place.¹² Lowering the statutory rate would also result in U.S. multinational companies deferring fewer taxes offshore since their profits in more nations would be taxed at a higher rate than in the United States and it would cost them less or nothing to repatriate foreign profits.

ITIF has earlier estimated that this change would cost the government \$100 billion per year on a static basis.¹³ However, lowering the corporate tax rate would have two compensating effects on growth. First, Hassett and Brill argue that the revenue maximizing corporate tax rate is about 26 percent.¹⁴ Since state and local corporate taxes are about 4 percent, this implies a federal rate of 22 percent, well below today's rates. As such, the rate could be lowered over 10 percentage points with no reduction in revenue. Even if the dynamic effects are not as strong as this, it does suggest that there are some dynamic-compensating revenue effects from a lower rate. Second, a lower rate would spur more investment, in part by increasing the after-tax returns from investments and by reducing the incentive to move production offshore and encouraging more foreign companies to locate business activity here. As a result, we believe that once the positive effects on growth are included, the actual cost would be significantly less—perhaps equivalent to the static losses from lowering the rate to only 28 percent.

There is a lively debate about whether to include dynamic effects in budget estimates. The standard practice is to exclude them because of their sensitivity to initial assumptions. Yet these effects certainly exist. Policies that reward productive investment clearly increase the capital stock of the economy, in turn producing higher incomes and more tax revenue. While it may not be possible to get agreement on the exact size of these effects, it should be possible to agree that growth-promoting policies have a more beneficial effect on the debt-to-GDP ratio than traditional estimates suggest and therefore ought to be favored. But without dynamic scoring, growth-enhancing budget changes are treated the same as growth-neutral, or even growth-reducing, changes. As such, **we encourage Congress to charge CBO and the Joint Committee on Taxation with doing more to incorporate dynamic scoring into their estimates.**

Increase Outlays: Investment in R&D, Education, Infrastructure and Government Efficiency

Federal public investment can be defined as those expenditures made today by government that produce income for the United States with a net present value greater than the cost of the expenditure. While some on the left want to call all favored spending “investment” in order to place a greater veneer of respectability on it, most federal expenditures are in fact consumption. Federal spending is truly investment only if it yields returns in excess of

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expenditures. America faces an investment deficit, and increased public investment—along with incentives to spur private investment—is needed to remedy it.¹⁵ In particular, Congress needs to increase public investment in four key areas: science and technology, education and skills, surface transportation infrastructure and federal information technology (IT) investment. Although these policies would also increase the deficit, they would have similar dynamic effects to those discussed above, which would partially or perhaps fully offset the cost. More important, they would increase the denominator of the debt-to-GDP ratio.

Science and Technology

The United States is in a global competition for innovative advantage.¹⁶ Our international competitors have been strategically ramping up their public investments in research over the last two decades while U.S. investments have grown much more slowly. In terms of federal funding for nondefense R&D as a share of GDP, the United States ranked just twenty-eighth out of thirty-four nations studied by the OECD in 2010.¹⁷ And in terms of government investment in university research, of thirty-nine nations, the United States ranks just twenty-fourth.¹⁸ To reverse this course, **federal support for research and technology should be increased significantly, by at least \$50 billion per year**, and this funding should be applied across an array of agencies and technology areas, including productivity, energy, health, and defense.¹⁹²⁰²¹ In addition, as discussed in ITIF's "25 Recommendations for the 2013 America Competes Act Reauthorization," Congress should also increase funding for research that is focused more on commercial innovation and U.S. competitiveness.²²

Education and Skills

In a more knowledge-based economy, a well-educated and trained workforce contributes to economic growth and competitiveness.²³ As a result, in addition to expanding the R&D tax credit to include corporate expenditures on training, **federal support for worker training should be increased by at least \$10 billion per year**. There are several areas that should be targeted for investment, including science, technology, engineering and mathematics (STEM) education, manufacturing skills standards, and increased support for technical and community colleges, including the National Science Foundation (NSF) Advanced Technical Education program.²⁴

Surface Transportation Infrastructure

The United States is facing a surface transportation crisis. The roots of our current crisis lie in our failure to invest, particularly in more and better roads, and that underinvestment results in lower productivity growth. The federal Highway Trust Fund receives \$32 billion per year in revenue while the required investments amount to nearly \$100 billion per year.²⁵ **Congress should increase the gas tax by 35 cents per gallon and then index it for inflation. This would raise approximately \$45 billion per year, which should be devoted to the Highway Trust Fund.**²⁶ At the same time, Congress should adopt policies to enable and spur more public-private partnerships and toll facilities.

Federal IT Investment

A strategy to boost the productivity of the federal government should be a key part of any budget reduction strategy. McKinsey & Company finds that a 15 percent improvement in the efficiency of federal government operations could generate \$1.3 trillion in savings over the next ten years.²⁷ These sorts of efficiency gains have been routine in the private sector for the last few decades. Information technology can play a key role in driving increased efficiency. Through effective use of IT, the federal government will be able to provide the same services at a lower cost. **Congress should therefore increase spending on federal IT infrastructure.** At the same time, in order to enable the efficiencies that come from increased IT application, Congress should dramatically reform federal personnel regulations to make it much easier to fire federal workers, especially underperforming ones.²⁸ Moreover, as the problems with the Affordable Care Act website so clearly demonstrated, we need a change in the rules and processes regarding IT procurement to enable agencies to more effectively buy IT systems.²⁹

Even with the increase in the full retirement age, Americans will be spending more years in retirement consuming a share of the output of current workers, all the while not adding to GDP.

POLICIES TO INCREASE WORK HOURS

There are two ways to boost GDP: boost productivity and increase work hours. The kinds of investments and tax cuts proposed above are critical to boosting productivity. But to address the budget deficit without even larger cuts in spending or increases in taxes it will be necessary to adopt policies that boost work hours. There are two ways to do this: increase the working age population (e.g., increased immigration) or increase the number of hours workers work in their life. The former can increase GDP but is less effective at increasing GDP per person, especially if it is focused on low-skill immigration since every person added to the economy also consumes resources. The latter, expanding work hours, is more effective because it increases output and taxes paid while reducing the consumption of public services, including entitlements.

Like most other proposals in this report, having workers remain in the labor market, even for just a year or two more, would have a positive effect on both the deficit (by increasing taxable income and reducing entitlements) and GDP.

One way to increase total work hours per worker is to increase the number of hours worked each year. However, this is not a viable path; Americans already work more hours per year than workers in most developed nations.³⁰ Do we really want Americans to take even less than their paltry two weeks of vacation or to work even longer each week? Rather, policy should focus on increasing the labor force participation rate of adults not caring for young children and increasing the retirement age so that workers work more years. This means, as described below, raising the retirement ages for Social Security, Medicare, and federal government retirement programs, limiting disability payments for prime-age workers, and reducing America's prison population.

A key to increasing the years Americans work is to raise the retirement age at which they qualify for Social Security and Medicare. Social Security payments have increased 5.5 percent per year since 1990, reaching \$596 billion in 2011. And entitlements will only grow going forward. The share of the population eligible for Medicare and Social Security is projected to increase from 14 percent today to 22 percent in 2030.³¹

The Social Security full retirement age (FRA) is 66, and the minimum retirement age at which someone can begin receiving benefits is 62. The FRA is slated to increase to 67, but only for workers born in 1960 or later. Yet, on average, life expectancy during retirement is projected to increase by 11 percent (2.2 years) between 2015 and 2050. In 1970, a 65-year old American male was expected to live 13.8 more years. A male turning 65 in 2015 is expected to live 19.3 years, while in 2050 they are expected to live 21.5 years.³² Even with the increase in the FRA, Americans will be spending more years in retirement consuming a share of the output of current workers, all the while not adding to GDP. (See Figure 1)

In response to increasing life expectancies, **Congress should increase the Social Security full retirement age to 67 for workers born in 1954 and continue to increase it by two months every year until it reaches 70.** Increasing the full retirement age will reduce Supplemental Security Income (SSI) payments and generate more federal tax revenues as workers work longer.³³ The government should also increase the eligibility age for Medicare at the same rate as for Social Security.³⁴ In addition, Congress should increase the minimum retirement age, perhaps to 64. This action will not save any money in terms of Social Security (since early retirees receive an appropriately lower monthly payment), but it will encourage workers to not retire early, leading to higher GDP and tax revenues. Based on CBO’s estimate for similar proposals, these changes will save approximately \$77 billion over the next 10 years.³⁵ Assuming these changes cause the average worker to remain employed for two additional years at the median salary and average tax rate for workers approaching retirement, these changes could also generate an additional \$40 billion in taxes each year.

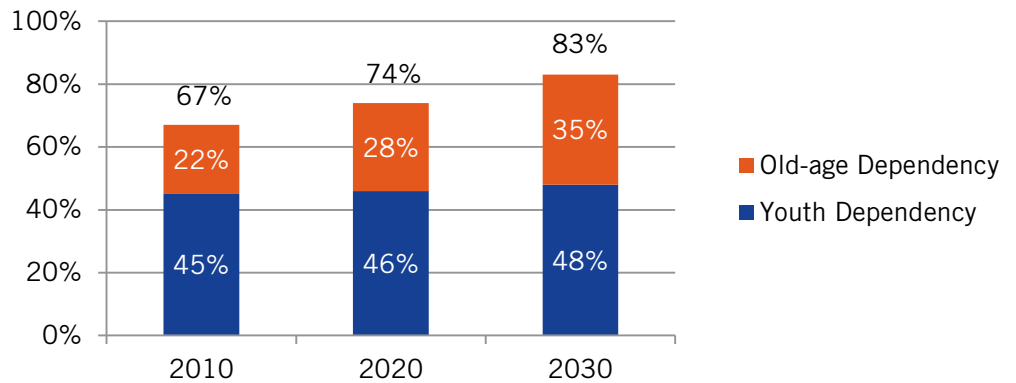


Figure 1: Total Dependency Ratio Broken Down by Age of Dependent³⁶

Some argue that increasing the retirement age is unfair, particularly for workers who are not able for physical reasons to work longer. However, these workers would still qualify for Medicaid and Social Security Disability Insurance (SSDI). Moreover, with the move to an economy with many more jobs in the services sector, the availability of jobs that require limited physical exertion has grown.

Federal government worker pension liabilities have also increased substantially, with unfunded pension liabilities reaching \$761.5 billion in 2011.³⁷ The current federal pension, the Federal Employees Retirement System, provides a lifetime defined benefit for

federal employees. To reduce the costs of federal pensions, **Congress should increase the minimum retirement age for receiving a federal pension to the proposed Social Security age rules.**

Congress should move in the same direction for the military retirement system.

Military servicemen and women may elect to retire after 20 years of service (age 37 in many cases). This policy not only increases government spending, it also creates an incentive for those in prime working age to leave the labor force. The average enlisted member was age 42 when they retired and had 21 years of service, while the average officer was 46 with 23 years of service.³⁸ Therefore, the average military retiree will receive benefits for approximately 30 years having served for an average of only 22 years.

One primary reason that the benefits system is so generous is that it is used as a recruitment tool. If it turns out that increasing years of service significantly reduces the recruitment incentive, it would be better to increase salary levels for servicemen and women to compensate for reduced retirement benefits, for this would expand incentives to stay in the military longer.

Increase Prime-Age Residents' Work Rates

It is not enough to increase incentives for workers to retire later; we need to increase them for prime-age workers as well. The labor force participation rate for prime-age Americans aged 25 to 54 has dropped by 2.9 percentage points since 1990.³⁹ While prime-age female participation increased slightly between 1990 and 2011, the participation rate of prime-age males dropped by 5.9 percentage points, from 84.8 percent in 1990 to 78.8 percent in 2011.⁴⁰ Every worker who leaves the labor force can generate a double-drag on the economy, in that they do not pay taxes and they may also receive government benefits. In addition to adopting broad-based policies to support robust wage and job growth (the former of which will induce higher levels of workforce participation), there are two key steps to increasing labor force participation.

The first is to ensure that disability benefits only go to those who truly cannot work and to strengthen efforts to increase the incentives for people on disability to reenter the workforce. The growth of Social Security Disability Insurance payments has been significant, increasing from \$25 billion in 1990 to \$137 billion in 2012.⁴¹ The average monthly SSDI benefit increased by 21 percent in real dollars between 1984 and 2011.⁴² Partly as a consequence, the number of SSDI recipients increased by 126 percent during a period when the labor force increased by just 36 percent.⁴³ As a result, prime-working-age individuals receiving SSDI increased from 3.1 percent of the workforce to 6.5 percent.⁴⁴

This change does not appear to reflect any real change in the ability of Americans to work. Rather, it appears to be a result of policies passed in 1984 that liberalized eligibility determinations.⁴⁵ Instead of focusing on objectively-verifiable diagnostic criteria, benefits are granted on a case-by-case basis, with final decisions usually relying on the opinion of the applicant's medical practitioner. Economists David Autor and Mark Dugan argue that the SSDI eligibility application process should focus on objective data with specific maladies for which SSDI will be granted.⁴⁶ Increasing stringency in SSDI qualification

What is certain is that the United States will be less prosperous if it pays more and more of its citizens, young and old, not to work.

would increase labor force participation rates as rejected workers would be required to find jobs. **If the share of workers receiving disability was reduced to the rates of the year 2000, this would mean a reduction in SSDI recipients by 3.6 million (34 percent).** This in turn would expand the workforce by 2.3 percent, save \$46 billion per year in benefits and generate additional dollars in terms of higher GDP and taxes.⁴⁷

Although increased ease of obtaining SSDI benefits has been one cause of the decline in prime age workers in the labor force, it does not explain the entire decline. Another cause could be the growth of low-wage jobs (relative to middle-wage jobs) over the last two decades and the stagnation of the wages for these jobs. With wages so low for many jobs, the cost of being outside the labor market is lower than it once was, although the Earned Income Tax Credit does attempt to correct it. One reason why wages have not increased for these jobs is that the federal minimum wage has declined in inflation-adjusted dollars from \$10.77 in 1968 to \$7.25 per hour today.⁴⁸ **As a result, Congress should increase the minimum wage to at least \$9.00 over a three-year period with annual increases tied to the overall rate of wage growth from that point on.** Some will argue that increases in the minimum wage lead to higher unemployment. But this is an error of applying microeconomic analysis to a macroeconomic phenomenon. The unemployment rate is largely determined by macroeconomic policy and by the overall competitiveness of the U.S. economy.⁴⁹ Once the economy is back to full employment, if any unemployment resulted from an increase in the minimum wage, macroeconomic policy, especially monetary policy, would adjust, bringing the economy back to full employment. In addition, a higher minimum wage would reduce outlays from the earned income tax credit.

Finally, another reason why fewer adults are working is because so many are in prison. The U.S. prison incarceration rate is the highest in the world and has increased from 0.16 percent of adults in 1970 to 0.49 percent in 2011.^{50,51} Many (650,000) were not in prison for violent crimes, and it costs over \$22,000 per year to keep the average prisoner.^{52,53} **If half of U.S. prison inmates could be fully reintegrated into the labor force—even if all or most were in limited freedom programs using technologies such as 24-hour GPS monitoring—government (local, state and federal) would save over \$7 billion dollars per year in reduced incarceration costs.** In addition, these workers would pay federal taxes.⁵⁴

Will These New Workers Take Jobs from Other Workers?

One argument opponents of policies to increase labor force participation make is that they will be ineffective since there will not be enough jobs for the additional workers. But this view reflects what economists call the “lump of labor fallacy,” which refers to the notion that the amount of work available to workers is fixed. In fact, the number of available jobs is not fixed. If it were, then as the population grew, unemployment rates would continually increase. Rather, the number of jobs, at least over the moderate term, is determined by the number of people willing and able to work. For example, as women increasingly entered the labor force from the 1970s to the '90s, they did not take jobs from men, and unemployment did not go up. As they entered the workforce, female workers earned money that let them purchase goods and services, which generated further demand for

workers in the sectors that satisfied their consumption. What is certain is that the United States will be less prosperous if it pays more and more of its citizens, young and old, not to work.

SMART SPENDING CUTS

In order to eliminate the deficit and reduce the debt-to-GDP ratio, Congress will need to decrease spending and increase revenues while, as noted above, increasing critical PIC-inducing investments and increasing incentives for expanded work hours. Reduced outlays normally come at a cost of reduced government services, funding or transfer payments. There are numerous ways to cut spending, but to the extent possible, cuts should not harm productivity, investment, or competitiveness and should also lead to increased work hours.

Reduce the Growth of Social Security Payments

Entitlement spending accounts for 57 percent of the budget and has increased by over 100 percent from \$900 billion to over \$2 trillion (and by 33 percent as a share of GDP) since 1999.⁵⁵ This growth is due in large part to the increase in health care costs and an increase in the number of retired people over age 65.⁵⁶ Clearly one way to cut entitlement spending is to reduce the growth of health care costs, but rationing and/or price controls are not fundamentally the answer, as the former reduces care while the latter simply shifts revenues, as opposed to improving efficiency. Innovation will certainly have to play a key role in the future in boosting health care productivity.

One way to slow the growth of Social Security retirement spending is to require progressive indexing while computing initial benefits, and then use the chained-weighted consumer price index (CPI) to make cost-of-living-adjustments (COLA) in the future.

Congress should institute progressive indexing that indexes SSI benefits to wages for low-income workers and to inflation for high-income workers. For future low-wage workers, this means they would still receive more in real dollars than today's low-wage workers, but future high-wage workers would receive close to the same amount. However, any progressive indexing should indeed be progressive, with perhaps the "bend point" being set at the thirtieth percentile of earners while maintaining current-law benefits for the rest. Some oppose progressive indexing because it flattens benefits across earnings, increasing the benefits for low earners relative to those with high incomes. But an original intent of the Social Security Administration was to prevent those marginalized populations from living in severe poverty, and therefore the program *should* benefit those with lower earnings at a higher proportional rate. CBO estimates that this reform would save \$57.5 billion over the next decade.

Congress should also index cost-of-living-adjustments to chain-weighted CPI

because chain-weighted CPI does a better job of measuring real cost of living increases when compared to the current CPI measure (CPI-W). The CPI-W does not account for the fact that consumers substitute different products when prices change. Making this change would reduce SSI benefit payments by around \$108 billion over the next decade.⁵⁷ Applying the measure more broadly to government pensions and other benefit programs would save an additional \$55 billion.⁵⁸ Moving to the chained CPI measure

would also generate an additional \$140 billion in tax revenues by affecting many parameters of the tax code including the amount of personal exemptions and the thresholds for higher income tax brackets.⁵⁹

Eliminate Unproductive Business Subsidies, Including Farm Subsidies

Between 1995 and 2012 the federal government paid over \$292 billion to agricultural producers.⁶⁰ In 2011 they made over \$15 billion in direct payments, with \$4.6 billion to corn producers alone.⁶¹ These programs are administered through direct payments, crop-insurance programs, conservation subsidies and disaster subsidies. Unlike, for example, support for USDA research, farm subsidies do not boost productivity or innovation. In fact, they lead to wasteful production. Therefore, **Congress should eliminate all agricultural subsidies, which will save roughly \$157 billion over 10 years.**⁶²

In addition, the Congressional Research Service predicts that during the period between 2013 and 2022, the federal government will spend \$24.7 billion on subsidies specific to the oil and gas industry.⁶³ In the FY2013 budget request, the industry is allowed \$4.2 billion in industry-specific tax credits. Oil and gas companies are able to expense costs incurred during exploration, preparation, drilling, and refining of fossil fuels; the government effectively subsidizes every stage of the production process. The industry also has the opportunity to take a tax deduction based on production levels, which can sometimes be greater than the total amount of federal taxes on the industry. Subsidies to the fossil fuel industry are unproductive, as commodity prices are enough to encourage future investment in the development of oil and gas. **Congress should adopt the Obama Administration's proposal to cut fossil fuel subsidies, which would save \$44 billion over the next 10 years.**⁶⁴

Revenue increases should be focused on individuals and on activities where an increased tax will have a neutral effect on productivity, innovation and competitiveness.

TAX INCREASES

Spending cuts will help solve the budget problem, but any solution to the budget should include revenue increases in addition to the right kinds of spending cuts. A portion of the needed revenues were raised when Congress passed the American Taxpayer Relief Act of 2012 (ATRA), which increased the top income tax bracket to 39.6 percent for those making more than \$400,000 per year, and is estimated to raise \$12 billion per year in new revenue. However, this change makes small headway in eliminating the deficit. As a result, Congress needs to introduce some new or expanded taxes while also eliminating or reducing various tax expenditures on the individual side.

There has been a long and bitter debate about the impact of taxes on growth and innovation, with one side arguing that higher taxes have little to no effect and others holding the opposite view. The reality is significantly more nuanced than either side would admit. Some taxes, especially taxes on globally mobile income (e.g., corporate income), have a particularly deleterious impact on innovation and growth. However, other taxes, especially those on individuals and businesses in the non-traded sectors, have less of an effect.⁶⁵ As a result, revenue increases should be focused on individuals and on activities where an increased tax will have a neutral effect on productivity, innovation and competitiveness.

Introduce New Taxes

There are several ways Congress could raise new revenues that would have a limited impact on PIC. One would be to **introduce a border-adjustable business activity tax (like a value-added tax) such that imports would be taxed but not exports.** More than 150 countries apply such a border-adjustable consumption tax, which, among other effects, imposes a tax burden on U.S. exports. One advantage of this is that while it could raise considerable revenues, it would not raise the taxes on exported products and services.

Another revenue source could be a small financial transaction tax (also known as a “Tobin” tax) which would have the effect of reducing financial speculation and excessive trading and the related “short-termism” it induces.⁶⁶ Finally, Congress could institute a carbon tax. A carbon tax of \$25 per metric ton would generate approximately \$1.1 trillion over the next decade.⁶⁷ Any carbon tax, however, should be levied as an economy-wide carbon tax on upstream, combustible, fuel sources (e.g., coal, oil, and natural gas), and not on feedstocks.⁶⁸ This tax will reduce fossil fuel consumption and carbon emissions and spur clean energy innovation.

Increase Income Taxes

The top individual tax rates should be broadened to cover a wider share of income. In 2013 the top marginal tax rate (the tax paid on the last dollar earned) is 39.6 percent on individual incomes over \$400,000 and \$450,000 on joint-filers. After the landmark Tax Reform Act of 1986 was passed, the top rate of 38.5 percent applied to those making \$181,897 (in 2012 dollars). In fact, since the 1960s, the marginal and average federal tax rates have fallen for those above the eightieth percentile in earnings even though the proportion of national income going to those above the eightieth percentile has increased markedly.⁶⁹ Both in theory and practice, it has been proven that within reasonable limits, taxes on individuals do not limit work incentives or reduce savings and investment.⁷⁰ One reason for the lack of effect on the former is that as Moffit and Wilhem found, “The evidence in these data is that hours of work are, as found in much of the previous work, inelastic for prime-age males in the United States.”⁷¹ A broad review of the “new tax responsiveness” literature conducted by the Organization of Economic Cooperation and Development found that while higher tax rates are associated with less work for married women who work part time, for men and women working full time, higher taxes are only associated with a negligible increase in work.⁷² Moreover, the OECD found that with respect to the United States, higher taxes were associated with slightly higher work hours. Therefore, **Congress should extend the top marginal rate of 39.6 percent to all households making \$250,000 or more and individuals making \$150,000 or more.**

Congress should also increase the tax rate on dividends and capital gains so that they are taxed at the same rate as regular income. Although changes in the capital gains rate clearly affect the realization of gains, there is not much evidence that they affect investment, which is what really matters. Currently, ordinary dividends are taxed at roughly 25 percent, up from 15 percent before the ATRA passed.⁷³ Rather than leading to more investment, there is some evidence that reduced taxes on dividends actually lead to lower levels of investment by companies as they pay out more earnings in dividend payments. Dividend payments increased substantially after Congress cut the tax rate individuals paid on corporate dividends in 2003, exactly as predicted by financial experts

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like Aswath Damodaran, professor of business at the Stern School of Business at New York University. Damodaran predicted that tax cuts on dividend income would lead to “a dramatic surge both in the number of companies that pay dividends and in how much they pay,” and a cutback on larger investments that take longer to receive a payback.”⁷⁴ Given the significant decrease in investment in structures, equipment and software by companies in the United States over the last two decades, increasing the share of earnings that are reinvested would spur productivity.⁷⁵ Increasing both the capital gains rate and the dividends rate by just 2 percentage points would generate \$53 billion over a decade, therefore taxing them the same as the top marginal rate could raise an estimated \$400 billion over ten years.⁷⁶

Finally, **Congress should eliminate the lower tax rate for carried interest.** Although there is a theoretical argument for why this income could be considered capital gains (which we believe should be taxed as regular income), the much more persuasive argument is that investment managers are essentially getting paid a salary for their investment advice. Like any other salary, normal income tax rates should apply. The Congressional Budget Office estimates that this will generate an additional \$17.4 billion over ten years.⁷⁷

Eliminate Some Individual Tax Deductions

Over the decades, the federal government has added a wide array of tax incentives to both the individual and corporate tax codes. There is nothing inherently objectionable about using the tax code as a means of social or economic policy; in some cases, it is more efficient to use tax measures rather than direct government spending to achieve a goal. However, that does not mean that all tax incentives efficiently spur growth or achieve their social purpose. Congress should focus on eliminating these deductions while preserving others that serve a legitimate social purpose (such as deductions for charitable giving).

One place to start is with the mortgage interest deduction (MID) that allows taxpayers to deduct mortgage interest on their primary residence and second homes with a combined mortgage of up to \$1 million. The evidence shows that this deduction does little to spur homeownership. Moreover, only around a quarter of homeowners claim it.⁷⁸ As a result, the lion’s share of benefits goes to upper income households, with 75 percent going to those making more than \$100,000 per year, a small proportion of the population.⁷⁹ If America is to boost productivity, innovation, and competitiveness, it will need to move from a consumption economy to an investment one, and policies that reduce spending on housing will move us in that direction. As such, **Congress should phase out the mortgage interest deduction, but perhaps use a quarter of the savings for a modest first-time homebuyer’s credit for households making less than \$100,000 for the first \$200,000 of the purchase price.** During the five year period when the MID is phased out, the deduction should be capped to interest paid on the first \$300,000 of the mortgage and not be indexed to inflation.⁸⁰

A second place to start is for Congress to **eliminate employment related tax benefits, including the health care insurance tax benefit and the transportation tax benefit.** Congress should be indifferent as to the form in which workers choose to receive their income. Neither subsidy stimulates productivity or growth, and both distort consumer

decisions. Under current law, full-time employees pay a portion of their employer-provided health insurance premiums with before-tax dollars. The intention is to provide affordable health care, but because of the regressive nature of the tax deduction—income taxes are lower for low-income employees and fewer low-income workers have employer-provided health insurance—those who can most afford health care receive the highest income tax exclusion. Furthermore, eliminating the employee portion of the health-care tax deduction puts both part-time and full-time employees on equal footing.⁸¹ In addition, eliminating the exclusion increases pressure to hold health care costs down. Likewise, the transportation subsidy distorts mode choice and encourages more driving than might otherwise occur. The Joint Committee on Taxation has estimated that the health exclusion will cost the government \$629 billion between 2014 and 2017, while the transportation subsidy costs \$21 billion.⁸² Extrapolating each of these estimates out over the next ten years using the average growth factor for the first three years yields a ten-year estimate of \$2 trillion for health care and \$68 billion for transportation.

CONCLUSION

Addressing the budget deficit and growing national debt is a means, not an end. As such any debt reduction plan should focus on expanding growth and reducing the debt-to-GDP ratio, both by increasing growth through increased investment and reduced corporate taxes, and by reducing spending and increasing taxes on individuals.

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ABOUT ITIF

The Information Technology and Innovation Foundation (ITIF) is a Washington, D.C.-based think tank at the cutting edge of designing innovation strategies and technology policies to create economic opportunities and improve quality of life in the United States and around the world. Founded in 2006, ITIF is a 501(c) 3 nonprofit, non-partisan organization that documents the beneficial role technology plays in our lives and provides pragmatic ideas for improving technology-driven productivity, boosting competitiveness, and meeting today's global challenges through innovation.

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