



The Future of Economic Growth in the United States

Martin Feldstein*

Economics Working Paper 18122

HOOVER INSTITUTION
434 GALVEZ MALL
STANFORD UNIVERSITY
STANFORD, CA 94305-6010

December 2018

This paper begins by showing the extent to which the U.S. growth rate has exceeded growth in other industrial countries. The official measure of the rate of economic growth understates the true rise in real income for two reasons. The basic measure of money income ignores fringe benefits and the impact of taxes and transfers. The official measure of real output growth also fails to capture the contribution of quality change and of new products. The primary reason why the pace of U.S. growth as officially measured is likely to decline in the next few years is the growth of the fiscal deficit and the national debt. Revenue could be raised without taxing households and businesses in ways that discourage output. The rising cost of the Social Security benefits is a major part of the increase in deficits and debt. The paper discusses the reason for that cost increase and what could be done to slow it in the future.

JEL Codes: H2, H6, O4

The Hoover Institution Economics Working Paper Series allows authors to distribute research for discussion and comment among other researchers. Working papers reflect the views of the author and not the views of the Hoover Institution.

* Professor of Economics, Harvard University. This paper was prepared for a conference “The Prospects for Economic Growth” at Rice University’s Baker Institute, December 6, 2018. This paper draws on my earlier writing in the *Journal of Economic Perspectives* (2017), *Harvard Business Review* (2017) and *American Economic Review* (2005).

The Future of Economic Growth in the United States

Martin Feldstein

The United States economy has enjoyed strong economic growth in 2018 and has grown more rapidly than other major industrial countries for many years. But looking ahead, the rate of U.S. growth seems likely to slow unless we take policies to prevent that from happening.

This paper begins in section I by showing the extent to which the U.S. growth rate has exceeded growth in other industrial countries. I then discuss several important structural reasons why this has been true.

I believe that the official measure of the rate of economic growth understates the true rise in real income for two reasons. The basic measure of money income ignores fringe benefits and the impact of taxes and transfers. The official measure of real output growth also fails to capture the contribution of quality change and of new products. Section II discusses these mismeasurement problems.

The primary reason why the pace of U.S. growth as officially measured is likely to decline in the next few years is the growth of the fiscal deficit and the national debt. Section III explains the reason why the growth of the deficits and debt will reduce the rise of real GDP. It also explains why the deficits and debt will grow rapidly unless there is strong legislative reform.

· Professor of Economics, Harvard University. This paper was prepared for a conference “The Prospects for Economic Growth” at Rice University’s Baker Institute, December 6, 2018. This paper draws on my earlier writing in the *Journal of Economic Perspectives* (2017), *Harvard Business Review* (2017) and *American Economic Review* (2005).

Section IV discusses how revenue could be raised without taxing households and businesses in ways that discourage output.

Since the rising cost of the Social Security benefits is a major part of the increase in deficits and debt, Section V discusses the reason for that cost increase and what could be done to slow it in the future.

There is a brief summary section at the end.

I. Why Has the U.S. Grown so Rapidly?

The growth of real GDP in the United States in 2018 at over three percent is likely to outpace the growth in Germany, France, Britain and Japan. More significant, the cumulative growth over many years puts the real level of GDP per capita in the United States ahead of the levels in other major OECD countries. In 2017, real GDP per capita in the United States was \$58,000. In contrast, the per capita real GDP was only \$49,000 in Germany, \$41,000 in France, \$43,000 in the United Kingdom and just \$37,000 in Italy.

Here are ten major structural features of the U.S. economy that contribute to that superior growth performance:

An entrepreneurial culture. Individuals in the U.S. demonstrate a desire to start businesses and to grow them. There is little opprobrium in the U.S. for failing and starting again.

A financial system that supports entrepreneurship. The United States has a more developed system of equity finance than the countries of Europe, including angel investors who are willing to finance startups and a very active venture capital

market that helps finance those firms as they grow. The U.S. also has a large decentralized banking system with more than 7,000 small banks that provide loans to entrepreneurs.

World-class research universities. Universities provide much of the basic research that drives high-tech entrepreneurship. Faculty members and doctoral students often spend time with nearby startups, and the culture of the universities and the businesses encourages this activity. Top research universities attract the best students from around the world, many of whom end up staying in the United States.

Efficient labor markets. U.S. labor markets link workers and jobs, unimpeded by labor unions, state owned industries and excessively restrictive labor regulations. Less than 7 percent of the private sector U.S. labor force is unionized, and there are virtually no state owned enterprises. While the U.S. does regulate working conditions and hiring, the rules are much less onerous than in Europe. As a result, workers have a better chance of finding the right job, firms find it easier to innovate, and new firms find it easier to get started and grow.

A population that is growing, including from immigration, and geographically mobile within the United States. America's growing population means a younger and therefore more trainable and flexible workforce. Although there are restrictions on immigration to the United States, there are also special rules to provide access to the U.S. economy and a path to citizenship based on individual talent and industrial sponsorship. A separate "green card lottery" system

provides a way for eager people to come to the United States. The country's ability to attract qualified immigrants has been an important reason for its prosperity.

A culture and a tax system that encourage hard work and long hours. The average employee works 1,800 hours per year, substantially more than the 1,500 hours worked in France and the 1,400 hours worked in Germany (although not as much as the 2,200 hours in Hong Kong, Singapore and South Korea.) In general, working longer hours means producing more and therefore means higher real incomes.

A supply of energy that makes North America energy independent. Natural gas fracking in particular has provided U.S. businesses with plentiful and relatively inexpensive energy.

A favorable regulatory environment. Although U.S. regulations are far from perfect, they are less burdensome on businesses than the regulations imposed by European countries and the European Union.

A smaller government than in other industrial countries. According to the OECD, outlays of the US governments at the federal, state and local levels totaled 38% of GDP while the corresponding figure was 44% in Germany, 51% in Italy and 57% in France. The higher level of government spending in in other countries implies not only a higher share of income taken in taxes but also higher transfer payments that reduce incentives to work.

A decentralized political system in which states and local governments compete. Competition among states and communities encourages entrepreneurship and work. States also compete for businesses and for individual residents with their

legal rules and tax regimes. Some states have no income taxes and have labor laws that limit unionization. The United States is perhaps unique among major high-income nations in its degree of political decentralization.

II. How the Official Data Understate Real Income Growth.

The official data report that real GDP grew at a rate of 2.3 percent a year for the past 20 years, implying that the per capita real GDP grew at just 1.4 percent a year during those 20 years.

I believe that the official data substantially understate the real growth of output and incomes. This is important not only to economists. The appearance of low growth reduces the public's faith in our economic and political system and creates pessimism that contributes to populist political attitudes and an opposition to international trade.

Here's how the government's method causes an underestimate of real growth. The government surveys a large number of firms and collects data on the market value of their sales of goods and services. The total of these sales is the nominal value of GDP. It must then convert the change in nominal GDP into a change in the price level and a change in real output, i.e., the real value to consumers and to other final users.

In doing so it faces two very difficult problems: reflecting the changing quality of existing products and services, and measuring the value created by new products and services.

Consider first how the government statisticians deal with quality change. Their method tells us about the increase in inputs rather than the value of output. The most common method for dealing with quality change is what the government calls the “resource cost method.” That name tells you it is about the cost of production rather than the value to consumers and other end users.

The Bureau of Labor Statistics (BLS) follows more than 5000 product categories. For each they ask the manufacturer: “Has the product changed since the time of the last survey?” If the answer is “no” then any increase in the price of the product is correctly regarded as inflation and there is no output change. But if the manufacturer says “the current model is different from the previous one” the BLS asks about the “marginal cost of the new input requirements that are directly tied to the change in product quality.”

If and only if there is a reported increase in the cost of making the product does the BLS conclude that there is a quality improvement. This is a narrow and incorrect way to measure quality improvement. In reality of course producers improve products in ways that don’t cost more and may cost less. That is what we call technical progress.

But the “resource cost method” focuses on the cost of inputs rather than on the true value of the output. That is why the government’s approach doesn’t measure the “output” change but just the change in the volume of inputs. I have described this for products but the same approach is generally applied to services. This is true for health care where there have been enormous improvements over the

years but where the official statistics imply that productivity has been declining over many years!

Let me be clear that I recognize that the problem of measuring quality change is a very difficult challenge. So I am not being critical of the efforts of the government statisticians. My point is that these estimates are mislabeled and misinterpreted.

When it comes to quality change of existing products, what is called “quality change” is really the growth of real inputs. The result is probably a major underestimate of the growth of real GDP that comes from quality improvements.

The other major source of underestimation of real GDP growth is the failure to capture the benefits of new goods and services. Here’s how the current procedure works. A new product or service is developed and sold to the public. Its market sales enter into nominal GDP. The nominal value of GDP is converted to real GDP using price indexes that don’t reflect the new product at all. The process therefore never tries to take into account the value created by the new product per se.

Consider for example the introduction of statins, the pharmaceutical product that lowers cholesterol and reduces deaths from heart attacks and strokes. Within a few years after it was introduced, the statin drugs were the best selling pharmaceutical products in history. The major contribution that statins made to public health was never reflected in real output and real incomes. Between 2000 and 2007 the percentage of men over age 65 taking a statin doubled to 50 percent. High cholesterol levels fell to half what they had been and death rates from heart

disease among those over age 65 fell by one-third. So there was a remarkable contribution of this product to the public's well-being but none of that was reflected in real GDP.

When patents on statins expired and the prices of those products fell, the BLS concluded that since statins could be bought at a lower price, real incomes had increased. But nothing in this process reflected the improvements to health and longevity and the reduced costs to hospitals that resulted from the introduction of statins.

So to summarize this discussion of mismeasuring the growth of real GDP, the official methods do not capture the contribution of new products and understate the contribution of improvements in quality because they measure the increase in inputs rather than the value of outputs. To the extent that the official method of converting nominal GDP to real GDP understates the rise in real GDP it also overstates the implicit rate of inflation.

From GDP to Personal Incomes

The official census data report that median real household incomes rose by less than 10 percent between 1984 and 2013. That translates to an annual rate of less than 0.4 percent a year.

A special study by the Congressional Budget Office (CBO) looked at the middle quintile of households in the 32 years from 1979 to 2011 and confirmed that the real cash earnings of these households rose by about the same annual rate as median household incomes.

But these middle class households also receive near-cash benefits from employers and the government, including health insurance and food stamps. The federal tax share paid by these middle-class households also fell during those years from 19 percent to 11.5 percent.

When these omissions are taken into account, the real incomes of these middle quintile households were calculated by the Congressional Budget Office to have increased by 45 percent over the same 32 years. And that of course is based on the overstated GDP price index that is implicit in the calculation of real GDP.

III. Budget Deficits and Future Growth

Although real GDP and personal incomes have actually grown rapidly in the recent past, the future is likely to see a lower rate of growth. In the next few years the economy may slip into a recession after nearly a decade of strong growth. But looking past that potential recession to the rest of the decade and beyond we are likely to see lower growth because of the rapid rise in the fiscal deficit and the national debt.

Before the economic downturn that began in 2007 the federal debt was generally less than forty percent of GDP. By 2017 the debt as a share of GDP had nearly doubled to about 75 percent. And looking ahead to the year 2028, the Congressional Budget Office projects that the debt will be 96 percent of GDP. The annual fiscal deficits are also projected to increase. The deficit was 3.5 percent in 2017 and is projected by the Congressional Budget Office to rise to 5.1 percent in 2028.

These official projected deficit and debt levels are based on the CBO's legally required convention of making forecasts based on current law. The CBO does not use its judgment to guess what will happen that is not in current law. For example, the 2017 tax legislation reduced personal tax rates substantially but those reductions are scheduled to expire in 2025. If Congress votes to maintain the lower tax rates after 2025, the deficits will be substantially higher than the CBO estimates.

Congress recently voted to increase defense spending slightly to 3.1 percent of GDP in 2018 and to raise the level of non-defense discretionary spending to 3.3 percent in 2018. But current law specifies that defense spending will decline to 2.6 percent of GDP in 2028 and that non-defense discretionary spending will also decrease to 2.8 percent of GDP in 2028. The history of defense outlays in the past and the challenges facing the U.S. military around the world suggest that defense spending will rise more rapidly than current law implies. For example, defense outlays in 1970 were 8.1 percent of GDP and in 1980. If Congress votes to raise defense outlays, Democrats are likely to insist on an equal increase in nondefense discretionary outlays.

An increase in defense and nondefense discretionary spending and a continuation of the current tax rates after 2025 would cause the deficit in 2028 to rise substantially from the currently projected 5.1 percent. In the long-run, the debt to GDP ratio is equal to the ratio of the annual deficit to the rate of nominal GDP growth. If the future deficit rises from 5.1 percent to 7 percent and the growth rate of nominal GDP is 4 percent, the implied long-run debt to GDP ratio would be $7/4 = 175$ percent. Of course if that were to be the projected future debt ratio the interest

rate on the federal debt would rise, causing the deficit and the debt to be even higher.

Even without the extension of the tax reduction and increases in discretionary spending, the long-run debt to GDP ratio will exceed 100 percent. Combining the CBO's estimate of the 2028 deficit of 5.1% of GDP with a plausible nominal GDP growth rate of 4 percent would imply a long-run debt to GDP ratio of more than 125 percent. That would be enough to cause a higher interest rate on government debt and therefore to raise the deficit and the debt.

The impact of the rising deficit and debt on future economic growth

A larger annual budget deficit and an increasing debt to GDP ratio can slow the growth of real GDP through several channels. The key mechanism is to reduce investment in plant and equipment and in research and development.

The most direct impact is by absorbing funds that would otherwise be invested in plant and equipment or used by firms to finance research and development. Since the combination of household saving and corporate retained earnings is only about eight percent of GDP, a fiscal deficit that is heading to five percent of GDP or higher will absorb more than half of the national saving. After offsetting the funds needed for investment in residential construction, there is little left for business investment.

Business investment is also discouraged by higher real interest rates. Large-scale government borrowing to finance the budget deficit causes real interest rates to rise. The higher interest rates then discourage borrowing by businesses to finance business investment.

Even when the annual deficit is not large, the cumulative effect of large past deficits produces a large national debt. Households and other portfolio investors require higher interest rates to hold the larger quantity of government debt. And those higher interest rates raise the cost of capital to firms and reduce business investment.

Higher interest rates also depress equity prices and thereby raise the cost of equity capital. Business investment responds to the higher cost of equity capital by reducing business investment.

Increases in budget deficits and debt also cause business decision makers to fear that taxes will have to be raised in future years to service the future debt or to reduce those deficits. This expectation of higher future taxes also discourages current investment.

The Sources of Rising Deficits and Debt

The adverse effect of larger deficits on economic growth makes it important to understand the sources of the larger deficits. The annual deficit is projected by the Congressional Budget Office to rise from 4.0 percent of GDP in 2018 to 5.1 percent in 2028. Why will that happen?

Much attention has been focused on the tax legislation enacted in 2017. The legislation was designed subject to a mandatory limit on the resulting debt increase over ten years of \$1.5 trillion. Of that, the corporate changes added \$500 billion to the official ten-year debt forecast and the changes in the personal income tax added the other \$1 trillion. The Congressional Budget Office estimates that the tax

legislation raised the national debt in 2028 from 91 percent of GDP to 96 percent of GDP, reflecting the fact that the \$1.5 trillion would be five percent of the 2028 GDP of \$30 trillion.

More generally, the Congressional Budget Office forecasts that total annual tax revenue will rise from 16.6 percent of GDP in 2018 to 18.5 percent in 2028. Thus the annual revenue as a percent of GDP rises by 1.9 percent of GDP over the decade despite the permanent corporate tax cut.

But what else has been driving the deficits and debt during the coming ten years? As I noted above it is not the discretionary spending on defense and nondefense programs. Defense outlays as a percentage of GDP are forecast to decline from 3.1 percent of GDP in 2018 to 2.6 percent of GDP in 2028. Similarly, nondefense discretionary programs are forecast to decline from 3.3 percent of GDP in 2018 to 2.8 percent in 2028. Thus each is projected to decline by 0.5 percent of GDP, implying that total discretionary spending will fall by one percent of GDP during the coming decade.

Interest payments on the national debt are projected to rise from 1.4 percent of GDP in 2018 to 2.4 percent of GDP in 2028. This reflects the combination of the larger national debt and the higher interest rate that the government will pay on that debt. The extra one percent of GDP that the government will pay in interest on the national debt just balances the reduced outlays on discretionary spending.

All of the projected net increase in the 2028 deficit comes from the increased outlays on the expenditures on Social Security and especially on the major health programs, Medicare and Medicaid. The Congressional Budget Office projects that

outlays for Social Security will rise from 4.9 percent of GDP in 2018 to 6.0 percent in 2028, a rise of 1.1 percent of GDP. During the same years the outlays for Medicare and Medicaid rise from 5.4 per cent of GDP to 7.3 percent of GDP.

The higher cost of the Social Security program reflects the ageing of the population. The higher cost of the Medicare and Medicaid programs also reflects the ageing of the population as more people become eligible for the Medicare and Medicaid programs and choose to be covered by those programs. But the rising cost of the health programs also reflects the changing health of the older population and the increasing cost of medical care.

Looking further ahead, the health care programs are the major source of rising outlays. The Congressional Budget Office estimates that, with no change in the program rules, the outlays for the health programs in the 20 years after 2028 will rise from 6.8 percent of GDP to 9.2 percent of GDP. In those same years the projected outlays for the Social Security program will only increase from 6.0 percent of GDP to 6.3 percent of GDP.

It is clear that slowing the growth of the deficit requires changing the rules of Social Security and of the health care programs. Dealing with the health programs involves a much more complicated set of changes than slowing the growth of Social Security. Section V discusses how policy changes could slow the growth of Social Security. Before doing that I turn first to how revenue might be raised without the adverse effects on growth that would result from higher tax rates on individuals and businesses.

IV. Raising Revenue

Raising tax rates on households and businesses would reduce budget deficits but would directly hurt economic growth. It is possible, however, to raise revenue without the adverse incentive effects of raising tax rates. There are two ways to achieve this: limiting tax expenditures and taxing the sources of carbon emissions.

Limiting Tax Expenditures

Tax expenditures are features of the tax code that substitute for direct government spending. For example, because the government wants to encourage home ownership it allows individuals to deduct mortgage interest payments when calculating taxable income. Similarly, to encourage the purchase of health insurance, the tax rules exclude employer payments for health insurance from taxable income. The revenue loss through all such tax expenditures --- deductions, exclusions and credits --- was \$1.6 trillion in 2014.

Limiting tax expenditures would not only raise revenue but would reduce the waste that results from distorting expenditure decisions. Eliminating deductions would also simplify tax filing by causing taxpayers to shift from itemizing deductions to using the standard deduction.

The 2017 tax legislation took a step in this direction by limiting the deductibility of state and local taxes. This change will raise an estimated \$100 billion a year and induce a large number of taxpayers to shift from itemizing their deductions to using the standard deduction.

Taxing Bads

Taxing output and income is harmful because it discourages desirable activities and hurts economic growth. But taxing bad activities is desirable because it discourages those activities. The leading candidate for this is to tax carbon emissions that create climate change problems.

The most practical and efficient way to do this is to tax the production of coal, oil, and gas. The producers would pass these taxes on in the form of higher prices. The users of these products – businesses and households – would respond to the higher prices by reducing their use of these products. For example, a higher tax on oil would lead to a higher price of gasoline, causing users to drive less and to prefer smaller cars.

The separate tax rates on oil, coal and natural gas could be set so that each of them had the same effect on the production of carbon dioxide. Experts have calculated that setting the rates equivalent to \$40 a ton of CO₂ would produce revenue of about one percent of GDP.

V. Slowing the Growth of Social Security

Slowing the growth of Social Security would contribute to a faster growth of real GDP in two ways. First, it would increase national saving by reducing future budget deficits and the need for higher taxes in the future. Second, lower future Social Security benefits would encourage working age individuals to increase their own saving for retirement.

The politically simplest way to slow the growth of Social Security benefits would be to repeat the kind of change that was enacted in 1983. At that time the

White House and the Congress agreed on a bipartisan basis to raise the age for full benefits from 65 to 67. To protect those individuals who were near to retirement age, the legislation provided for a delay before the increase would begin and, more important, for a very gradual rate of increase. After the initial delay, the age for full benefits was scheduled to rise at a rate of just one month per year. The two year rise in the age for full benefits therefore took more than 25 years.

A great advantage of this combination of delay and gradual rise is that it was enacted on a bipartisan basis and never experienced any political opposition while it was gradually phased in. Although later polls showed that the public opposed plans to raise the age for full benefits, no member of Congress ever introduced legislation to repeal the original delay in the age for full benefits.

When fully phased in, the two year delay in benefit availability had a substantial effect on the cost of the Social Security program. An individual at age 65 in 1983 had a life expectancy of about 18 years. Since the benefits are now actuarially adjusted to age 67 regardless of the individual's actual age of retirement, raising the age for full benefits by two years reduced the expected number of years of benefits from 18 to 16, a reduction of about 11 percent. Since Social Security benefits are now about five percent of GDP and are expected to rise to 6.3 percent, the 11 percent reduction should amount to about 0.6 percent of GDP.

Raising the retirement age from 65 to 67 also has a positive effect on the private saving rate. Since individuals typically retire before the age of full benefits, it is likely that raising the age for full benefits would probably cause most individuals to leave their actual retirement age unchanged or increased only

slightly. As a result, their annual benefits would be reduced by the corresponding actuarial reduction. These individuals would then have an incentive to increase their lifetime saving rates to maintain their consumption in retirement.

Since the year 1983, when the legislation to delay the age for full benefits was enacted, life expectancy for individuals at age 67 has increased by about three years. It seems reasonable therefore to raise the full benefit retirement age by another three years, from 67 to 70. Raising the age for full benefits by three years would reduce the number of expected benefit years from about 17 years to 14 years, a reduction of about 18 percent. The 18 percent reduction in benefits would reduce benefits by about one percent of GDP.

Although these are large savings in the Social Security program, they do not fix the important problem in the Social Security program that must be solved. The rules that govern the Social Security program provide that the Social Security payroll taxes are all deposited into the Social Security Trust Fund. That so-called Trust Fund is not a true investment fund that invests in stocks and bonds. It is essentially an accounting system that keeps track of the funds deposited and the benefits paid out.

The key fact about the Trust Fund system is that all Social Security benefits must be paid out of the trust fund. The aggregate annual benefits now exceed the aggregate payroll taxes. As a result, the balance in the Trust Fund is declining. The Social Security actuaries now estimate that the Trust Fund will be exhausted in 2034, just 16 years from now.

Slowing the growth of benefits by raising the retirement age will delay the time of exhaustion but will not prevent the Trust Fund from reaching zero.

It is not clear what will happen then since under current law benefits can only be paid when there is a positive balance in the Trust Fund. Social Security payroll taxes will, of course, continue to be collected in the future and the 12.4 percent payroll tax revenue would be enough to pay about two-thirds of the benefits that are projected for that year. It would be possible but unlikely to cut the benefits by one third so that they can be financed by the available revenue.

An alternative option would be to raise the payroll tax rate. If the age of full retirement is not adjusted, it would take an increase of the payroll tax from 12.4 percent to about 19 percent to meet the cost of the benefits projected under current law in 2034.

Yet a further option would be to supplement the funds going into the Trust Fund with transfers from general revenue, i.e. from the personal and corporate tax revenues. It would take a transfer equal to about five percent of GDP to maintain the benefits. Since total tax collections are less than 20 percent of GDP and personal income taxes are less than 10 percent of GDP, the increase in taxes to maintain benefits would be equal to fifty percent of personal taxes or 25 percent of total taxes.

I have proposed an alternative approach to the Social Security financing problem in research with Andrew Samwick (Feldstein and Samwick, 1998). The basic idea is a mixed system that continues the current pay-as-you-go system with a 12.4 percent payroll tax but supplements the pay as you go benefits with investment

based annuities. In our research we showed that the pay as you go benefits could be gradually reduced while the investment based benefits grew. The combination would be as large as the benefits projected in current law.

Here is how the Feldstein-Samwick option would work:

(1) The employee and the employer would continue to contribute a combined 12.4 percent of covered earnings to the account.

(2) In addition, each individual would have a Personal Retirement Account that would be invested in a mixture of stocks and bonds. We assumed that the portfolio would be 60 percent in a broad stock index like the Standard and Poors 500 or the Russell 3000. The bonds would be high quality investment grade bonds. Historic experience shows that such a mixture would generate a real return of about 5.5 percent a year.

(3) The individuals would be required to deposit 1.5 percent of their payroll earnings each year to the Personal Retirement Account.

(4) The government would transfer 1.5 percent of payroll earnings to the Personal Retirement Accounts. That is essentially equivalent to reducing the 12.4 percent pay-as-you-go tax by 1.5 percent.¹

(5) The Trust Fund would therefore grow more slowly than it would under current law.

(6) The pay-as-you-go benefits would also be calibrated to grow more slowly than under current law so that the Trust Fund would not be exhausted.

¹ Some of the 12.4 percent pay-as-you-go tax is used to finance the disability program. We continue to use part of the pay-go-tax for the disability program.

(7) Individuals would receive the reduced pay-as-you-go benefits and an annuity financed by the individuals' Personal Retirement Accounts.

Our research showed that it would be possible to slow the pay-as-you-go benefits in a way that met two criteria: (1) the Trust Fund would never be exhausted and (2) the combination of the pay-as-you-go benefits and the personal retirement account annuity would equal or exceed the pay as you go benefit scheduled under current law.

The mixed system would contribute to long-run growth in three ways: by increasing the personal saving rate – the extra 1.5 percent that individuals contribute to the Personal Retirement Accounts; by the return that is earned on the Personal Retirement Accounts; and by eliminating the need for a sharp increase in future tax rates.

VI. Summary

This paper began by explaining why the United States has experienced higher real GDP growth rates than other industrial countries. Section II then discussed the ways in which the government methods of measuring real GDP growth lead to an understatement of the true rate of increase in real output and real incomes. Section III deals with the ways in which the future increases in budget deficits and national debt will slow the growth of real GDP. The fourth section shows that deficits can be reduced by tax changes that do not discourage favorable economic activities. Section V then discussed how changes in the Social Security program – the largest

program in the government budget – could increase saving and avoid the need for large future taxes.

References

Feldstein, Martin “Rethinking Social Insurance,” American Economic Review, March 2005

Feldstein, Martin “Why is the United States Richer than Every Other Industrial Country,” Harvard Business Review, April 2017

Feldstein, Martin “Underestimating the Real Growth of GDP, Personal Incomes, and Productivity,” Journal of Economic Perspectives, Spring 2017

Feldstein, Martin and Andrew Samwick “The Transition Path in Privatizing Social Security,” in Martin Feldstein Privatizing Social Security Chicago University Press, 1998

