No. 10-55
September 2010

WORKING PAPER

THE NEGATIVE CONSEQUENCES OF GOVERNMENT EXPENDITURE

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August, 2010

I. Introduction

The U.S. national debt currently stands at 62 percent of GDP, its highest level since WWII (CBO 2010, p.xii). Under plausible assumptions, this ratio will rise to at least 80 percent and possibly 185 percent of GDP by 2035 and continue increasing thereafter (CBO 2010, pp.x-xi). As the debt-ratio increases, the U.S.'s creditors will demand higher and higher interest rates to continue financing this debt. This means ever larger deficits and ultimately a U.S. default.

The U.S. can try to avoid this fate by raising taxes, but that approach faces both political and economic obstacles. Raising taxes is rarely popular with either voters or politicians, especially in a weak economy. Both macroeconomic and microeconomic perspectives, moreover, suggest that taxes slow economic growth, thereby limiting the scope for revenue gains. And since projected fiscal gaps are growing, the tax increases necessary to stabilize debt relative to GDP will generate escalating evasion and avoidance. This means the U.S. will reach a point where further tax increases reduce rather than increase tax revenue.

If tax increases cannot restore fiscal balance, then the U.S. must slow the path of expenditure to avoid fiscal Armageddon. Yet this approach also faces substantial opposition, for two reasons.

Many economists oppose expenditure cuts in the short to medium term based on the Keynesian claim that expenditure boosts the economy. According to this view, it does not matter whether the spending is productive, only that government spending offset the recession-induced decline in private demand for the economy's goods and services. The Keynesian perspective does not oppose spending cuts over the long haul but argues these must wait until the economy is at or near full employment.

The second objection to expenditure cuts holds that the current level is crucial to a well functioning economy and supports key government functions such as national defense, education, and provision of retirement and health benefits. According to this view, most government is beneficial independent of the need to moderate the recession, so cuts are undesirable even in the longer term.

If these views of government expenditure are correct, the U.S. faces an unhappy economic future. The nation must either suffer higher and higher tax rates, which will slow growth and ultimately reduce rather than increase revenue, or it must cut government functions that are allegedly vital for economic productivity and the quality of life.

This paper argues that current U.S. expenditure is far greater than necessary to support an efficient economy or an equitable society, so expenditure should be cut regardless of the fiscal outlook. Certain expenditure, to be sure, is vital to a country's success and survival, but much current expenditure actually lowers the economy's productive capacity. Thus expenditure cuts can simultaneously improve fiscal balance while enhancing economic growth.

The remainder of the paper is organized as follows. Section II presents basic facts about the historical and projected behavior of expenditure and the national debt. Section III outlines the economic principles that determine whether government expenditure is good for the economy. Section IV evaluates key components of federal expenditure, while section V examines state and local expenditure. Section VI addresses the Keynesian argument that expenditure reduces recessions. Section VII concludes.

II. Basic Facts and Trends

As a first step in evaluating government expenditure in the U.S., it is useful to examine the trends and composition of this expenditure.

Federal Expenditure, Taxation, and Debt

Figure 1 displays the national debt as a fraction of GDP for the period 1789–2009.[1] Several aspects of these data stand out.

Debt relative to GDP was low during the pre-WWI period. Debt over GDP was generally below 10 percent before WWI but consistently above 20 percent afterwards. Overall, debt relative to GDP has trended strongly upwards.

Wars have generated major increases in the national debt, but these spikes have largely been temporary. Debt relative to GDP declined substantially after the Revolutionary War, the Civil War, WWI, and WWII. The decline was not always immediate or all the way to the pre-war level, but wars do not explain the long-term upward trend in debt relative to GDP.

Outside of war periods, debt has risen relative to GDP during two episodes: the Great Depression, when spending grew under the New Deal, and since the early 1970s, as both Great Depression programs (Social Security) and Great Society programs (Medicare, Medicaid) expanded. Entitlement spending is expected to raise the debt even more going forward, as discussed below.

Figure 2 presents expenditure and revenue relative to GDP for the period 1930–2009. The data show the persistent deficits that began to emerge in the post-1970 period, consistent with the gradually increasing debt to GDP ratio. This tendency toward deficits halted for a few years in the late 1990s but returned soon after.

Table 1 displays the composition of federal spending for 2009. These data show that health, retirement, defense, and interest on the debt account for about two-thirds of total expenditure; all other federal programs account for the remaining one-third. Thus, attempts to reduce spending without addressing the three major components can have only limited impact.

Figure 3 shows the main components of expenditure relative to GDP over the 1940–2009 period. Most of the growth comes from entitlement programs. Health expenditure has risen from almost nothing in the mid-1960s to roughly 5 percent of GDP in 2009. Similarly, retirement expenditure has risen from almost nothing in the 1940s to roughly 5 percent of GDP in 2009. The other components of federal expenditure, while substantially larger than before WWI, have been relatively stable. Military spending, for example, increased during the Bush years but is still modest in comparison to the post-WWII period.

Figure 4 displays two projections of the national debt over the next 75 years. The blue line, labeled "Extended Baseline Scenario," assumes that current law continues. The red line, labeled "Alternative Fiscal Scenario," assumes that certain tax and expenditure changes that have typically occurred in the past will also occur in future.[2]

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[1] The series displays debt held by the public, rather than the gross debt, which includes intra-government borrowing.

[2] The alternative assumptions are that Medicare payments to physicians will gradually increase, that policies enacted in the recent health care legislation that restrain health care spending will not continue after 2020, that spending outside of mandatory health expenditures, Social Security, and interest payments will not decline as much as in the baseline scenario, that most of the 2001 and 2003 tax cuts will be

Under either set of assumptions, the projections show expenditure rising dramatically relative to GDP. In the baseline case, debt exceeds 100 percent of GDP by 2084 and continues rising thereafter. In alternative case, debt exceeds 900 percent of GDP by 2084 and continues rising thereafter. To put this in perspective, the U.S. has not experienced a ratio as high as 60 percent since WWII. At the end of 2009 only three OECD countries—Greece, Italy, and Japan—had debt-to-GDP ratios in excess of 100 percent.[3] By far the largest factor in the U.S. projections is increased spending on Medicare and Medicaid.

The implications of these data are that the U.S. fiscal situation is not sustainable and that to address this situation the U.S. must reign in entitlement spending, especially for health care. Many other policy changes can improve the debt outlook, but compared to addressing entitlements they can have only minor effects.

State Expenditure, Taxation, and Debt

Figure 5 presents state and local expenditure relative to GDP for the period 1930–2009. State and local spending increased during the Great Depression, fell substantially during WWII, and then followed a general upward trend for most of the post-WWII period.

Table 2 breaks down this expenditure by category. The single largest component is education, followed by spending on transfer programs such as Medicaid, Transitional Assistance to Needy Families, and Unemployment Insurance.

Figure 6 shows a projection of state and local expenditure over the next fifty years. The path again suggests increasing expenditure relative to GDP, although to a much smaller extent than for the federal government. This mainly reflects the smaller component of state and local versus federal expenditure that is accounted for by health care.

III. Basic Principles

To understand and evaluate the impact of government expenditure on the economy, it is useful to review basic principles and definitions related to this expenditure.

The first principle is that expenditure requires taxation. This can occur simultaneously with the expenditure, or in future if governments borrow and run deficits. Alternatively, governments can print money to pay for expenditure; this generates future "taxes" in the form of inflation.[4]

The second principle is that taxation does more than transfer purchasing power from taxpayers to the government; it also distorts the economic decisions of consumers and firms.[5] Taxes on wage and

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extended, that the alternative minimum tax will remain near its historical level, and that tax revenue will remain near its historical level of 19 percent. See CBO (2010, p.x).

[3] Reinhart and Rogoff (2010) find that when public debt-to-GDP ratios reach 90 percent, a country's growth rate is likely to decline significantly.

[4] The inflation tax is the reduction in the value of money held by the public that occurs when a central bank prints more money, thereby giving itself a larger share of the overall stock of money.

[5] Taxes do not distort economic decisions if they are "lump-sum," meaning the amount of tax does not depend on taxpayer behavior. A head tax of $10,000 per person, for example, would not change the return to working or saving, so it would not distort economic incentives. Lump-sum taxation is rare in practice.

salary income discourage work relative to leisure; taxes on interest, dividends and capital gains discourage saving relative to consumption. Taxes on corporate profits discourage investments that can generate these profits.

The implication of these two principles is that one cost of government spending is distortions in economic activity caused by the taxation necessary to pay for the spending. A different way to say this is that a dollar of government expenditure costs more than a dollar because of the distortion it creates.[6] This distortion is known as a deadweight loss (DWL). If taxation imposes, for example, a DWL of 5 percent of the amount of revenue raised, it costs the economy at least $1.05 for every dollar of government spending. So expenditure of a dollar must generate at least $1.05 in value to pass a cost-benefit test.[7]

The terms that need defining are the two types of government expenditure: transfers, and purchases of goods and services.

Transfers: One thing governments can do with the tax revenue they collect is transfer it to people in the economy. Examples of transfer programs include Social Security, Medicare, Medicaid, Transitional Assistance to Needy Families (welfare), Food Stamps, and Unemployment Insurance.

Just as taxation distorts the economic decisions of consumers and firms, transfers distort the economic decisions of recipients.[8] Both the availability, and the amount, of most transfers depend on the actions of potential recipients. So the possibility of receiving a transfer can encourage behavior that makes people eligible for the transfer.

A simple example is unemployment insurance. People who are unemployed can choose how energetically to search for a new job, whether to acquire new skills, and how large a wage decrease to accept. These decisions affect how quickly the unemployed find new work.

In the absence of unemployment insurance, each individual weighs the value of a new job against the costs of intensive search and the value of leisure. Unemployment insurance changes this comparison by raising the attractiveness of continued unemployment. So unemployment insurance discourages effort to find new jobs by distorting the tradeoff between job search and leisure.

The distortions caused by transfer programs are widespread. The availability of retirement income from Social Security encourages people to stop working before their economic productivity has declined. The availability of government health insurance under Medicare distorts the incentive to save for end of life health expenditures. The availability of income support for those not working, under welfare or the earned income tax credit, distorts the incentive to work.

In addition to distorting economic decisions, transfer programs create winners and losers (those receiving benefits versus those paying taxes). Thus, taxing and transferring income redistributes society's

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[6] DWL is the loss in value to consumers and profits to producers that occurs when a tax reduces the amount of economic activity.

[7] Feldstein (1999) suggests that the DWL of a dollar of extra labor income taxes may be as great as $2. Subsequent studies estimate substantially smaller DWLs (see, e.g., Chetty (2008) and Saez, Slemrod and Giertz (2009)), but they do not dispute that the DWL from labor income taxation is significant.

[8] Analogously to taxation, transfers do not distort economic decisions if they are lump sum (setting aside any distortion caused by raising tax revenue to transfer).

wealth. So any tax and transfer program should redistribute in ways that society regards as desirable, holding constant any effects on the amount of wealth.

In sum, transfer programs reduce economic efficiency because both the taxation necessary to pay for transfers and the transfers themselves distort economic decisions. Society might value the wealth redistribution caused by a transfer program, but transfer programs nevertheless shrink the economic pie.

Purchases of Goods and Services: The second way governments can spend tax revenue is by purchasing goods and services that are then used to produce some kind of output. Governments purchase guns, bullets, tanks, and uniforms, as well as the services of soldiers, to supply national defense. Governments buy books, pencils, and computers, and hire the services of teachers, to supply schools. Governments buy asphalt, concrete, steel, and so on, and hire construction workers and contractors, to build roads, dams, railways, museums, and more.

For most goods and services, private firms will supply them if consumers are willing to pay, so government provision is unnecessary. Private supply, moreover, is usually more efficient than government provision, so it makes sense to leave production to the private sector.

The argument for government production of particular goods and services, therefore, must be that the private sector does not produce the appropriate quantity or kind. Economists offer two reasons for such market failures: public goods and externalities.[9]

Public goods are ones that markets undersupply because one person's consumption does not diminish anyone else's consumption and because it is difficult to exclude anyone from the benefits of the good once it has been produced.

The classic example of a public good is national defense. If one person or group hires an army to protect the country from attack, this safeguards everyone, but the private supplier has no way to charge those who benefit from this service. Thus the incentive for a private party to supply national defense is limited. Government can solve this public goods problem by producing national defense and compelling everyone to pay via taxation.

Other examples of public goods might include basic research, which potentially justifies government expenditure on science; alleviation of poverty, which potentially justifies anti-poverty spending; and clean air, which potentially justifies regulation of emissions from cars or factories.

Externalities occur when the actions of consumers or firms affect the economy's consumption or production possibilities in ways not transmitted via prices. Pollution is a standard example; a factory that dumps toxic wastes in a river, or a commuter whose car generates noxious air emissions, might not consider the costs imposed on others, so the amount of manufacturing or commuting could be more than is socially desirable. In these cases government can potentially improve economic efficiency via appropriate spending or regulation.

A different externality might be spillovers from education. A person who acquires education obtains enhanced earnings potential, but others may benefit as well if each person's productivity depends on the education of his co-workers. In this case, the privately chosen amount of education could be less

[9] The fact that public goods and externalities exist does not prove that government intervention is desirable; interventions can generate unintended consequences that are worse than the market failures they aim to fix (Miron 2010). Thus the presence of market failure is a necessary but not sufficient condition for government intervention.

than the socially desirable level. Expenditure that increases education beyond the privately chosen amount could therefore increase an economy's overall productivity.

An equivalent perspective on government expenditure notes that the tax revenue spent producing a military, schools, or roads could have been left in the hands of taxpayers. And each dollar taken from a taxpayer was presumably worth a dollar to that taxpayer, who could have used it to buy a dollar's worth of food, clothing, medical care, entertainment, and so on, or saved it for the future. So to be worthwhile to taxpayers, government expenditure of a dollar must generate at least a dollar's worth of value, given the DWL from taxation. This happens only in the cases of public goods or externalities.

Summary: Government purchases of goods and services can generate benefits in excess of costs if private markets do not work efficiently. Government transfer programs sometimes redistribute wealth in ways that society as a whole regards as desirable. But the question for policymakers is which current expenditure has a convincing justification as either correcting a market failure or redistributing wealth socially approved ways.

IV. Federal Expenditure

As discussed above, federal expenditure falls into five main categories: health insurance (Medicaid and Medicare), retirement benefits (Social Security), national defense, miscellaneous other programs, and interest on the debt. This section discusses key components of federal expenditure from the perspective described above. The discussion is not exhaustive, but it addresses the largest components of expenditure and others that are highly distorting.

Medicare and Medicaid

The Medicare program is health insurance for the elderly. Beginning at age 65, eligible beneficiaries get much of their medical care covered by taxpayer funds. Medicaid is government health insurance for the poor. Medicare and Medicaid together account for almost 19 percent of the federal budget.

The usual justifications for these programs rely on both efficiency and equity arguments. One efficiency claim is that private health insurance markets do not function properly because of adverse selection, the tendency of people with worse health to buy more insurance. A second efficiency claim is that private markets do not provide insurance against the misfortune of being born with "bad genes," yet behind a veil of ignorance most people would purchase insurance against this bad luck by accepting lower consumption overall. The equity argument asserts that everyone should receive adequate medical care independent of ability to pay.

The adverse selection argument for market failure in insurance markets is not persuasive. The key assumption of this model is that consumers know their own health better than prospective insurers, implying insurers who offer the "average" premium go broke when only unhealthy consumers purchase.

In fact, insurers can learn virtually anything they wish about applicant health via appropriate medical tests. Or, they can include appropriate conditions in their insurance contracts to address any lack of information (e.g., exclusion of coverage for lung cancer treatment if blood tests reveal the patient has been smoking; premium increases if an annual physical shows a patient's weight has gone up). Thus the assumption of asymmetric information is not convincing. Indeed, the standard complaint about insurers is that they know too much—e.g., which applicants have expensive medical conditions—and therefore deny coverage or charge high premiums to such persons. This might seem unfair, but it does not, by itself, indicate an inefficiency in the health insurance market.

The "veil of ignorance" argument for health insurance is more convincing, but its empirical magnitude and implication are less clear. This argument suggests that before knowing what their health will be, most people would buy insurance to protect themselves against horrendous health outcomes. But the argument does not suggest that everyone would purchase full insurance in the sense of having unrestricted access to all possible medical care at no additional cost to themselves; most people are willing to accept some uncertainty in exchange for higher average consumption. Thus, the veil of ignorance argues for subsidizing insurance for the poor but not equalizing health insurance outcomes across everyone.

Regardless of any efficiency benefits from subsidizing health insurance, government provision generates efficiency negatives. Medicare encourages early retirement and discourages saving for medical expenses.[10] Medicaid, like any transfer program conditioned on low income, discourages work effort.[11]

In addition, Medicare and Medicaid distort incentives in health care markets by encouraging overutilization of health care. In the presence of insurance, people face low or zero prices for the health care they purchase. Related, doctors recognize that patients are not price sensitive, so they recommend extra care and testing to reduce their risk of malpractice liability.

The extra demand caused by insurance means too many resources are devoted to health care. Specifically, insurance means that patients often purchase health care that has small value to them but large costs to society. Examples include choosing brand name drugs over generics, obtaining extra tests that have minimal diagnostic value, and utilizing surgeries and procedures that offer small advantages over medication or "wait and see."

These "moral hazards" occur under private insurance as well as under government insurance, but private insurance utilizes co-pays and deductibles, along with coverage limitations, to reduce moral hazard.[12] Medicare and Medicaid include some co-pays and deductibles, but these are small in some instances and could be increased without imposing an inordinate burden on beneficiaries.[13] Similarly, Medicare and Medicaid have some coverage limitations but far fewer than they might.

By spurring excessive demand for health care, Medicare and Medicaid generate other distortions. Innovation in health care technology continually provides better but more expensive medicines, devices, treatments, and techniques. If these new products are subsidized by insurance, utilization is high and prices increase, so government expenditure increases faster than inflation. As government expenditure mounts, the budgetary pressure leads to price controls and rationing, which generates further distortions in health care markets. Even worse, the price controls reduce the incentive for innovation in new medicines, devices, surgical procedures, and treatments.

The implication of these concerns is that government provision of health insurance must balance the benefits to society of protecting the most vulnerable against the adverse effects such provision. This balancing suggests a defensible role for Medicaid, but not for Medicare or Obamacare. If government provision of health insurance is for the poor only, it provides a safety net without intervening extensively

[10] For evidence that Medicare discourages saving, see Hubbard, Skinner and Zeldes (1995).

[11] See the review in Moffitt (2002).

[12] Moral hazard is the tendency of insurance to encourage risk-taking or other costly behavior by those insured. A bicycle owner who has insurance against theft, for example, might take less care to lock his bicycle.

[13] The yearly deductible for Part B, for example, is $155 for 2010.

in the health care system. Alternatively, Medicaid plus a scaled back version of Medicare that incorporates higher co-pays and deductibles with a higher age of eligibility would achieve the most defensible goals of government health insurance with fewer negative side effects.

Social Security

Approximately 19 percent of federal expenditure is Social Security benefits. People who have paid social security taxes for a certain number of years and reached a specified retirement age are eligible to receive benefits from the federal government.[14]

The usual justification for Social Security is that some people outlive their earnings ability and fail to save adequately for retirement. Without government support, therefore, these people might find themselves destitute in old age, and society might wish to prevent or alleviate such suffering via old-age benefits.

Whether or not government should care for the impoverished elderly, a significant fraction of Social Security goes to people who can support themselves. Social Security imposes no means test, so millionaires receive benefits. In the absence Social Security, many who now receive benefits could save more during their working lives or receive help from families or private charities.

In addition, Social Security has adverse effects on the size of the economic pie.

People who become eligible for retirement benefits at a particular age are likely to retire earlier, since they obtain more leisure and do not suffer the decline in income that would occur in the absence of the retirement benefit.[15]

By inducing early retirement, Social Security reduces economic productivity. In the absence of Social Security, people choose retirement ages by balancing the value of increased leisure against the reduced consumption necessitated by lower income. In the presence of Social Security, some people choose an earlier retirement age, which means they leave the labor force when the extra income they could produce is greater than the value they place on the extra leisure. This leaves society with less output because individuals face a distorted tradeoff between labor and leisure.[16]

Whether Social Security is a good program overall is beyond the scope of this paper; some economists believe it has positive efficiency effects in addition to its negative effects.[17] The key point, however, is that a scaled back system could provide the most crucial benefits of Social Security with fewer negative impacts.

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[14] The current system has more than one retirement age; beneficiaries can collect benefits as early as 62 or as late as 70, with the amount benefits increasing with the age of uptake. Beneficiaries do not have to be retired to receive benefits.

[15] See, e.g., Gruber and Wise (1997) for evidence that Social Security induces earlier retirement.

[16] A different potential negative of Social Security is reduced national savings, but the welfare implication of this reduced savings is theoretically ambiguous. Existing evidence, moreover, does not support a strong conclusion about the magnitude of any impact; see Feldstein and Leibman (2001).

[17] See, e.g., Diamond (1977).

One way to do this is to phase in a higher age at which people become eligible for benefits. When Congress created Social Security in 1935 and set the age of eligibility at 65, life expectancy was roughly 63. Social Security was therefore insurance against outliving one's earnings ability.

Now, with life expectancy at roughly 78, Social Security provides a comfortable and extended retirement for a significant fraction of the population. Early retirement is fine, so long as those choosing it pay the costs. Under that condition, individuals making retirement decisions balance the extra income they could earn against the value of the leisure they would obtain from earlier retirement. A higher age of eligibility would not abandon those whose earnings ability declined before the higher age; disability insurance would care for these individuals.

An alternative way to moderate Social Security is to index benefits to the price level rather than the wage rate, as occurs now. Under wage indexation, the real level of benefits increases as productivity grows; recipients get benefits that increase with economic growth. Under price level indexation, the real level of benefits would remain constant. The former approach incorporates a relative definition of poverty, the latter approach an absolute definition.[18]

Other approaches to moderating Social Security include means testing—only the poor get benefits—or ability testing—making Social Security explicitly part of disability insurance. These would reduce expenditure but would also have adverse incentive effects.

Military

Military spending is a large component of federal expenditure. Standard economic analysis suggests this spending is defensible because national security is a public good. That view makes sense, but it does not exempt specific components of military expenditure from standard cost-benefit scrutiny.[19] Many weapons systems, base locations, and overseas interventions are difficult to defend as generating benefit in excess of costs, so objective evaluation is likely to suggest substantial opportunities for reductions in military expenditure. An analysis of specific components, however, is outside the scope of this paper.

Other Spending

As noted above, Medicare, Medicaid, and Social Security account for the bulk of non-military, non-interest expenditure. And Medicare and Medicare are the components growing faster than GDP, so any serious attempt to tackle the debt must address these components. Much other expenditure, however, has negative effects that plausibly outweigh any positive effects. These programs have modest direct effects on the debt outlook, but they reduce economic efficiency, which contributes to the debt indirectly by lowering economic growth.

One example of wasteful federal spending is agricultural subsidies, which pay farmers to leave their fields fallow, reducing supply and raising agricultural prices. This is a loss for consumers. Subsidies also change the amount and manner of farming, distorting the use of land for farming versus other activities. The subsidies are transfers to farmers from the general population, but a kind of transfer that makes no sense because most farmers are not poor.

[18] Since existing price deflators tend to overstate inflation, even price level indexation would tend to increase property measured real benefit levels over time.
[19] For an example of such scrutiny, see Davis, Murphy, and Topel (2006).

A second example of wasteful spending is certain transportation projects. Bridges-to-Nowhere are extreme cases, but many others generate more cost than any benefit. Examples include the Big-Dig in Boston, high-speed rail in Florida, Amtrak subsidies, various subway systems, and overly frequent maintenance schedules.[20] The projects typically provide value to residents near the projects, but at even greater cost to others. Even projects that make sense are unnecessarily costly because the Davis-Bacon Act requires the federal government to pay "prevailing wages," that is, union wages.

A further wasteful component of federal expenditure is what is popularly known as "pork," or earmarks. This is spending that benefits the residents of a particular congressman's district but that has tenuous benefits, if any, for the rest of the country. Examples include certain transportation projects, subsidies for local industries, museums, ill-fated flood control projects that encourage excessive risk-taking (the levees in New Orleans that failed during Katrina), economic development, and more.

Most pork projects do not address a market failure, and they are activities the private sector would not undertake without subsidy. So, they do not pass a cost-benefit test. Stated differently, these projects utilize resources like labor, land and capital that would have higher ratios of benefits to costs if left to the private sector. Pork is therefore just a transfer from the general taxpayer to residents of a particular congressman's district, a kind of redistribution that makes no sense.

V. State and Local Expenditure

In addition to the looming fiscal disaster at the federal level, state and local governments are struggling to fund their existing programs and face large tax increases or default on their debt and pension obligations. State and local expenditure raises fewer red flags than federal expenditure, but substantial components are excessive or unnecessary.

Education

Roughly 30 percent of state and local expenditure is for education. About 2/3 is for K-12 public schools, with about 1/3 going to state colleges and universities (see table 2).

The argument for government subsidy of education holds that the private demand is insufficient, for one of three reasons. Education might generate positive externalities, implying the social benefit exceeds the private benefit. In that case, individuals purchase less than is socially optimal. Private demand might also be insufficient if some people are myopic about the benefits of education. And private demand might be too low because some people cannot afford education or borrow to finance it.

Each of these arguments for subsidizing education is plausible. The current amount of education, however, is likely excessive.

The form of much current expenditure – public schools or public colleges and universities—is less efficient than an alternative method, vouchers. Under a voucher system, governments provide parents or students with pieces of paper that schools accept as payment because the government redeems them for money. Vouchers allow governments to subsidize education without owning and operating educational institutions; vouchers instead just provide parents and children with sufficient purchasing power.

[20] See, for example, O'Toole (2008, 2010).

Substantial evidence suggests that vouchers are more efficient than public schools because they provide a similar or better quality education at lower cost.[21]

Vouchers cost less than public schools (both K-12 and higher education) for several reasons. Under a voucher system, all schools are private, so they face strong incentives to control costs. This means, in particular, using non-union teachers. Private schools funded by vouchers also avoid costly initiatives like "computers for everyone" absent clear evidence of beneficial impacts on education. Vouchers also give students and parents more choice, allowing them to match their interests and skills with the schools they attend.

Education expenditure is also excessive because it supports education for which the standards justifications are not convincing. Some kinds of education do not provide obvious spillovers (e.g., PhDs in Russian Literature or Sanskrit), other kinds provide sufficient private returns that credit constraints are not problematic (law school, medical school), and considerable education funding is for middle class families. Thus the well-justified component of education subsidies is substantially smaller than current expenditure.

Transportation

A second important component of state and local spending is for roads, highways, subway systems, intercity rail, and buses. In 2009, approximately 5.4 percent was in this category.

The argument for government spending on transportation is that private forces cannot readily obtain the appropriate property and property rights. This argument is plausible for some aspects of transportation, such as a highway or subway system, although it is far from convincing for bus lines. Even if state and local governments need to play a role in transportation, however, existing expenditure is too high.

Expenditure for any given set of transportation projects activity is too high because government typically employ union labor.[22] Many transportation projects are difficult to defend on cost-benefit grounds but get built because politicians wish to curry favor with construction firms and unions; example include many beautification projects and overly frequent maintenance.[23] The private sector can readily supply one component of local transportation, busses, and does so in some instances.

Excessive compensation for employees

In addition to specific expenditures, a crucial issue for state and local budgets is the level of employee compensation. Existing evidence suggests that state employees receive more compensation than

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[21] See, for example, Angrst, Bettinger, and Kremer (2004).

[22] For data on the union wage premium, see http://www.bls.gov/news.release/union2.t04.htm or http://www.bls.gov/ncs/ocs/sp/nctb1355.pdf.

[23] See, for example, Flyvbjerg, Holm, and Buhl (2002).

required to attract employees of the relevant skill level.[24] Thus the public sector is paying more to carry out its operations than necessary.

This excessive compensation has several negative effects. The excess represents an inappropriate transfer from the general taxpayer to those lucky enough to get government jobs. The excessive compensation means additional taxation, with attendant distortions. A further cost is changing the allocation of which people take which jobs, since the excessive compensation will attract some talented people from the private sector to take relatively unskilled jobs in the public sector. This means they are less productive in the government job than they would have been in the private sector.

Miscellaneous

In addition to the main items discussed so far, state and local expenditure includes numerous smaller items, including museums, skating rinks, zoo, stadiums, parks, and more. The value of government expenditure on these items is debatable. The private sector provides all these in many instances, and the market failure argument is not obvious. Few would argue that government provision of skating rinks is a core function of government. The total expenditure on such activities is small, but it represents one more component of excessive expenditure.

VI. The Keyneisan Argument for Spending

The discussion thus far has considered what economists call the microeconomics of government spending: whether specific expenditures make sense in cost-benefit terms, setting aside the state of the economy.

A different argument for government spending relies on the Keynesian model of business cycles and suggests that government spending can reduce or shorten recessions.[25] According to the model, recessions occur due to a lack of private demand for the economy's goods and services, and government can remedy this shortfall by stimulating demand. On the one hand, government can increase its own demand for goods and services, such as by building more highways, purchasing more military aircraft, or funding additional research and development. On the other hand, government can increase private demand by reducing taxes or increasing transfers.

Although the Keynesian model of fiscal stimulus is widely taught and utilized, it remains controversial as a justification for government spending.[26]

A crucial problem with the Keynesian perspective is that, according to the model, it does not matter what the government spends money on. If the government pays people to dig ditches and fill them up, the Keynesian model says this helps the economy recover from a recession.

Whether or not worthless spending stimulates in the short term, it cannot be good for the economy in the long term. When governments use tax revenue to purchase goods and services, they must

[24] See, e.g., Edwards (2010). The comparisons in Edwards are not definitive because they do not account for possible difference in the training and skill of private versus public sector employees. On the other hand, they also do not account for the greater stability of public sector employment.

[25] See, for example, Mankiw (2008, chapters 33-35).

[26] See Miron (2010) and Mankiw (2010) for further discussion of the issues raised here.

be producing a good that generates at least a dollar of benefit for every dollar of taxes raised. That is, even if Keynesian spending stimulates in the short term, the government will have to raise taxes to pay for it eventually. Thus it is imperative that Keynesian spending be on productive projects, not just digging ditches.

Yet finding good stimulus projects is problematic. To begin, the discussion above suggests that government is already spending too much, not too little, in most arenas. Further, finding any good projects that remain takes time to investigate, plan, and implement, yet the need to stimulate requires haste. Thus in practice stimulus projects will often be ill-conceived from a cost-benefit perspective. In the strict Keynesian logic, this is acceptable because stimulus spending is temporary. In practice, spending programs often persist for years or decades.

Despite these concerns, Keynesian spending might be defensible if overwhelming evidence showed that such spending moderates recessions. As it turns out, the empirical support for the Keynesian view is far from compelling.[27] The model implies that the impact of increased spending should be greater than the impact of tax cuts, but the existing evidence suggests more like the opposite. Indeed, some empirical evidence finds minimal impacts of spending, while most research finds a robust impact of tax cuts. Plausibly this is because, whether or not tax cuts operate through a Keynesian channel, they also operate through an efficiency channel when they are cuts in marginal tax rates.[28]

Thus even if one takes the basic Keynesian framework as given and accepts that government should stimulate during recessions, existing evidence suggests that a stimulus should focus on lower tax rates, not increased expenditure. This approach is likely to be beneficial whether or not the Keynesian analysis is correct because reductions in tax rates improve the incentive to work, save, and invest. This increased efficiency means higher productivity and income, so the net impact on the deficit can be smaller from a well-designed tax cut than from increased spending.

VII. Discussion

The debate about how countries should address their fiscal imbalances is likely to occupy policymakers and the public for years to come. Unfortunately, much of this debate will assume that countries should resist expenditure cuts because existing spending is essential for a productive economy.

In fact, large chunks of current expenditure are counterproductive and fail to accomplish reasonable policy goals. Determining the ideal level of government expenditure is difficult, but just a few decades ago the U.S. was a productive economy with far lower expenditure. In the 1960s, for example, federal government expenditure was below 20 percent of GDP, and state and local expenditure was below 12 percent; this contrasts with roughly 25 percent and 15 percent now. The discussion here suggests returning expenditure to at least its pre-1970 level.

The good news in this message is that from a fiscal perspective, the U.S. can have its cake and eat it too. By slashing expenditure, the country can improve economic efficiency and get the debt under control at the same time. Many people claim such cuts will have catastrophic effects on the weakest

[27] See Giavazzi and Pagano (1990), Alesina and Ardagna (1998), Alesina (2002), Alesina and Ardagana (2009), Auerbach and Gale (2000), Barro and Redlick (2009), Mountford and Uhlig (2008), Ramey (2009), Nekarda and Ramey (2010), Romer and Romer (2010), and Hall (2009).

[28] *See* Martin S. Feldstein, *The Effects of Taxes on Efficiency and Growth* 18–20 (Nat'l Bureau of Econ. Research, Working Paper No. 12201, 2006).

elements of society and harm vital government functions. The analysis above suggests this view is enormously off-target. Most entitlement spending goes to the middle class, and much other expenditure is hurting economic productivity, not helping. All this expenditure, of course, helps some interest group; that is why the expenditure persists. But for the economy overall, the net impact is negative.

References

Alesina, Alberto and Silvia Ardagna (1998), "Tales of Fiscal Adjustments," *Economic Policy*, **27**, 489-545.

Alberto Alesina et al. (2002), "Fiscal Policy, Profits, and Investment," *American Economic Review,* **92**(3) 571-589.

Alesina, Alberto and Silvia Ardagna (2009), "Large Changes in Fiscal Policy: Taxes Versus Spending," NBER Working Paper No. 15438.

Auerbach, Alan J. and William G. Gale (2009), "Activist Fiscal Policy to Stabilize Economic Activity," NBER Working Paper No. 15407.

Barro, Robert J. and Charles J. Redlick (2009), "Macroeconomic Effects From Government Purchases and Taxes," NBER Working Paper No. 15369.

Chetty, Raj (2008), "Is the Taxable Income Elasticity Sufficient to Calculate Deadweight Loss? The Implications of Evasion and Avoidance," NBER Working Paper No. 13844.

Congressional Budget Office (2009), *The Long-Term Budget Outlook*, Congressional Budget Office: Washington, DC.

Congressional Budget Office (2010), *The Long-Term Budget Outlook,* Congressional Budget Office: Washington, DC.

Congressional Budget Office (2010), *The Budget and Economic Outlook: Fiscal Years 2010 to 2020,* Congressional Budget Office: Washington, DC.

Davis, Steven J., Kevin M. Murphy, and Robert H. Topel (2006), "War in Iraq versus Containment," NBER Working Paper No. 12092.

Diamond, Peter A. (1977), "A Framework for Social Security Analysis," *Journal of Public Economics,* **8**, 275-298.

Edwards, Chris (2010), "Employee Compensation in State and Local Governments," *Tax & Budget Bulletin No. 59,* Cato Institute: Washington, DC.

Feldstein, Martin (1999), "Tax Avoidance and the Deadweight Loss of the Income Tax," *Review of Economics and Statistics,* **81**(4), 674-680.

Feldstein, Martin (2009), "Rethinking the Role of Fiscal Policy," NBER Working Paper No. 14684.

Feldstein, Martin and Jeffrey B. Leibman (2001), "Social Security," NBER Working Paper No. 8451.

Flyvbjerg, Bent, Mette Skamris Holm, and Soren Buhl (2002), "Underestimating Costs in Public Works: Error or Lie?," *Journal of the American Planning Association*, **68**(3), 279-295.

Giavazzi, Francesco and Marco Pagano (1990), "Can Sever Fiscal Contractions be Expansionary? Tales of Two Small European Countries," NBER Working Paper No. 3372.

Goolsbee, Austan (2004). "Taxes and the quality of capital." *Journal of Public Economics*, Volume 88, Issues 3-4, March:519-543.

Gruber, Jonathan and David Wise (1997), "Social Security Programs and Retirement Around the World," NBER Working Paper No. 6134.

Hall, Robert E. (2009), , "By How Much Does GDP Rise if the Government Buys More Output," , NBER Working Paper No. 15496.

Hoxby, Caroline (2002), "School Choice and School Productivity (or Could School Choice be a Tide that Lifts All Boats?)," NBER Working Paper No. 8873.

Hubbard, R. Glenn, Jonathan Skinner, Stephen P. Zeldes (1995), "Precautionary Saving and Social Insurance," *Journal of Political Economy*, **103**(2), 360-399.

Mankiw, N. Gregory (2010), "Crisis Economics," *National Affairs*, **4**, 21-32.

Mankiw, N. Gregory (2008), *Principles of Economics*, Thomson Southwestern: Mason, Ohio.

Miron, Jeffrey A. (2010), "The Case Against the Fiscal Stimulus," *Harvard Journal of Public Policy*, **33**(2), 519-530.

Miron, Jeffrey A. (2010), *Libertarianism, from A to Z*, New York: Basic Books.

Moffitt, Robert A. (2002), "Welfare programs and labor supply," in: A. J. Auerbach & M. Feldstein (ed.), Handbook of Public Economics, edition 1, volume 4, chapter 34, pages 2393-2430 Elsevier.

Mountford, Andrew and Harald Uhlig (2008), "What Are the Effects of Fiscal Policy Shocks?," NBER Working Paper No. 14551.

Nekarda, Christopher J. and Valeria A. Ramey (2010), "Industry Evidence on the Effects of Government Spending," NBER Working Paper No. 15754.

Office of Management and Budget (2010), *Analytical Perspectives: Budget of the U.S. Government*, *Fiscal year 2011*, Office of Management and Budget: Washington, DC.

O'Toole, Randal (2008), "High-Speed Rail: The Wrong Road for America," Cato Institute Policy Analysis No. 625, October.

O'Toole, Randal (2010), "Defining Success: The Case Against Rail Transit," Cato Institute Policy Analysis No. 663, March.

Romer, Christina D. and David H. Romer (2010), "The Macroeconomic Effects of Tax Changes: Estimates Based on a New Measure of Fiscal Shocks," *American Economic Review*, forthcoming.

Saez, Emmanuel, Joel B. Slemrod, and Seth H. Giertz (2009), "The Elasticity of Taxable Income with Respect to Marginal Rates: A Critical Review," NBER Working Paper No. 15012.

Ramey, Valerie A. (2009), "Identifying Government Spending Shocks: It's All in the Timing," NBER Working Paper No. 15464.

Sandström, F. Mikael and Fredrik Bergström (2005). "School vouchers in practice: competition will not hurt you." Journal of Public Economics, Volume 89, Issues 2-3, February: 351-380.

Table 1: Composition of 2009 Federal Expenditures

Category	As a percentage of total expenditures	
National defense		18.792
Health:		21.731
Retirement		22.99
Net interest		5.313
Other		
Income Security[1]	11.583	
Physical Resources[2]	12.616	
Human Resources[3]	5.0	
Other[4]	4.628	
Total Other		33.807
Total[5]		102.633

[1] Includes expenditures on programs such as unemployment, housing, and food assistance.

[2] Includes expenditures on environment, energy, commerce and housing credit, transportation, and community and regional development

[3] Includes education, training, employment, social services, and veterans' benefits and services

[4] Includes international affairs, general science, space and technology, agriculture, administration of justice, and general government

[5] Figures sum to more than one hundred due to rounding.

Table 2: State and Local Expenditures from 2008

Category	as a percentage of GDP	as a percentage of total expenditure
Education	5.8	29.51
Social Services and Income Maintenance[1]	2.28	21.78
Insurance Trust Expenditure[2]	1.62	8.26
Public Safety	1.5	7.65
Utility Expenditure	1.34	6.81
Transportation	1.06	5.41
Interest on general debt	0.69	3.52
Other[3]	3.127	15.9
Total[4]	17.417	98.84

[1] Includes spending on hospitals, social insurance, cash assistance, etc.

[2] Includes spending on unemployment, workers compensation, employee retirement, etc.

[3] Includes spending on the environment, housing, and general government administration

[4] Total does not sum to 100 due to rounding.

Figure 1: Federal Debt as a Percentage of GDP, 1791–2009

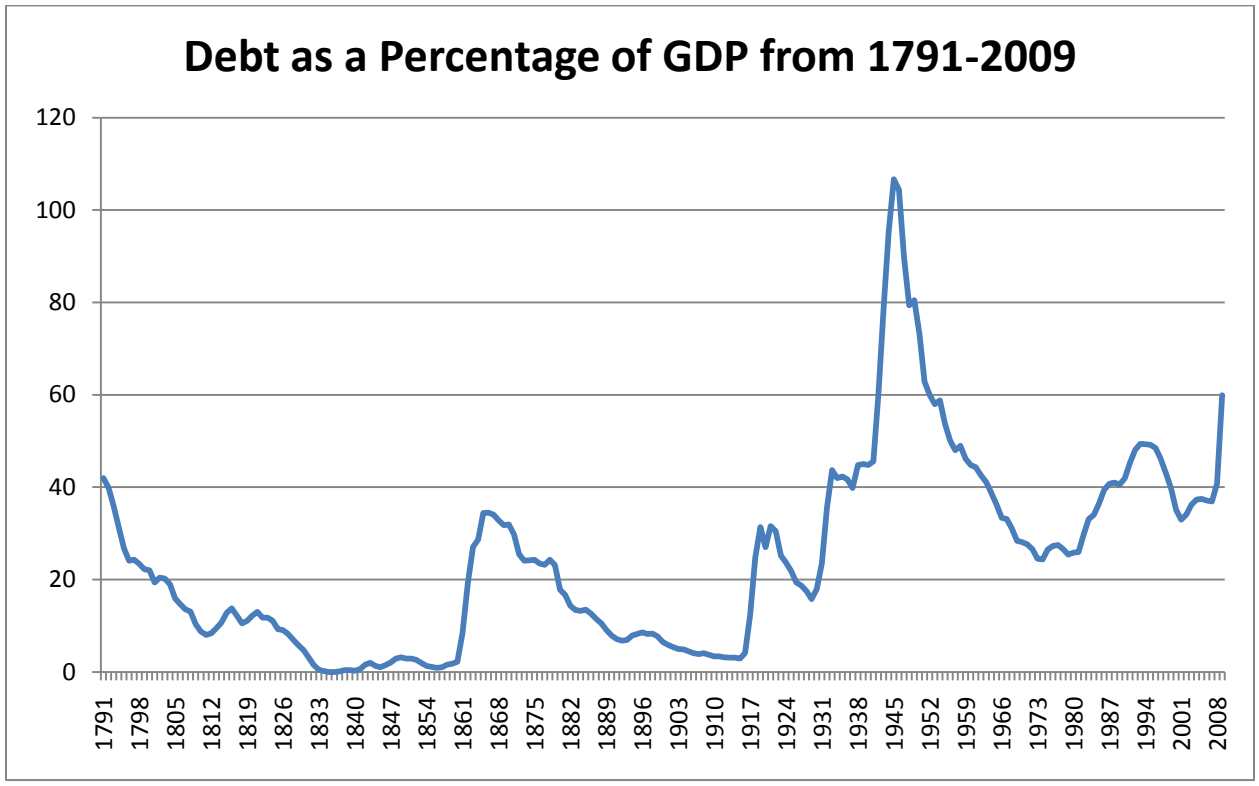

Figure 2: Government Receipts and Expenditures as a Percentage of GDP, 1930–2009

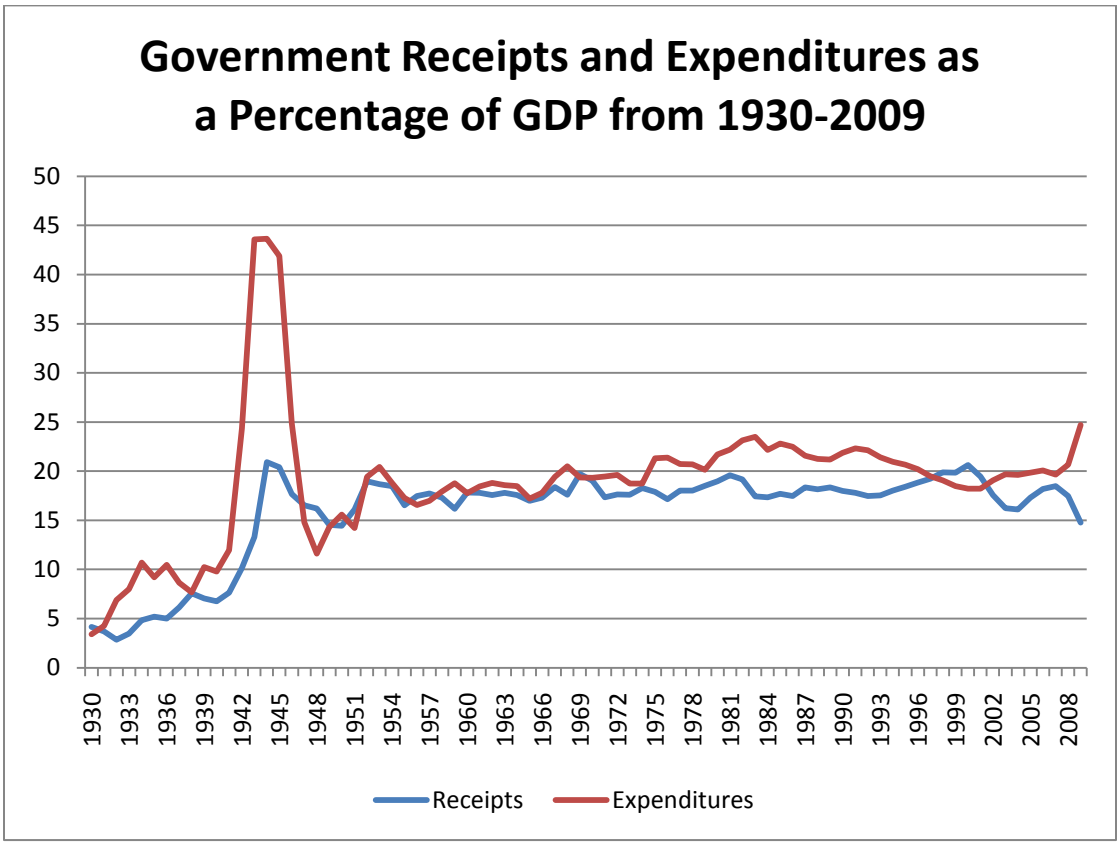

Figure 3: Federal Expenditures as a Percentage of GDP

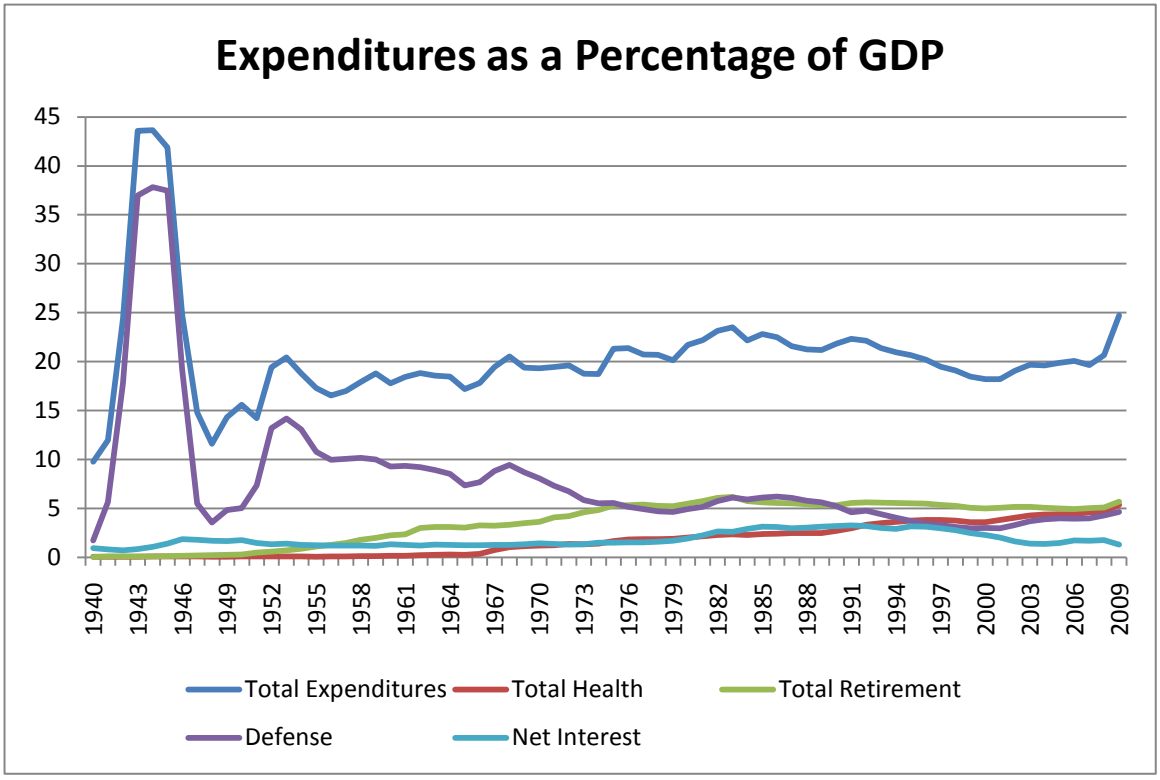

Figure 4a: Debt Held by the Public Through 2084

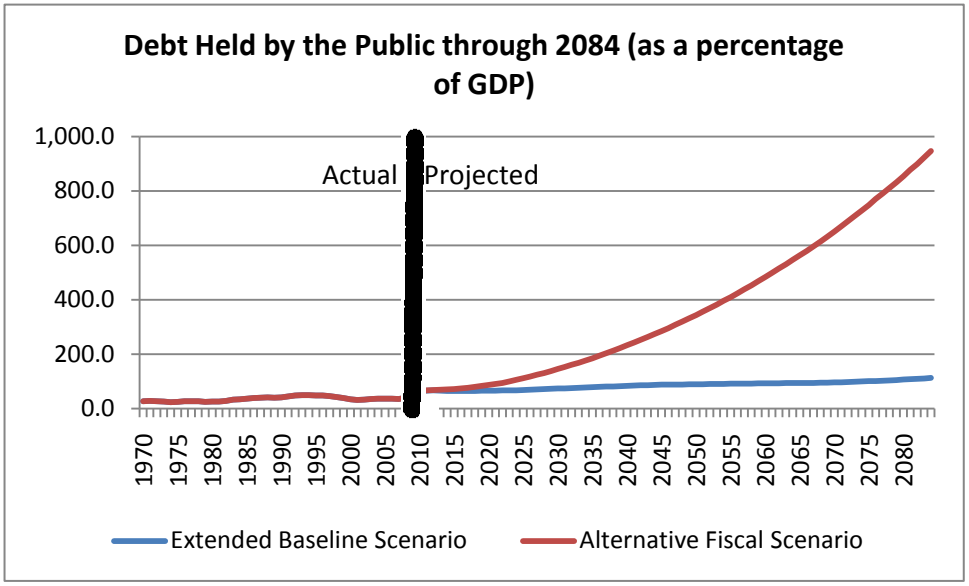

Figure 4b: Extended Baseline Scenario

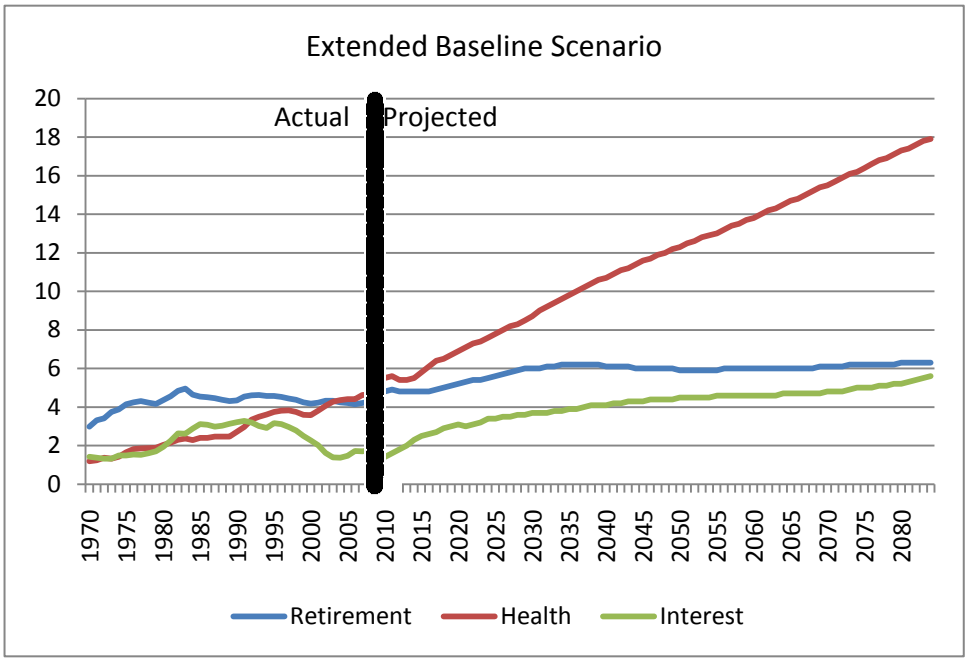

Figure 4c: Alternative Fiscal Scenario

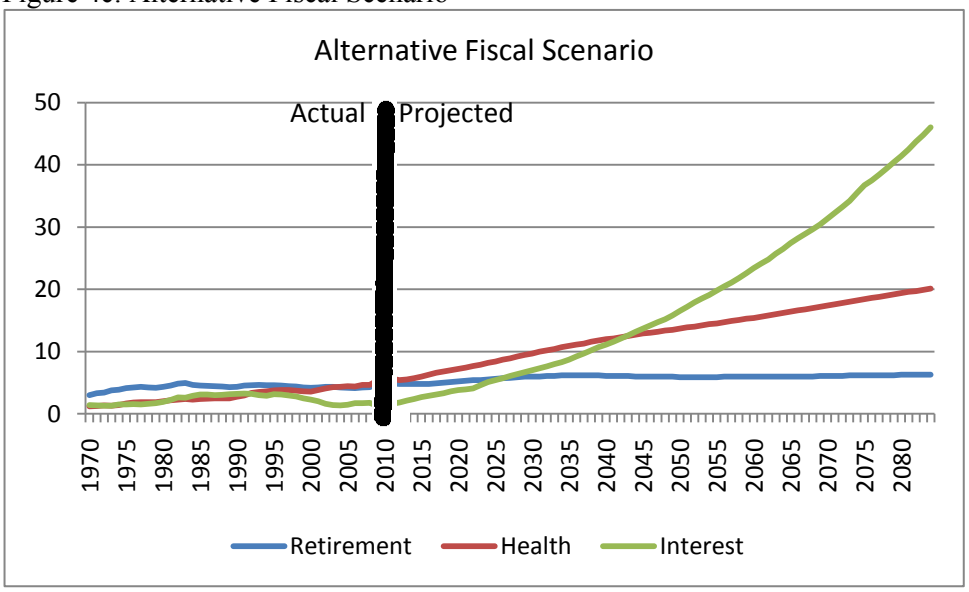

Figure 5: S&L Expenditure as a Percentage of GDP

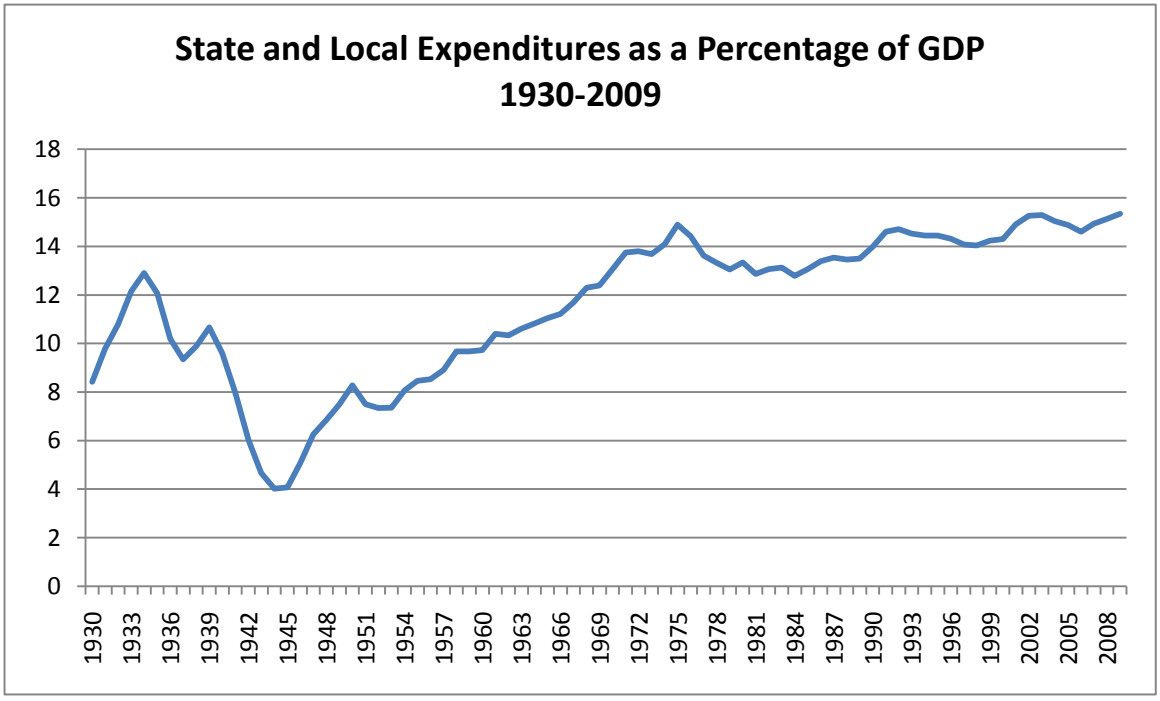

Figure 6: Projections for S&L