Order Code RS20654
Updated October 17, 2000

Paying off the National Debt: Some Intergenerational Consequences

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Summary

A major change in the fiscal regime of the United States occurred in the 1990s. The large and persistent federal budget deficits that characterized the 1980s and early 1990s gave way to budget surpluses. The budget deficits were responsible for the large growth in the national debt. The current and projected budget surpluses are large enough to make it possible to pay off the national debt. Current debate centers on the use of the surplus. Some argue that if the surpluses are used for debt retirement, a substantial redistribution of income and wealth in favor of future generations of Americans will occur. Others contend that the intergenerational consequences of past deficits should also be considered. This paper will be updated as events warrant.

The National Debt and the Economy

While economists have long recognized that a national debt imposes an inescapable burden on a nation, they have debated whether that burden is borne by the generation who contracts the debt or is shifted forward to future generations.[1] The United States now finds itself in the position of being able, for the first time since the end of World War II, to retire the publicly held portion of the national debt. This is because the current and projected budget surpluses (given an unchanged fiscal policy), shown on Table 1, are so large that the debt could be retired within the next decade. This shift in fiscal regime from one of large budget deficits to one of large and growing surpluses has sparked a debate about alternative uses for these surpluses. Should they be kept intact and used exclusively for debt reduction or should they be reduced or eliminated through some combination of

[1] For a discussion of the controversy surrounding the nature of the burden of a national debt, see CRS Report RL30520. *The National Debt: Who Bears Its Burden?* By Gail E. Makinen. April 7, 2000.

tax relief and expenditure increases? The following discussion is designed to make explicit what may be implicit in part of this debate: a policy of debt reduction involves a potentially large wealth and income transfer from the generations of Americans who pay off the debt to those generations living in a debt free future. Some policymakers urge that at least part of the surpluses be used for tax reduction and/or expenditure increases that benefit the current and near term generations of Americans.

Table 1. Projected Budget Surpluses and Debt (By Fiscal Year, In Billions of Dollars)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
On-Budget Surplus	84	102	126	143	154	169	222	260	288	332	377
Off-Budget Surplus	149	165	186	202	215	232	247	263	278	293	307
Total Surplus	232	268	312	345	369	402	469	523	565	625	685
Publicly Held Debt	3409	3158	2854	2522	2165	1774	1315	1081	989	887	830
As a % of GDP	34.9	30.7	26.4	22.3	18.3	14.3	10.2	8.0	7.0	6.0	5.4

Source: CBO, *Budget and Economic Outlook*, (Washington: June 2000).
Note: Gross debt is the sum of publicly-held debt and trust fund debt.

The Intergenerational Consequences of a National Debt

Since the discussion in this paper is concerned with the intergenerational consequences of a national debt, it must explain the consequences both of debt accumulation and debt reduction.[2]

A Rising National Debt

Mainstream macroeconomic theory views the burden of a national debt, not in terms of the debt itself, but in terms of the government budget deficits that create the debt**.** A simple example will show what is involved. Suppose that in a *fully employed world*, the government contemplates additional expenditures. It has two basic ways to finance them. It can either levy a tax on the current population or it can sell debt instruments and use the proceeds to finance the expenditures. Should it choose the first option, the burden of those expenditures will be borne by the present generation for it must reduce its consumption to pay the additional taxes. The reduction in consumption then frees the resources for use by the government.

Should the second option be chosen, the government must then compete with others for the saving of the private sector. The increase in the demand for saving forces up the interest rate and this, in turn, decreases the interest-sensitive spending of the private sector. This is primarily business spending for capital goods such as plant, equipment, and structures and spending by households for homes, automobiles, appliances and the like. Thus the budget deficit is said to "crowd out" private capital. And the burden of the resultant national debt is the smaller stock of private capital that the public will inherit. Because of this, productive capacity in the future will be less, reducing future income and consumption of the private sector. However, the ability of the current generation or the

[2] There are other types of consequences from eliminating the national debt. For a discussion of these other consequences, see CRS Report RL30614. *What if the National Debt Were Eliminated? Some Economic Consequences.* By Marc Labonte. July 14, 2000.

generation that contracted the debt to consume has not been reduced. Thus, the burden of debt financed expenditures can be shifted forward to future generations.[3]

A Falling National Debt

The prerequisite for reducing the national debt is a budget surplus. Instead of reducing the national debt, the surplus could be used for tax reduction or for increases in government expenditures. Either of these would benefit the present generation for it can either increase its own consumption by the gain in disposable income brought about by the reduction in taxes or enjoy the benefits of the additional government expenditures. Alternatively, the surplus could be used for debt reduction. When it is, it raises the national saving rate. The increased supply of saving reduces interest rates and increases the interest-sensitive spending of the private sector for the type of capital goods mentioned above. Thus, keeping the budget surplus intact is said to "crowd in" private capital and the gain from the reduction in the national debt is a larger stock of private capital. The additional income it will generate will accrue primarily to future generations. This is the essence of the intergenerational transfer from a policy of keeping the surplus intact and using it for debt reduction.[4]

Thus, just as a growing national debt involves the shifting of a burden to future generations, using current and future budget surpluses to retire the national debt involves an intergenerational transfer of wealth and income from those who pay off the debt to those who inherit a future free of a national debt. Those generations enjoy a larger capital stock (or a larger American ownership of the existing capital stock) and a larger income while the generations that pay off the debt have less in the way of consumption and/or enjoy less in the way of government expenditures.

Some Qualifications

The traditional argument about the intergenerational consequences of a national debt is subject to at least two qualifications. First, the budget deficits (and surpluses) relevant to the burden argument are measured at their *structural or full employment* values. In the example above, the increased expenditures took place in a *fully employed* economy. This is the type of deficit that is likely to lead to crowding out. Deficits, however, can also result from a fall in national income that occurs during economic downturns even if tax

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[3] The nature of the crowding out is different in an economy linked to others by foreign trade and capital movements that are sensitive to international interest rate differentials. As in the preceding discussion, as interest rates rise in the United States, foreign capital is drawn in which augments domestic saving keeping U.S. interest rates down. Thus, there is little in the way of domestic crowding out and the additional government expenditures are essentially financed by foreigners and they wind up owning an equivalent amount of financial assets. This gives them a claim on a portion of future U.S. income. Even though the private capital stock is little altered by the additional government expenditures, a portion of the income from that capital must now be transferred abroad. The share available for Americans to consume will be less and will closely approximate what it would be in the closed economy case discussed above.

[4] As above, in an open economy the adjustment to the surplus is slightly different. As U.S. interest rates tend to fall, the current net inflow of capital to the U.S. should also fall, reducing the growth of liabilities to foreigners. Thus, foreign claims to future American income will fall and a larger portion of that income will accrue to Americans. The net effect will be about the same as if the U.S. owned private capital stock were larger except that in the open economy case, it results from a decrease in the foreign ownership of American capital.

provisions and those applicable to expenditures remain unchanged. Falling income both reduces federal revenues and triggers some increases in federal expenditures, such as those related to unemployment compensation, causing the budget deficit to rise. But these deficits are unlikely to raise interest rates and, hence, unlikely to crowd out private investment spending.[5] Thus, not all budget deficits are alike in imposing a burden on future generations. Second, the burden discussed is a gross burden. It neglects the fact that there are benefits, both tangible and intangible, that can also be shifted forwarded. Some government expenditures are for capital purposes and this capital confers benefits on future generations. In fact, the case for the debt financing of these expenditures has long been an accepted canon of public finance.[6] An intangible benefit can arise from expenditures on such things as national defense, for example. Such outlays today may serve to ensure the independence and freedom of future generations. Since future generations enjoy the benefits of these expenditures, some may argue that they should also be expected to help pay for them. Thus, considering the tangible and intangible benefits that some government expenditures confer on future generations, there may be no **net** burden shifted to them.[7]

The Intergenerational Consequences of Fiscal Regimes

It could be misleading to discuss individual fiscal regimes in isolation and draw conclusions about their consequences for intergenerational redistributions. To avoid this, the following is a general discussion of the redistributive aspects of the fiscal regimes of the past 40 years.

1960-1982. The fiscal regime during this 23-year period was characterized by very small structural budget deficits. Except for several years early in the period of the Vietnam war (FY1966, 1967, 1968), the structural budget deficit never exceeded 2.0% of potential GDP (full employment GDP.) This was reached in FY1976. In 13 of these 23 years, the structural deficit was 1% or less of potential GDP (in 3 of these 13 years, it was in surplus). This suggests that a very small gross burden could have been shifted forward to future generations. Closer inspection of the data suggests that this did not occur. During these 23 fiscal years, federal expenditures for capital goods (identified in the National Income and Products Accounts as structures and equipment and software) for both defense and non-defense purposes were approximately $500 billion. The cyclically-adjusted publicly-held national debt rose over this period by some $311 billion.[8] In the

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[5] A similar argument holds for surpluses. They can arise if an economy at full employment grows more rapidly than is sustainable. The temporary windfall in tax revenue and/or expenditure reduction will generate a temporary or windfall surplus but this can reduce interest rates temporarily and lead to some crowding in and/or decreased capital inflow.

[6] It is a principle of public finance that government expenditures that benefit future generations should be financed on a *pay-as-you-use* basis. This provides the underpinning for the case that these expenditures should be bond or debt financed.

[7] This argument must be viewed with care. No net burden will be shifted forward only if the yield on government and private sector capital is the same. The argument made here is that the **total** capital stock inherited by future generations is unchanged, only its composition is changed. Government capital now replaces an equal amount of private capital. Future income will be unchanged only if the yield on the composite capital stock is the same as it would be if the capital stock were exclusively that of the private sector.

[8] Since the crowding out/crowding in argument for intergenerational shifting is in terms of a

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spirit of "pay-as-you-use" public finance, it can be argued that the increase in the national debt should have been larger. It was insufficient to cover the government's capital outlays. Since these were paid for by taxes, a burden of some $189 billion was shifted from *future generations to the current generation*.

1983-1987. It can be argued that this fiscal regime was new in the sense that it was characterized by large structural budget deficits. In FY1983, the structural budget deficit rose to 3.2% of potential GDP (over the previous 22 years, it was above 3.0% only once, FY1968). In FY1986 it rose to 4.8% of potential GDP (its largest value during the 40-year period under review). It than began to decline, but did not fall below 3.0% of potential GDP until FY1988. During this five-year period, the cyclically-adjusted publicly-held national debt rose by $817 billion whereas federal expenditures for capital goods summed to only $362 billion or approximately 45% of the total. This implies a substantial crowding out and, as a result, that a large gross burden was shifted forward to future generations.[9]

1988-1994. During this fiscal regime, the structural budget deficit declined and ranged between 2.0% and 3.0% of potential GDP. The cyclically-adjusted publicly-held national debt increased by $1.023 trillion. Some 58% of this increase was accounted for by federal expenditures for capital goods (which summed to $594 billion). As a result, a substantial gross burden was shifted forward during this regime to future generations.

1995-1999. During this fiscal regime, the public finances of the United States changed in a major way. The structural budget deficit in FY1995 was 1.9% of potential GDP. It fell to zero in FY1999. During this 5-year period, the cyclically-adjusted publicly-held national debt rose by $343 billion. Government capital outlays over this period summed to $430 billion implying a substantial shifting of income and wealth *to* future generations.

2000-2010. The fiscal regime during the current and coming ten fiscal years is projected to be characterized by large budget surpluses and implies a major intergenerational redistribution of income and wealth from the generations of taxpayers who pay off the national debt to future generations who will live in an America free of a national debt. Between FY1999 and FY2010, the publicly held debt is projected to decline by $2.6 trillion. This, in addition to any government capital expenditures, represents the amount of the redistribution.

Summary of the Fiscal Regimes

Standards of living were lower in the period from 1960-1982 because citizens bequeathed more public capital than debt to future generations. Had this not been the case, they could have enjoyed additional consumption. Standards of living were substantially higher than they would have been otherwise from 1983-1994 because debt

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[8] (...continued)
structural measure of the budget, the relevant measure of the national debt is one that is cyclically adjusted. This can be approximated by the cumulative structural budget deficit. Data on the structural deficit are taken from computations prepared by the Congressional Budget Office.

[9] A large fraction of the cumulative budget deficits of this period was financed by foreigners as the net inflow of foreign capital closely paralleled the borrowing requirements of the federal government.

was generated in excess of the public capital that was accumulated, making increased consumption possible. Had taxes been used to cover this gap, that increased consumption would not have been possible. The burden of the 1983-1994 debt was placed on future generations through a lower private capital stock. If the CBO budget forecasts prove to be correct, individuals will experience a relatively lower standard of living during 1995-2010 because the tax burden of retiring the national debt will lower their consumption. However, the larger private capital stock "crowded in" from debt retirement means that those living after 2010 will enjoy a higher standard of living.[10]

How do these regimes affect individuals? The following discussion offers a general assessment of who gained (or will gain) and lost (or will lose) if the future unfolds as shown in Table 1. Consider individuals born prior to 1982. Their loss in standard of living from 1960-1982 would be more than offset by an increased standard of living during the 1983-1994 period. If they die early in the following period (1995-2010), they will have enjoyed a relatively higher standard of living, at the expense of future generations. But if their lives continue until 2010, the higher standard of living they enjoyed in the 1980s will be offset by the lower standard of living they experience by retiring the national debt. For lives that span the 1960-2010 period, the gains of one regime are generally offset by the losses in others, although that result may vary depending on the individual's life span.

Who suffers most over the 1960-2010 period? Those who did not enjoy the higher standard of living of the 1980s financed by debt accumulation, but who now must live both with a reduced income generated by the resultant smaller capital stock and pay the taxes to retire the national debt. However, the longer they live after the debt is retired, the more they will be compensated by the larger capital stock made possible by the current regime. Future generations living primarily after 2010 will benefit from the larger capital stock made possible by retiring the national debt. They will receive this benefit without incurring its cost. But retiring the debt more slowly would shift a burden off those currently living, that includes both those who benefitted from the higher standards of living in the 1980s and those who did not, to those (unborn) generations that received no benefit from the debt accumulation during the 1980s.

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[10] Between 1960-1982 a burden of $652 billion was borne by the generation of that period due to the "crowding in" effect (as measured by the difference between the cyclically adjusted debt and public capital accumulation.) Between 1983-1994, a period about half as long, a burden of $1.2 trillion was shifted forward to future generations. This compares to the more than $2.2 trillion expected to be borne by those who pay off the national debt during the period 2000-2010. All values are measured in 1999 prices (future values are based on the OMB forecast.)