

To what extent can
public debt be
regarded as private
wealth



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In the 19th Century, the brilliant British economist David Ricardo (1772 - 1823) introduced one of the most important theories, which is the “Ricardian Equivalence”. The idea suggested by David Ricardo is that the private sector internalizes the public sector budget constraint. Public debt is not considered as private wealth, and the time profile of taxes does not affect the private sector budget constraint. It assumes that the private sector can freely borrow at the same rate as the government.

Public dissaving is matched one for one by private saving; the private sector pierces the veil of the government budget and national saving does not change. The Ricardian Equivalence assumes that consumers base their decision on the estimation of their lifetime budget constraint known as the permanent income hypothesis. Consumers behave as if they are immortal and they do not have any borrowing constraint. Government cannot claim default and cannot finance spending by printing money. This result follow that total government spending must equal to Government’s total revenue.

Thus, holding a government budget plan, a cut in today’s taxes must be matched by an increase in tomorrow’s taxes. Therefore the substitution of budget deficit for current taxes has no impact on current aggregate demand. Another way of saying this is that a decrease in public saving will be exactly offset by an increase in private saving, thus total nation saving remain unchanged. For example, government cut taxes today in hope of an increase in current domestic spending, however, households’ realize that a cut today means a raise in taxes tomorrow, thus they will increase their saving today in order to pay for a raise in the taxes latter.

Thus the total aggregate demand does not change. Public sector Budget Constraint Public debt is the total of a nation's debt; it is an indicator of how much public spending is financed by borrowing. It is the accumulation of the deficits and surpluses year after year. When a Government runs into a deficit they need to borrow money from the financial market to be able to finance their spending, they often sell bonds to the citizens.

Governments base their decisions on preferences and are subject to budget constraint. To be able to explain the Ricardian Equivalence, let's assume there is two period, today and tomorrow. A government is very similar to other economic agents. It can borrow and lend or repay its debt with interest or be repaid by its debtors.

The government spends G_1 and G_2 today and tomorrow and raises net taxes T_1 and T_2 today and tomorrow. These are the main components of Government intertemporal budget constraint. Suppose there is no initial government debts, if government's spending today is more than its tax revenue then $G_1 - T_1 > 0$ and it borrows. This means tomorrow's income has to cover both tomorrow's spending and today's borrowing. $T_2 = G_2 + (G_1 - T_1)(1 + r)$ Where r is the interest rate at which government can borrow or lend. If government runs a surplus today, this means $G_1 - T_1 < 0$ is negative, so tomorrow's taxes T_2 can be less than tomorrow's spending.

This is the government intertemporal budget constraint. A budget deficit today must be matched by a budget surplus tomorrow. A budget surplus today must be matched by a budget deficit tomorrow. Government budget constraint also can be written in the present value form: $G_1 + G_2 / (1 + r)$

$$= T_1 + T_2 / (1 + r)$$
 Today's budget can be separated into two parts: primary deficit, which is the amount by which the non-interest expenditure exceeds revenues and the net interest payment. Total deficit = primary deficit $(G_1 - T_1)$ plus debt service $(r D_0)$ Where D_0 is the debt inherited from the previous period.

The sum of initial debt and the present value of government primary budget deficit must be equal to zero. The government budget constraint can be rewritten in the form of primary budget deficit: $D_0 + (G_1 - T_1) + (G_2 - T_2) / (1 + r) = 0$ It is difficult for government to default, however there were still cases where government declared defaults or repudiation of past debt. Mostly due to big political changes, such as the French revolution and the Russian revolution. In order to avoid this, today's primary deficit require latter's primary surpluses. Given government budget plan, lower taxes today must be followed by increased taxes tomorrow.

Similarity, spending more today means spending less tomorrow. Private sector Budget Constraint We assume there are two periods, today and tomorrow. Households can borrow and lend and then repay its debt or be repaid by its debtors, such as the government if it buys government bonds. A household spends C_1 and C_2 today and tomorrow and earns income Y_1 and Y_2 . Endowment available today and tomorrow determines wealth and available consumption choices along the budget line. Public and private sectors Budget Constraint.

Since the private budget constraint fully internalizes the public sector constraint, ignoring the existence of firms, the private and public sector

budget constraints are: $C1 + C2 / (1 + r) = Y1 - T1 + (Y2 - T2) / (1 + r)$ Which is the private sector budget constraint. $G1 + G2 / (1 + r) = T1 + T2 / (1 + r)$ This is the budget constraint of the public sector. We add up the public and private sector budget constraint and it gives the following expression: $C1 + C2 / (1 + r) = (Y1 - G1) + (Y2 - G2) / (1 + r)$ This looks very similar to the private sector budget constraint, except the taxation has been replaced by government spending. This can be interpreted in a few ways: first a country's total spending cannot exceed its total wealth.

A country can borrow or lend from abroad, but it must respect its own budget constraint. $(C1 + G1) + (C2 + G2) / (1 + r) = Y1 + Y2 / (1 + r)$ On the left hand side of constraint is the total spending of a nation, it must equal to the total income of that nation which is the right hand side of the constraint. This budget constraint can also be interpreted as the difference between the private sector's endowment and public spending. Given the government-spending plan, taxes levied today or tomorrow have no effect on the private wealth.

The result is that the private sectors fully internalize the public sectors; this is known as the Ricardian Equivalence proposition. Public spending can be financed either by taxation or borrowing. David Ricardo suggests that both taxation and borrowing such as issuing public bonds will have the same effect on the national saving. If the government reduces taxes today without lowering its spending, this means they will have to raise taxes tomorrow. This means households will have more after tax income today but less tomorrow.

Given the same interest rate, this intertemporal shift is equivalent and public borrowing can be matched one by one by private saving. The public spending and borrowing reduces private wealth. Given the government purchase, the precise plan of government taxation does not matter.

Government borrows to finance its debt, it issues bond to the private sector, which it promise to pay interest and the principles. However, households do not regard this as their part of their private wealth.

The reason is that they pierce the veil of the government that it recognizes that government's promises to pay interest and principal will be matched by the taxes levied today or tomorrow on them. Public bonds are an asset to private sector, however it exactly offset by their tax liabilities. Ricardian Equivalence asserts that public debt does not represent public wealth of the aggregate private sector. Where Ricardian Equivalence can fail The Ricardian Equivalence result is highly controversial. It implies that governments are net drain of an economy's resources. Holding the budget constraint constant, government budget deficit do not contribute to total private wealth.

However in the following discussion, public sector probably does matter and at least some fraction do regarded as private wealth. Mortal and new citizens Some taxmen are paying more taxes than others, and some private sectors holds public bonds and some do not. However the aggregate future taxation is the same. However, citizens are certainly mortal; some do not expect to live in the 2nd period and thus do not incorporation the intertemporal budget constraint. For example, consider a reduction in current taxes, a taxman expecting to be retired in the 2nd period would expect an increase in his total private wealth and thus might increase its <https://assignbuster.com/to-what-extent-can-public-debt-be-regarded-as-private-wealth/>

spending today. Different interest rates It is assumed in the Ricardian Equivalence that the interest rate is the same for both private and public sectors.

However, in reality this is often not the case, private borrowing rate often exceeds public borrowing rate, and this is because the government sector is often considered to be less risky. Borrowing rate exceeds the lending rate to compensate the risk. For example, an individual planning to take a mortgage would expect to borrow at a high interest rate or unable to borrow. A cut in the current taxes, means that the government borrows on behalf of the private sector and thus increasing private sectors wealth for those who cannot borrow on those terms. Distortionary taxation and unemployed resources For example, taxation on labour income can discourage people to work less and this will reduce output. If tax cut increases, this might generate a higher level of economic activities and additional income, and then the associated fiscal deficit will result in an increase in private wealth.

Conclusion To conclude the discussion above, according to David Ricardo's Ricardian Equivalent proposition public wealth is not considered as private wealth and the time profile of taxes does not affect the private sector budget constraint. Public's dissaving is matched one by one by private's saving. The private sector pierces the veil of the government's budget to keep the national saving unchanged. However, this theorem has been highly controversial. It fails because citizens are mortal and in realities public borrowing rate is often lower than private interest rate, because government is considered to be less risky. Taxation also distorts employment and

productivity, so budget deficit might encourage productivity, which in turn leads to a gain in private wealth.

Therefore, public debt can be regarded as some individuals' private wealth. Given the least of assumptions above, it is unlikely that Ricardian Equivalence hold in realities. However, there is some empirical evidence: In the mid 1980s the Danish government put an end to a long period of budget deficits. The private sector's net saving decreased nearly one for one. The opposite happened in the early 1990s, the budget went from surplus to deficit.

The private sector went exactly in the opposite direction. Both evidences partially conform to the predictions of the Ricardian equivalence hypothesis.