



THE MANAGEMENT SCHOOL  
LANCASTER UNIVERSITY  
DEPARTMENT OF ECONOMICS  
Lancaster LA1 4YX  
UK

Fax (01524) 381454  
E-Mail G.Steele@lancaster.ac.uk  
Telephone (01524) 594210

## WHAT IS THE NATIONAL DEBT? 5/99

**G.R. Steele**

**Q:** What is the national debt?

**A:** Very similar to your own debt, if you have some!

**Q:** Be serious!

**A:** I am. The national debt is the amount borrowed by the government which is still to be repaid.

**Q:** Are you suggesting that the government is no different to any other borrower?

**A:** In many respects there is no difference between your borrowing and that of the government. You both pay interest at a rate determined by the supply and demand for credit.

**Q:** The greater the demand, the higher the rate?

**A:** Just so!

**Q:** Why does the government borrow when it has the power to raise taxes?

**A:** Taxation is unpopular. Lenders have a choice. A loan creates no resentment.

**Q:** If government borrowing forces up interest rates, isn't that unpopular?

**A:** Higher rates benefit those who receive their income from interest on savings! However, it appears to be the case that higher rates meet with a general disapproval.

**Q:** High interest rates are generally unpopular ...

**A:** ... and that is why the government faces a temptation to resort to bank borrowing, rather than borrowing through 'open market operations'.

**Q:** I don't understand. Banks charge interest.

**A:** Yes, but government borrowing from the banking sector does not force up interest rates.

**Q:** I don't understand.

**A:** When the government borrows openly from the market (as you and I must do), that extra demand for credit tends to force up interest rates. This upward pressure upon interest rates is much weaker when the government raises credit from its bankers.

**Q:** Why?

**A:** Bank credit is very much like a concertina: it can be extended and contracted. But when bank credit is extended to the government, it can be extended almost without limit!

**Q:** *That*, you will have to explain.

**A:** OK. Let us start from the top. When a bank extends credit to the government, there is no immediate impact on the economy.

**Q:** Why is that?

**A:** Because, at the first stage, it is entirely a book-keeping exercise. The bank receives a new asset (government stock) and incurs a new liability (the sum made available to the government for withdrawal).

**Q:** How is it different when I obtain a bank loan?

**A:** To a point, the transaction is very much the same. The bank receives a new asset (your commitment to repay the loan) and incurs a new liability (the sum made available to you for withdrawal).

**Q:** So, where is the difference?

**A:** The difference is in the respective quality of those assets.

**Q:** You mean the government's stock is more secure than my commitment to repay the loan?

**A:** Exactly! Your commitment and the government's commitment are in the form of an 'IOU' but, unlike you, the government has the power to raise taxes. That power is the ultimate guarantee of an ability to repay debt.

**Q:** Loans to the government are more secure than loans to individuals.

**A:** Yes. Government stock (its IOU) is a secure asset. Your overdraft is not.

**Q:** On that, there is no argument.

**A:** So, whereas banks can extend credit to the government almost without limit, a bank's lending to the private sector is limited by its reserves of secure assets.

**Q:** So what happens?

**A:** Your (relatively) unsecured borrowing must be matched by the acquisition of resources from new depositors.

**Q:** A loan to the government effectively secures itself ...

**A:** Well put!

**Q:** ... but loans to individuals need to be backed by securities from elsewhere.

**A:** Yes, by securities which can be regarded as 'reserve assets'; and as a necessary inducement to secure such assets, the interest rate offered must be raised.

**Q:** I see the difference. The uniquely secure position of the government means that it can obtain bank credit without limit

**A:** Correct.

**Q:** Then why doesn't it do just that?

**A:** As I said earlier, bank lending to the government has no immediate impact ...

**Q:** ... a book-keeping exercise.

**A:** That's right. Obviously, it goes beyond book-keeping when the government makes use of that credit facility. When it draws upon that loan others become involved.

**Q:** Go on.

**A:** Let me give you an illustration. Suppose the government pays civil servants by drawing upon its bank loan.

**Q:** OK.

**A:** When those payments are credited to civil servants' bank accounts, new spending power enters into the economy ...

**Q:** ... I'm lost!

**A:** Let me start again. Suppose the government simply prints additional currency notes in order to pay its civil servants. This injects new spending power into the economy.

**Q:** Of course!

**A:** Well, the use of bank credit and cheque transfers have exactly the same effect. The use of credit and cheques rather than new currency notes is simply a matter of convenience.

**Q:** Hold on! If the government prints new currency, it avoids interest charges.

**A:** That is true.

**Q:** Then why doesn't it do that? Surely it would be more sensible.

**A:** It might appear more sensible; but there are further implications to consider.

**Q:** Go on.

**A:** In respect of a loan, the bank receives interest-bearing government stock as security ....

**Q:** ... but if the government prints currency, there is no interest to pay.

**A:** That's correct.

**Q:** So what are the further implications?

**A:** Whichever route is taken - whether civil servants receive and then pay government cheques or currency into their bank accounts - the composition of bank assets is affected, and readjustments may be made.

**Q:** What kind of readjustments?

**A:** The bank may decide that either its holding of currency or its holding of government stock is excessive. If excess currency is used to buy stock, stock prices tend to rise (and interest rates fall). If excess stock is sold, stock prices tend to fall (and interest rates rise).

**Q:** So what?

**A:** The government can't be indifferent to such repercussions which have important implications for the servicing of outstanding debt, and for future sales of stock.

**Q:** I see: the government must be careful about the impact of its own activities upon financial markets. If it borrows openly from the market ...

**A:** ... by its 'open market operations' ...

**Q:** ... interest rates tend to rise ...

**A:** ... but, if the government finances its expenditure by printing additional currency, and if that currency is used to buy government stock, stock prices rise (and interest rates fall).

**Q:** I'm beginning to understand. The impact of government borrowing differs, depending upon how the loan is raised. Printing currency tends to lower interest rates, borrowing through open market operations tends to raise interest rates ...

**A:** ... and bank borrowing may also lead to higher interest rates, if it causes banks to sell government stock (which depresses stock prices).

**Q:** Let me stop you there. Why are rising stock prices associated with falling interest rates?

**A:** Ah, I think you can work that one out for yourself.

**Q:** I doubt that very much.

**A:** Try. Suppose that you own government stock whose nominal value is (say) £100. Also suppose a nominal annual return of (say) 5%. These two values - £100 and 5% - determine the 'coupon' value, which is the amount payable each year to the stock-holder.

**Q:** You are saying that, as the owner of stock, I receive 5% of £100 annually ... a yield of 5%.

**A:** Almost right ... a 'coupon' of £5. You cannot calculate the 'yield' unless you know the market price of the bond.

**Q:** Isn't the price £100?

**A:** It might be. Would you pay £100 for it?

**Q:** That depends.

**A:** What on?

**Q:** On how competitive that return is.

**A:** And that depends ...

**Q:** ... on the return other borrowers are offering.

**A:** Exactly right! Now suppose that others offer a 10% yield. Would you pay £100 for government stock which brings you £5 each year?

**Q:** Certainly not.

**A:** Then how much would you pay?

**Q:** About half that amount, because its yield - I mean its coupon - is fixed at £5. To give a yield of at least 10%, the price must be no more than £50.

**A:** Bravo! How clearly you have explained how interest rates and bond prices vary inversely.

**Q:** Yes. I have, haven't I?

**A:** Then summarise your explanation.

**Q:** Government stock has nominal values (say, £100 and 5%) which determine the annual payment (£5). Its yield is calculated as £5 expressed as a percentage of its price, which is determined by competition in financial markets.

**A:** Bravo!

**Q:** And, the national debt is the accumulation of unredeemed stock ...

**A:** ... which accumulates year-by-year to the extent that government expenditure exceeds income from taxation and other miscellaneous sources of revenue, such as the privatisation of nationalised industries.

**Q:** Isn't this gap - this borrowing - known as the PSBR: the public sector borrowing requirement?

**A:** Indeed, it is. And on the rare occasions when this gap is negative, it is known as the PSDR: the public sector debt repayment.

**Q:** The national debt repayment?

**A:** The national debt repayment!

**Q:** Can we stop there?

**A:** Perhaps we should!