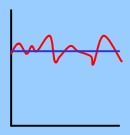
Yet Even More on Debt and Taxes

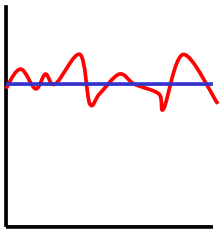


Borrowing

- The government need not balance its books each year.
- It must eventually pay back what it borrows.
- Is there a case for borrowing?

The Case for Deficit Financing

- The optimal tax policy is a smooth policy.
- So, if spending oscillates, lets borrow to keep taxes smooth,



Why Deficits can be Good

Sales tax this Year	Sales tax next Year	Efficiency Loss from this year's Sales Tax	Efficiency Loss from next year's Sales Tax
1%	0%	$100	0
0%	1%	0	$100

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2%	0%	$400	$0
0	2%	0	$400
1%	1%	$100	$100

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Some Applications

- Financing World War II

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- Capital Projects

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- Capital Projects
- Community Bond Issues

Optimal Policy I

- Flatland has total national income of $100 million. It is not expected to grow.
- Current government expenditures are $15 million, and the national debt of $100 million carries a 5% interest rate.
- What is the optimal deficit reduction policy?

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τ=20%

Don't pay off the national debt

Optimal Policy I

- I ncome of $100 r
- C 5 r ay off the n al debt
- V reduction p

An alternative: τ=25% until debt paid off.

Then τ=15%

Increases efficiency losses

Optimal Policy II

- Wedgwood has total national income of $100 million, is expected to grow at 3% per year, as are current government expenditures of $15 million per year.
- The $100 million debt carries an interest rate of 5%.
- What is the optimal deficit reduction policy?

Optimal Policy II

- Wedgwood has total national income of $100 million, per year, as are cu expenditures c
- The $100 mill rate of 5%.
- What is the op policy?

τ=17%

Let the national debt grow at 3% per year.

Optimal Policy II

- al income of per
- 7%
- national ow at 3% year.

An alternative: τ=25% until debt paid off.

Then τ=15%

Increases efficiency losses

Optimal Policy II

- An alternati
- ow at 3% year.

Another alternative: τ=20%; balance budget.

Then τ=15%

Increases efficiency losses

Optimal Policy II

- An alternati
- 20%; balance budget.
- ow at 3% year.

τ would drop each year; increase efficiency losses

Increases efficiency losses

Optimal Policy III

- Assume: the United States of Antarctica has a GDP of $11 trillion, expected to grow at 5% a year, as are government expenditures.
- The debt is about $4 trillion.
- What is the optimal deficit policy?

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- What is the optimal deficit policy?

Let the national debt grow at 5% per year.

Optimal Policy III

- Assume: the United States of Antarctica has a GDP of $11 trillion, expected to grow at 5% a year, as are government expenditures.
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- What is the optimal deficit policy?

That is, run a deficit of $200 billion per year.

Optimal Policy IV

- Assume: the United States of Antarctica has a GDP of $11 trillion, expected to grow at 5% a year, as are government expenditures.
- The debt is about $4 trillion.
- The current deficit is $500 billion per year, and that rate will be flat.

Optimal Policy IV

- Assume: the United States of Antarctica has a GDP of $11 trillion, expected to grow at 5% a year, as are government expenditures.
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Policy A: raise taxes by $300 billion

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Policy B: do nothing, let the debt/GDP ratio rise. Less efficiency loss, for we have lower taxes.

End