Old Exam Question

$$GDP_A < GDP_B = GDP_C$$

An Old Exam Question

The Government of Central Backwater is about to undertake a $100 million program to build a monumental tomb for its current ruler, who is not in the best of health. The project is to be completed in the year. There is a great debate about how to finance the project. Three proposals have been advanced.

An Old Exam Question

The Government of Ce about to undertake a $ to build a monumenta ruler, who is not in the best of health. The project is to be completed in the year. There is a great debate about how to finance the project. Three proposals have been advanced.

A side assumption. This is a closed economy. No international trade.

An Old Exam Question

The Government of Ce about to undertake a $

You should notice immediately this is a foolish project. No one benefits.

A side assumption. This is a closed economy. No international trade.

of health. The d in the year. t how to finance the project. Three proposals have been advanced.

Three Proposals

- (a) Impose a special one-time tax on wage incomes in the coming year sufficient to cover the cost of the project.

Three Proposals

- (b) Require workers to make an involuntary loan to the government. The loan will equal the tax called for in proposal (a). However, the loan will be paid back over time with a special 3% tax on wage incomes. (The 3% tax will start the year after the project is completed). The special tax will last as long as is required to pay back the loan. And yes, it will be paid back.

Three Proposals

- (c) Rather than require an involuntary loan, Central Backwater can simply borrow $100 million. If it elects this option, the loan will be paid back over time with a special 3% tax on wage incomes. (The 3% tax will start the year after the project is completed). The special tax will last as long as is required to pay back the loan.

Old Exam Question

Three Questions

- What will be the impact on GDP, Investment and Interest Rates in the coming year?
- Rank the proposals in term of their impact on these three variables. Say where you do not have enough information.
- On grounds of economic efficiency, which one do you recommend? Why?

Old Exam Question

A Simplification

- Proposal (b) = Proposal (c).
  - In either scenario, the government is simply borrowing the money.
  - If an individual did not want to lend the money to the government this year, he can simply sell the loan on the market.

Old Exam Question

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Old Exam Question

First Question

- What will be the impact on GDP, Investment and Interest Rates in the coming year?

Old Exam Question

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- What will be the impact on GDP, Investment and Interest Rates in the coming year?
- Proposal (a) will reduce GDP because of temporary labor supply effects.
- Proposal (b) = (c) have no disincentive effects in the coming year. No wage taxes this year
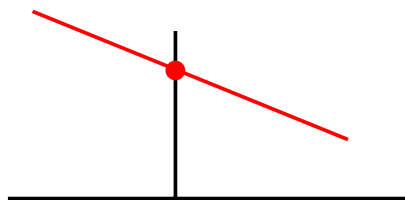
Old Exam Question

First Question

- What will be the impact on GDP, ~~Consumption and Interest Rates~~ in the coming
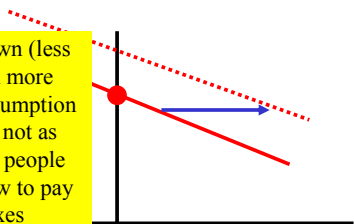
  $$GDP_A < GDP_B = GDP_C$$ ~~because of~~

- ~~Proposal (b) – (c) have no disincentive~~ effects in the coming year. No wage taxes this year

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Interest Rates

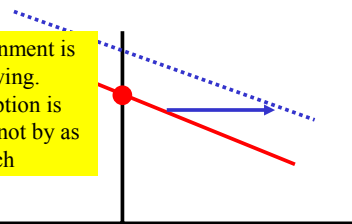## Demand For Loans (Case A)

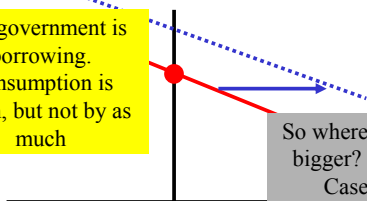Income down (less work and more taxes), consumption down but not as much, and people must borrow to pay the taxes

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Demand For Loans (Case B=C)

The government is borrowing. Consumption is down, but not by as much

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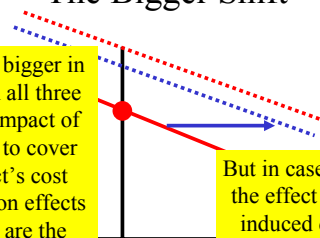
Demand For Loans (Case B=C)

The government is borrowing. Consumption is down, but not by as much

So where is the shift bigger? Case A or Case B=C?
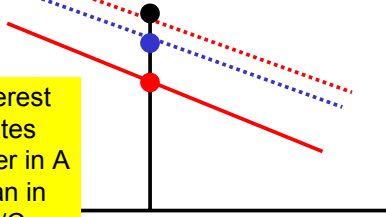

The Bigger Shift

The shift is bigger in Case A. In all three cases, the impact of borrowing to cover the project's cost (consumption effects included) are the same.

But in case A, there is the effect of the tax-induced decline in GDP.

The Bigger Shift

Interest rates higher in A than in B/C.

Old Exam Question

First Question

• What will be the impact on GDP, Investment and Interest Rates in the coming year?

$$r_A > r_{B=C}$$
$$I_A < I_{B=C}$$

Old Exam Question

Second Question

• Rank the proposals in term of their impact on these three variables. Say where you do not have enough information.

$$GDP_A < GDP_B = GDP_C$$
$$r_A > r_{B=C}$$
$$I_A < I_{B=C}$$

Old Exam Question

Third Question

• On grounds of economic efficiency, which one do you recommend? Why?
• The general principle: spread taxes out. Thus Proposal B=C wins over Proposal A.

Old Exam Question

End

Old Exam Question