

mixed-goods

definition

aggregation and socially optimal level

example: education

- public provision

- public financing

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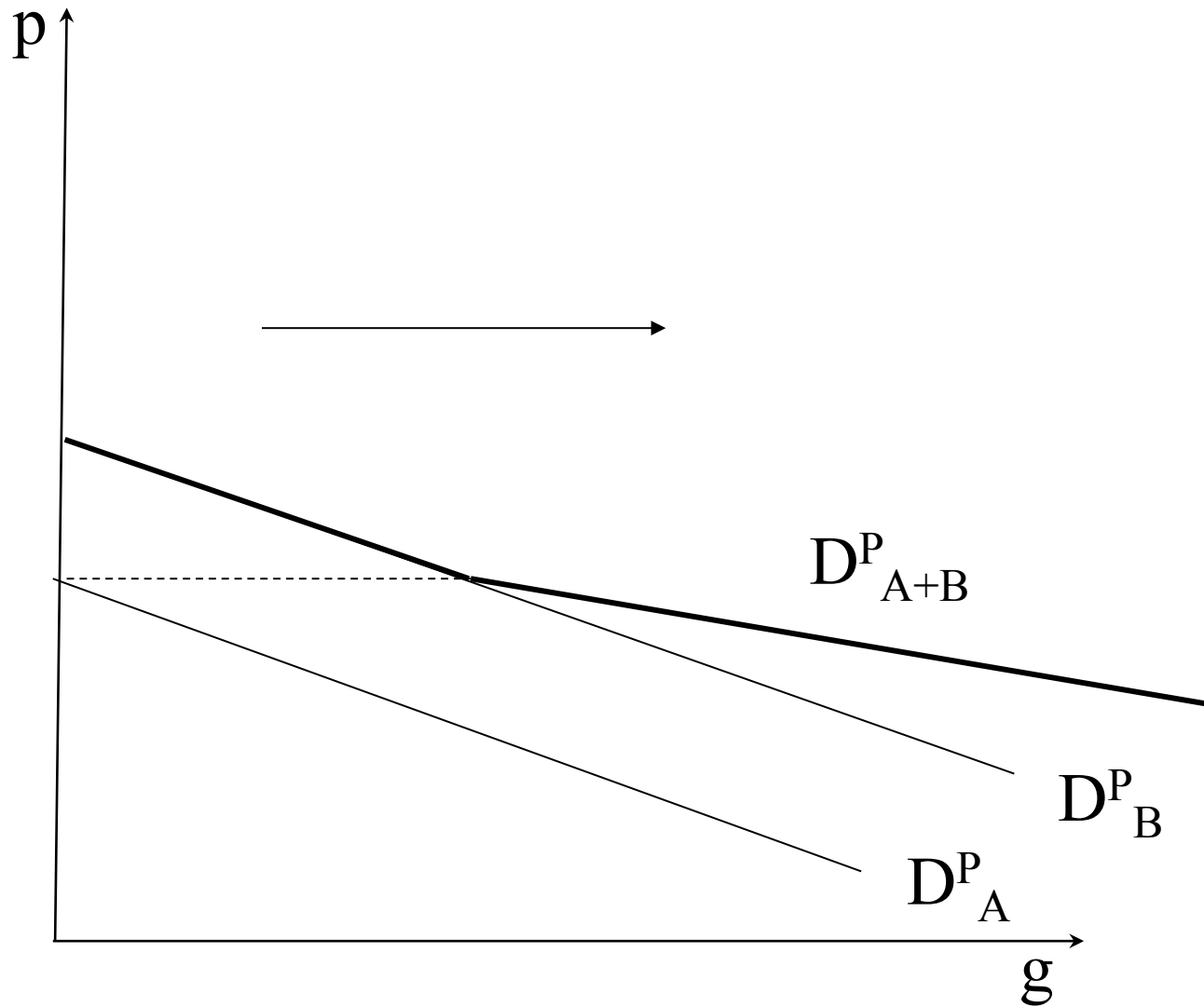
- examples: education, health
- 1st Welfare Theorem assumptions do not hold
- definition of mixed good
- determining the socially optimal level of a mixed good
- achieving and financing the socially optimal level of a mixed good

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- a **mixed good** has a component with the characteristics of a private good (divisible and appropriable) and another component with characteristics of a public good (indivisible and nonexcludable)
- **public component: positive externality (non-excludability) and indivisibility;**

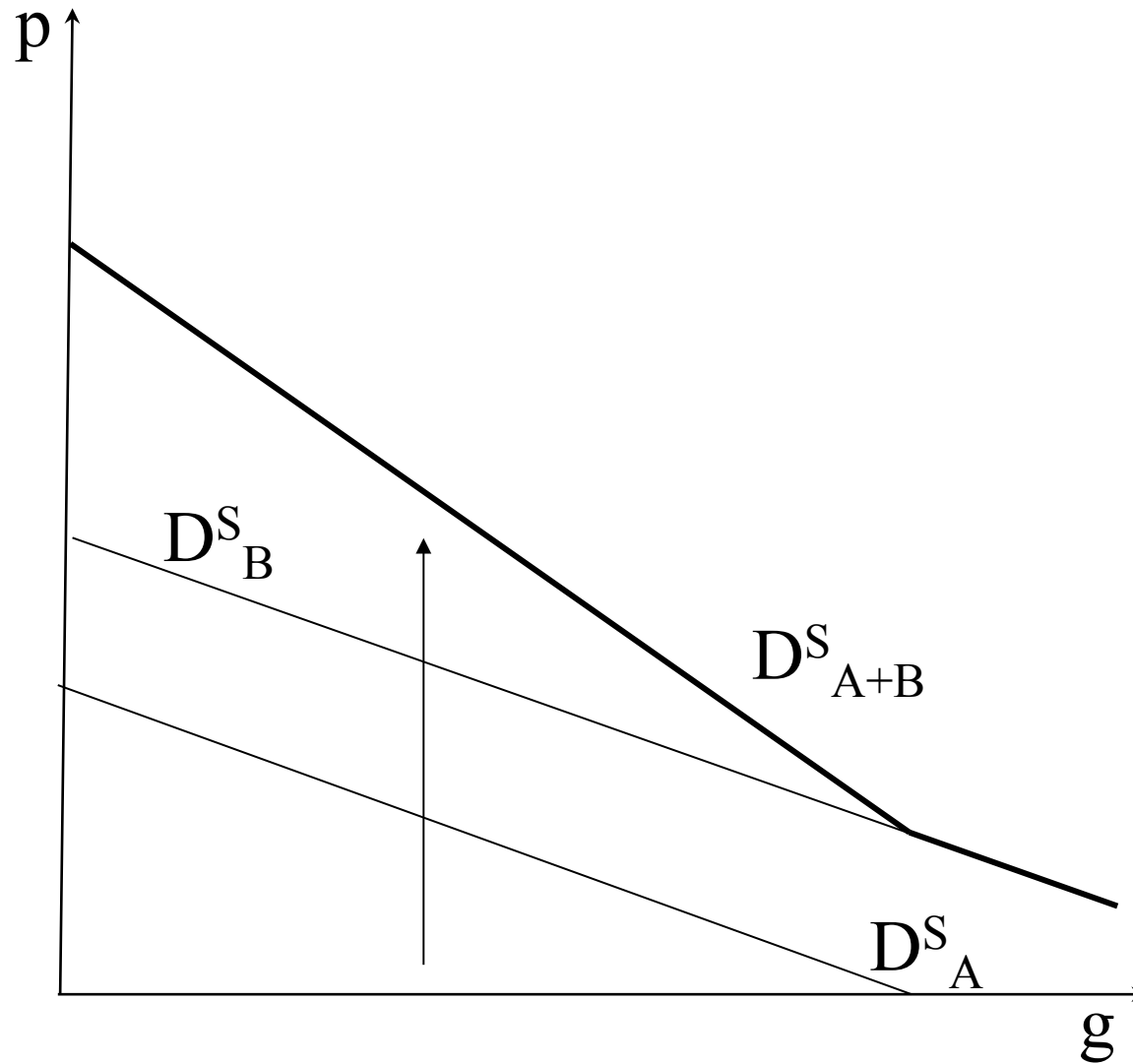
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private component: horizontal aggregation

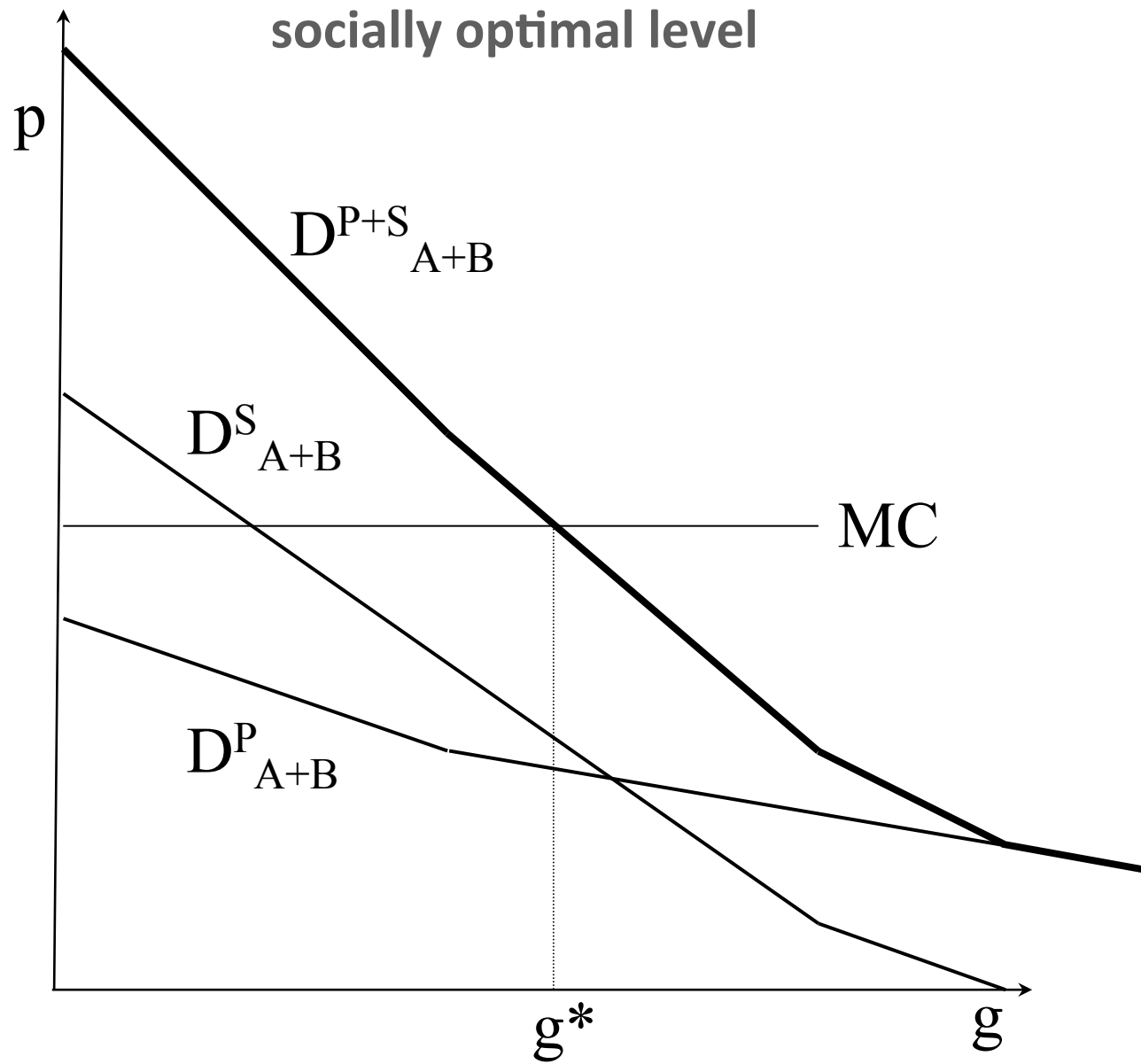


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public component: vertical aggregation



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achieving the social optimum

- underprovision – similar to public goods
- small numbers vs. large numbers
- for efficiency, Pigouvian subsidy for public component
- for efficiency, mixed financing; distributional issues

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Why Should the Government Be Involved in Education?

There are a number of public benefits (positive externalities) to education that might justify a government role in its provision.

- **Productivity**
 - Society can benefit from the higher standard of living that comes with increased productivity.
- **Citizenship**
 - Education may make citizens more informed and active voters, improving the quality of the democratic process.

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Why Should the Government Be Involved in Education?

- **Educational credit market failure:** The failure of the credit market to make loans that would raise total social surplus by financing productive education.
 - Without public education, many families would borrow money for their children's education.
 - This market likely would not function well.
- **Failure to maximize family utility**
 - Parents may not choose an appropriate level of education for their children.

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Why Should the Government Be Involved in Education?

- **Redistribution**
 - As long as education is a normal good, higher-income families would provide more education.
 - *Income mobility* has long been a stated goal for most democratic societies, and public education supports this goal.

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Measuring the Returns to Education

Measuring the returns to education is a key, but difficult, empirical question.

- **Returns to education:** The benefits that accrue to society when students get more schooling or when they get schooling from a higher-quality environment.
- More education clearly leads to higher wages.
- Interpretation of this correlation is controversial.

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Effects of Education Levels on Productivity

There are two main interpretations:

- **Education as human capital accumulation**
 - **Human capital:** A person's stock of skills, which may be increased by further education.
- **Education as a screening device**
 - **Screening:** A model that suggests that education provides only a means of separating high- from low-ability individuals and does not actually improve skills.

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Effects of Education Levels on Productivity

- **Policy implications**
 - **Human capital:** Government would want to support education to raise their productivity.
 - **Screening:** Education does not raise productivity, so no reason to support it.
- **Differentiating the theories**
 - Most of the returns to education reflect accumulation of human capital.
 - Some screening value to obtaining a high school or higher education degree.

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Effect of Education Levels on Other Outcomes

Better-educated people...

- Participate more politically
- Perform fewer criminal acts
- Have better health and healthier children
- Have better-educated children
- Have more productive coworkers

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Free Public Provision

- Most public education is provided through free public schools.
- This system may *crowd out* private education provision.
 - Absent free public schools, some parents would send their children to expensive, high-quality schools.
 - With free public schools, parents can reduce quality by a small amount but save a lot.

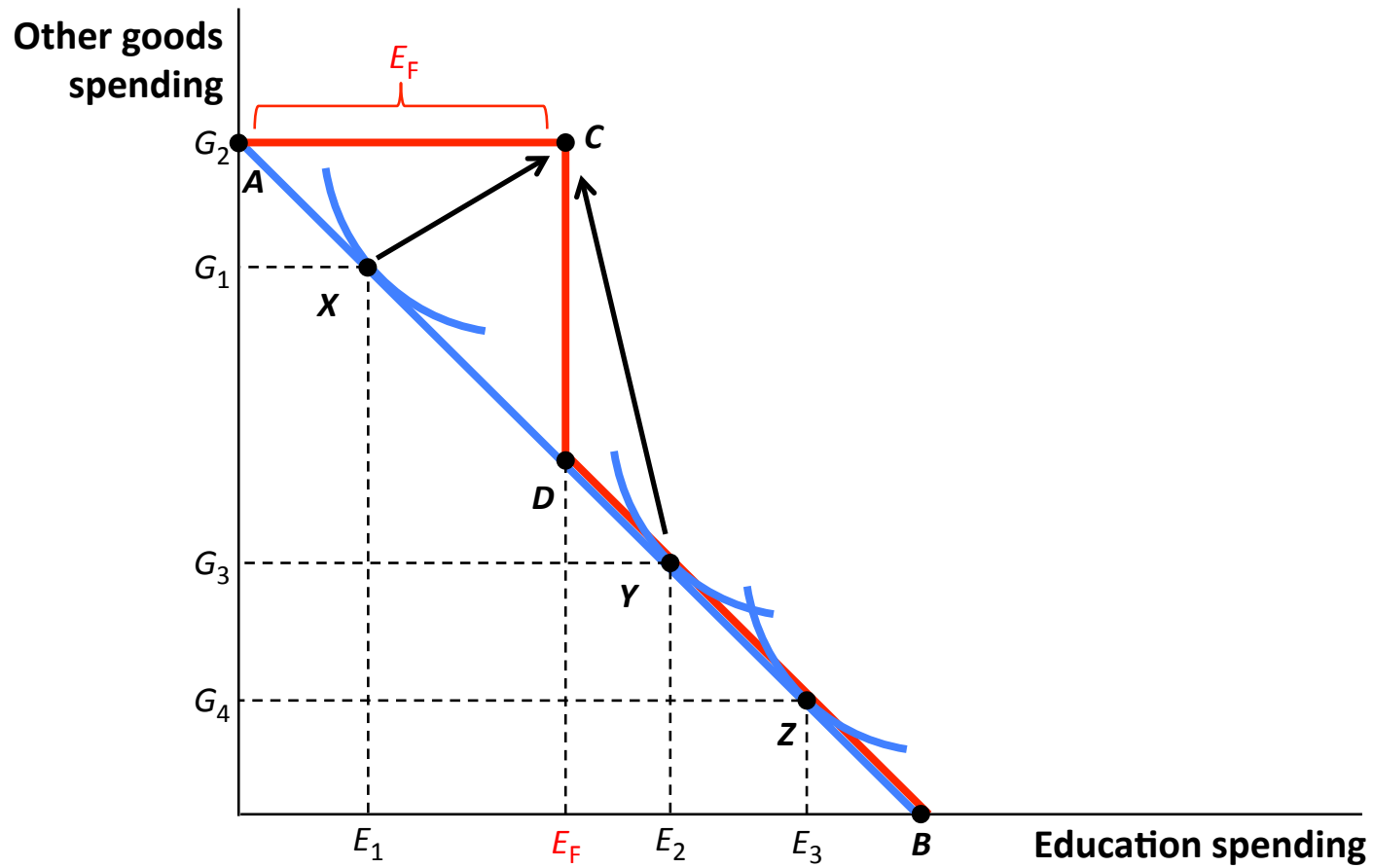
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Free Public Provision and Incentives

- Accountability programs have unintended effects:
 - They encourage “teaching to the test,” possibly improving test scores without learning.
 - Schools can manipulate the pool of test takers and the conditions under which they take tests to maximize success.
 - They may encourage schools or teachers to cheat.

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Public provision and Crowding Out



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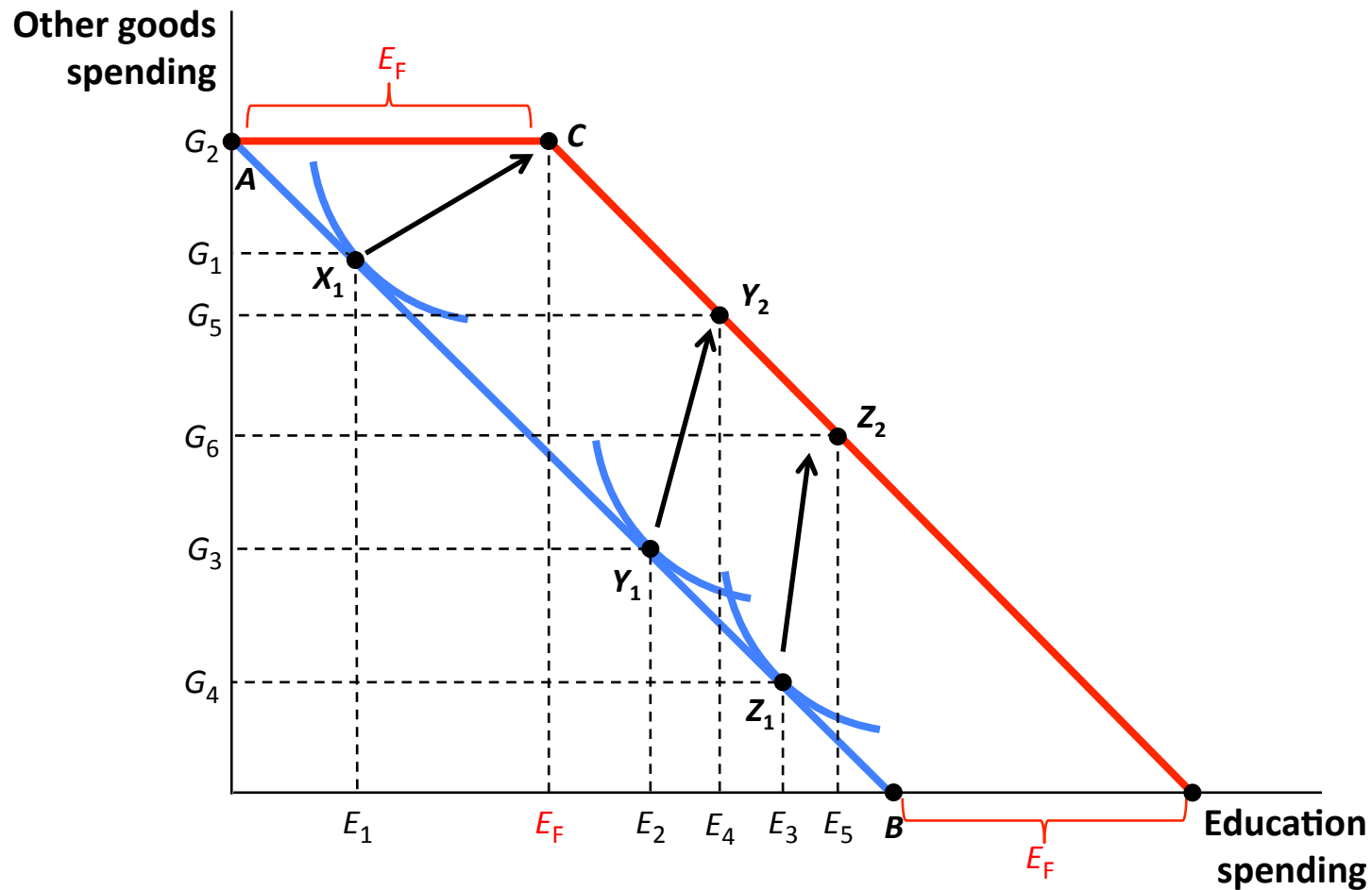
Public financing

One solution to the crowd-out problem is educational vouchers.

- **Educational vouchers:** A fixed amount of money given by the government to families with school-age children, who can spend it at any type of school, public or private.
- Vouchers put private schools and public schools on equal footing.

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Public financing: vouchers



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Public financing: vouchers

Voucher proponents make two arguments for them:

1. Consumer sovereignty

- Vouchers allow individuals to more closely match their educational choices with their tastes.

2. Competition

- Vouchers allow the education market to benefit from the competitive pressures that make private markets function efficiently.

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Public financing: problems with educational vouchers

Critics make several arguments against vouchers.

- **Excess specialization**
 - By focusing on particular market segments, schools give less focus to the key elements of education.
- **Vouchers will lead to segregation**
 - Critics of voucher systems argue that vouchers have the potential to reintroduce segregation along many dimensions, such as race, income, or child ability.

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Public financing: problems with educational vouchers

- **Vouchers are an inefficient and inequitable use of public resources**
 - With vouchers, total public-sector costs would rise, as the government would pay part of the private school costs that families currently pay.
- **The education market may not be competitive**
 - The education market is described more closely by a model of *natural monopoly*, with efficiency gains to having only one monopoly provider of the good.

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Public financing: loans and tax relief

- **Direct student loans:** Loans taken directly from the Government.
- **Guaranteed student loans:** Loans taken from private banks for which the banks are guaranteed repayment by the government.
- **Tax relief:** tax credits and deductions for educational expenses

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Conclusion

- The provision of education, a mixed good (and an impure public good), is an important governmental function
- The optimal amount of government intervention in education markets depends on the extent of market failures in private provision of education and on the public returns to education.