

The Inefficient Combination: Competitive Markets, Free Entry, and Democracy

Halvor Mehlum, Gisle Natvik and Ragnar Torvik

Introduction

Main new result:

The combination of (i) free entry, (ii) perfect competition, and (iii) democracy is inconsistent with allocative efficiency

- Key thinking in economics: scarcity invites entry.
- Intuition: factors or goods in scarce supply receive high prices

Introduction

Main new result:

The combination of (i) free entry, (ii) perfect competition, and (iii) democracy is inconsistent with allocative efficiency

- Key thinking in economics: scarcity invites entry.
- Intuition: factors or goods in scarce supply receive high prices
- Implication for efficiency: fantastic 😊

Free entry equilibrium

Value of marginal productivity

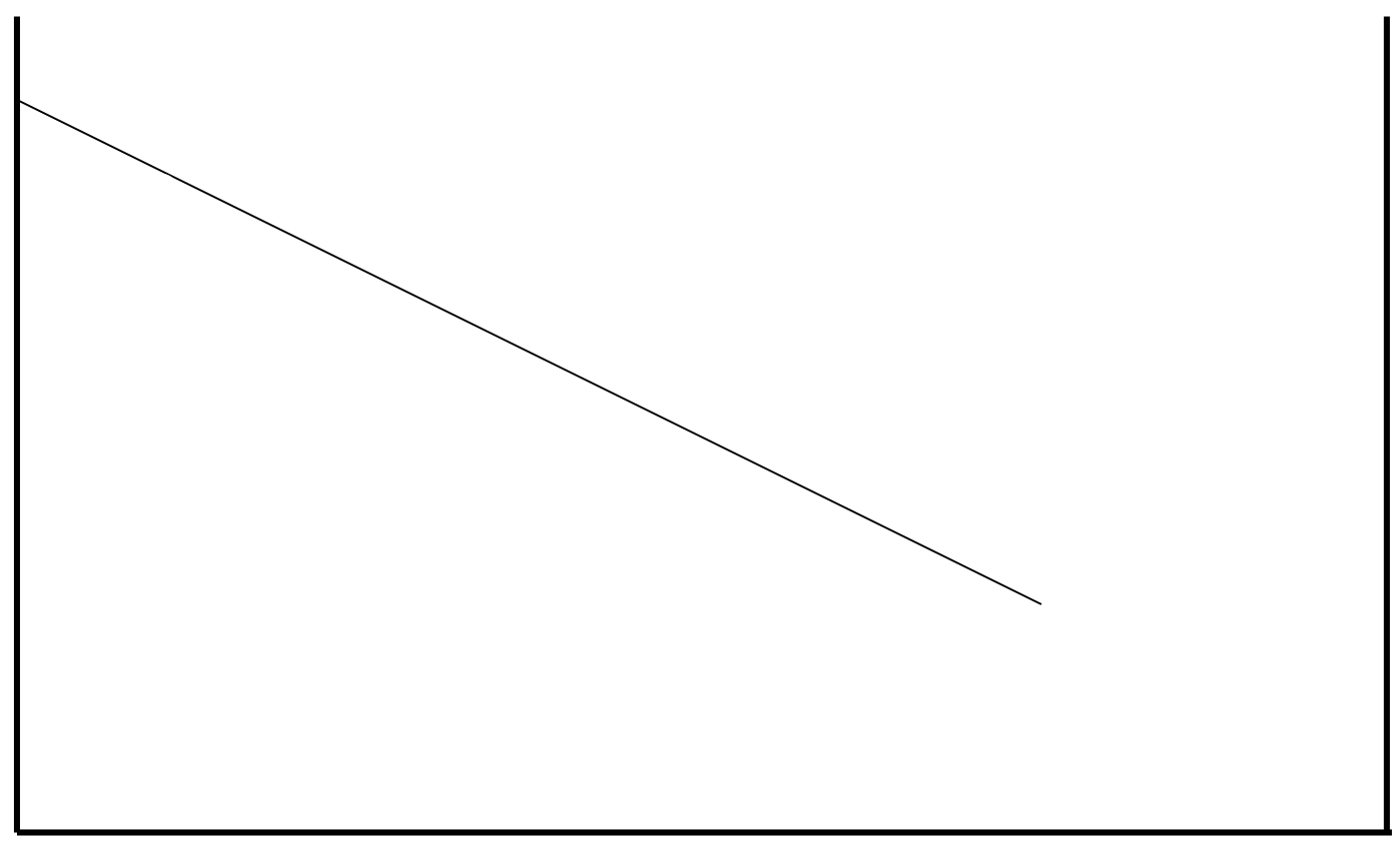


Labor sector 1 →

← Labor sector 2

Free entry equilibrium

Value of marginal productivity

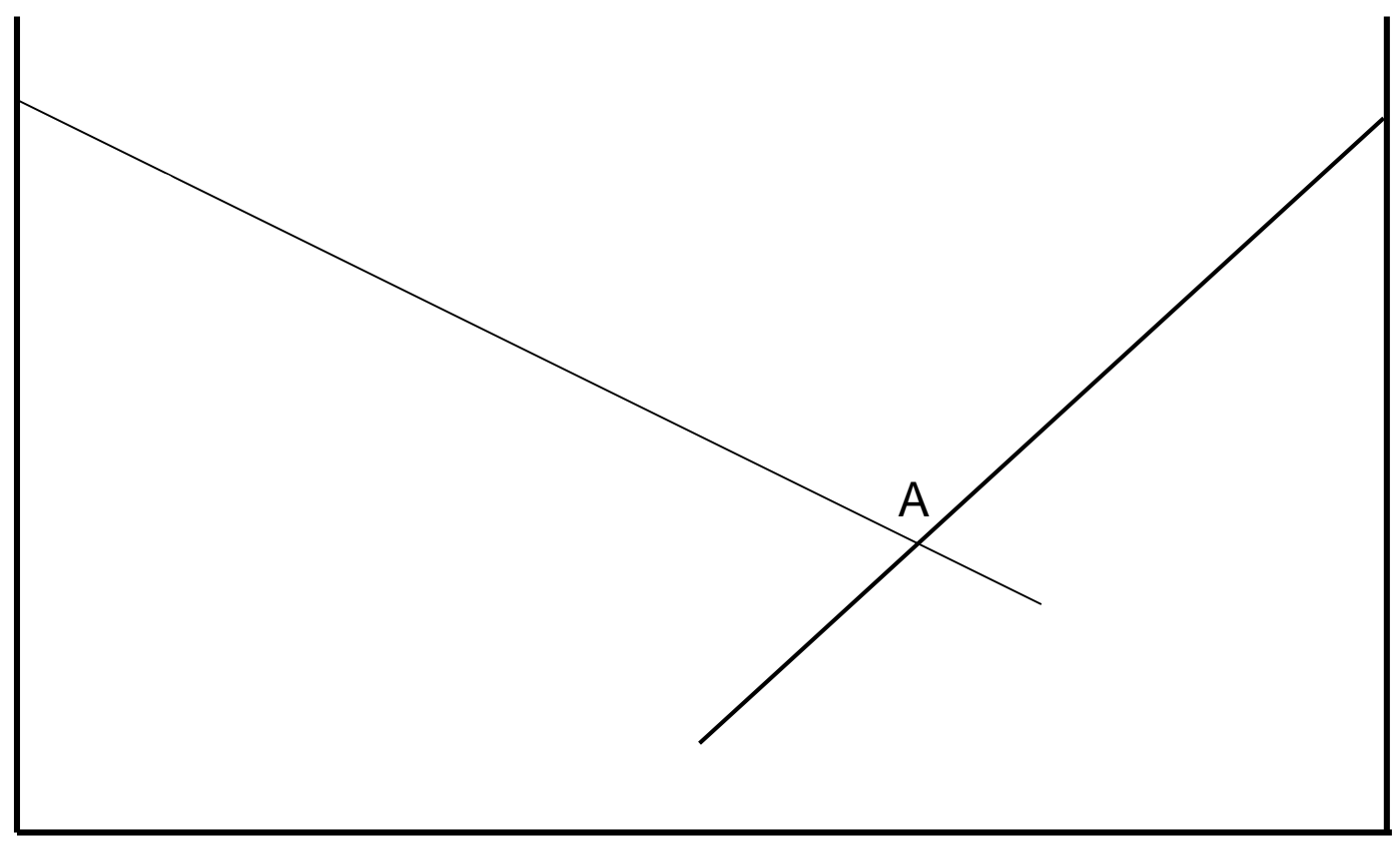


Labor sector 1 →

← Labor sector 2

Free entry equilibrium

Value of marginal productivity

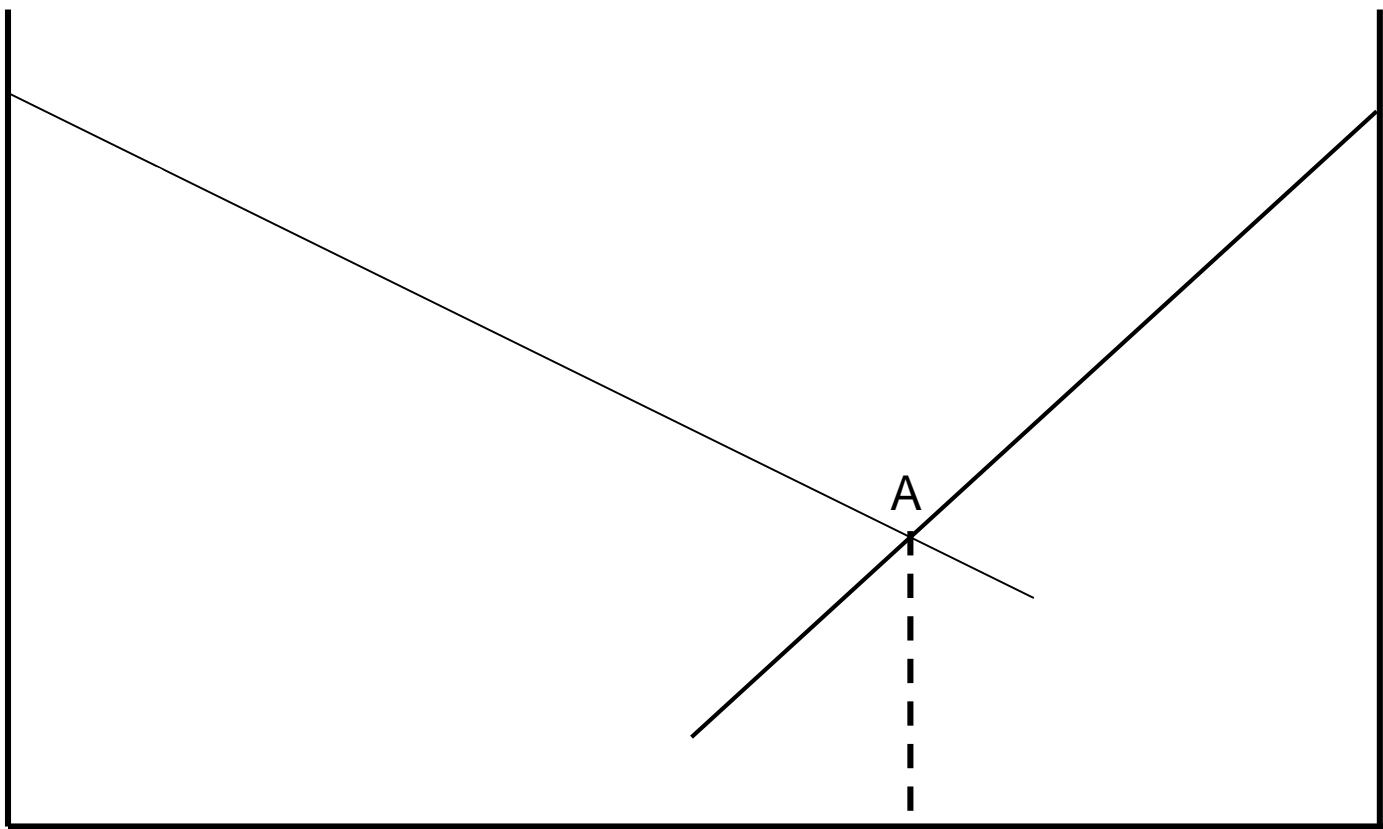


Labor sector 1 →

← Labor sector 2

Enter politics

Value of marginal productivity

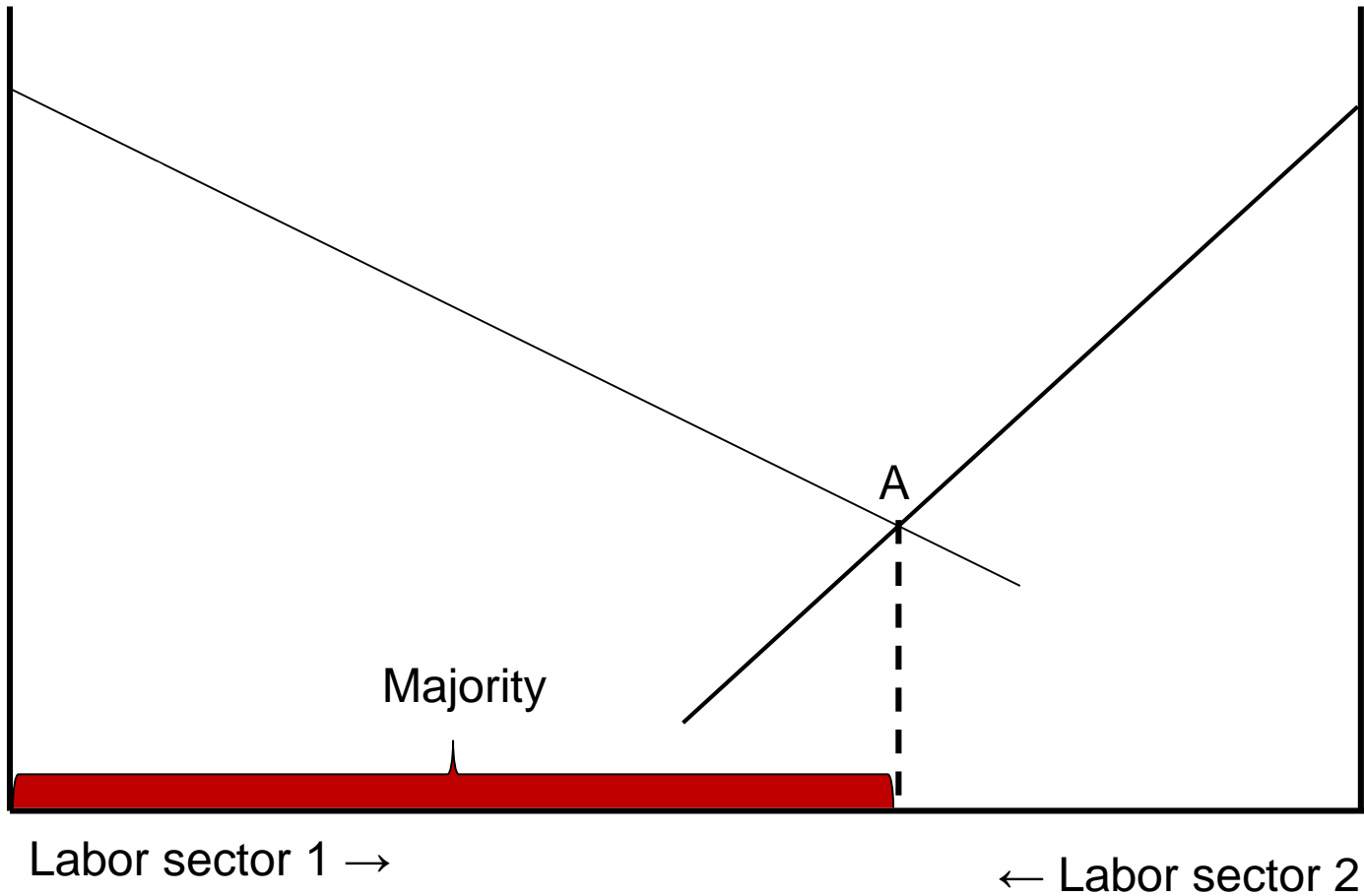


Labor sector 1 →

← Labor sector 2

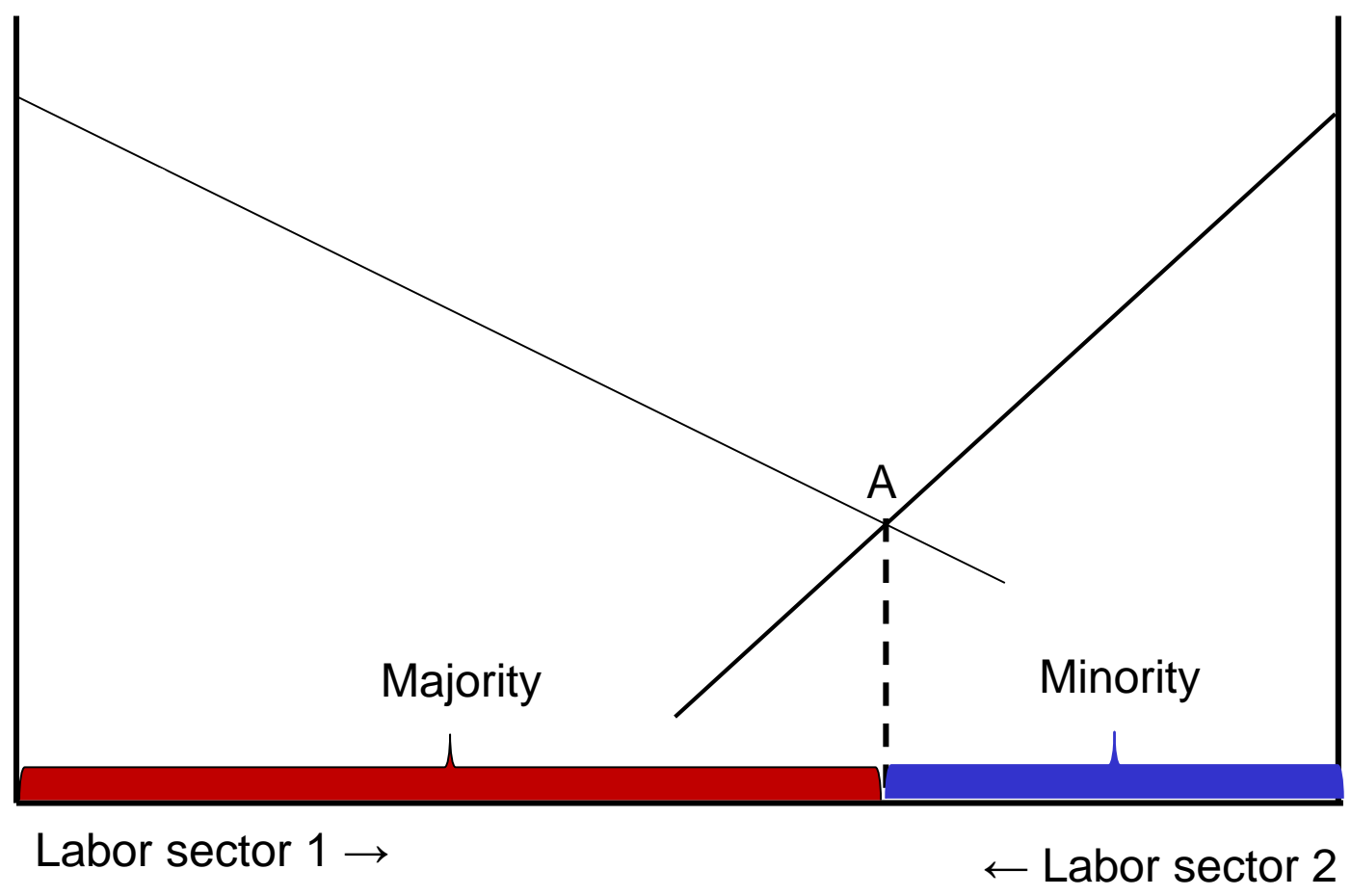
Impossible equilibrium

Value of marginal productivity



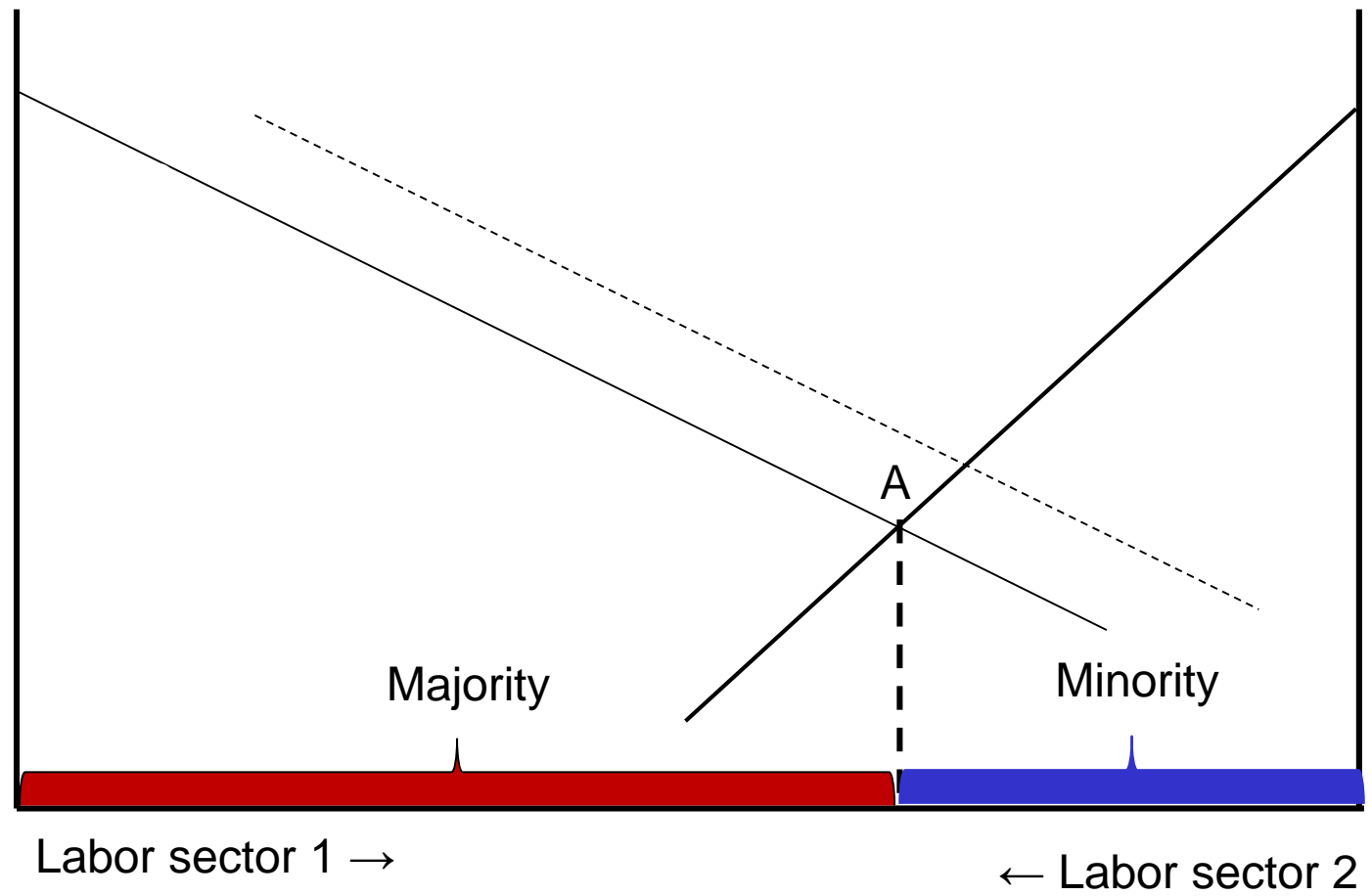
Impossible equilibrium

Value of marginal productivity



A Possible Equilibrium?

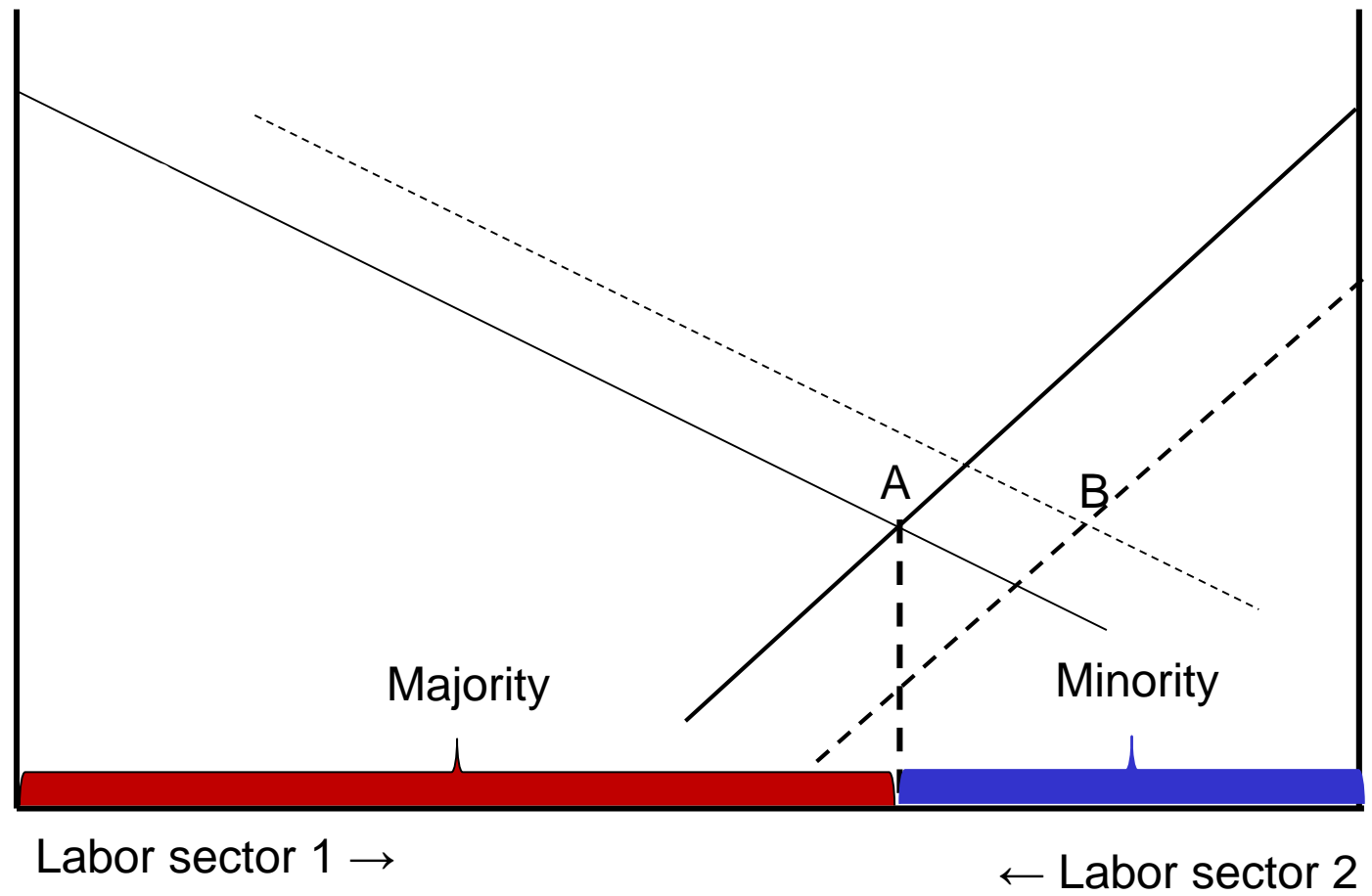
Value of marginal productivity



A Possible Equilibrium?

(Maybe - but this analysis requires a much more detailed set of assumptions)

Value of marginal productivity



Implications

- Entry because of scarcity is a double-edged sword
- If you enter because of scarcity this serves you well for the usual reason ...
- But you may enter into a group of political losers ...
- So maybe better to enter into abundance ...

Robustness of impossibility result

- 1. There must exist a policy that favors one group more than the other

Robustness of impossibility result

- 1. There must exist a policy that favors one group more than the other
- 2. Occupational mobility?

Robustness of impossibility result

- 1. There must exist a policy that favors one group more than the other
- 2. Occupational mobility?
- 3. What is democracy? Minority interests

Robustness of impossibility result

- 1. There must exist a policy that favors one group more than the other
- 2. Occupational mobility?
- 3. What is democracy? Minority interests
- So the impossibility result is quite robust 😊

Robustness of impossibility result

- 1. There must exist a policy that favors one group more than the other
- 2. Occupational mobility?
- 3. What is democracy? Minority interests
- So the impossibility result is quite robust 😊
- But then what is an equilibrium? Well that depends ...

A model of the size of the public sector

- Citizens enter into the traded or non-traded sector
- Utility from traded, non-traded and public goods
- Public goods are non-traded goods – and tax financed
- The optimal tax rate from the point of society is the share of public goods in the utility function (Barro 1990)

Timing and equilibrium

1. Each citizen decides in which sector to enter

Timing and equilibrium

1. Each citizen decides in which sector to enter
2. Each citizen votes for a tax rate. The tax rate that receives a majority is implemented

Timing and equilibrium

1. Each citizen decides in which sector to enter
2. Each citizen votes for a tax rate. The tax rate that receives a majority is implemented
3. Each citizens supplies one unit of labor to his sector

Timing and equilibrium

1. Each citizen decides in which sector to enter
2. Each citizen votes for a tax rate. The tax rate that receives a majority is implemented
3. Each citizens supplies one unit of labor to his sector
4. Production, prices and wages are determined, and each citizen derives utility from private and public consumption

Timing and equilibrium

1. Each citizen decides in which sector to enter
 2. Each citizen votes for a tax rate. The tax rate that receives a majority is implemented
 3. Each citizens supplies one unit of labor to his sector
 4. Production, prices and wages are determined, and each citizen derives utility from private and public consumption
- Equilibrium: SPE

Timing and equilibrium

1. Each citizen decides in which sector to enter
 2. Each citizen votes for a tax rate. The tax rate that receives a majority is implemented
 3. Each citizens supplies one unit of labor to his sector
 4. Production, prices and wages are determined, and each citizen derives utility from private and public consumption
- Equilibrium: SPE
 - Two implications – backward induction and each citizen votes for his most preferred tax rate

Conflict of interest

- Everyone agrees about the utility of public goods
- But more public goods and higher taxes shifts demand from traded to non-traded workers – and for a given allocation the relative wage shifts in the same direction

Conflict of interest

- Everyone agrees about the utility of public goods
- But more public goods and higher taxes shifts demand from traded to non-traded workers – and for a given allocation the relative wage shifts in the same direction
- The non-traded sector workers prefer a higher tax rate than the optimal one – the traded sector workers prefer a lower tax rate than the optimal one

Equilibrium

- The optimal tax rate can never constitute part of an equilibrium
- Equal wages in the two sectors must always constitute part of an equilibrium
- So we have three possibilities:

Equilibrium

1. The appetite for public goods is high. Non-traded sector workers will constitute a majority and the public sector will be too large
2. The appetite for public goods is low. Traded sector workers will constitute a majority and the public sector will be too small
3. The appetite for public goods is medium – two SPEs:
 - a) Non-traded majority – public sector too large
 - b) Traded sector majority – public sector too small

«Empirical» example

- France and UK same GDP per capita
- France: general government spending 56% of GDP
- UK: general government spending 41% of GDP
- Perhaps in France the public sector is attractive to work in exactly because the public sector is big – making public employees more politically powerful than in the UK?

Theory Example

- New mechanism of the Dutch disease
- Non-traded sector becomes too big?
- Earlier literature
- Here: Dutch disease squared?

Conclusion

- We have provided, to the best of our knowledge, a fundamental result that has not been derived before
- Under fairly general conditions, the combination of (i) competitive markets, (ii) free entry, and (iii) democracy, is inconsistent with allocative efficiency
- Key to this impossibility result is to acknowledge that, in general equilibrium, allocations affect not only prices but also policies