

Welfare Economics

Capitalism

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Results of Student Feedback

- Changes in Method
 - ❑ More debates (3)
 - ❑ More small group discussions (2)
- Potential Topics
 - ❑ Reparations (4)
 - ❑ Capitalism & environment (2)
 - ❑ Anarcho-capitalism (2)
 - ❑ Capitalism & feminism (2)
 - ❑ Exploitation (2)
 - ❑ Left-libertarianism (2)

Contents

1. **Some key terms from welfare economics**
2. The first theorem of welfare economics
3. Pareto-optimality
4. Other issues

Why welfare economics?

- **Smith's "Invisible Hand" argument:** informal argument in the *Wealth of Nations* that free, unregulated trade leads to the most growth
- **The fundamental theorems of welfare economics:** formal argument in modern economics that there is a close connection between competitive equilibrium and Pareto-optimality
- **Question for today:** Do the fundamental theorems of welfare economics support the Invisible Hand argument/the argument from growth?

Questions

1. Explain certain key economic terms
 - ❑ Pareto-optimality
 - ❑ Interpersonal comparisons of utility (ICU)
 - ❑ Competitive equilibrium
 - ❑ Static efficiency
 - ❑ Dynamic progress
2. What is the relationship between...
 - ❑ Pareto-optimality and ICUs?
 - ❑ Static efficiency and Pareto-optimality?
 - ❑ Static efficiency and dynamic progress?

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Two Fundamental Theorems of Welfare Economics

- **First Theorem of Welfare Economics** (“Invisible Hand theorem”). The results of a competitive equilibrium (which fulfils certain conditions) are Pareto-optimal.
 - **Standard interpretation:** the state should not intervene, because markets achieve efficiency!
- **Second Theorem of Welfare Economics** (“converse theorem”). Any Pareto-optimal distribution can be realised as a competitive equilibrium, if appropriate lump-sum transfers are made.
 - **Standard interpretation:** we can bring about our morally favoured distribution through the market!

Are the standard interpretations of the two theorems plausible?

What does the theorem say?

First Theorem of Welfare Economics (“Invisible Hand theorem”). The results of a competitive equilibrium (which fulfils certain conditions) are Pareto-optimal.



Competitive Equilibrium

- Each firm in a market maximizes profits
- Each consumer in a market maximizes utility
- Markets clear (no excess supply or demand)



Conditions for Theorem

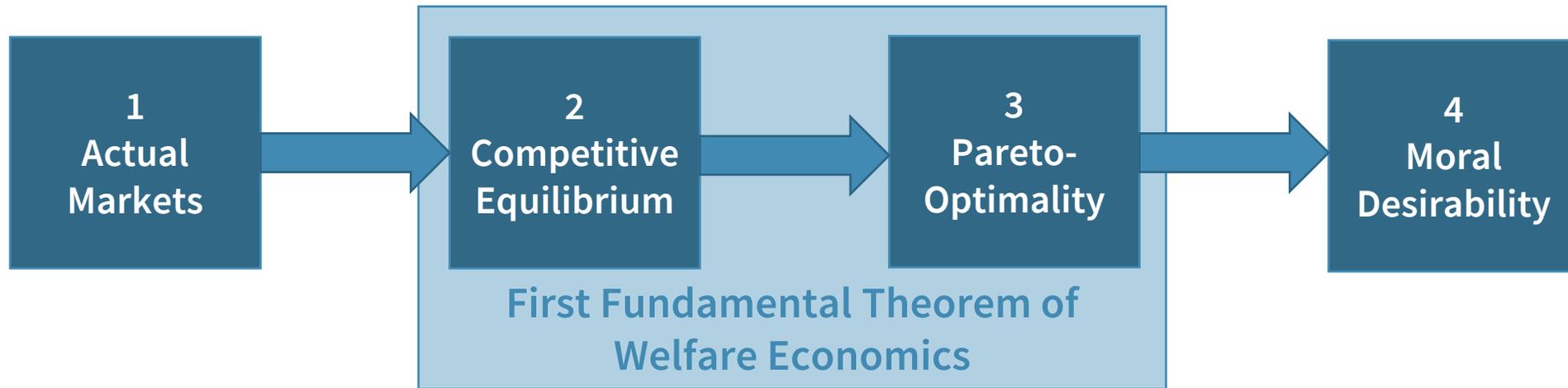
- Individuals are utility-maximisers
- Non-satiable preferences
- Perfect information
- No externalities



Pareto-Optimality

There is no alternative distribution of goods in which everyone would be better off (or in which nobody would be worse off)

Interpreting the First Theorem (after Reiss 2013, fig. 12.1)



- The First Fundamental Theorem of Welfare Economics is a **mathematical theorem** that establishes a mathematical connection between 2 and 3
- The Standard Interpretation, however, makes a connection between 1 and 4 (actual markets are morally desirable)
 - ❑ The step between 1 and 2 needs to be empirically established
 - ❑ The step between 3 and 4 needs to be philosophically established

Q. Are the steps between 1&2 and 3&4 convincing?

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Interpersonal Utility Comparisons

- For utilitarianism (or any form of welfare-aggregation) to make sense, **we must be able to compare welfare across people**. Assume we have given utilities

Utilities	Person 1	Person 2
Policy A	25	25
Policy B	40	15

- Pigou/Marshall/utilitarians: we can compare utilities across people
- Pareto/Robbins: we cannot compare utilities across people

A Classic Argument for Egalitarianism

1. We should maximise total utility. (Utilitarianism)
 2. Utilities are comparable across people. (Interpersonal Utility Comparisons)
 3. Everyone has roughly equal utility functions. (Homogeneity of Human Nature)
 4. Additional resources have decreasing marginal utility: those who already have many resources profit less from having more. (Principle of Decreasing Marginal Utility)
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5. Thus, other things being equal, we should redistribute resources towards those who have fewer resources.

Morality without Utility Comparisons

- If we cannot compare utility interpersonally, can we still make judgments about what is better socially?

Strong Pareto Criterion. Some collective outcome X is better than some collective outcome Y if and only if everyone prefers X to Y .

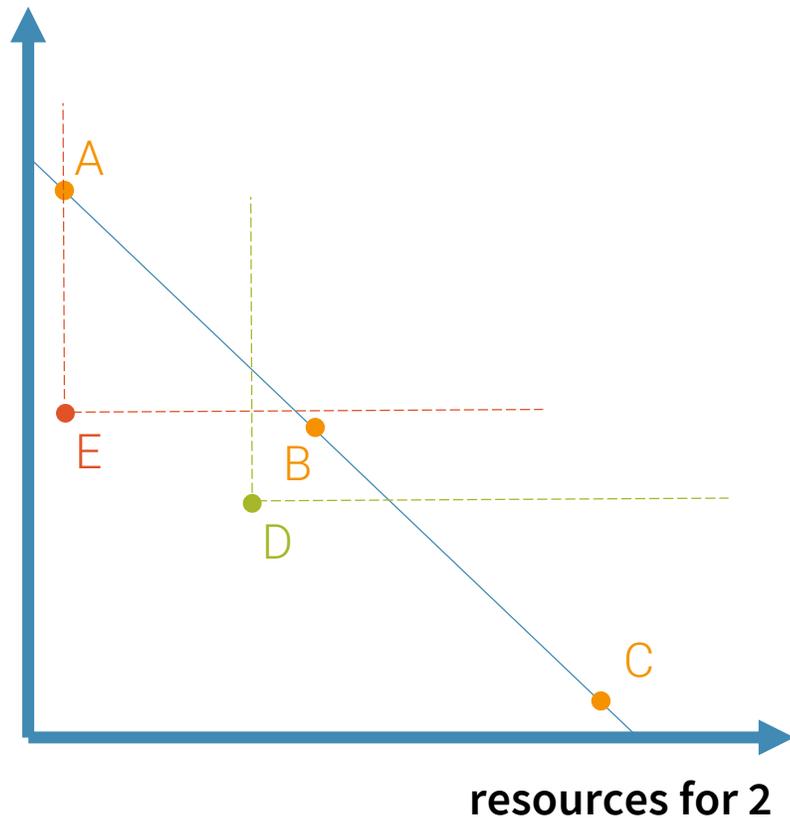
Weak Pareto Criterion. Some collective outcome X is better than some collective outcome Y if and only if no one prefers Y to X , and at least one person prefers X to Y .

- On this basis we can define

Pareto Optimality. Some collective outcome X is pareto-optimal if there is no other collective outcome Y , such that Y is weakly pareto-superior to X .

Problems with Pareto

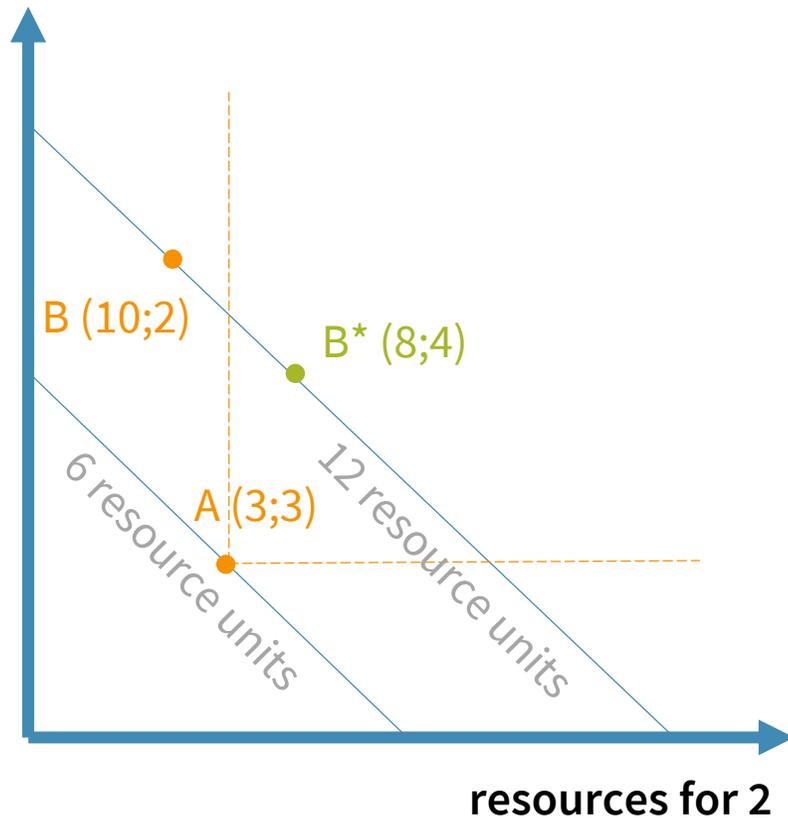
resources for 1



- Imagine that there is a fixed quantity of some good
- Points A, B, and C are all pareto-optimal
 - ❑ The Pareto Criterion allows us to make no further comparisons between them
 - ❑ Even though A is pareto-optimal, it is not pareto-superior to D (or any point to the right of A)
- Pareto-superiority only allows highly local comparisons
 - ❑ B is pareto-superior to D, A is pareto-superior to E
 - ❑ We cannot say that B is better than E

Problems with Pareto

resources for 1



- Imagine that we can increase the amount of available good from 6 to 12
 - B (10;2) is not pareto-comparable to A (3;3)
 - But: agent 1 could give agent 2 part of their resources such that both would be better off— e.g., move to B* (8;4)

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Static efficiency versus dynamic progress

- **Static efficiency:** are markets **at a given point in time** efficient—that is, do markets clear, is there no waste of resources, does everyone maximise profits?
- **Dynamic progress:** do markets **over time** maximize (or at least, increase) growth?
- Blaug: the theorems of welfare economics are concerned with the first; but what we really need for a defence of capitalism is the second
- Schumpeter: “creative destruction”: perhaps there even is a trade-off between efficiency and progress!

The second theorem of welfare economics

- **Second Theorem of Welfare Economics.** Under certain conditions, any Pareto-optimal distribution can be realised as a competitive equilibrium, if appropriate lump-sum transfers are made.



Lump-sum transfer

- A one-time transfer of resources which does not affect the behavior of agents
- Must be based on unalterable characteristics of individuals

Problem I

This does not exactly support a laissez-faire position. It also requires radical political changes.

Problem II

Estimating the right type of lump-sum transfer is extremely difficult, if not impossible, because of the information it would require



Summary

- ❖ The Two Theorems are famous results in Welfare Economics, often taken to support non-interference in markets
- ❖ On closer inspection, we need to make serious empirical and philosophical assumptions to interpret the theorems this way
- ❖ If we cannot make interpersonal comparisons of utility, we are left with Pareto-optimality—which is a very weak principle
- ❖ If markets are imperfect, the theorems fail to apply