ECO111 : Lecture 21

25 September 2024

UNIT 5: INSTITUTIONS, POWER, AND INEQUALITY

Source: Economy, Society, and Public Policy

Introduction

- Institutions are the set of written and unwritten rules by which people interact.
- Example: private property
- Bargaining power is the extent of a person's advantage in securing a larger share of the economic rents made possible by an interaction.
- Example: in the ultimatum game we saw, the proposer has a higher bargaining power, employers' have higher bargaining power in their organizations when it comes to labor decisions.
- Institutions exist to curtail this bargaining power from being ecxp

Pareto criterion and Institutional Reforms

- Operation Barga implemented in the year 1978 in West Bengal sort to
  1. reduce landlords share of farm output to on-quarter from one-half
  2. ensure share-croppers are not evicted if they pay the one-quarter share
- Was this policy a pareto improvement?

A Model of Production and Distribution

- Consider a farmer Angela. As we saw in the earlier production and consumption model, she would choose to consume at the point MRS = MRT. Angela has preferences over leisure and grain consumed.
- Suppose now, Angela is farming on the land owned by Bruno.
- Depending on the institutions in place we can see differences in production.
- Now, let us look at different scenarios of institutions:
- SCENARIO A : As described earlier, Angela owns and farms her land.

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- SCENARIO B : Bruno owns the land and forces Angela to work on it through force or coercion.
- SCENARIO C : Property rights and rule of law persists, where Bruno can enter into an agreement with Angela as to how to share the crop output.
- SCENARIO D : Property rights, rule of law, and the right to vote
- Bruno's bargaining power keeps decreasing as we proceed along each scenario.

SCENARIO A: The Robinson-Crusoe Model

- Assumption 1: As more grains are feasible while the number of hours of leisure she gets does not change, MRS does not change for Angela.
- This is in order to simplify the model.
- You can think of this as a situation where Angela does not consume all the grains, but maybe sells some in the market.
- And since preferences are only based on consumption of grain and leisure the IC just moves up and down parallel along the same level of leisure while grain consumption changes.

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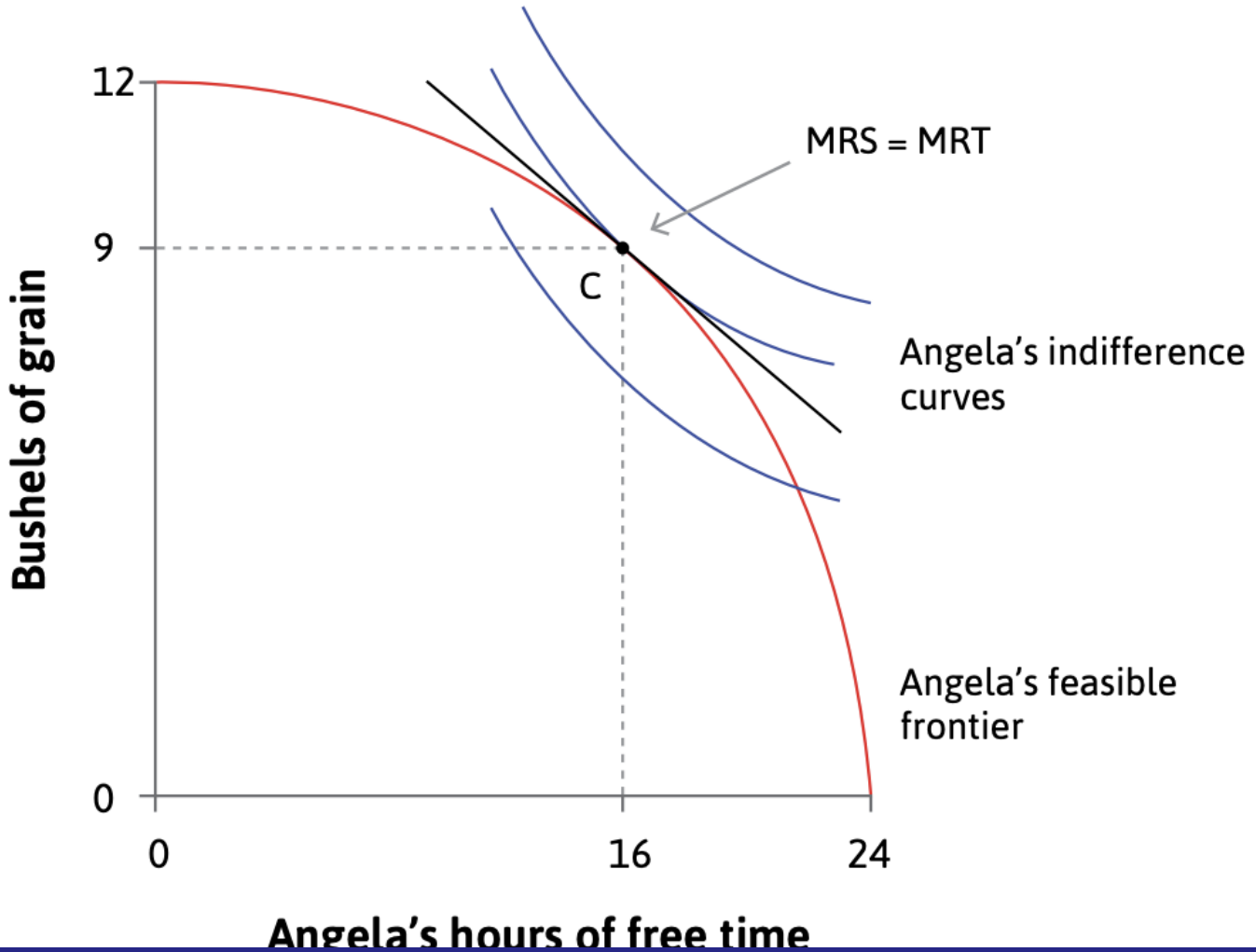
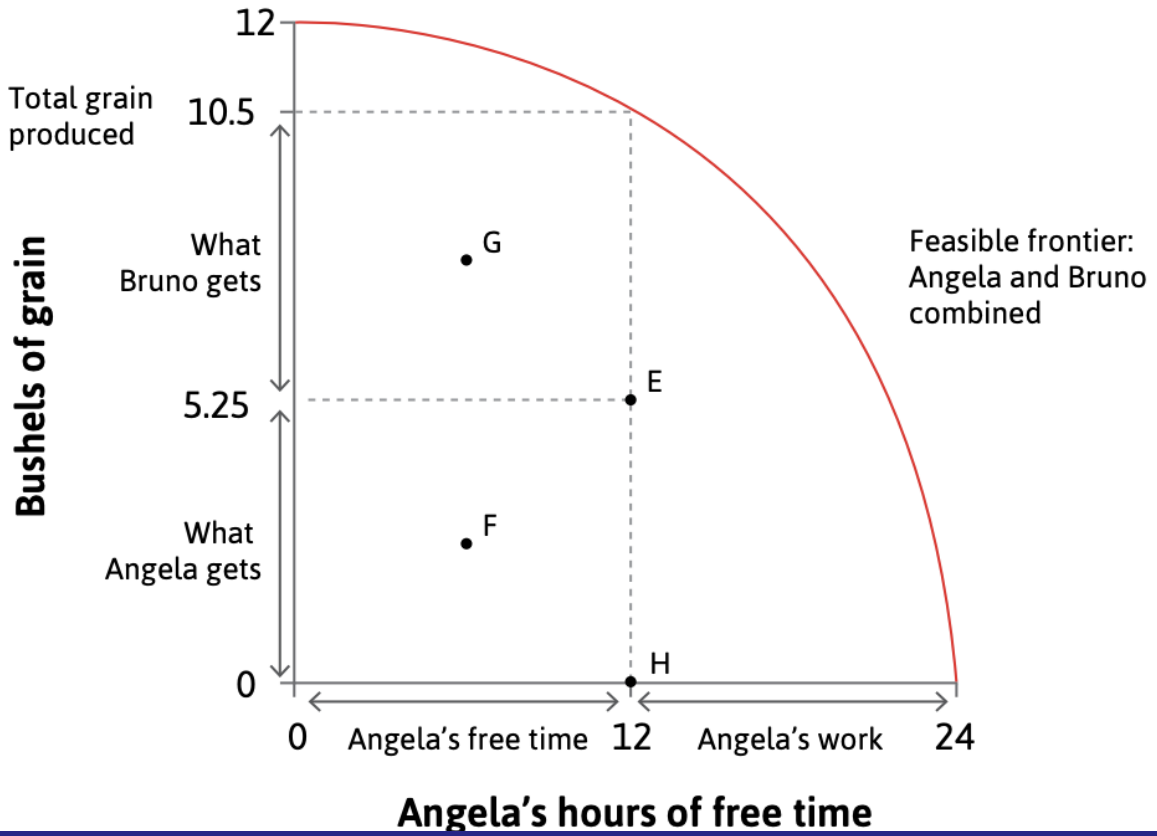

12
9
0
0
16
24
Bushels of grain
Angela's hours of free time
C
MRS = MRT
Angela's indifference curves
Angela's feasible frontier

SCENARIO B: Coerced Labor

- Here Bruno coerces Angela to produce and lays claim to Angela's harvests.



Feasible and Possible Allocations

Scenario B

- From the figure we can see that points G, E, and F are all feasible for Angela.
- How about point H?
- So, not all allocations are even possible.
- The division of bushels of grains produced depends on the institution in place.
- In scenario B, Bruno can decide the size of the pie (production of grain) and the division of the pie.

Assumptions of the Model

Scenario B

- Assumption 2: both Angela and Bruno are self interested. i.e, they care only about their own utilities.
- **Reservation option or fall back option** is a person's next best alternatives out of all the options in a transaction.
- Assumption 3: If Angela does not work the land, the reservation option for Bruno is zero. It implies there are no other farmers in this social interaction.
- Therefore, Bruno wants to ensure an allocation that sustains Angela's survival (biologically feasible) and working on the farm.

Biological Constraint

Scenario B

- The biological constraint shows the minimum amount of food grain required to work for a particular number of hours.
- Below the constraint it is infeasible for Angela to survive.
- Even when Angela is not working at all, there is some amount of grain required for survival as represented by point Z.
- As the number of hours of work increases the number of bushels of grain required for working longer hours is increasing.
- The slope of the biological constraint curve is the MRS between free time and grain to secure Angela's survival.

Technical Feasibility

Scenario B

- All the possible combinations of Angela's hours of work and the grain she receives within the limitations of the technology (production function) and biology (biological constraint) is the **Technically Feasible** set.
- The technically feasible set is the lens shaped portion in the figure that is bounded by the production function and by the biological/survival constraint.
- What allocation happens within the technically feasible set depends on the bargaining power of Bruno.

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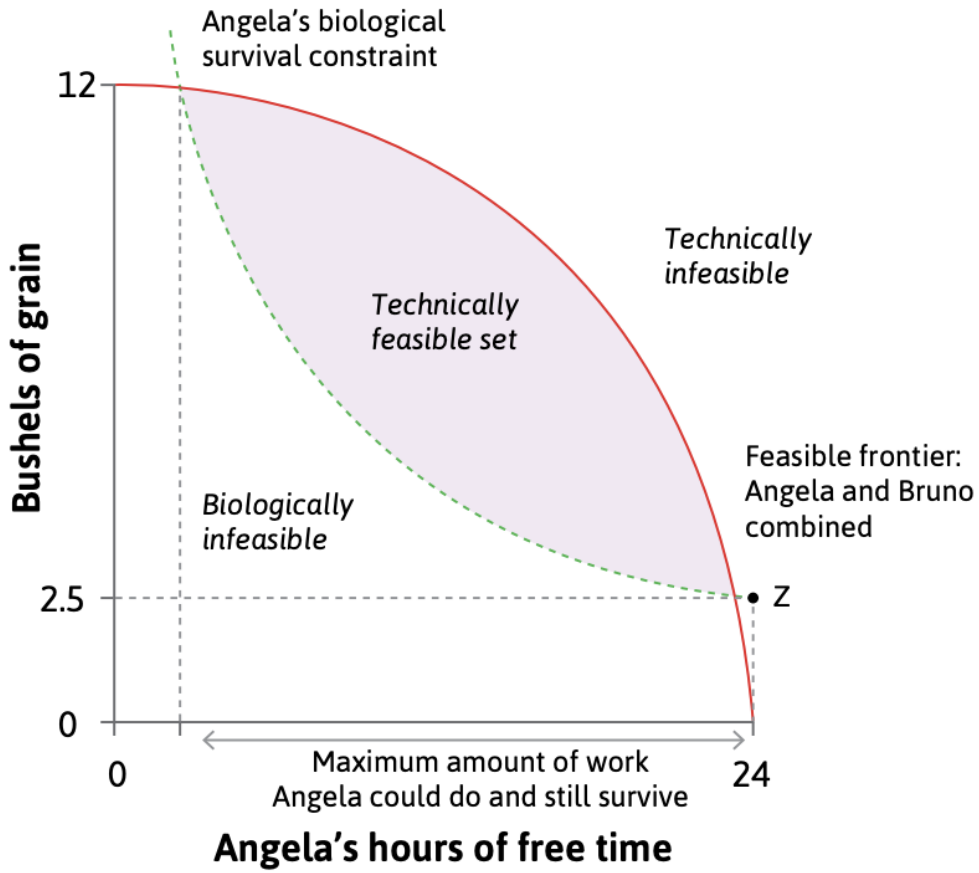
Scenario B



Allocation

Scenario B

- Given Bruno's bargaining power, can choose any allocation within the technically feasible set.
- Bruno would like to choose to receive the largest amount of grains after providing for Angela's survival.
- Angela's survival constraint portrays the amount of grains required for a given amount of work she does.
- Thus, Bruno would like to maximize the vertical distance between the feasibility frontier and the survival constraint.
- That is Bruno wants to maximize his economic rent.
- Economic rent is a payment or other benefit received greater than what the individual would have received for their next best alternative.

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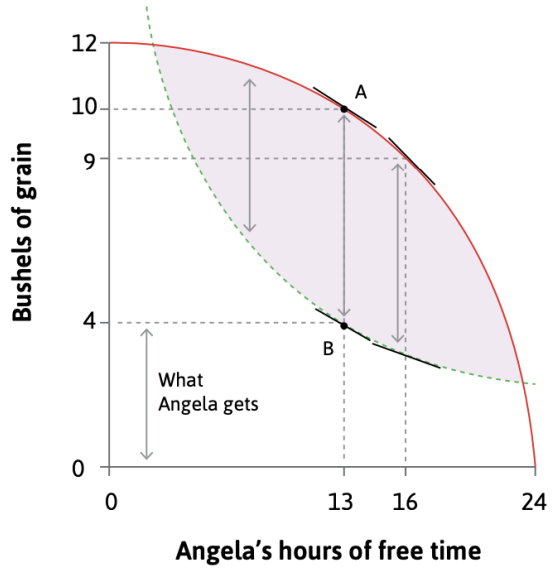
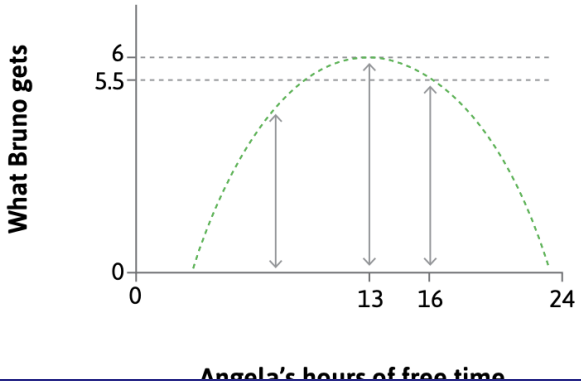
Scenario B



Feasible frontier: Angela and Bruno combined

Angela's biological survival constraint



The maximum Bruno can get occurs where Angela's working time is such that the slope of the feasible frontier is equal to the slope of the biological survival constraint: MRT = MRS

MRS = MRT

Scenario B

- This would happen when the slope of the survival constraint and the slope of the feasibility frontier are same.
- Maximum grain is received by Bruno when MRS of Angela's survival constraint = MRT of her feasibility frontier.