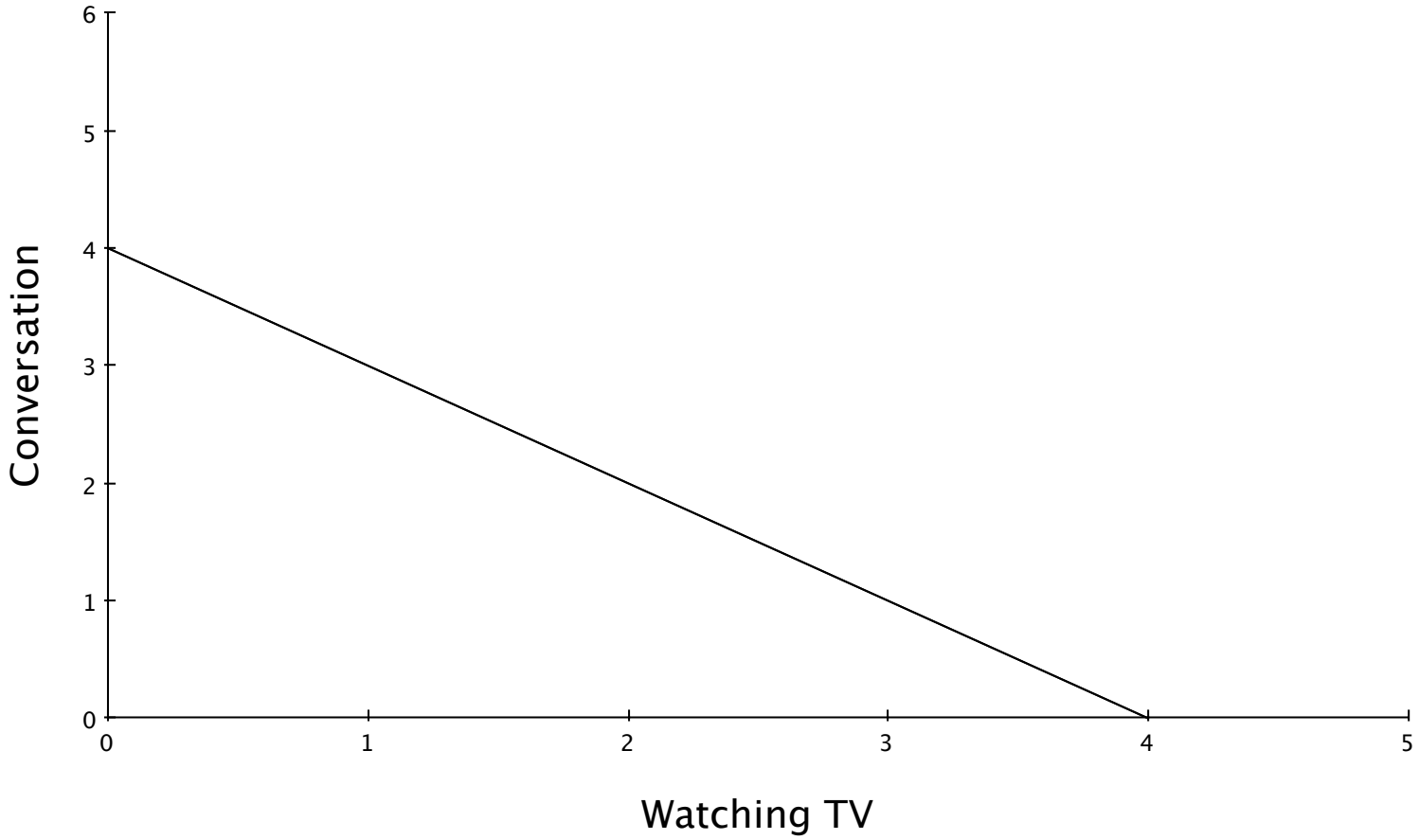
The Economic Theory of Choice

Opportunity Cost

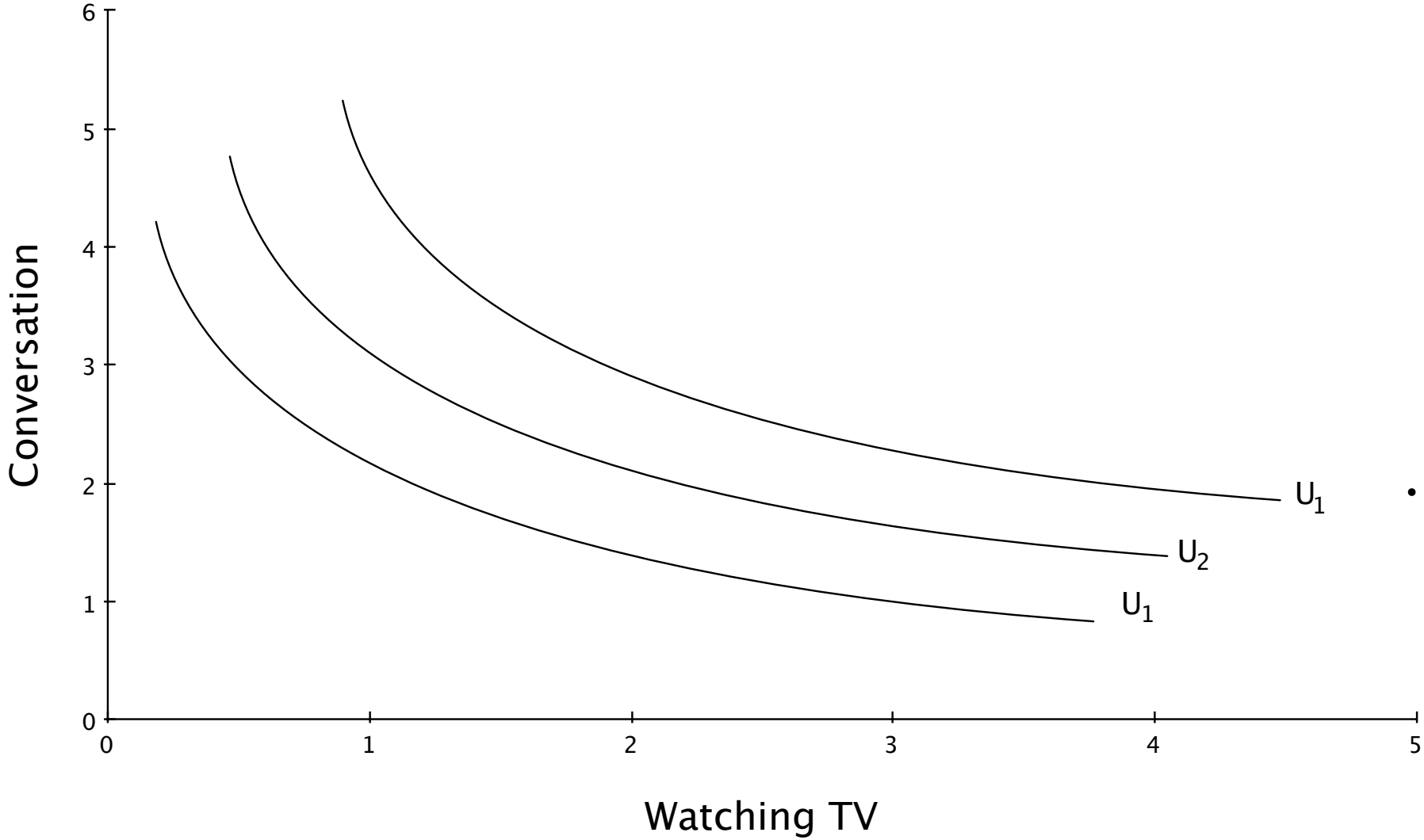
Preferences

- Of what we like: more is better
- Some rationality assumptions

Opportunity Cost from a Budget Line

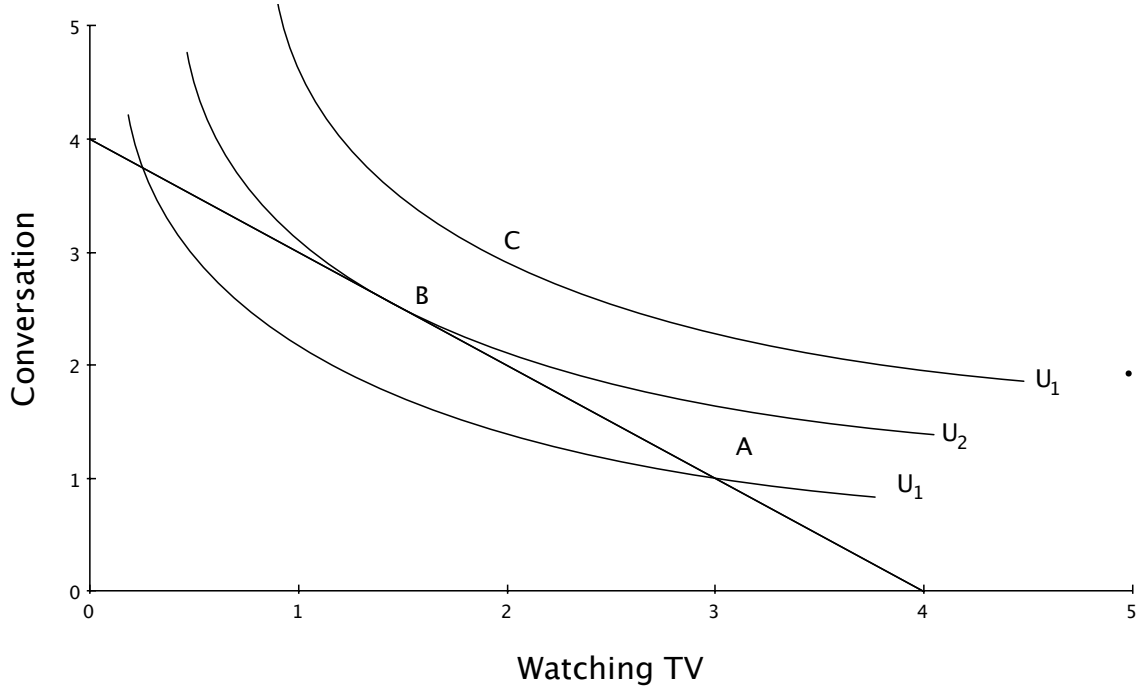


Preferences Described by Indifference Curves



We choose as if we were moving to the highest indifference curve consistent with our budget (with the scarcity we face).

We choose where opportunity cost equals the marginal rate of substitution.



$MRS = -\Delta Y/\Delta X = -\Delta C/\Delta TV$

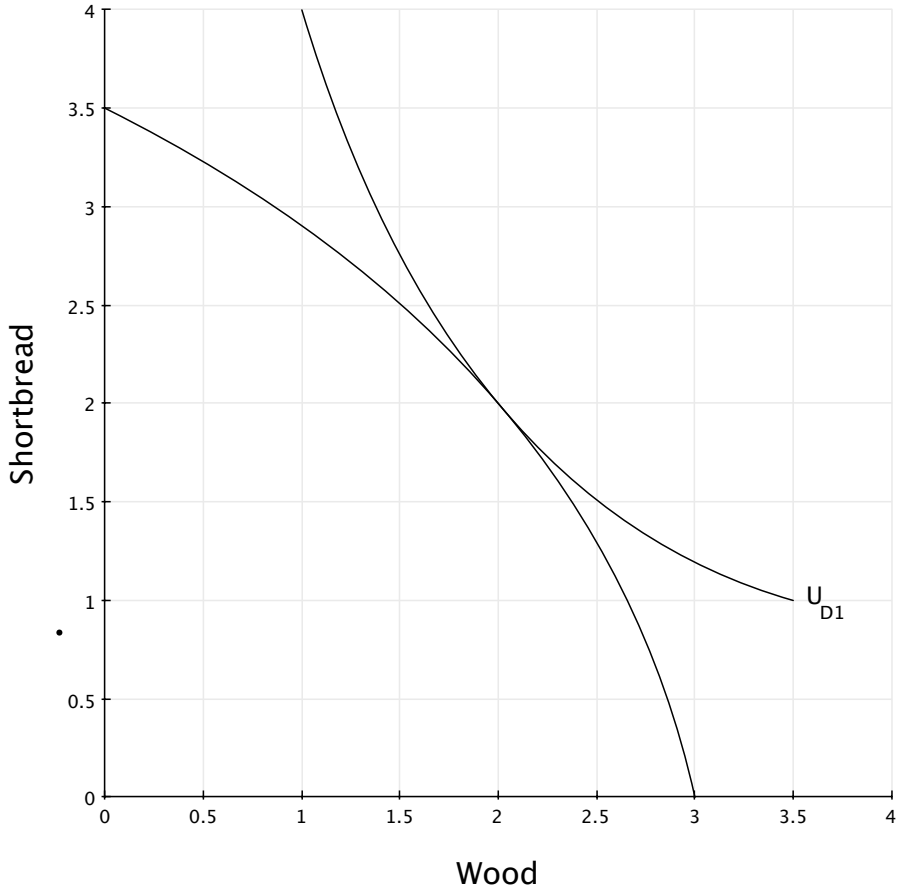
Adding Production

Production Possibility Frontier

PPF is bowed out because productivity drops with intensity

Hence, opportunity cost rises as I shift resources to expand production

I choose the production combination that gives me the highest level of satisfaction in consumption



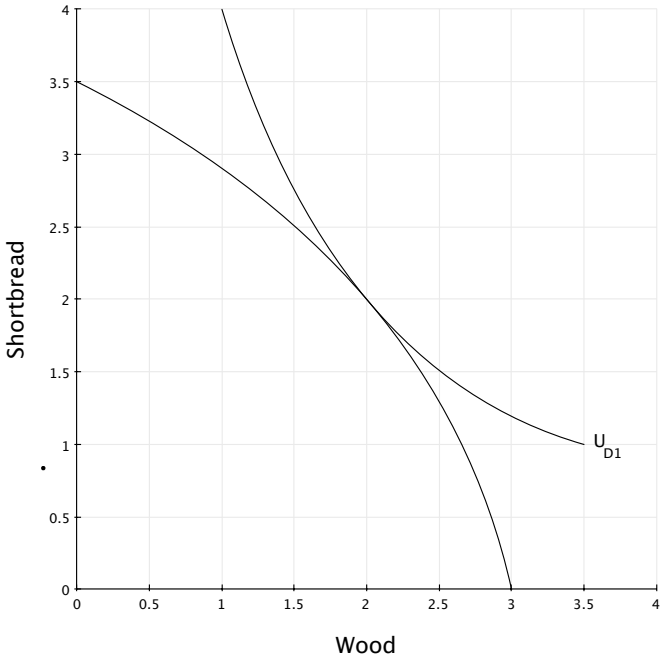
The Gains from Voluntary Exchange

Imagine a world with two people, David and John, who produce and consume wood and shortbread cakes

David

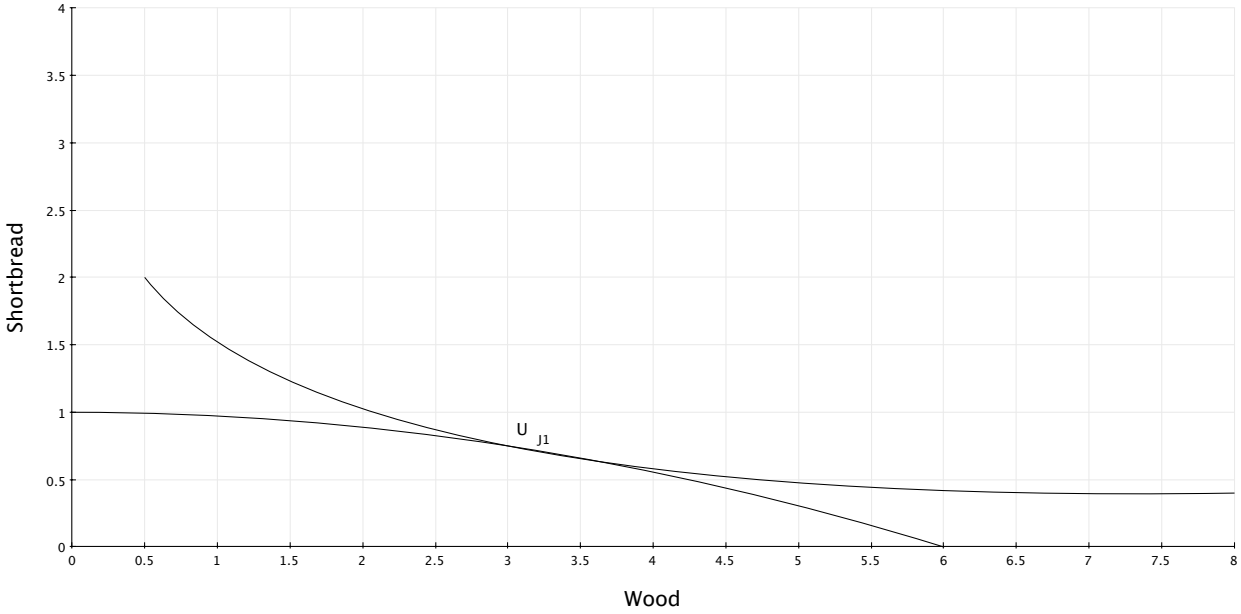
Ignoring each other, David chooses 2 cords of wood and 2 dozen shortbread cakes (2,2)

John chooses 3 cords and 8 cakes (3,.75)

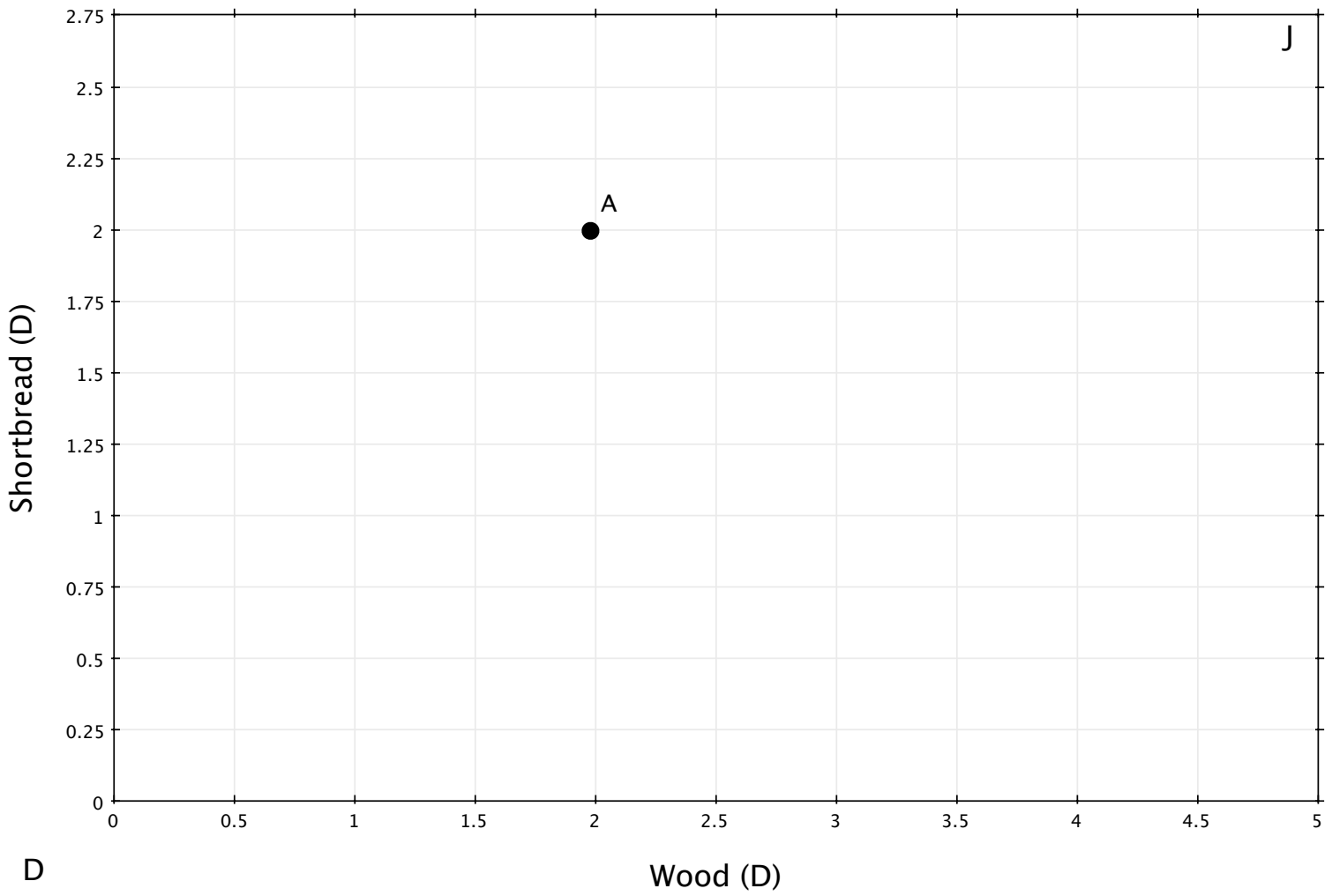


John

John is much better at producing wood than David, but at current consumption levels, he has a much stronger preference for shortbread.

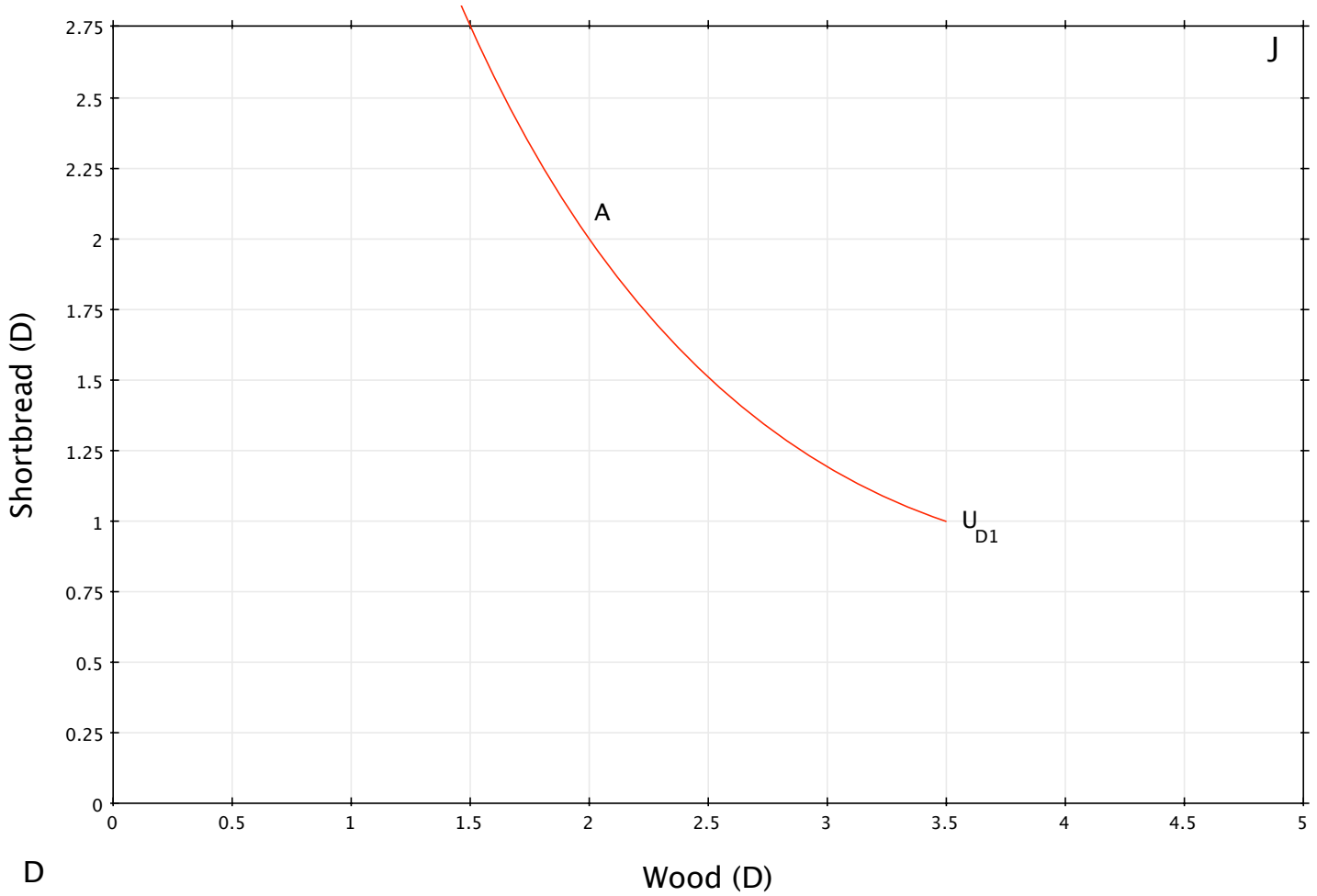


Our Wood-Shortbread Economy



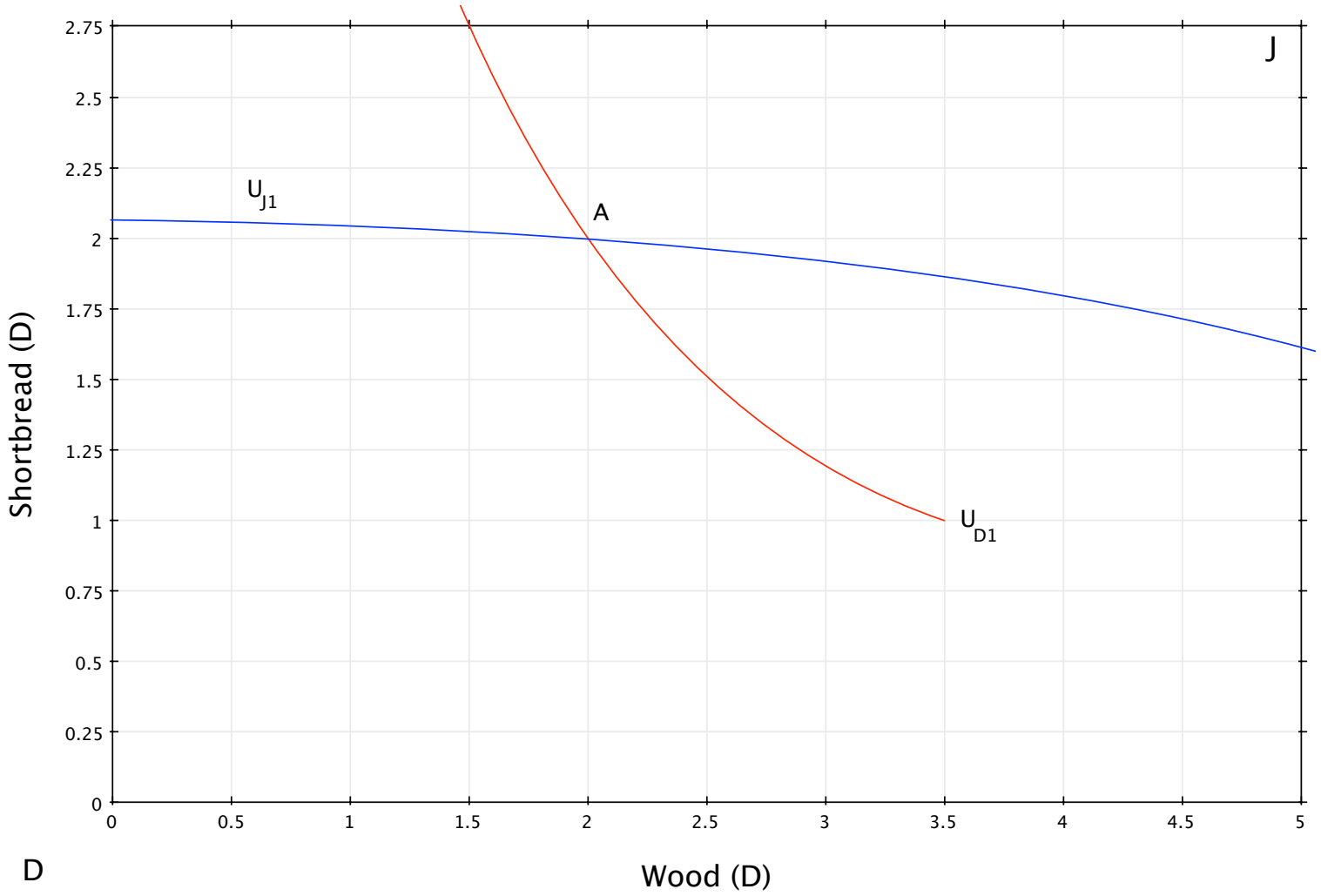
D

Adding David's preferences



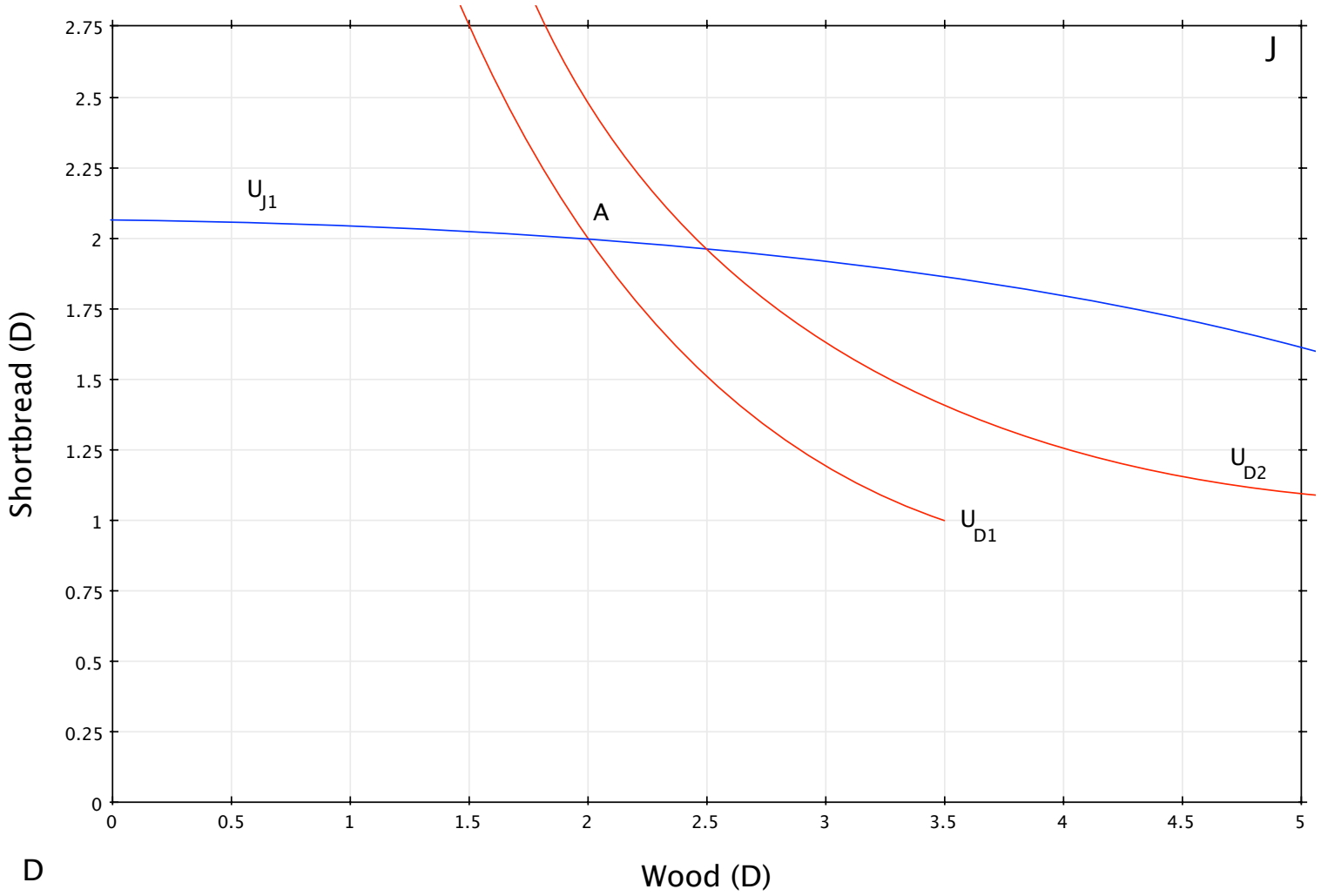
D

Adding John's



D

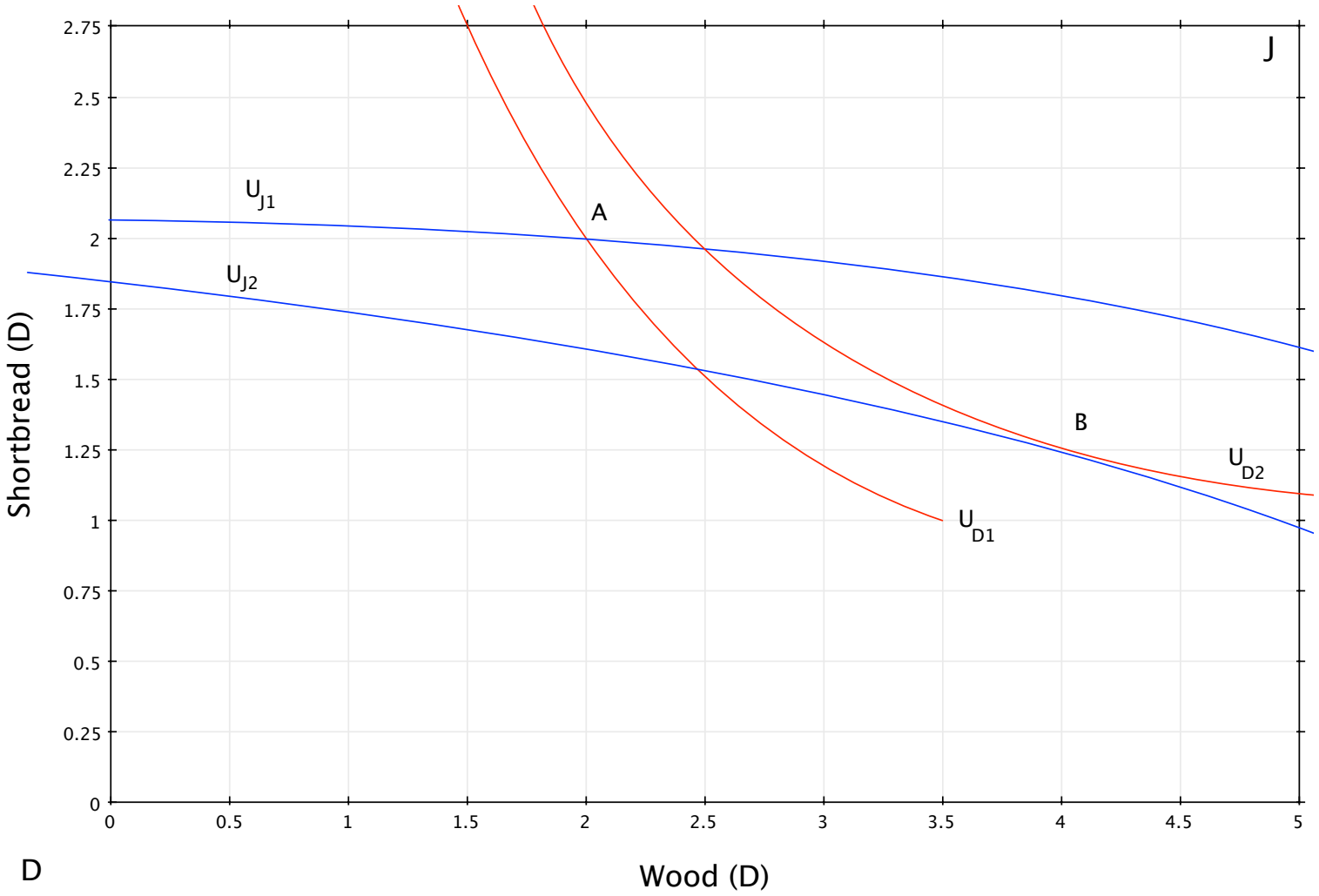
By trading, both can reach higher levels of satisfaction.



Additional gains to trade arise until they reach a deal in which David and John have the same MRS

David gets (4,1.25)
John (1,1.5)

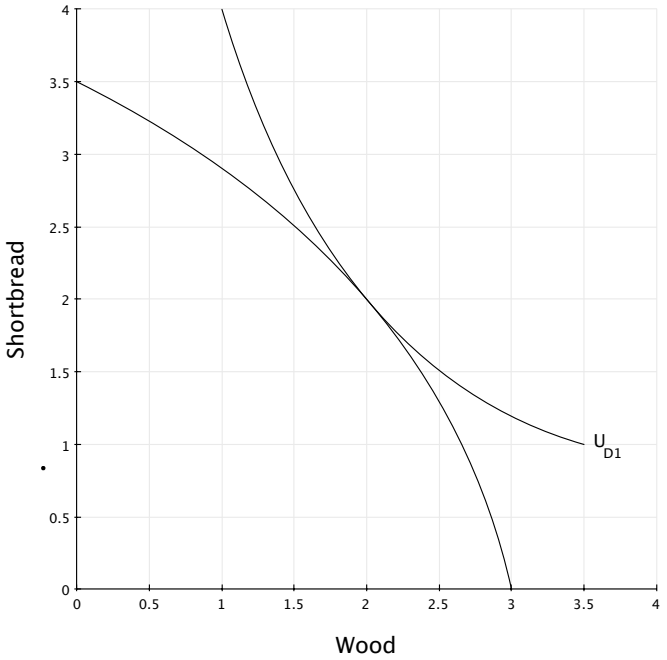
The exchange, hence the mutual gain in welfare, is entirely voluntary



The Gains from Specialization

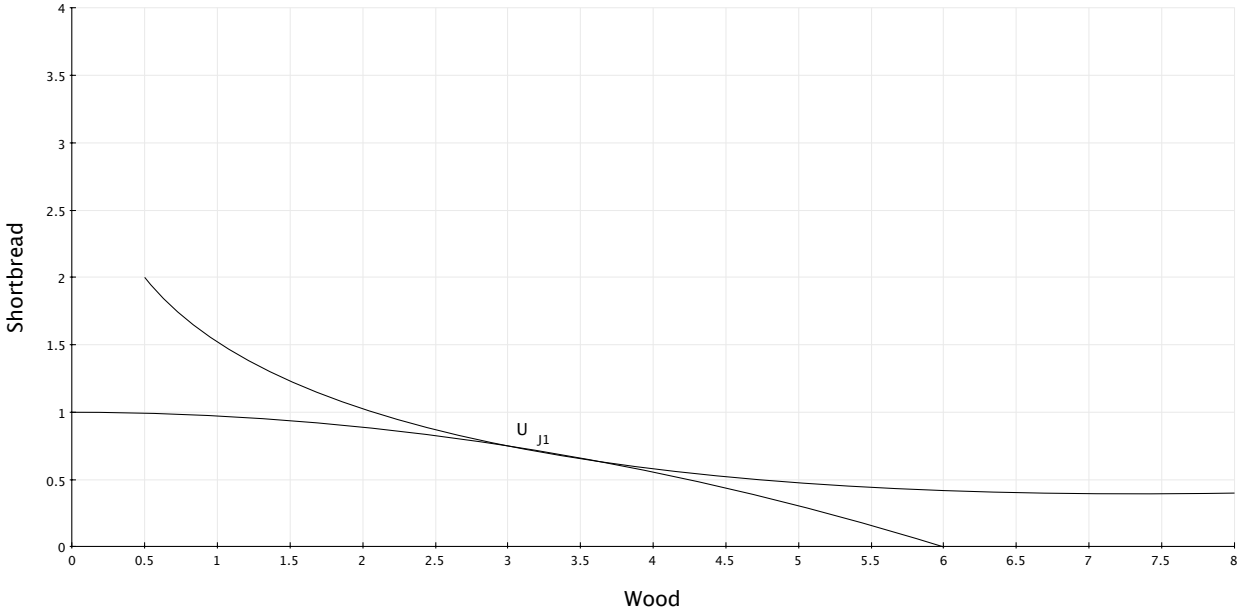
John and David can be better off if they recognize that each has different opportunity costs in production. David is relatively better at producing shortbread and John is relatively better at producing wood.

David



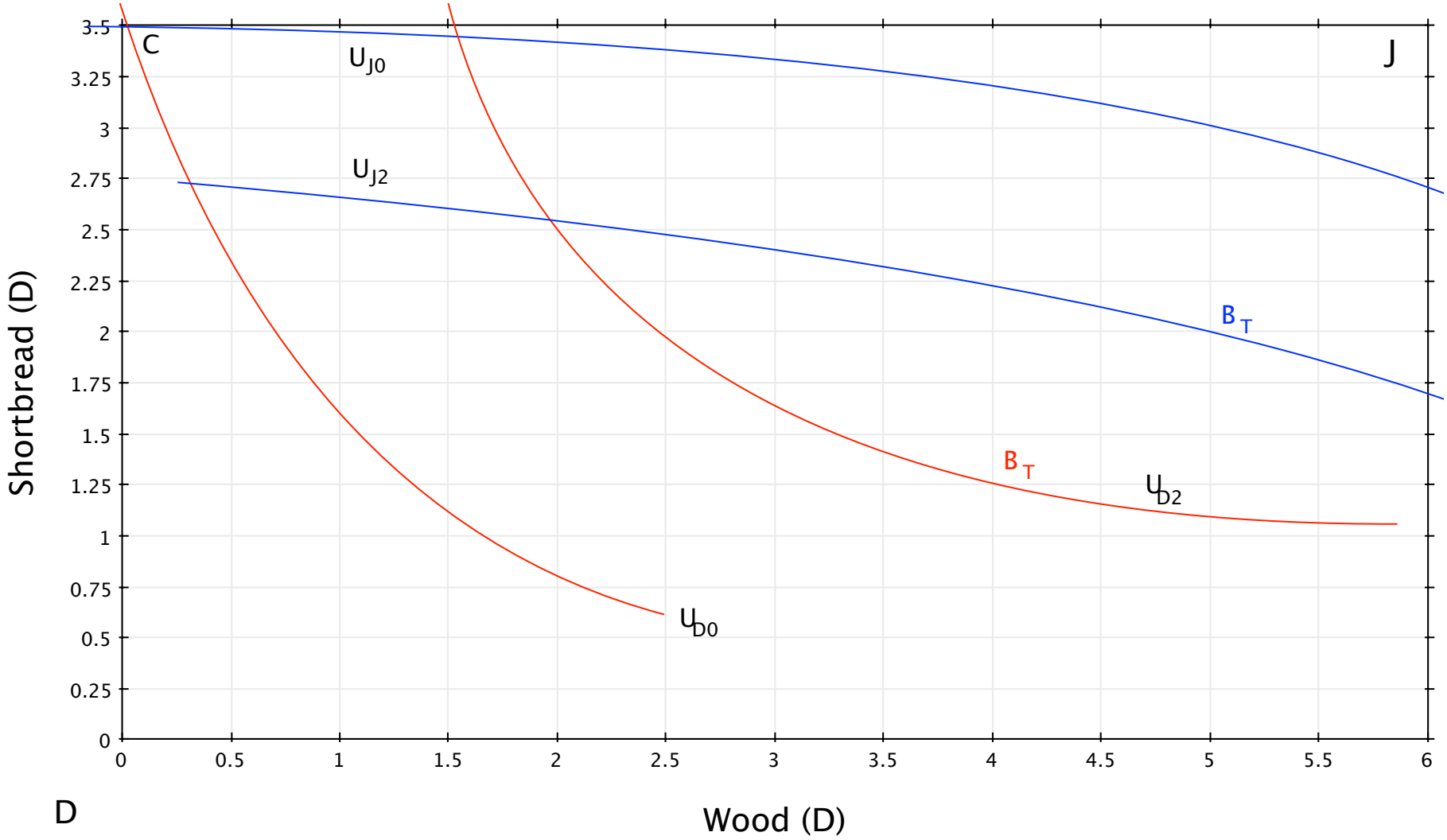
John

If John specializes in producing wood, and David in shortbread, then they can move from a (5,2.75) economy to a (6, 3.5) economy and both be better off.

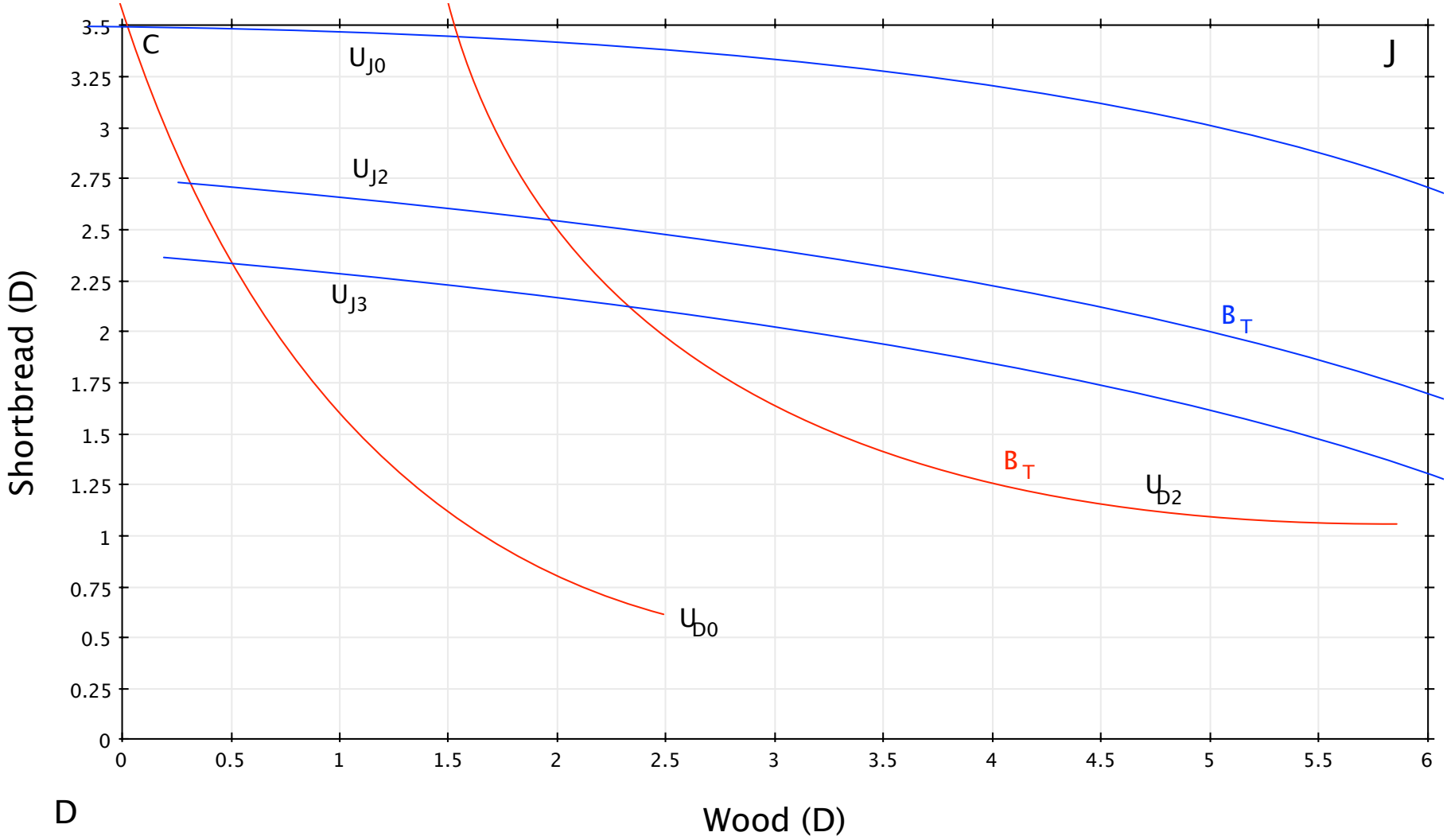


If John is producing 6 cords of wood and David 3.5 dozen shortbread cakes, now there is a lens of trading opportunities between the consumption bundles (hence utility levels) they achieved through their previous bargain which left

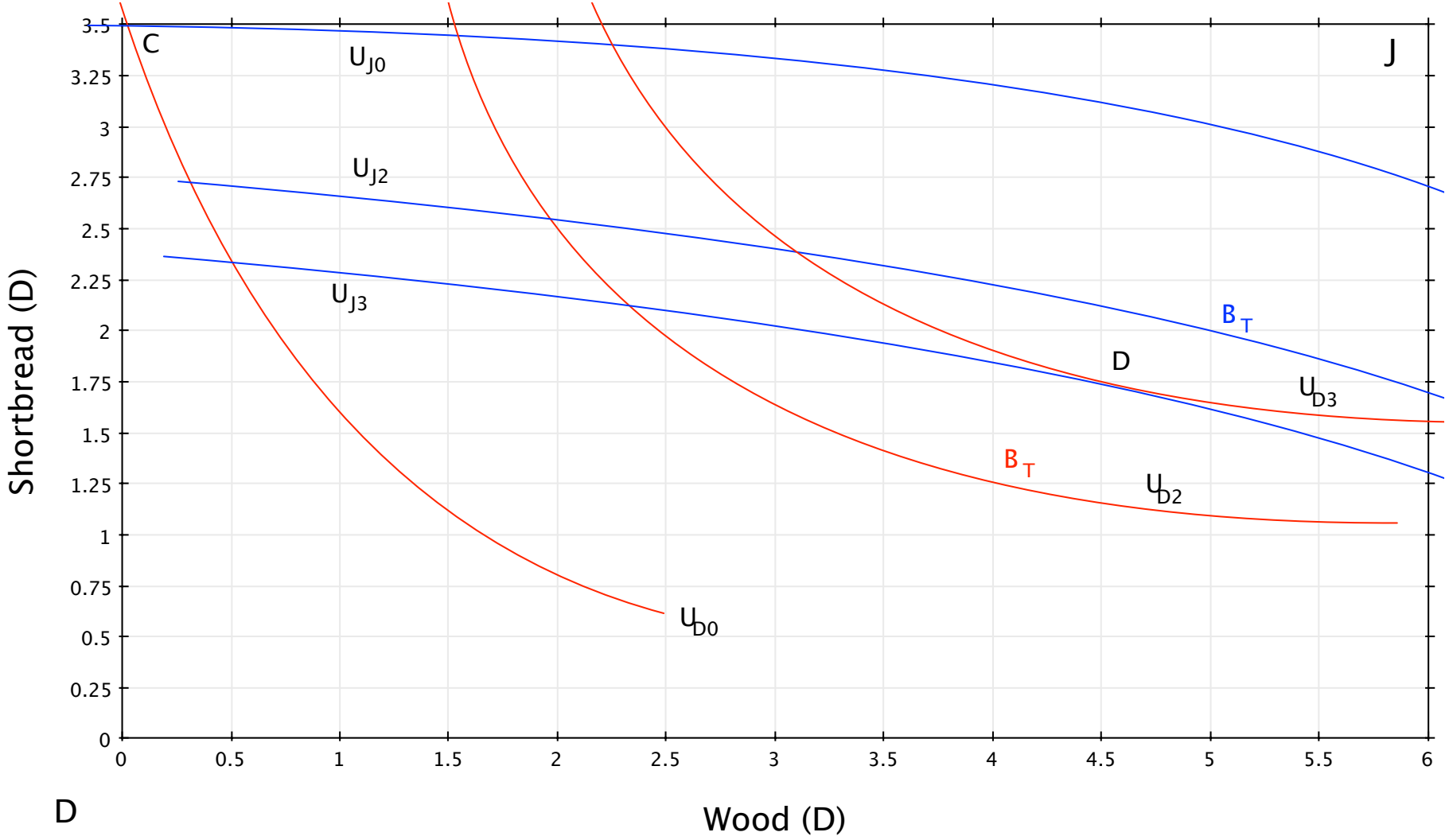
David at (4,1.25) and John at (1,1.5)



John could move to indifference curve U_{J3} by persuading David to trade more shortbread for wood.



An exchange equilibrium for this economy has David producing 3.5 dozen shortbread cakes, John producing 6 cords of wood, David consuming 4.5 cords of wood and 20 shortbread cakes (1.75 dozen), and John consuming 1.5 cords of wood and 16 shortbread cakes (1.25 dozen)



D

Do we need a market?

Suppose there are lots of Johns and Davids and Shresthas and Elaines.

The “Invisible Hand Theorem”

In this fable, model, abstraction of the real world, market exchange will yield an outcome – an equilibrium – in which each person is at least as well off as they were at that start and no one can be made better off without making at least one person worse off.