**More on The Edgeworth Box**

When they are on the contract curve, $MRS_{AB}^S = MRS_{AB}^H$.

If not, trading is possible. Suppose $MRS_{AB}^S = 4$, $MRS_{AB}^H = 3$. Then trade.

**Two Qualifications**

- **Consumer Sovereignty**
  - Are we comfortable with welfare checks being spend on drugs and alcohol?
  - Do we think children know what is best for them?

**Two Qualifications**

- **Consumer Sovereignty**
  - Do we have anything to say about the right point on the contract curve?
More on the Edgeworth Box

The Utility Possibility Frontier

Sally’s Utility

Harry’s Utility

We construct the Utility Possibility Frontier by reading off the different levels of utility from the Contract Curve.

Simply another way of stating the contract curve.

If we had social indifference curves for the various combinations of utility, we could find the best point along the contract curve.

The Core and Markets

• The yellow area is the core.

• If only Harry and Sally are involved, they will sit down and simply haggle with each other.
More on the Edgeworth Box

The Core

If only Harry and Sally are involved, they will sit down and simply haggle with each other.

Suppose there are hundreds of Harry's and Sallies? involved, they will sit down and simply haggle with each other.

The normal laws of supply and demand will work and will tell us exactly where we will end up.

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Suppose that Harry and Sally start out with \((a_{XH}, b_{XH})\) and \((a_{XS}, b_{XS})\).

We tell Harry that he can buy and sell apples and bananas at prices \((1, p_B)\). The only constraint is that \((a_{XH} - a_H) + p_B(b_{XH} - b_H) = 0\).
The Core

If Harry’s budget line is the dotted line, he will want to move to Z.

Markets

• If Sally is told that she can buy and sell apples and bananas subject to a budget constraint
  \[(a_{xS} - a_x) + p_b(b_{xS} - b_x) = 0\]
eshe will be willing to buy and sell.

Markets

• If Sally is told that she can buy and sell apples and bananas subject to a budget constraint
  \[(a_{xS} - a_x) + p_b(b_{xS} - b_x) = 0\]
eshe will be willing to buy and sell.

• However the price that persuaded Harry to move to Z, might or might not move her to Z.

The Fundamental Theorem

For any starting point there is a price \(p_b\) which will lead both Harry and Sally to move to the same point on the contract curve.

Summary

• Normal trading gets Pareto Optimality in distribution.
  \[MRS(Harry) = MRS(Sally)\]
• More to Come
End