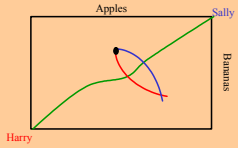
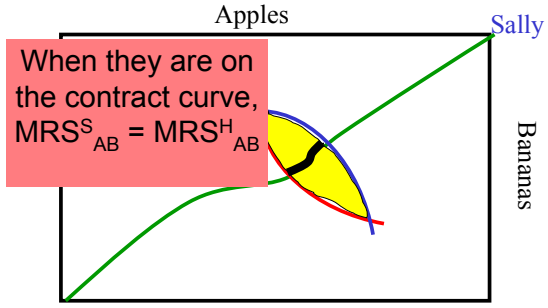
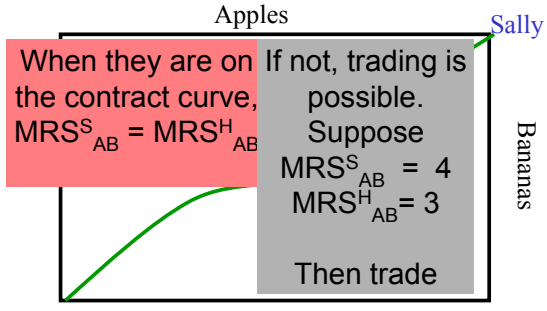
More on The Edgeworth Box



Marginal Rates of Substitution



Marginal Rates of Substitution



Two Qualifications

- Consumer Sovereignty

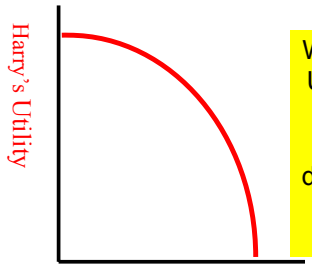
Two Qualifications

- 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

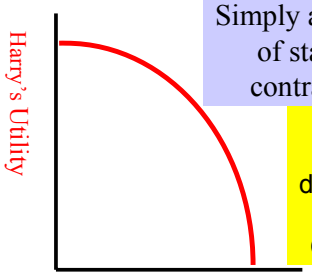
- Consumer Sovereignty
- Do we have anything to say about the right point on the contract curve?

The Utility Possibility Frontier



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

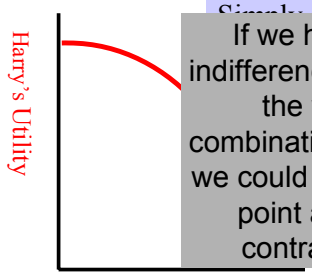
The Utility Possibility Frontier



Simply another way of stating the contract curve

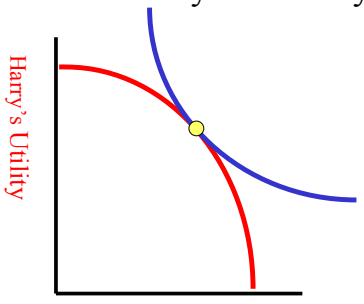
Frontier by reading off the different levels of utility from the Contract Curve

The Utility Possibility Frontier



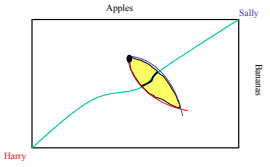
If we had social indifference curves for the various combinations of utility, we could find the best point along the contract curve

The Utility Possibility Frontier



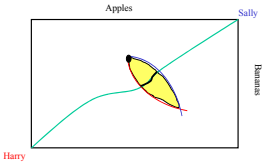
The Core and Markets

- The yellow area is the **core.**

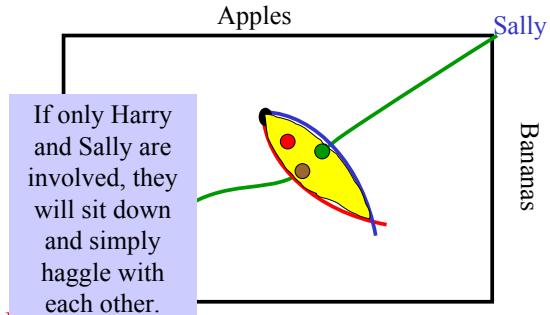


The Core and Markets

- The yellow area is the core.
- If only Harry and Sally are involved, they will sit down and simply haggle with each other.



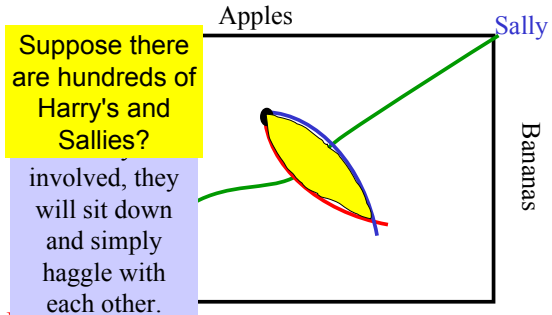
The Core



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

Harry

The Core

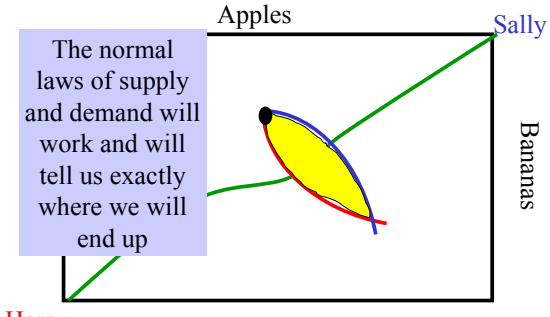


Suppose there are hundreds of Harry's and Sallies?

involved, they will sit down and simply haggle with each other.

Harry

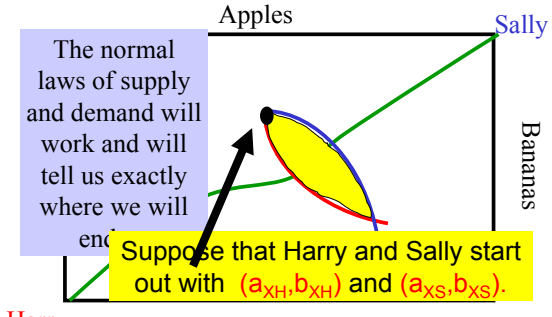
The Core



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

Harry

The Core

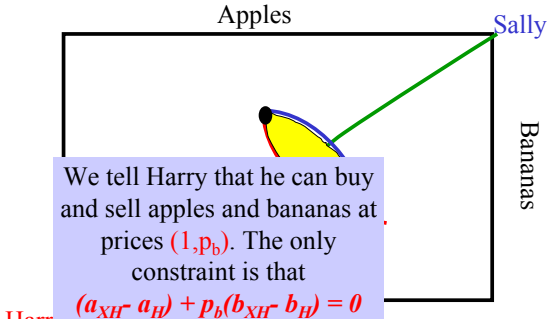


The normal laws of supply and demand will work and will tell us exactly where we will

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

Harry

The Core



We tell Harry that he can buy and sell apples and bananas at prices $(1,p_b)$. The only constraint is that

$$(a_{XH} - a_H) + p_b(b_{XH} - b_H) = 0$$

Harry

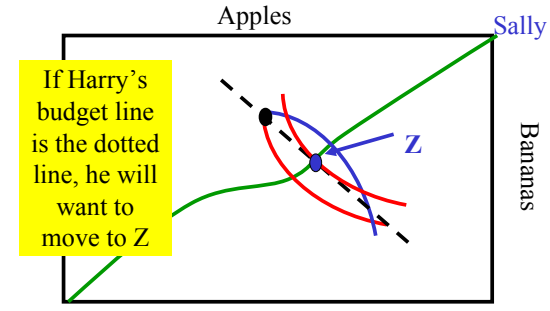
Markets

$$(a_{XH} - a_H) + p_b(b_{XH} - b_H) = 0$$

Revenue from Apples

Purchases of Bananas

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

$$(a_{XS} - a_S) + p_b(b_{XS} - b_S) = 0$$

she 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

$$(a_{XS} - a_S) + p_b(b_{XS} - b_S) = 0$$

she 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.

The Fundamental Theorem

For any starting point there is a price p_b which will lead both Harry and Sally to move to the

That is, there is a price that equates supply and demand. It puts Harry and Sally on the contract curve

Summary

- Normal trading gets Pareto Optimality in distribution.

$$MRS(Harry) = MRS(Sally)$$

- More to Come

End

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