

Preferences

Econ 50 | Lecture 3 | January 12, 2013

Lecture

- Unit Overview:
Preferences and Choice
- Rational Preference
Framework
- Beyond Rational: A Peek

Group Work

- Deeper understanding of preference framework
- Drawing indifference curves for different kinds of preferences
- Understanding the marginal rate of substitution

Unit Goal

$$q_x^D(P_x,P_y,I)$$

$$q_y^D(P_x,P_y,I)$$

Unit Goal

exogenous variables

price of good X

price of good Y

income

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Unit Approach

exogenous variables

price of good X
price of good Y
income



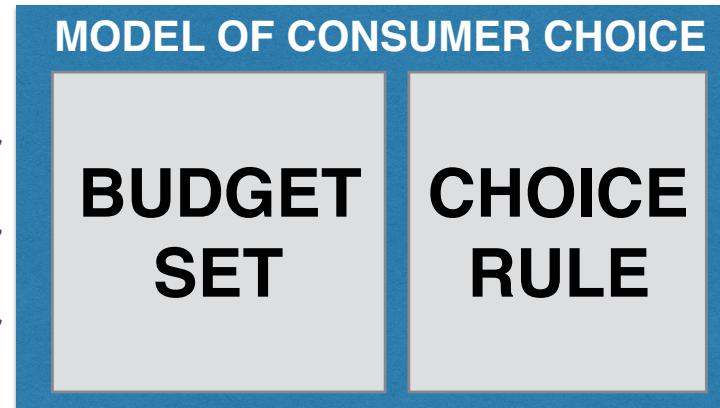
endogenous variables

→ quantity of good X
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Unit Approach

exogenous variables

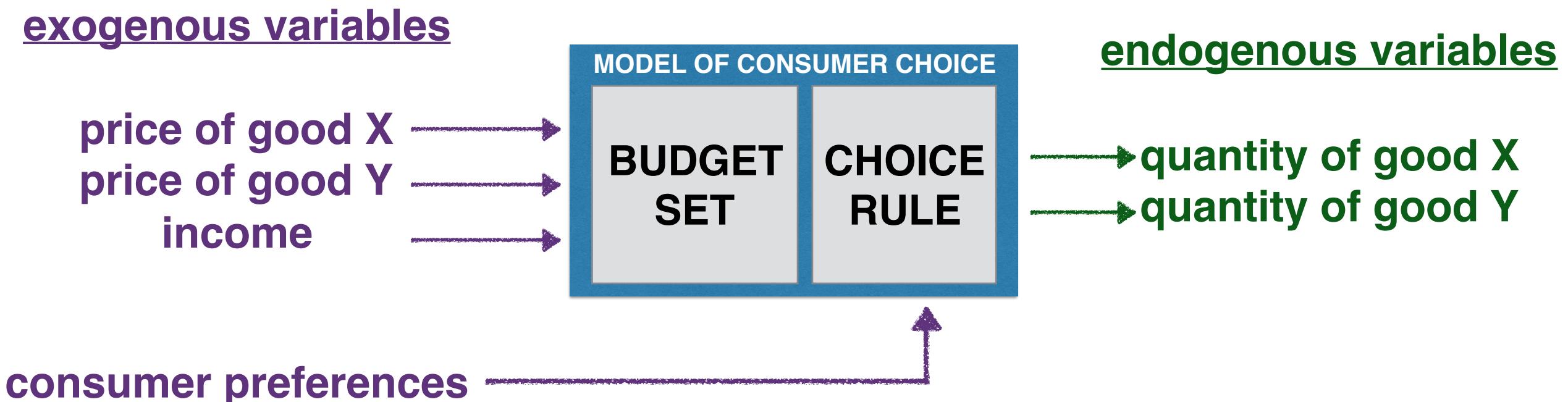
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endogenous variables

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Unit Approach



Unit Overview

- **Preferences (Lectures 4 & 5, Homework 2)**

How do consumers rank alternatives?

Readings: B&B Ch. 3; Varian Ch. 3 & 4

- **Choice (Lectures 6 & 7, Homework 3)**

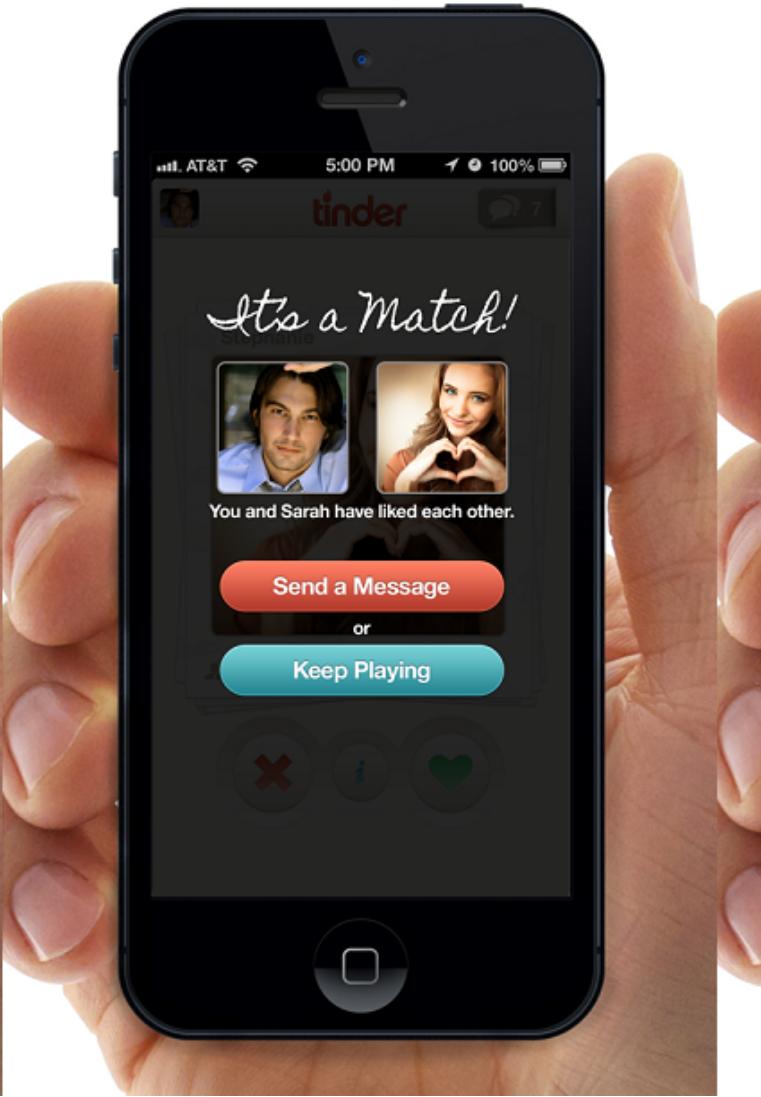
How do consumers choose to allocate their income among goods?

What do their observed choices “reveal” about their preferences?

Readings: B&B Chapter 4; Varian Ch. 2, 5, 7

The Economic Model of Preferences





Preferences: Vocabulary

- A consumer is evaluating **bundles** or **baskets** of goods
- For any two bundles, **Bundle A** and **Bundle B**, we want to know which the consumer **prefers**.

Preferences: Notation

Given a choice between bundle A and bundle B , we say that:

$A > B$	A is strictly preferred to B	The consumer likes A more than B .
$A \geq B$	A is weakly preferred to B	The consumer likes A at least as much as B .
$A \sim B$	Indifferent between A and B	The consumer likes A and B the same amount.
$A \leq B$	A is weakly dispreferred to B	The consumer likes A at most as much as B .
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Fundamental Assumptions

Preferences are **complete**. Any two bundles can be compared. For any A and B , either $A \geq B$ or $B \geq A$.

Preferences are **transitive**. If you like A at least as much as B , and you like B at least as much as C , then you like A at least as much as C . If $A \geq B$ and $B \geq C$, then $A \geq C$.

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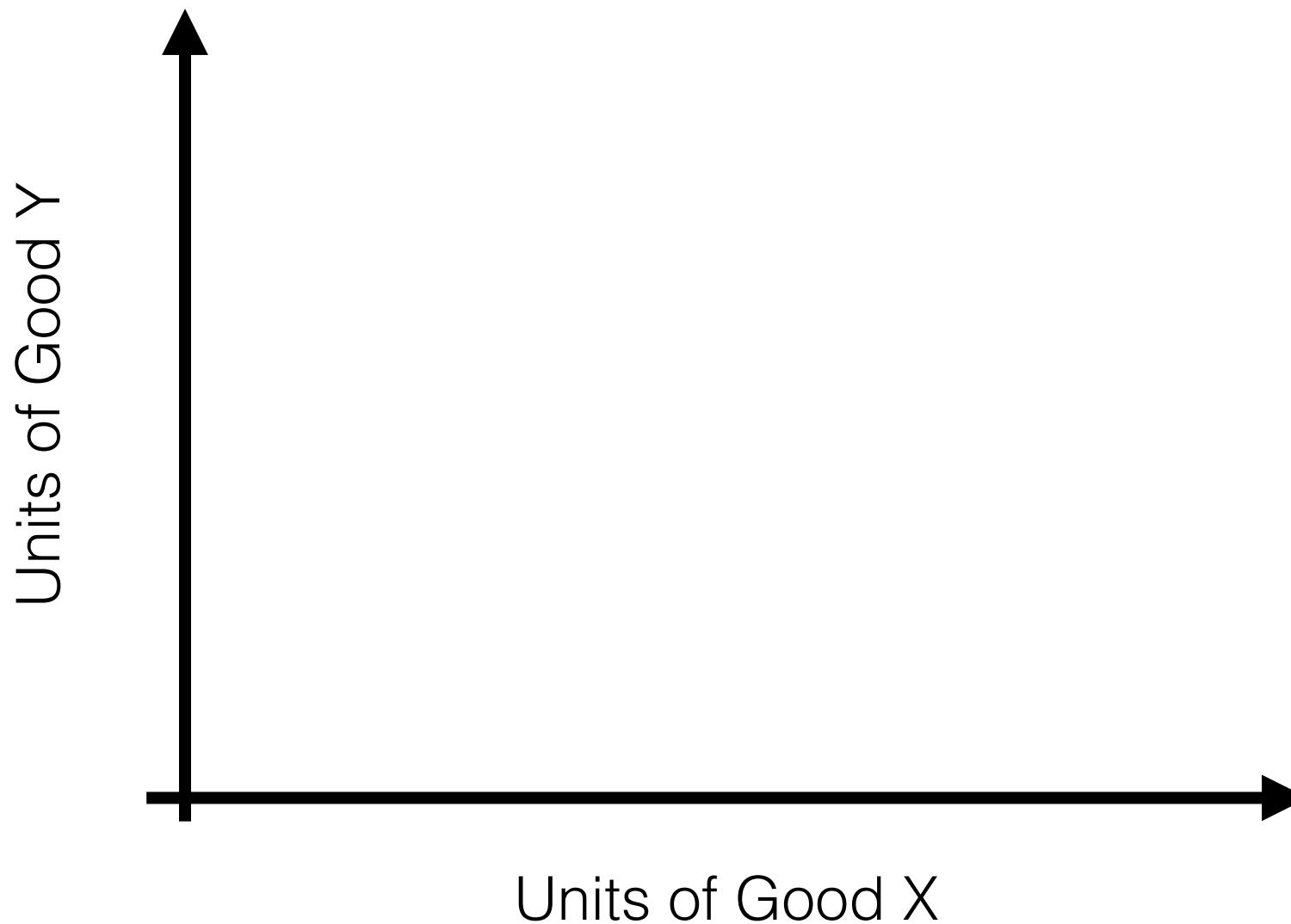
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Together, these assumptions mean that consumers can **rank all possible consumption bundles** in a coherent way.

Special Case: Bundles of Quantities



Potential Assumptions about Preferences Over Quantities

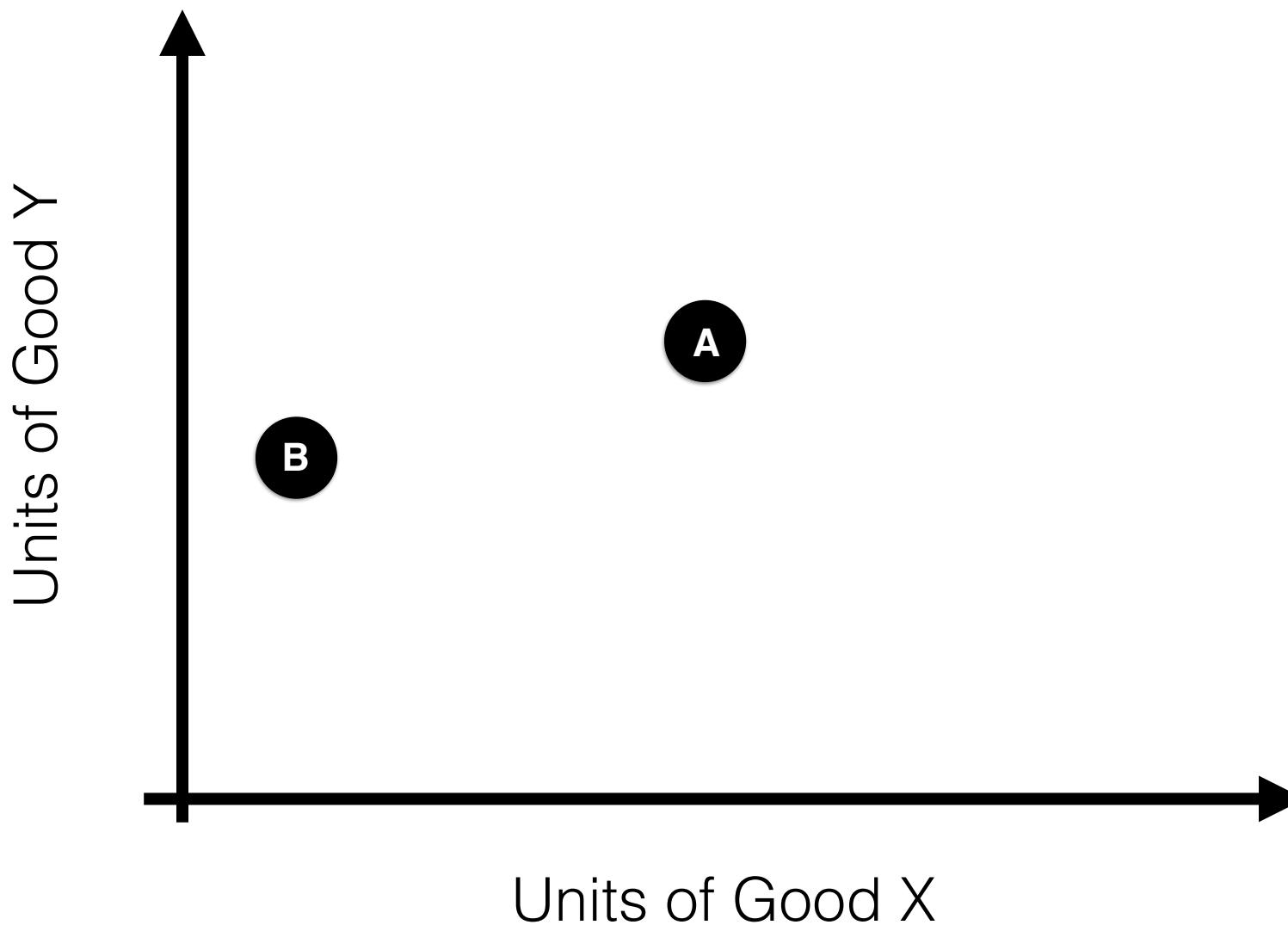
“More is better” (Monotonicity)

A is preferred to **B**
if **A** has more of all
goods than **B**

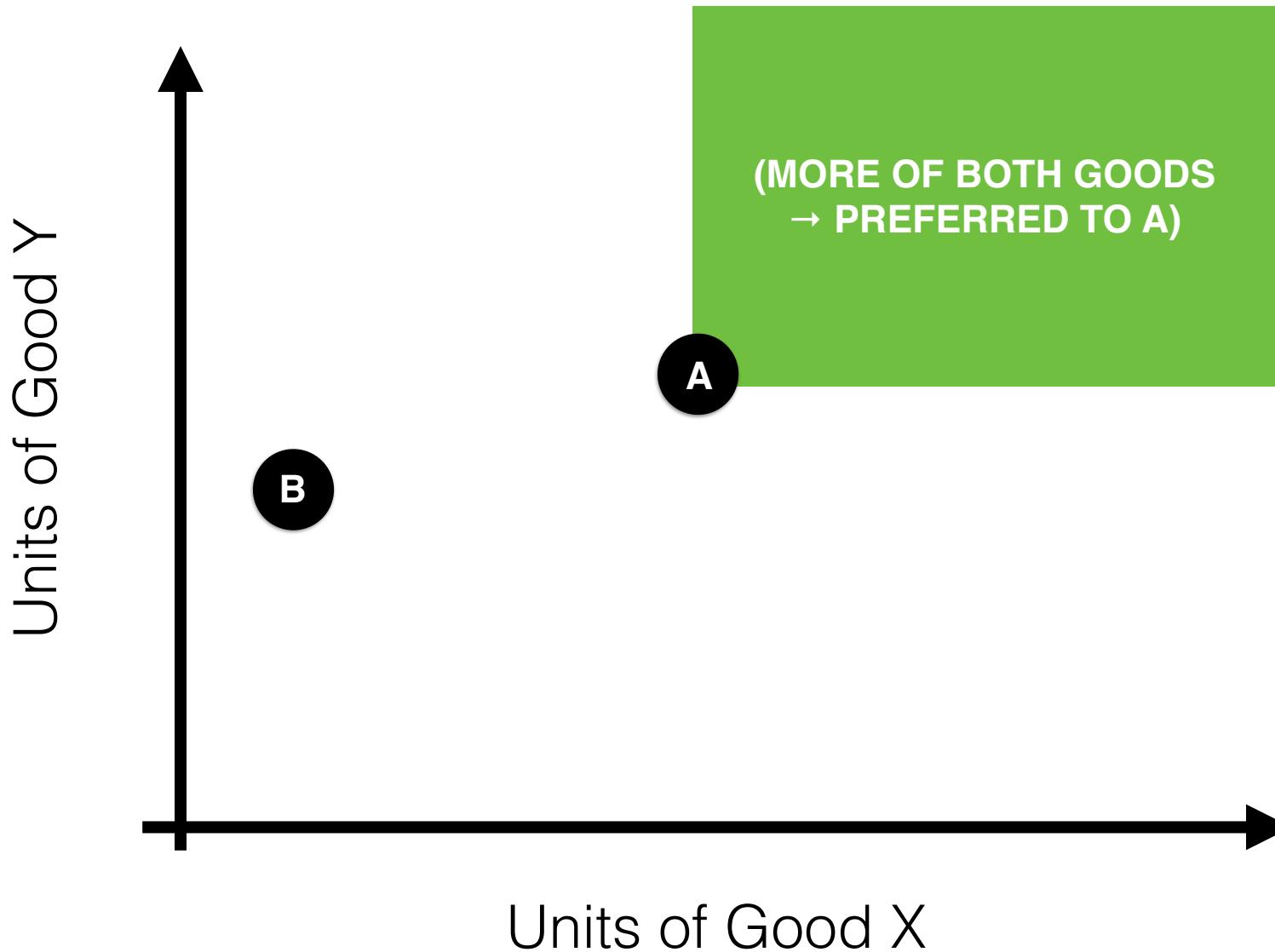
“Variety is better” (Convexity)

If a consumer is indifferent between **A** and **B**,
and **C** is a **convex combination** of **A** and **B**,
the consumer prefers **C** to both **A** and **B**.

Monotonicity Assumption



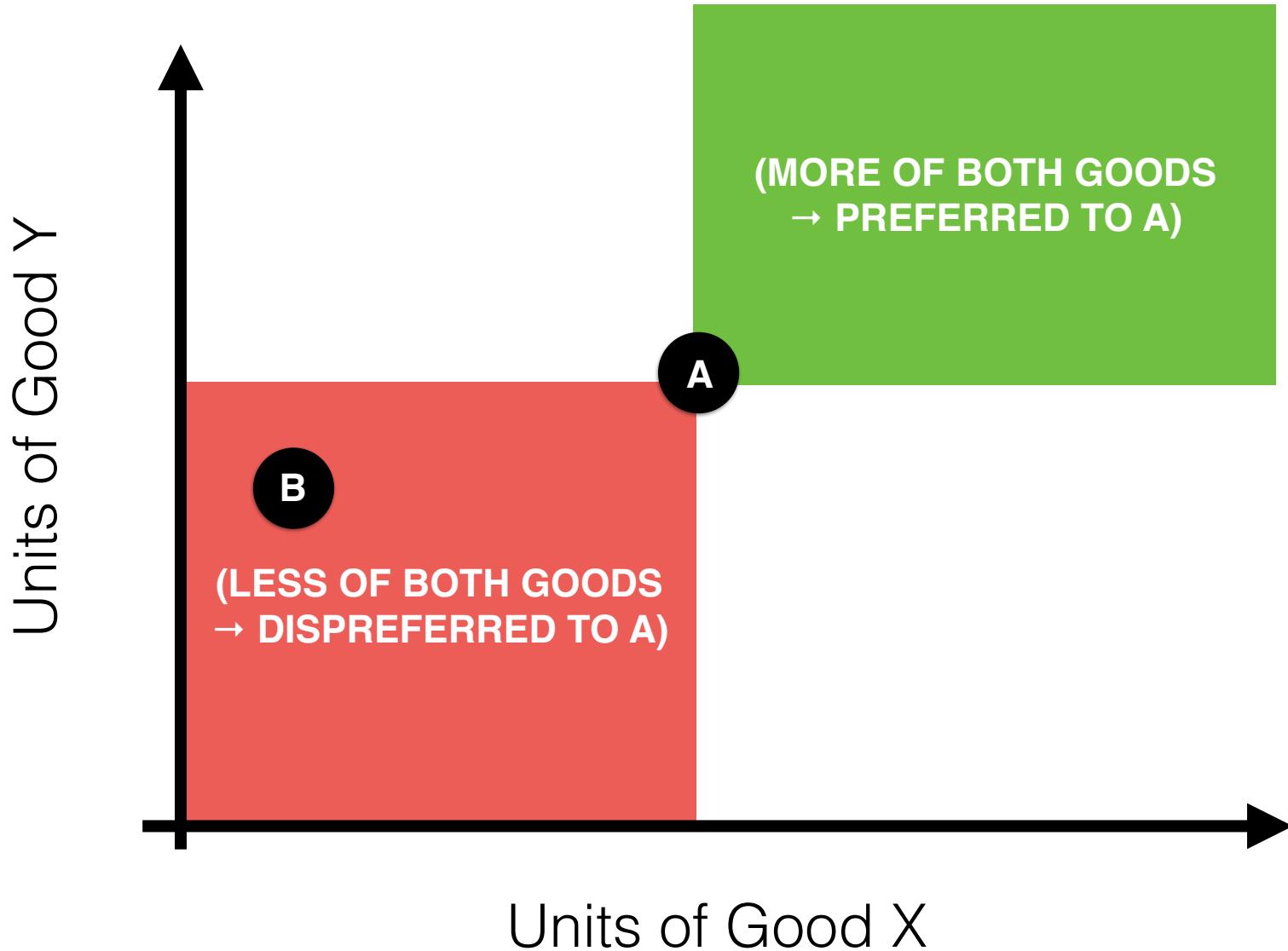
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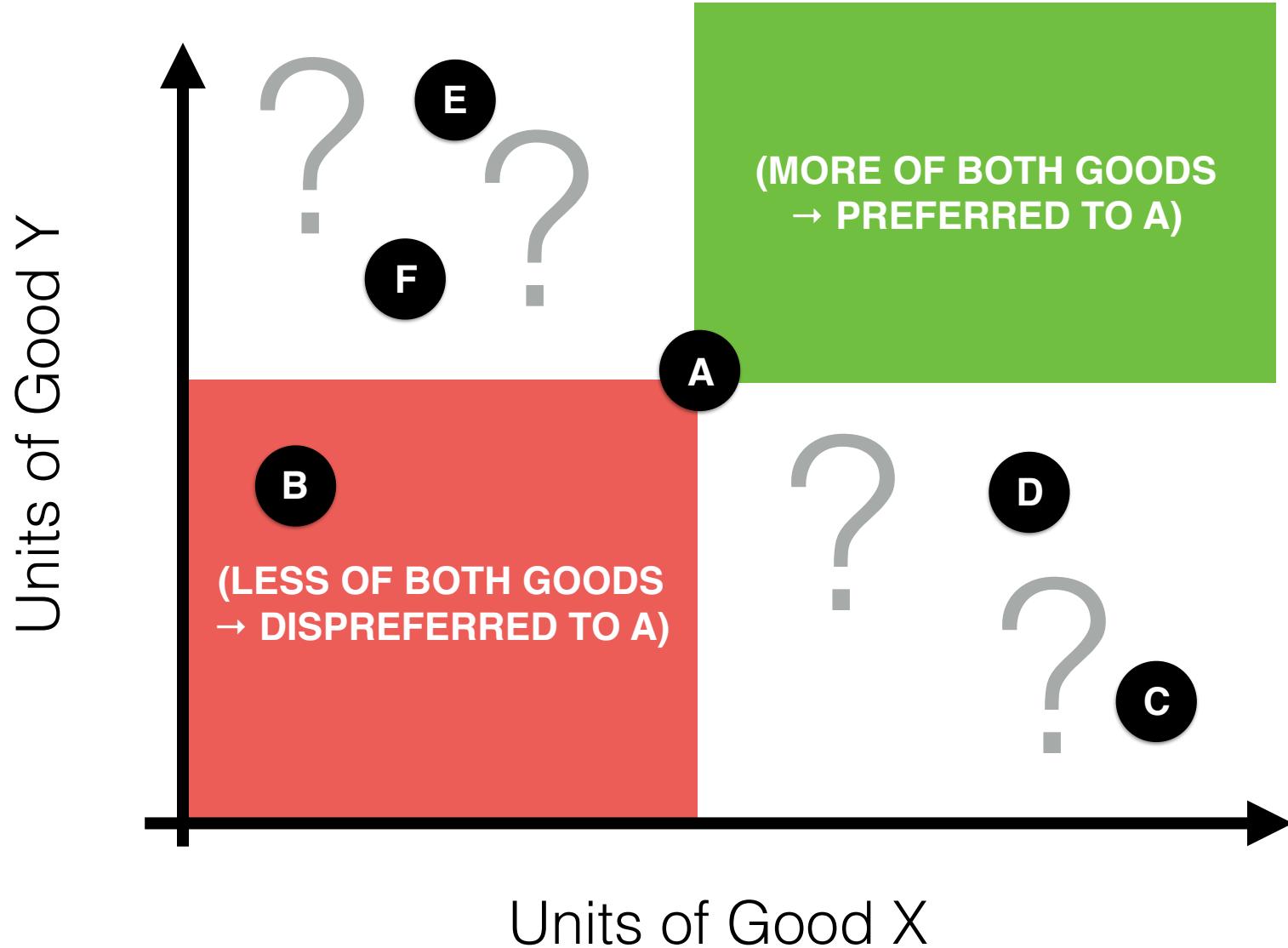


Monotonicity Assumption

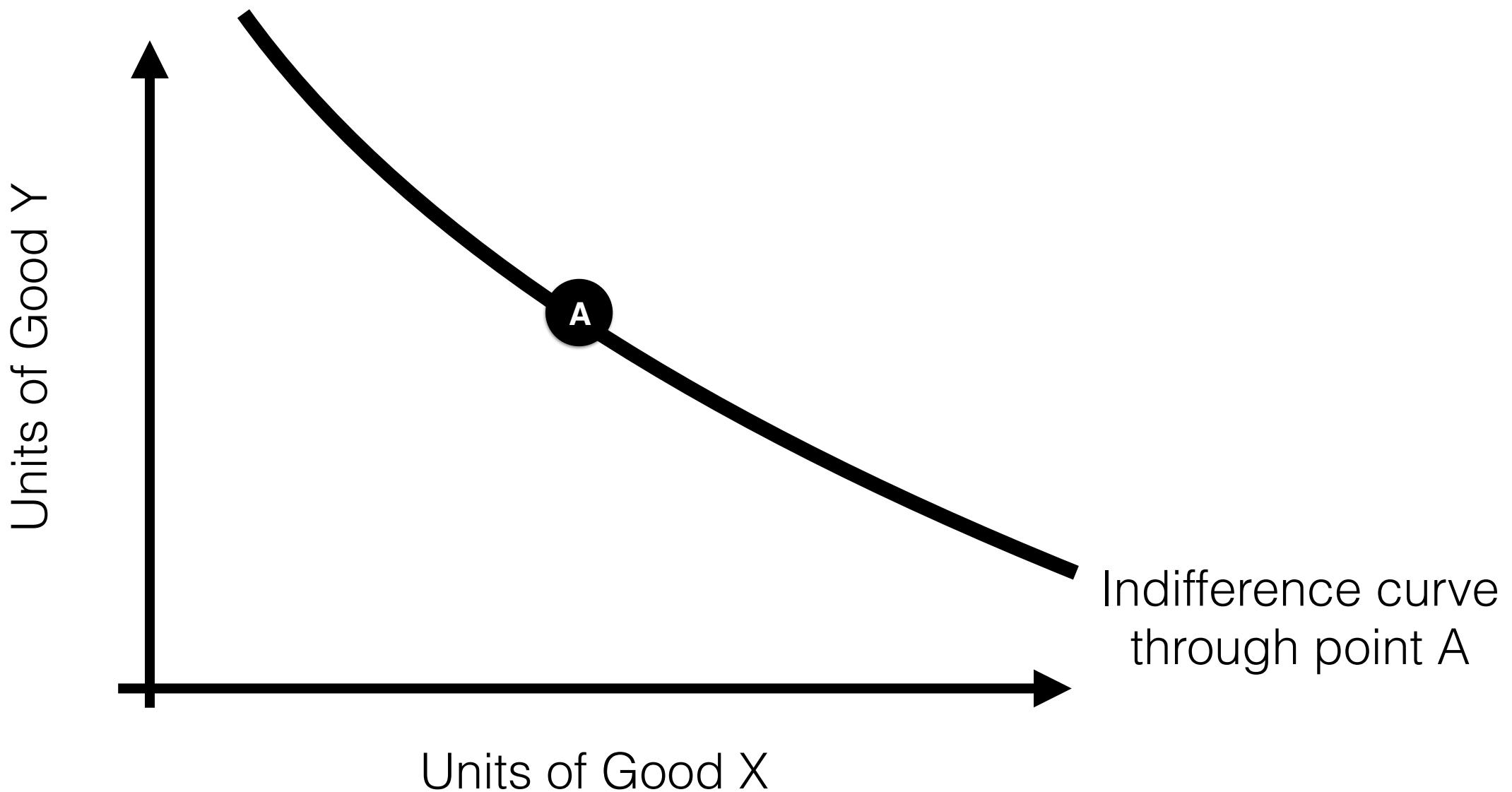


How do we compare bundles
if each has more of one good
than the other?

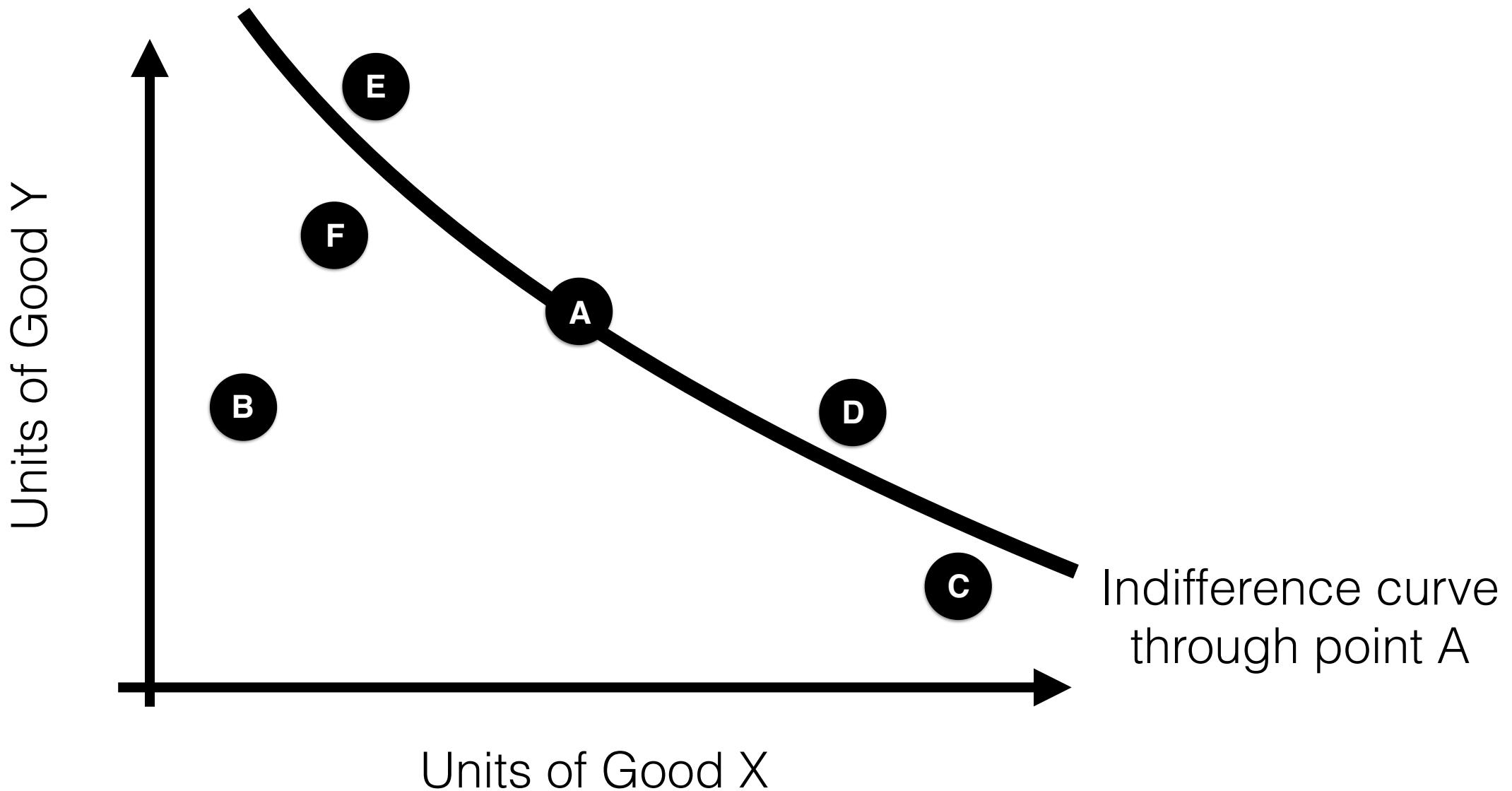




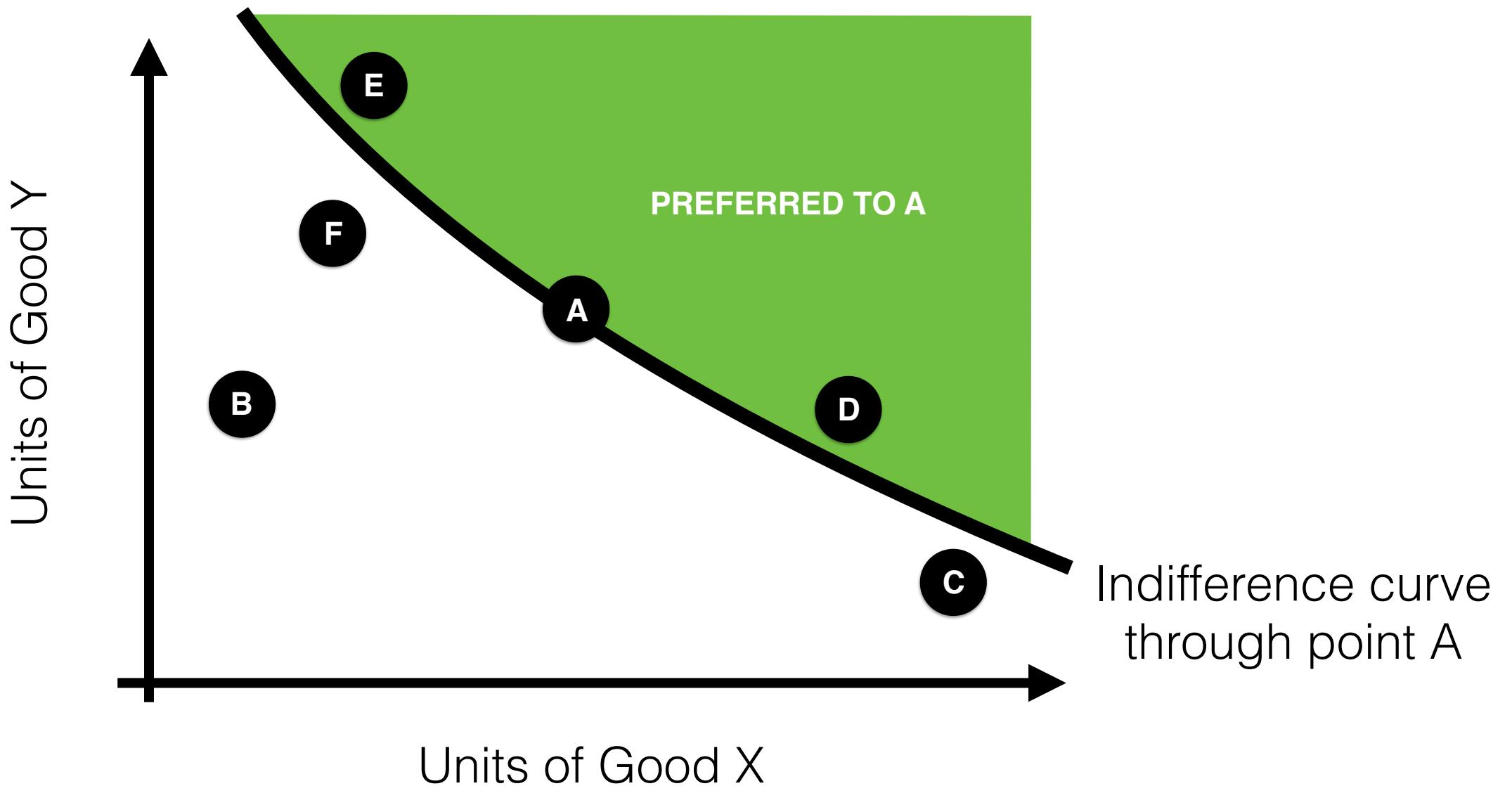
Indifference curves



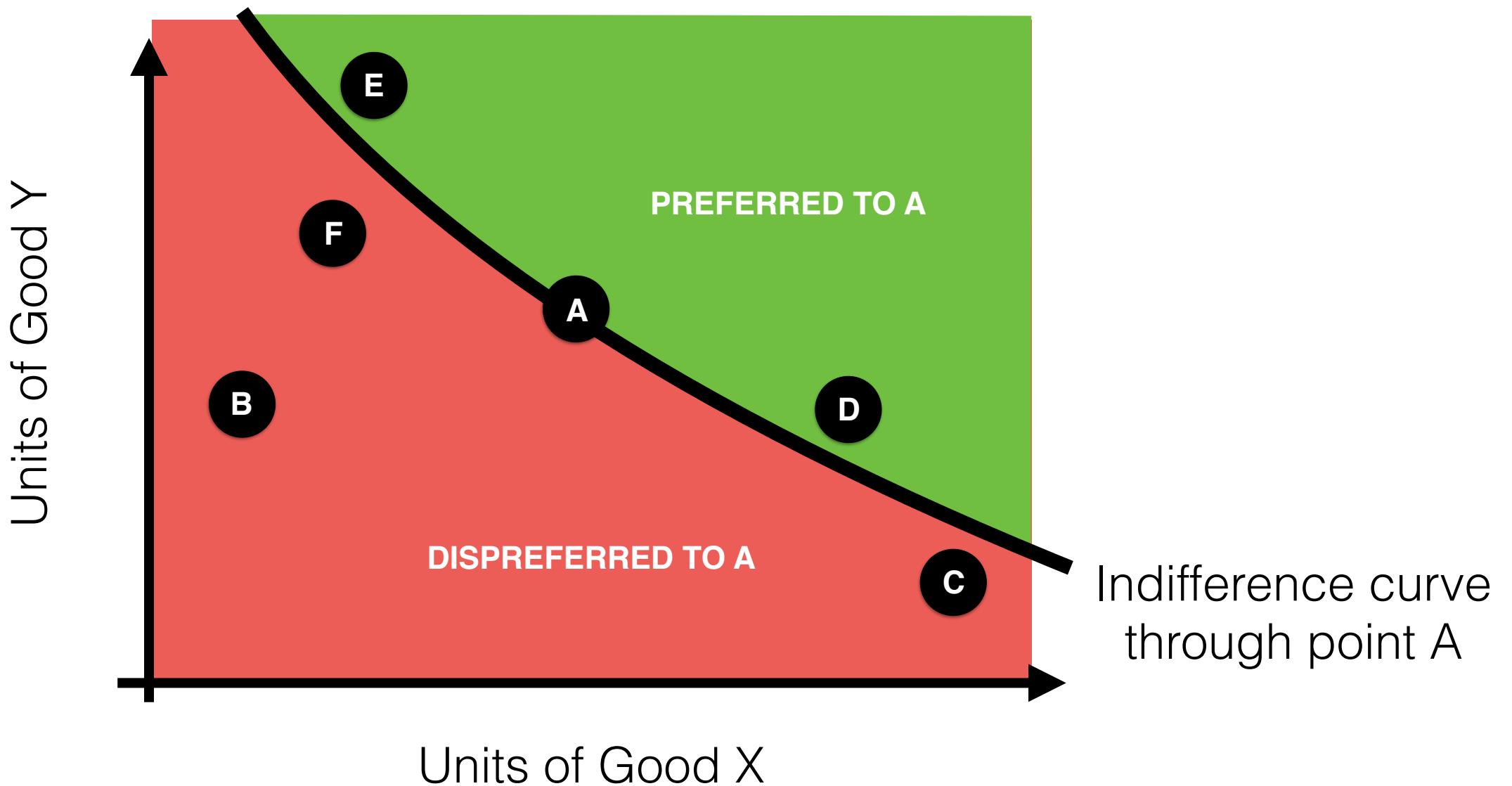
Indifference curves



Indifference curves



Indifference curves



An indifference curve
through a point
partitions the entire **choice set**

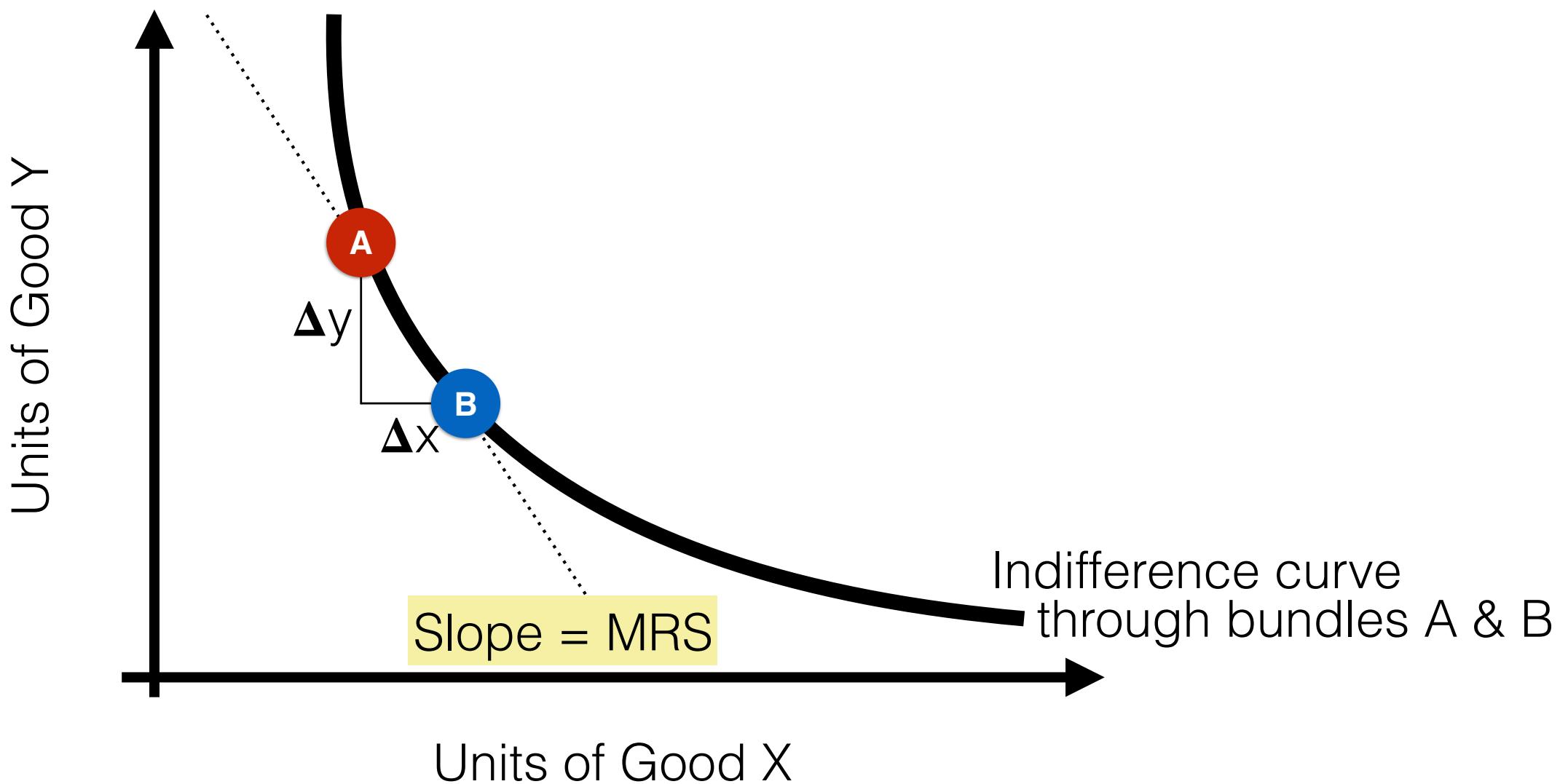
Complete preferences mean
every possible bundle
has an indifference curve
passing through it.

The **monotonicity** assumption
(more of each good is better)
implies that the **slope** of
indifference curves is **negative**.

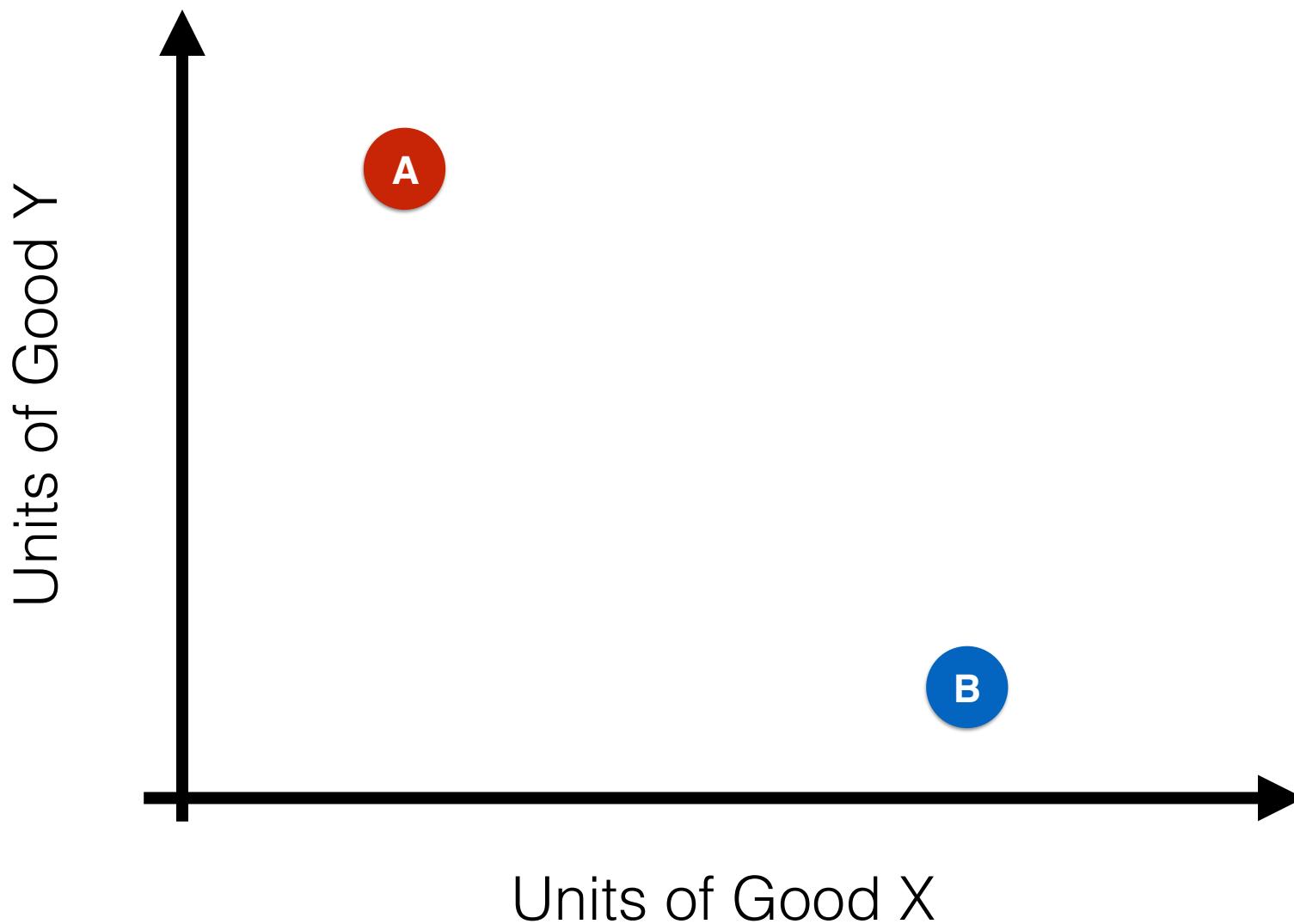
Marginal Rate of Substitution

- **Intuitively:** rate at which a consumer is willing to give up good Y to get an additional unit of good X.
- **Visually:** slope of an indifference curve
- **Mathematically:** (next time)

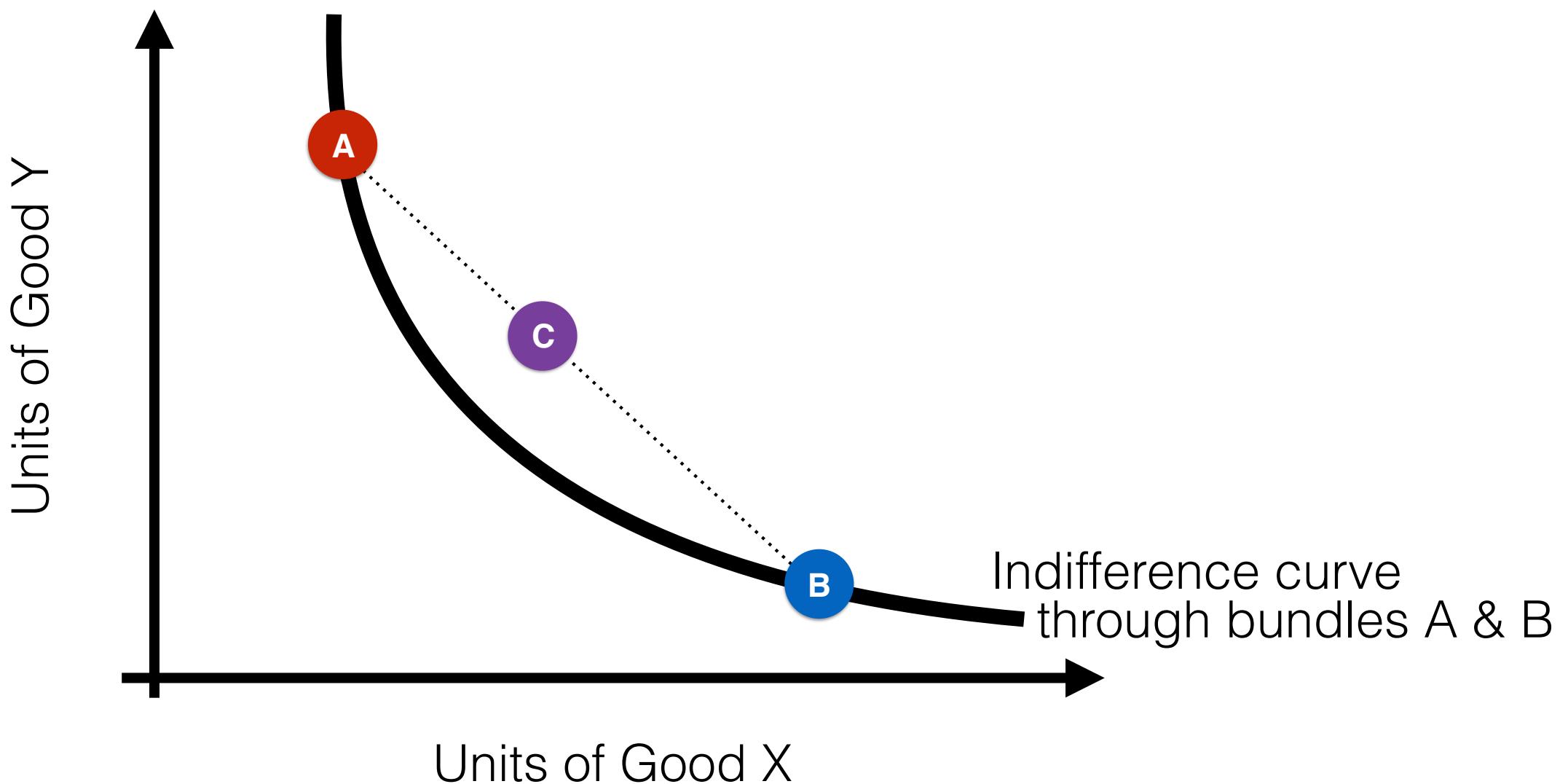
Marginal Rate of Substitution



Convexity Assumption



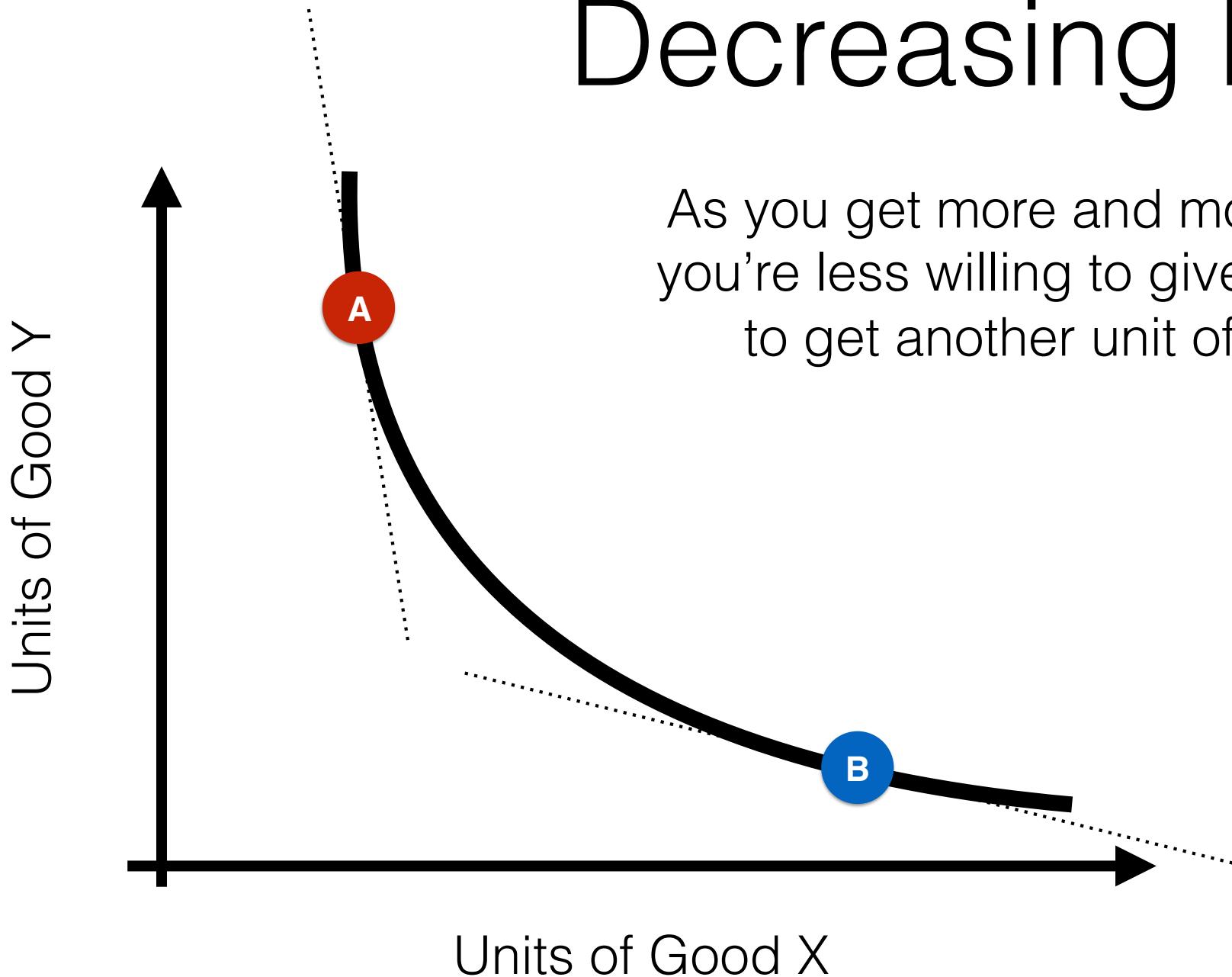
Convexity Assumption



The **convexity** assumption implies:

- (1) indifference curves are **bowed in** toward the origin
- (2) MRS is **decreasing**

Decreasing MRS



Special Cases

- **Perfect complements**
always consume things in a specific ratio
having more of either X or Y doesn't make you happier
- **Perfect substitutes**
always willing to trade one good for another in a specific ratio;
constant MRS



Laurie Santos:

A monkey economy as irrational as ours

TEDGlobal 2010 · 19:45 · Filmed Jul 2010

27 subtitle languages ?

View interactive transcript



Bounded Rationality

http://www.ted.com/talks/laurie_santos?language=en

You have been given \$1000. You now need to choose either:

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Take a Risk

Heads = You get \$1000 more

Tails = You get \$0 more

Play it Safe

You just get \$500 more

with certainty

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You have been given \$2000. You now need to choose either:

You have been given \$1000. You now need to choose either:

Take a Risk

Heads = You get \$1000 more

Tails = You get \$0 more

Play it Safe

You just get \$500 more
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