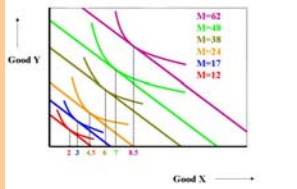


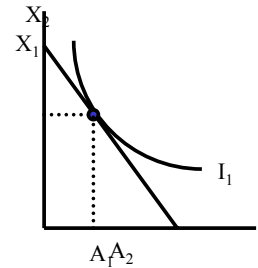
## Engel Curves



Lectures in Microeconomics-Charles W. Upton

## Demand and income

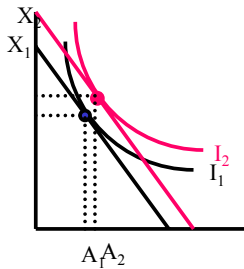
- If your income is initially  $X_1$ , you buy  $A_1$  apples



Engel Curves

## Demand and income

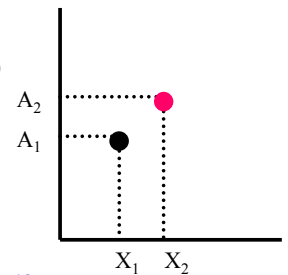
- If your income is initially  $X_1$ , you buy  $A_1$  apples
- When your income rises to  $X_2$ , you buy  $A_2$  apples.
- To make the obvious point, demand is a function of income



Engel Curves

## How demand rises with income

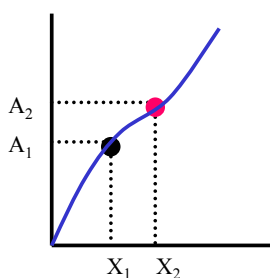
- Lets plot the combinations of apples and income ( $X$ ) from the previous graph.



Engel Curves

## How demand rises with income

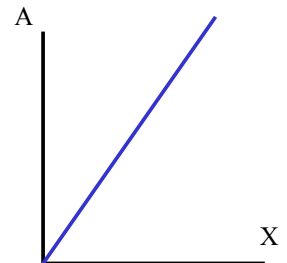
- Lets plot the combinations of apples and income ( $X$ ) from the previous graph.
- Connecting all possible points, we get the Engel curve, giving demand as a function of income.



Engel Curves

## The Shape of the Engel Curve

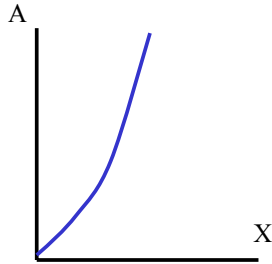
- The shape of the Engel Curve gives us the income elasticity of demand for the good
- If the Engel Curve is a straight line, the income elasticity is 1.0



Engel Curves

## The Shape of the Engel Curve

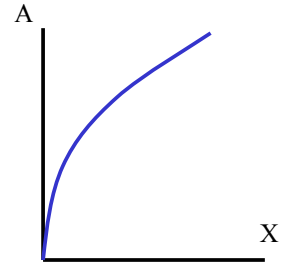
- The shape of the Engel Curve gives us the income elasticity of demand for the good
- If the Engel Curve has increasing slope the elasticity is greater than 1.0



Engel Curves

## The Shape of the Engel Curve

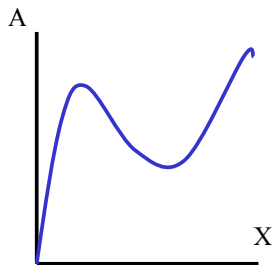
- The shape of the Engel Curve gives us the income elasticity of demand for the good
- If the Engel Curve has decreasing slope the elasticity is less than 1.0



Engel Curves

## The Shape of the Engel Curve

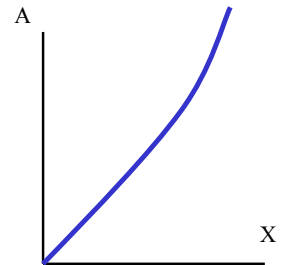
- The shape of the Engel Curve gives us the income elasticity of demand for the good
- This Engel Curve corresponds to a good that is both inferior and superior, depending on income



Engel Curves

## A Qualification

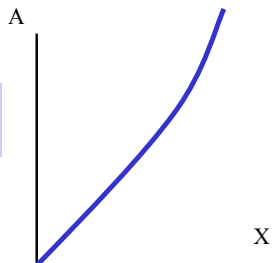
This is how we drew the Engel Curve



Engel Curves

## A Qualification

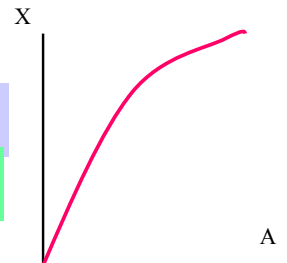
This is how we drew the Engel Curve  
Usually people flip the axes



Engel Curves

## A Qualification

This is how we drew the Engel Curve  
Usually people flip the axes  
And end up with this



Engel Curves

End

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W. Upton