Webnote 217

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2.1 Demand: Utility, Income + Substitution:

effects of a price change in Demand

Webnote 217

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Key concepts in section 2.1: Demand

1. Demand + Utility: Diminishing marginal utility-see slide 3 4 units of consumption. Consumers want to pay lower prices because satisfaction (utility − utils) fall as consumption increases
2. Demand: Substitution effect - (falling price then consumers buy more as they see gains in utility levels. Do you buy more of a good as price falls?)
3. Demand: Income effect − falling price increases real income (see slide 6) and consumers take advantage and buy more (price fall) or less (price rise).

Webnote 217: utility+income+substitution effects

Utility: diminishing marginal utility

Glasses of beer drink (units)	Total Utility (TU)	Marginal Utility (MU)
1	15	15
2	35	20
3	55	20
4	67	12
5	75	8
6	78	3

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Key concepts in section 2.1: Demand Assumptions:

1. Consumers purchase good X to gain utility (theoretically measured in utils)
2. When price of X falls the consumer substitutes more money into buying good X due to the gain in utility and therefore Q demanded of X is affected by price but there is also an income impact on the consumer as falling prices increases income the consumer is encouraged to buy more of the good.

Section 2.1 Markets

See webnote 202

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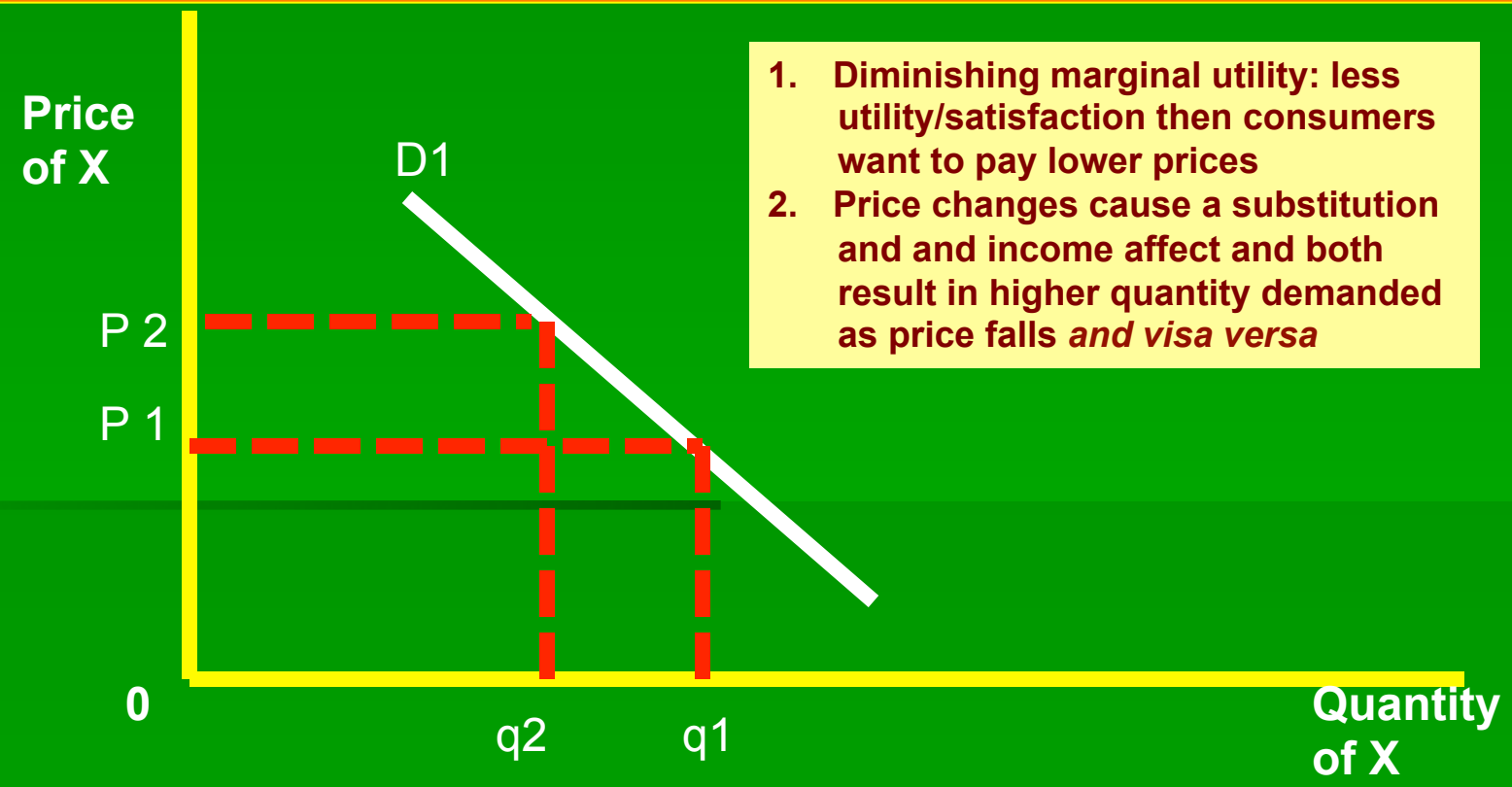
Why does Demand slope downwards?



1. **Diminishing marginal utility: less utility/satisfaction then consumers want to pay lower prices**
2. **Price changes cause a substitution and and income affect and both result in higher quantity demanded as price falls *and visa versa***

Webnote 217: utility+income+substitution effects

Income Effect of a price fall

Income : Nominal vs real income effect of a price change

A

Wine price: **$4**

Nominal Income (money): **$12**

- **Max wine consumption = 3 bottles or**
- **3 bottles can be bought with income of $12**

B

Wine price falls: **$3**

Nominal Income (money): **$12**

- **Max wine = 4**
- **Real income has risen as now the consumer can buy 4 bottles of wine**
- **Result: changes in price affect our income and this affects our demand for wine.**

Substitution Effect

Income : Nominal vs real income effect of a price change

A

Wine price: **$4**

Nominal Income (money): **$12**

- **Max wine = 3 bottles**
- **1 bottle then Income remaining: $8**

B

Wine price: **$3**

Nominal Income (money): **$12**

Due to price fall then money income remaining = $9

- **Result: Consumer notices that price is lower and shifts consumption of other goods (substitutes) into the consumption of wine so that less of other goods can be consumed i.e. substitution effect.**
- **See slide 8 for example.**

Summary:

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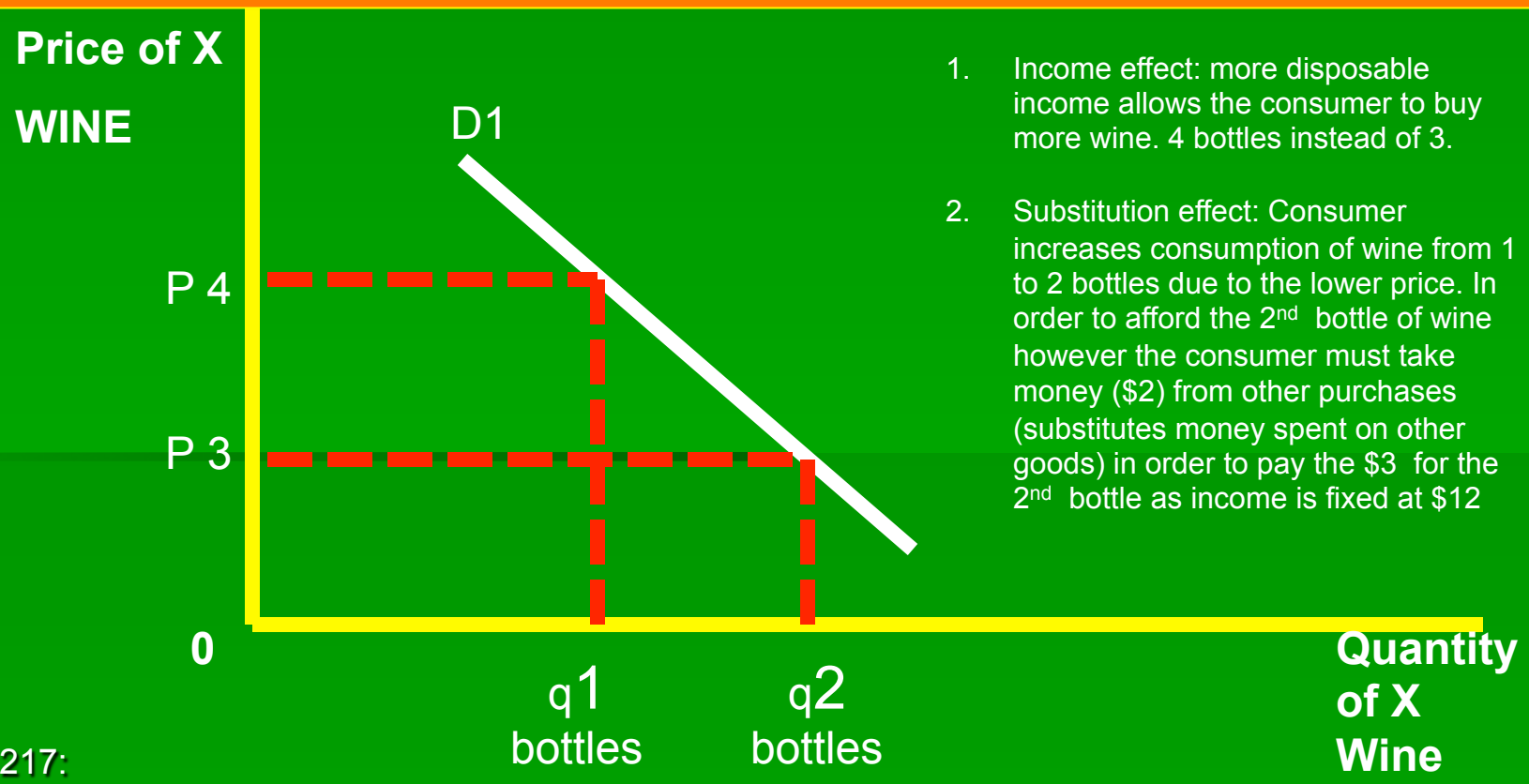
See webnote 202

Income + Substitution effects cause demand to rise due to a lower price



1. Income effect: more disposable income allows the consumer to buy more wine. 4 bottles instead of 3.

2. Substitution effect: Consumer increases consumption of wine from 1 to 2 bottles due to the lower price. In order to afford the 2nd bottle of wine however the consumer must take money ($2) from other purchases (substitutes money spent on other goods) in order to pay the $3 for the 2nd bottle as income is fixed at $12

Demand: income+substitution effects of a price fall of good X

Table 1			Substitution	Income		
Example	**Good**	**Price Change**	**Substitution effect**	**Income effect**	**Full Price Effect**	**Explanation**
1	Good X, normal good e.g. Wine	Price falls	Demand rises 'movement' effect Price rises of X then 'D' down Price falls of X then 'D' up	**Demand Rises** 'shift' effect. As a result of having more income we buy more of good X	**Demand Rises**	Overall substitution effect combines with income effect so in both cases demand rises. Consumer considers him/ herself better off with more utility
2	Good Y					
3	Good Z					