## Webnote 217

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## 2.1 <br> Demand: U Usjuty,


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Webnote 217: utility+income+substit

## Section 1.1 Markets

The BJG ideas!

## Webnote 217

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## 

1. Demand + Utility: Diminishing marginal utility-see slide 34 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).

## Utidity o dininishing marginal Utidy

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

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## Section 1.1 Markets

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## Webnote 217

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## Key concepts in section 2.1: ரesfajus ل



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 $\mathbf{Q}$ 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

## Webnote 217

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## Why does Demand slope downwards?



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## Income Effect of a price fall

## Jncome y Nominal vs real jncome effect of a price change

Wine price: \$4
Nominal Income (money): \$12

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

Webnote 217:
utility+income+substitution effects

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

Jacome a Nominal vs real jncome effect of a price change

Wine price: \$4
Nominal Income (money): \$12

## Max wine $=3$ bottles <br> 1 bottle then Income remaining: \$8

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.


## Webnote 217

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

| Price of X WINE |  |  | Income effect: more disposable income allows the consumer to buy more wine. 4 bottles instead of 3 . <br> Substitution effect: Consumer increases consumption of wine from 1 to 2 bottles due to the lower price. In order to affiord the $2^{\text {nd }}$ 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 $2^{\text {nd }}$ bottle as income is fixed at $\$ 12$ |
| :---: | :---: | :---: | :---: |
| P 4 P 3 |  |  |  |
| 217: 0 | $\begin{gathered} q 1 \\ \text { bottles } \end{gathered}$ | q2 <br> bottles | Quantity of X Wine |

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bottles bottles

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

| Table 1 |  |  | Substitution | Income |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Example | Good | Price <br> Change | Substitution <br> effect | Income <br> effect | Full Price <br> Effect | Explanation |
|  | Good X, <br> normal <br> good | Price <br> falls | Demand <br> rises | Demand <br> Rises | Demand <br> Rises | Overall <br> substitution <br> effect <br> combines with |
|  | e.g. <br> Wincome effect |  |  |  |  |  |

