

WEBNOTE 1201.

4 ELASTICITIES...4 EVALUATIONS.

....some key ideas.

yed-income demand

xed-cross demand

pes-supply

ped-demand

yed

Evaluate YED (useful for long essay)



- Government can use yed to manage the macroeconomy e.g. how will rises in income affect output in the economy? Use business cycle to illustrate i.e. as income falls then gdp will fall more rapidly if the country specialises in luxury goods
- Firms can use yed to plan output for the long run i.e. does firm need more factors of production in order meet increased demand from customers as incomes rise? Firms need to plan and this will have implications for resource allocation. If an economy is growing then firms will need to find appropriate sources of labour, capital and raw materials.

- ❖ Yed is difficult to calculate accurately into and results may change over time so planning for the long run will be complicated
- ❖ YED will not provide firms with accurate information that can influence the use of factors of production as YED represents a hypothetical situation and other factors may influence decisions of consumers whether to buy or not. Incomes might be rising but if consumer confidence is low then households will be reluctant to purchase expensive luxury goods such as furniture and cars.

ped

Evaluate PED (useful for long essay)



- Government can use Ped to guide indirect tax policy. How much tax the government want to place on goods + services depending on objectives e.g. demerit goods (cigarettes) can take higher rates of tax due to inelasticity but other goods will have a lower rate because the indirect tax will make the market smaller and government may not want to risk damaging the market
- Remember indirect taxes make markets smaller so this is a consideration for Government
- Firms can use Ped to plan pricing and therefore total revenue i.e. total revenue planning will allow the firm to forecast and estimate profit levels and 'what to produce? Once again there is a key resource allocation effect to consider.

- ❖ Ped is difficult to calculate accurately and there are a wide number of variables that influence the calculation. E.g. Ped changes over time so planning for the long run will be complicated
- ❖ Ped (and all elasticities) often change at different points on the curve so the firm needs accurate information from consumers as to how their decisions to purchase are affected by price

xed

Evaluate XED (useful for long essay)



- Firms can use Xed to make decisions in the short run i.e. does firm need more factors of production in order meet increased demand from customers as new customers arrive following a price increase in a substitute good ?
- Predicting how changes in a competitor firm or indeed a complementary good is important in order to determine price changes and the allocation of factors of production e.g. is more or less labour required as a result of a change in the market. There is a significant resource allocation effect to consider.

- ❖ Xed is difficult to calculate accurately into and results may change over time so planning for the long run will be complicated
- ❖ Many variables can change taste for Good X Coca Cola. E.g. substitute products (Pepsi) may use significant advertising to shift demand so QdX will be influenced not only by changes in price of the substitute good. Good x may not want to wait to see if customers shift into purchasing good X and may need to carry out a competitive advertising campaign e.g. pepsi advertising campaign often causes coca cola to react and visa versa. These large oligipoly firms rely heavily on advertising to discourage customers from leaving their product and encouraging new customers to 'buy into' their product so Xed impact is not sees as one advertising campaign leads to an competitor reacting to protect its market share

pes

Evaluate PES (useful for long essay)



- Government can use Pes to manage the macroeconomy e.g. how will rises in prices affect quantity of output in the economy? Is there sufficient levels of skilled labour available in the economy if firms decide to produce more output?
 - Firms can use Pes to plan output for the long run i.e. does firm need more factors of production in order meet increased demand from customers as incomes rise or population increases? Firms must be planning for the long run so that when the changes occur they can react to the current market situation.
- ❖ Pes is difficult to calculate accurately into and results may change over time so planning for the long run will be complicated

Summary 1- you must know the 'story' of each elasticity

Analysing Elasticity results is critical:

PeD

Price elasticity allows us to classify goods whereby the results of the elasticity calculation determine one of the following:

1. **TR is key focus.**
 2. **NORMAL** (p_{ed} , negative)
 3. **GIFFEN** (p_{ed} , positive)
 4. **ELASTIC** ($e > 1$)
 5. **INELASTIC** ($e < 1$)
 6. **UNITARY ELASTIC** ($e = 1$)
 7. Elasticity is a key issue for LDC's.
- ❖ ~~commodities~~ / primary goods face price inelastic demand. This is critical for LDC's

XeD

1. **SUBSTITUTES** (X_{eD} positive)
2. **COMPLEMENTARY** (X_{eD} , negative)
3. **ELASTIC** ($e > 1$)
4. **INELASTIC** ($e < 1$)
5. **UNITARY ELASTIC** ($e = 1$)

Yed

1. **INFERIOR** (y_{ed} , negative)
See ~~yed~~ 1+2
2. **ELASTIC** ($e > 1$)
3. **INELASTIC** ($e < 1$)
4. **UNITARY ELASTIC** ($e = 1$)
5. **YED elasticity is a key issue for LDC's**
6. ~~commodities~~ / primary goods income inelastic. Necessities ~~such~~ as food products. This is critical for LDC's (**yed 3 in diagram 3, slide 3**). Increases in incomes not a great benefit for LDC's selling food.
7. ~~manufactured+luxury~~ goods tend to be income elastic (**yed 4**). DC's benefit by selling luxuries. More profits!

PeS

1. Shows ability of firms to adjust to changes in price. Firms that have elastic price elasticity of supply can benefit from sudden changes in price.
2. **ELASTIC** ($e > 1$)
3. **INELASTIC** ($e < 1$)
4. **UNITARY ELASTIC** ($e = 1$)

Summary 2: you must know the 'story' of each elasticity

4 Elasticities: 4 stories



PeD \longrightarrow	$> 1 < 1 = 1$	\downarrow TR \uparrow
YeD "i to I"	$> 1 < 1 = 1$	+ or - (inf)
XeD \longrightarrow	$> 1 < 1 = 1$	+(sub) or - (com)
PeS \longrightarrow	$> 1 < 1 = 1$	+ or - (time)

Note: for **pes** and **ped** be sure you know the factors that make each in(elastic)
See webnote 122 for **ped** and for **pes** see slide 18 above!