Session 1.3
Demand Analysis

Introductory Course on Economic Analysis of Investment Projects
Demand Analysis

- Critical to project success
- Methods of estimation
- Statistical projections
- Market surveys of potential customers
- Econometric modelling ‘contingent valuation’
Statistical projections

- Demand is a function of income, product price, competitors prices, taste/advertising
- \( D = f(Y, X, P) \)
- Simple projections based on income elasticity of demand and targeted/projected GDP growth
- If elasticity is 1.2 then if GDP growth is 5% product demand growth is 6%
Statistical projections

- Price can be included in a model where price elasticity is known or can be approximated.
- For transport:
  \[ T_{xt} = (T_{x0} \times (1+g_t)^y) \times \left(\frac{C_{xt}}{C_{x0}}\right)^n \]
- where \( T_{xt} \) is traffic flow (AADT) for type \( x \), \( t \) is a future year, \( 0 \) is the base year, \( g \) is GDP per capita growth rate, \( y \) is income elasticity of demand, \( C \) is generalized travel costs including any toll payments, and \( n \) is a constant price elasticity.
Market surveys

- Can establish current expenditure patterns
- Contingent valuation (CV) surveys can be used to determine how much people would pay for good or service
- Also reveal what demand will be at a particular price
Generalized Travel Costs

Traffic

C1

C2

0

T1

T2

Demand

a

b

d
Thank you