SESSION 1.3

DEMAND ANALYSIS

Introductory Course on Economic Analysis of Investment Projects

Economics and Research Department (ERD)
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

\[ T_{xt} = \left( T_{x0} \times (1+g_t)^y \right) \times \left( \frac{C_{xt}}{C_{x0}} \right)^n \]

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

Demand

$C_1$

$C_2$

0

$T_1$

$T_2$

Traffic
Thank you