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’
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:

\[ T_{xt} = (T_{x0} * (1+g_t)^y) * (C_{xt}/C_{x0})^n \]

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

C_1

C_2

0

T_1

T_2

Demand

a

b

d
Thank you.