

Midterm Review

Rules

- A) Nothing New
- B) If yes then yes, if not then not
- C) High Speed – You've been there done that. Open your RAM

Economics

Formal Definition

Social Science that studies Production, Distribution, and Consumption of Goods and Services

Practical Definition

How does an economy Efficiently Allocate its Scarce Resources

Real Estate Economics

Definition

A specialized field of study that uses Economic Principles to solve Real Estate Problems

Real Estate Economics Uses

Analyze Trends

- National
- Regional
- Local
- Neighborhood

Basic Principles of Capitalism

- Private Property
- Private Enterprise
- Competitive Markets
- Profit Motive
- Laissez Faire

Economic Analysis Model for Real Estate Decisions

Step #1

Establish Purpose

Location
Seeking a
Use/User

Use/User
Seeking a
Location

Investment
Seeking an
Investor

Investor
Seeking an
Investment

Economic Analysis Model for Real Estate Decisions

Step #2

Market Analysis

**Estimate
Demand**

**Measure
Supply**

**Determine
Gap**

Economic Analysis Model for Real Estate Decisions

Step #3

Location Analysis

Characteristics

Linkages

Land Use Patterns

Economic Analysis Model for Real Estate Decisions

Step #4

Financial Feasibility

**Estimate
Income**

**Estimate
Costs**

**Analyze
Yield/Feasibility**

Economic Analysis Model for Real Estate Decisions

Decide on Real Estate Action

Definition Of Demand

Demand is the total quantity buyers are willing to purchase at a particular time, at certain prices

Demand represents the buyers side of the market

Definition of Supply

Supply is the total quantity Sellers are willing to Sell in a particular market at a particular time at certain prices

Supply represents the Sellers side of the market

The Law of Demand

The lower the price the more Consumers will buy

The higher the price the less they will buy

The Law of Supply

The higher the price the more suppliers will produce

The lower the price the less suppliers will produce

Gross Domestic Product

The total Value of all Goods and Services produced within an Economy over a Specific period of Time

Trends affecting Demand e.g.

- Population Trends +,-
- Income Trends +,-
- Tastes
- Availability and cost of Credit
- Advertising
- Etc...

Trends affecting Supply

- Price/Cost of Factors of Production
- Demand changes (water in a bottle, big cars vs small cars etc...)
- Future projections of need
- International Impacts (Imports and Exports)

Government Goals in the Economy

- Regulate Imperfect markets via anti trust -- Insure Competition
- Meet Social Goals for Services
- Provide for needs of Defense
- Stabilize Markets

Business Cycle Stages

1. Prosperity: Booming sales, profits, jobs, and income
2. Recession: Declining sales, profits, jobs, income, and growing inventories
3. Depression: Few sales, loss of income, profits, and declining production
4. Recovery: Increasing sales, jobs, income, profits, and production

*Key: “Where are we in the cycle”

Cycle Causes

- Psychology: How do the people feel?
- Innovation and Technology
- Changes in Spending Patterns
- International Conflict
- Cost of Money and Credit Availability
- Personal and Corporate Planning
- Etc...

Fiscal Policy

This is the Governments use of Spending and Taxing in order to Stabilize the Economy within a Business Cycle as follows:

1. Prosperity: Increase taxes and reduce spending
2. Recession: Decrease taxes and increase spending
3. Depression: Decrease taxes further and spend more
4. Recovery: Increase taxes and decrease spending

Monetary Policy

This is the Government's use of the Money Supply in order to stabilize the markets during business cycles through actions of the Federal Reserve as follows:

1. Change Interest Rates
2. Buy Bonds
3. Sell Bonds
4. Change Required Reserve Ratio

Money and Credit

Money=

1. Medium of Exchange (not barter)
2. Measure of Value (What a \$ will buy)
3. Store of Value (a \$ saved is \$2 earned)
4. Standard of Deferred Payment (Loans)

2% Coinage, 25% Paper, 73% demand deposits

Creating Money in Banking

	Deposits	Reserves (20%)	Loans
1.	\$1,000	\$200	\$800
2.	\$ 800	\$160	\$640
3.	\$ 640	\$128	\$512
4.	\$ 512	\$102.40	\$409.60
Rest	<u>\$2,048</u>	<u>\$409.60</u>	<u>\$1638</u>
	\$5,000	\$1,000	\$4,000

Money Multiplier in Banking

“Required Reserve Ratio” is the key Lever

- e.g. 20% Reserve = a Multiplier of 5
 - 10% Reserve = a Multiplier of 10
 - 4% Reserve = a Multiplier of 25
- etc..

Tools of the Fed

1. Federal Funds Rate – at arms length
2. Discount Rates
3. Open Market Operations
4. Required Reserve Ratio

Economic Characteristics of Real Estate

- Fixed Supply in the Short Term
- Immobile: Local Markets are key
- Long Economic Life
- Lack of a Standard Product

Opportunity: Quick price increase/decrease in prices and rents are caused by changes in Demand not Supply

Demand and Real Estate

Changes in Demand happen fast and have the most significant impact in short term changes in value

Changes in Demand are caused by Changes in Income, Population, Jobs, Credit, Government policy, Lifestyle etc...

Forecasting changes in demand is complex yet key to creating opportunities in Real Estate

Supply and Real Estate

- They are not making anymore Land!
- Increased Density is the only way to increase supply (NIMBY)
- How Long does it take to create a significant Real Estate development?

Supply of Real Estate is easily counted and Tracked

Forecasting Demand

Jobs = People = Demand

Real Estate Demand is based on peoples ability to participate

- Jobs: Where there are jobs available people will go
- The quality, consistency, and future expectations of local jobs, will be reflected in the local real estate values
- People: People cause more people
- Demand: More people cause increased demand

Economic Base Multiplier

Economic Base Multiplier compares “Basic Employment (BE)” to “Total Employment (TE)” within the study area to create a “Multiplier” to use in forecasting : $TE/BE=EBm$

Steps required to complete an Economic Base Study

1. Select study area: City, County, MSA, DMA etc..
2. List and Group Employment
3. Separate Basic Employers from Ancillary Employers
4. Analyze Basic Employers for changes
5. Forecast change in Basic Employment
6. Use Multiplier to forecast change in total employment

Economic Base Analysis

Objectives:

- Identify Basic Employment (BE)
- Forecast Change (+,-) in (BE)
- Forecast Change (+,-) in Total Employment (TE) and Total Population (TP)

Data Needed

- Total Population (TP) in Study Area
- Total Employment (TE) in Study Area
- Total Basic Employment (BE) in Study Area
- Forecast Basic Employment (FBE) in Study Area

Identifying Basic Employment

Two Methods to Identify Basic Employment:

- Interview Method: Develop list of Major Employers in Study Area, Interview key personnel, identify good and or service, estimate impact on the study area, and forecast potential change (very time consuming).
- Location Quotient: Compare Employment in the Study Area to Employment Nationally to identify industries which are over represented in the Study Area. e.g. The Technology industry in Santa Clara County compared to the National Technology Industry (%of workers in each area)

Location Quotient

Comparing Study Area Employment to National Employment

Data Necessary

- Total Employment in the Study Area
- Employment Information by “Industrial Code” in Study Area
- Total Employment in the Nation
- Employment Information by “Industrial Code” in Nation

Industrial Codes: SIC or NAICS

Location Quotient Formula

Local Employment in Industrial Code = % Employment in
Total Local Employment Industry Locally

National Employment in Industrial Code = % Employment in
Total National Employment industry Nationally

LQ = Local % Employment in Industry
National % Employment in Industry

Using LQ to Identify Basic Employees

$LQ > 1$ = a Basic Industry in Study Area

Once Industries are identified as Basic the analyst must then identify how many employees in the industry are “Basic”, Employees who exceed the National Average in the Study Area i.e. $LQ > 1$

Identifying BE via LQ

Formula $\frac{\text{LQ}-1}{\text{LQ}} = \% \text{ Basic Employees}$

e.g. LQ=2.0 $\frac{(2.0-1)}{2.0} = \frac{(1)}{2.0} = .5 \text{ or } 50\%$

are BE i.e. Industry (X) 20,000 x .5 = 10,000BE

Location Quotient Example

Study Area Employment

TE = 100,000

Industry X = 20,000 (20%)

Industry Y = 10,000 (10%)

LQ per Industry =

Industry X = $20\%/10\% = 2$

% BE $(2-1)/2 = \frac{1}{2}$ or 50%

National Employment

TE = 1,000,000

Industry X = 100,000 (10%)

Industry Y = 130,000 (13%)

Industry Y = $10\%/13\% = .77$

% BE (Industry Y < 1) N/A

Using Economic Base Analysis

- Establish Economic Base Multiplier (EBm)
Total Employment (TE)/ Basic Employment (BE)
- Establish Population / Employment Ratio (P/Er)
Total Population (TP) / Total Employment (TE)
- Forecast Change in Economic Base to forecast change in Total Population
- Jobs = People = Demand

Economic Base Analysis Formula

Forecast Basic Employment (FBE)

X

EBm (TE/BE in Study Area)

X

P/Er (TP/TE in Study Area)

=

Forecast Total Population

Supply

Five Basic Property Types

Retail **Total Square Feet in Study Area**

Office **Total Square Feet in Study Area**

Industrial **Total Square Feet in Study Area**

Residential **Total number of Units**

Land **Total Acres/Square Feet**

Forecasting Supply Formula

Total Existing Supply

+

Pipeline (Currently under construction +
planned and permitted construction)

-

Drain (Property scheduled for demolishing)

=

Forecast Supply