COURSE CODE: AEM 102

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TOPIC: INVESTMENT and EXPORT

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INTRODUCTION TO INVESTMENT

- Economists studying economic activity in the nineteenth century or during the Great Depression had no measure of aggregate activity (*aggregate is the word macroeconomists* use for *total) on which to rely.*

- *They had to put together bits and pieces of information,* such as the shipments of iron ore or sales at some department stores, to try to infer what was happening to the economy as a whole.

- The measure of **aggregate output in the national income accounts is called the gross domestic product,(GDP) which can be defined as:**

1. the Value of the Final Goods and Services Produced in the Economy during a Given Period.
2. the Sum of Value Added in the Economy during a Given Period.
3. the Sum of Incomes in the Economy during a Given Period.

INTRODUCTION TO INVESTMENT (Cont'd)

- When economists think about year-to-year movements in economic activity, they focus on the interactions among ***production, income, and demand***:

- **Changes in the demand for goods lead to changes in production.**
- **Changes in production lead to changes in income.**
- **Changes in income lead to changes in the demand for goods.**

- Therefore to understand what determines the demand for goods, it makes sense to decompose aggregate output (GDP) from the point of view of the different goods being produced, and from the point of view of the different buyers for these goods.

COMPOSITION OF GDP

1. **Consumption (*C*):** These are the goods and services purchased by consumers, ranging from food to airline tickets, to new cars, and so on. Consumption is by far the largest component of GDP.

2. **Investment (I):** sometimes called fixed investment to distinguish it from inventory investment .

3. **Government spending (*G*):** represents the purchases of goods and services by the government.

- The decomposition of GDP typically used by macroeconomists is shown in Table 1

Table 1: Composition of GDP (Cont’d)

	GDP (*Y*)
1	Consumption (*C*)
2	Investment (*I*)
	Nonresidential
	Residential
3	Government spending (*G*)
4	Net exports
	Exports (*X*)
	Imports (*IM*)
5	Inventory investment

INVESTMENT

•Gross investment is the least stable of aggregate spending .

•It is the principal cause of the business cycle in the national income accounts, because it changes with time.

- Investment is the sum of **non-residential investment** and **residential investment.**

Non-residential investment, residential investment, and the decisions behind them, have more in common .

Firms buy machines or plants to produce output in the future.

People buy houses or apartments to get *housing services in the future.*

In both cases, the decision to buy depends on the services these goods will yield in the future, so it makes sense to treat them together.

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Investment consists of:

1. Residential construction (single family and multi-family units) **, the purchase by people** of new houses or apartments.

2. Non-residential construction (offices, hotels, other commercial real estates), **the purchase by firms of new plants or new machines** (from turbines to computers),

3. Producers' durable equipment (equipment purchases by businesses).

4. Changes in business inventories.

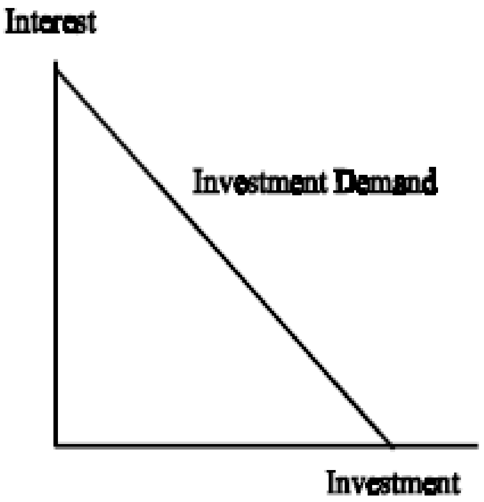
Investment (Cont'd)

- Investment demand is a function of the interest rate.
- The investment demand curve is downward sloping, which suggests that as the interest rate increases investment decreases.
- The reason for this is relatively simple. For example, If the expected net return on an investment is 6%, it is not profitable to invest when the interest is equal to or more than 6%.
- A firm must be able to borrow the money to purchase capital at an interest rate that is less than the expected net rate of return for the investment project to be undertaken

Investment Demand Curve

Therefore, there is an inverse relation between expected return and the interest rate; and the interaction of the interest rate with the expected rate of return determine the amount of investment.

- The diagram below shows an investment demand curve.



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- Investment demand is a negative function of the interest rate, holding constant the other variables that affect the decision to invest

DETERMINANTS OF RESIDENTIAL INVESTMENT DEMAND

Residential investment demand depends upon the willingness and ability of individuals to purchase housing units

This demand is influenced by:

1.demographics(size of house buying population

2.the indebtedness of potential house buying individuals

3.the wealth of such individuals and ability to come up with down payments

4. their current and expected income level

5.consumer confidence and willingness to incur new debt

6.the ability of potential home buyers to obtain a loan from financial institutions

7.the cost of housing units, and,

8. the mortgage rate of interest which determines the monthly cost of carrying a mortgage.

DETERMINANTS OF NON-RESIDENTIAL INVESTMENT DEMAND

Non-residential investment demand is dependent upon the willingness and ability of business units to buy commercial properties.

Their demand depends upon;

1.the rate of interest

2.the vacancy rate of existing units

3.the needs of business units for additional commercial space, and,

4.the ability of business units to meet increased rental costs which are directly linked to their current and expected costs and sales

Determinants Of Investment Demand

The determinants of investment demand are those things that will cause the investment demand curve to shift.

The determinants of investment demand are:

(1) Acquisition, maintenance & operating costs of capital,

(2) Business taxes,

(3) Technology,

(4) Stock of capital on hand, and

(5) Expectations concerning profits in future.

- Investment spending displays larger and more dramatic changes

Because of this, investment is considered the principal cause of economic fluctuations

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Changes in Investment Demand Curve (1)

• The investment demand depends on whether the expected net rate of return is higher than the interest rate.

• Therefore, anything that increases the expected net return will shift the investment demand curve to the right, *likewise*, anything that cause the expected return to fall will shift the investment demand curve to the left (decrease).

➢ As the acquisition, maintenance and operating costs of capital increase, the net expected return will decrease, ceteris paribus, thereby shifting the demand curve to the left.

✓ If the acquisition, maintenance and operating costs decline, we would expected a higher rate of return on this investment and therefore the demand curve shifts to the right (increase).

Changes in Investment Demand Curve (2)

➢**Business taxes:** are part of cost of operation.

✓If business taxes increase, the expected net (after tax) return will decline, this shifts the investment demand curve to the left.

✓If business taxes decrease, the expected net return on the investment will increase, thereby increasing the investment demand curve.

➢**Changes in technology:** will also shift the investment demand curve.

✓More efficient technology will generally increase expected net returns and shift the investment demand to the right (increase).

✓By decreasing production costs or improving product quality through technological improvements competitive advantages may be reaped and this is one of the most important determinants of investment since World War II.

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Changes in Investment Demand Curve (3)

- **The stock of capital goods** on hand will also impact investment demand. To the extent that if producers have a large stock of capital goods on hand, investment demand will be reduced.
  - ✓On the other hand, if producers have little or no inventory of capital goods, then investment demand may increase to restore depleted stocks of capital.

- **Business investment decisions** are heavily influenced by expectations.
  - ✓Expectations concerning the productive life of capital, its projected obsolescence, expectations concerning sales and profits in the future will also impact investment decisions.
  - ✓For example, expectations that technological break-through may make current computer equipment less competitive may reduce current investment demand.

Further, if competitors are on stand-by to enter your industry, you may be hesitant to invest in more capital if the profit margins will be cut by the entrance of more competitors.

Autonomous versus Induced Investment

- **Autonomous investment** is that investment which is not related to the level Gross Domestic Product.

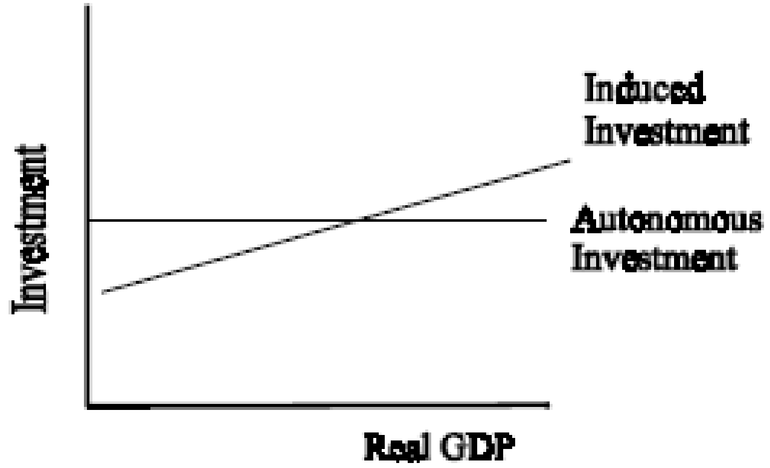
Autonomous investment is based on the following:

1. Population growth,
2. Expected technological progress,
3. Changes in the tax structure or legal environment.

- **Induced investment** is functionally related to the level of Gross Domestic Product. It is *that* investment that is "induced" because of increased business activity. It means *that* investment that is caused by increased levels of GDP.

Autonomous versus Induced Investment

In examining the following diagram, the autonomous investment function is a horizontal line that intercepts the investment axis at the level of autonomous investment. The diagram has an investment function that slopes upward (increases as GDP increases).



GROSS EXPORTS AND GROSS IMPORTS

➢**Gross exports**: are the value of goods and services produced in a home country and sold abroad. Its the value of foreign spending on goods and services of a nation.

➢**Gross imports:** are the value of goods and services in a nation but which are produced in other countries.

•When commodities are imported into a nation, some of the consumption and gross investment spending is for foreign-country rather than for the home country.

•Imports therefore, lowers aggregate spending on domestically produced goods.

➢**Net exports:** are the value of gross exports less gross imports (i.e. Gross X – IM)

•It is the net addition to domestic aggregate spending that results from importing and exporting goods and services.

Net exports are **positive when the home country exports more than it imports**, and,

Net export is **negative when the home country imports more than** it exports.

DETERMINANTS OF A COUNTRY'S IMPORT AND EXPORT

Numerous variables affect a county's imports and exports.

A country's imports are related to:

1. The domestic country's level of income
2. Foreign exchange rate,
3. Domestic prices relative to prices in foreign countries
4. Import tariffs ,and
5. Restrictions on imported goods

Exports of a country, are influenced by:

1. Level of income of foreign country,
2. Foreign exchange rate,
3. Domestic prices relative to prices in foreign countries
4. Import tariffs ,and,
5. Restrictions on imported goods

- Because these variables change with time, it is reasonable to expect a country's net export balance to change over time

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