Macro-Economics

Topics

- Introduction to macro-economics
- Analysing the outlook for GDP growth
- Analysing economic policy
- Analysing exchange rates

Introduction to Macro-Economics

Introduction to Macro Economics

Learning outcomes ……..

- **Describe** main applications of macro-economic theory
- **Identify** the key economic characteristics of historical financial crises

Introduction to Macro Economics

Applications of Macro Economics

- As stated earlier, Macro economics concerns itself with the study of entire economy and hence has wide applications for investment analysis as explained on further slides.

Introduction to Macro Economics

Macro Economics: Application 1:

- As stated earlier, Macro economics concerns itself with the study of entire economy and hence has wide applications for investment analysis as follows.

- Cyclical fluctuations in global and national economies can exert significant influence on functioning of economy. Hence studying macro variables such as employment, inflation, GDP growth, business cycles and their interrelationships can help governments to formulate policies to manage cyclical fluctuations effectively.

Introduction to Macro Economics

Macro Economics: Application 1:

- Governments can understand the current state of economic cycle and formulate policies to avoid economic downturns, high inflation and other dangers to the economy. Thus, macro economic models and forecasts are important in developing economic policies.

- However, economic forecasting is challenging, and track record is questionable.

Introduction to Macro Economics

Macro Economics: Application 2:

- Specifically, macro economic policies facilitates development of policies to
  - improve economic growth
  - accelerate productivity
  - reduce poverty

fiscal policy

- Understanding implications of changes in tax and government spending on overall economy

Introduction to Macro Economics

Macro Economics: Application 3:

- We live in a globalized world; hence macro economics develops our understanding of
  - exchange rates and balance of payments between countries
  - how economic shocks and flows spread between countries → 2008 → financial crisis
- In this connection, one can study the international impact of tariffs and exchange rate policies

Introduction to Macro Economics

Macro Economics: Application 4:

- Businesses are affected by macro economic policies adopted by governments
- Hence corporate managers study macro economics to understand
  - impact of government policies on corporate sector
  - forecasting future investment needs

Introduction to Macro Economics

Macro Economics: Application 5:

- Consumers study macro economics for
  - planning personal finances, anticipating cost of borrowings
  - gauging employment situation

→ buying a house

↓

int. rate,

Macro Economics: Application 6:

- Governments are deeply interested in understanding macro economic relationships to
  - plan budgets → Annual exercise → Expenditure
    → Taxes
  - raise taxes
  - decide expenditures → roads | free health care | free education
    → govt employee salaries
  - make policy decisions
- Apart from this, monetary policy measures of central banks should also be analysed.

Financial Crisis

- Financial crises has adverse effects on entire economy causing sharp fall in values of financial and real assets.

stocks, bonds, currencies

not paying back your loan/dues

- There could be defaults by businesses and consumers due to inability to pay back debt.
- Financial institutions such as banks may suffer from liquidity shortages depositors may lose trust on financial institutions and system.
- Bursting of speculative financial bubbles may also be experienced.

2001 → dot com bubble → internet companies → popular

Causes of Financial Crisis

- Overvalued assets such as equity or real estate : Too much buying without economic reasons
- Excessive building of risks by market participants → don't care risk
- Excessive borrowing due to lax regulatory environment → too much of debt
  ↳ soft
- 'herd mentality', irrational decision making → movement in one direction
- non-financial exogeneous shocks like Covid 19 , war
  ↳ external

Introduction to Macro Economics

1994 : Russia defaulted
1997 : South East Asian crisis
2001 : Dot com bubble
2008 : ~~Glo~~ Global fin crisis

Financial Amnesia

- Market participants such as individuals, businesses, governments may have short memory and forget lessons from financial markets history. This is known as financial amnesia.
- Excessive building of risks by market participants
- Excessive borrowing due to lax regulatory environment
- ‘herd mentality’, irrational decision making
- non-financial exogeneous shocks like Covid 19

Introduction to Macro Economics

Owners → Shareholders

Company:

BODs

CEOs, MDs,
managers other manager

Failure to maintain market discipline due to

- Failure of corporate governance among financial institutions which may lead to underpricing of risk.

  This could be driven by

  → happens due to excessive risk taking

  - incentive structure for senior management encouraging activities detrimental to financial system

    Dodd Frank

  - moral hazard, excessive risk taking by financial sector affecting wider economy

    Wall street movement →

  - behavioral finance issues such as cognitive dissonance, herding, overconfidence, disposition effect
  - regulatory failures due to organizational or resource constraints

Introduction to Macro Economics

Preventing financial amnesia and bubbles requires

- educating market participants about financial markets history
- identifying 'excess' in the economy to avert future problems
- improved corporate governance in financial institutions
- Formulating regulations to focus on managing systematic risk by independent and effective regulators. At the same time, regulations should not hinder innovations and business activity

Brexit

Introduction to Macro Economics

Preventing financial amnesia and bubbles requires

- central bank independence and focus on avoiding excessive build up of debt which may lead to boom and then result into financial crisis
- limitations on running consistent budget deficits which may trigger sovereign debt crisis

Govt

Govt: Revenue: Taxes

Expenditure:

\$1000 \$800 −200

Exp > Rev, Deficit

→ borrow

Investors

Analysing outlook for GDP growth

Analysing the outlook for GDP growth

Learning outcomes……..

- **Identify** main long-term UK and global socio-economic trends
- **Identify** key economic indicators and their trends
- **Describe** relationship between and importance of the main world economies
- **Describe** economic and financial cycles including their predictability and regional differences

Analysing the outlook for GDP growth

Learning outcomes……..continued

- **Distinguish** between gross domestic product, gross national product and national income
- **Identify** the difference between real and nominal GDP
- **Identify** the components of circular flow of income, distinguishing between injections into and withdrawals (leakages) from the circular flow
- **Identify** the nature of relationship between aggregate saving, consumption and investment as predicted by Paradox of Thrift

Analysing the outlook for GDP growth

Long term socio-economic trends in UK

Income of a country

- Covid 19 led to a fall in $\boxed{\text{real GDP}}$ of 10% for 2020 in UK, which was largest in around 300 years and also largest amongst developed countries.

- Ageing population: This is creating extra demand for health services and pension provisions. This is likely to have implications for policy making.

Govt. spending

- Consistent growth in public expenditure: 2008 (financial crisis) and 2020 (Covid 19) led to excessive public expenditure. Public debt to ~~GBP~~ ratio increased from 80% in 2018-19 to 100% in 2021-22.

GDP

Analysing the outlook for GDP growth

Long term socio-economic trends in UK

- Fiscal deficit in 2020-21 was 14% of GDP which was typically less than 3% in the past.
- Increased public sector net debt from GBP 1.8 trn to 2.4 trn at Mar 2021.

QE

- Quantitative easing i.e. bond buying program enabled keeping interest rates down.
- Greater attention being paid to climate change and global warming related events. These issues will become important from overall economic policies.

Analysing the outlook for GDP growth

Key economic indicators

- How do we know what is the state of economy? There are many indicators, some of them are leading indicators, meaning they change before the economic activity changes and hence are particularly useful.

change before economy actually changes

- In US, some of the leading indicators are
  - average weekly hours of production workers; initial claims for unemployment insurance; new orders in manufacturing and non-defense capital goods; new private housing permits; yield curve slope shifts; money supply; consumer sentiment; personal income. Stock market index.
  - These indicators are tracked worldwide.

Analysing the outlook for GDP growth

Key economic indicators

- Other important indicators / developments that are studied are:
  - Unexpected changes in budget deficits: This can affect interest rates
  - Commodity market developments → metals, Agricultural Commodities
  - Surveys of purchasing power managers → PMI

Financial crisis → buying Gold

Analysing the outlook for GDP growth

Key economic indicators

Leading	Lagging	Coincident
Useful for economic prediction since these change before the economic activity changes. Apart from those mentioned earlier, other leading indicators are: Consumer or Business Surveys; Money supply and Credit growth	These indicators change after the economic activity changes. For example, employment lags output changes by three or four quarters	These indicators change in line with the wider economy. For example: Industrial production and GDP. These measures are subject to revision and may be helpful in identifying peaks and troughs after they have occurred.

Analysing the outlook for GDP growth

Major World Economies: Pages 128 and 129: Self Read

Analysing the outlook for GDP growth

Economic and Financial Cycles

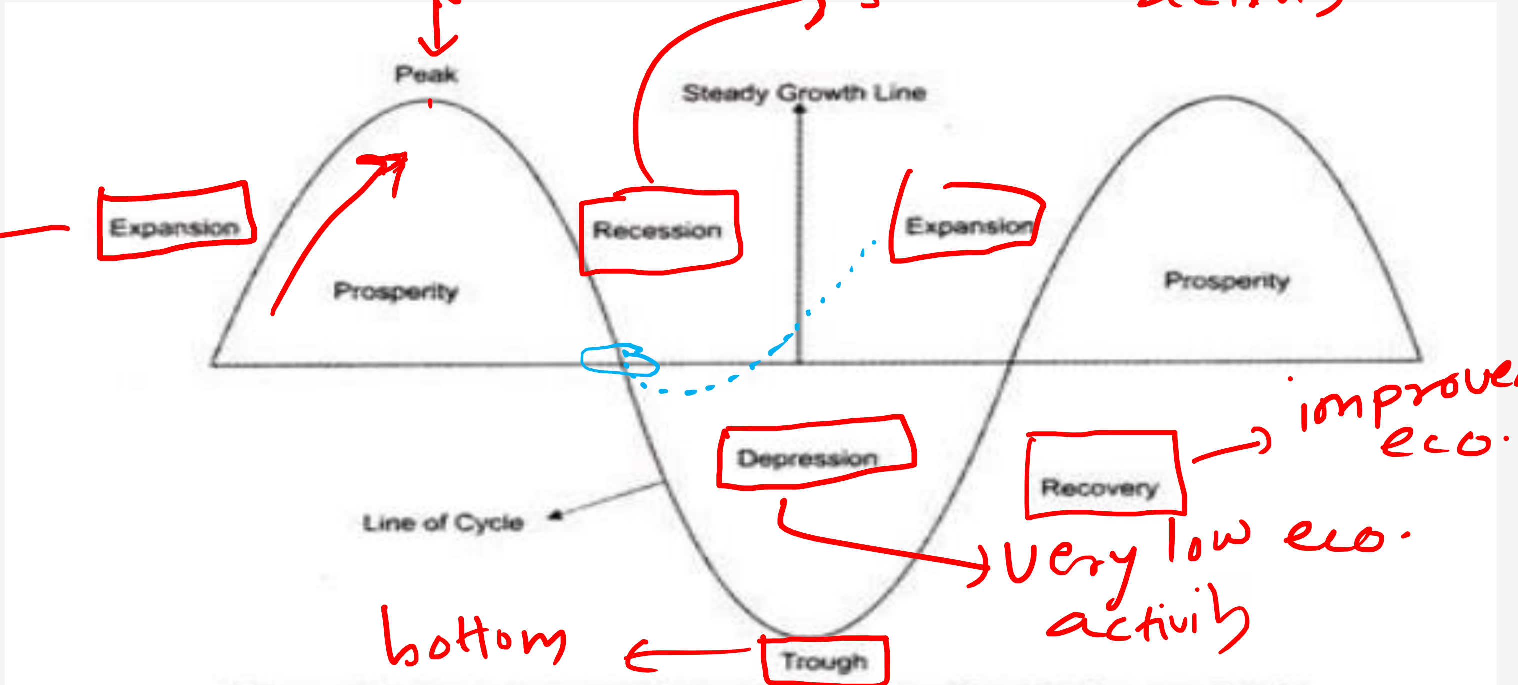
highest pt

slowdown in business activity

2001 Dotcom bubble

2003 to 2005

increase in eco. activity such as GDP



improvement in eco. activity

very low eco. activity

bottom

Figure-2: Representation of Phases of a Business Cycle

Analysing the outlook for GDP growth

Economic and Financial Cycles

Return ← Greed   Fear → No Risk

- Not always predictable, these are fluctuations in business / economic activities from time to time

- Typical phases of business cycle:

  - Expansionary phase: Increased activity such as production, lower inflation and interest rates

  - Euphoric phase: Overconfidence, overheating of economy, falling stocks, rising interest rates, bankruptcies → Defaults

  - Recession: Reduction in output, inventories are cut back

  - Recovery: Regaining of confidence, demand and output on the rise

Analysing the outlook for GDP growth

Economic and Financial Cycles

Reading: Page 130: After Point no 4 till Measuring Economic Activity

Analysing the outlook for GDP growth

Measuring Economic Activity

- Economic Agents, among whom circular flow of income keeps moving, are
  - Households (workers / consumers)
  - Firms
  - Governments
  - External sector → Export → Import

Analysing the outlook for GDP growth

Measuring Economic Activity

$\boxed{\text{Expenditure} = \text{Income} = \text{Output}}$

GDP

- Assuming for simplicity that there are only two economic agents, households and firms, then due to the circular flow of income, economic activity can be measured in one of the following ways
  - value of expenditure by firms on inputs
    - → 500 → Raw material
    - → 200 → labour Sal.
    - → 100 → Rent
    - → 200 → shareholders
    - $\boxed{1000}$
  - value of output by firms → 100 units × 10/unit price = $\boxed{1000}$
  - value of purchases by consumers → $\boxed{1000}$
- Conceptually, all three should amount to the same value

Simplistic model: Households & firms

Analysing the outlook for GDP growth

Measurement of Economic Activity: National Income Accounting

- **Gross Domestic Product (GDP)**: Value of $\boxed{\text{final output}}$ produced by factors of production within the economy.
- **Gross National Product (GNP)**: GDP + Net Income from abroad.

→ Income Received by citizen workin abroad
Less
→ Income paid to non-citizen your country

- GDP considers **Final** goods not intermediate ones to avoid double counting.
- To do this we follow totaling of value-added approach.
- Let us look at Example on page 131 of the IMC material.

GNP = GDP + Inc received by citizens workin abroad
− Inc paid to non-citizen workin domestically

Analysing the outlook for GDP growth

Value added:

i) Iron Ore bot: 20

ii) steelmakers Value added 80

$$\frac{\begin{array}{r}20\\80\end{array}}{100}$$

iii) Value added by Car manu. +100

$$\underline{200} \rightarrow \text{GDP}$$

Analysing the outlook for GDP growth

Measurement of Economic Activity: National Income Accounting

VAT

Value of final output 100

Ind. tax 20

Subsidies 10

- **GDP at market prices**: Value of final output including indirect taxes
- **GDP at factor cost**: Excludes indirect taxes from output and adds back subsidies.
- **Nominal GDP**: GDP at $\boxed{\text{current prices}}$ → Problem
  ↳ inflation gets factored in
- **Real GDP**: GDP at constant prices i.e. nominal GDP adjusted for impact of inflation
  ↳ base yr

GDP at market prices: 100 + 20 = 120

GDP at factor cost: 100 + 10 = 110

Compensation paid by govt. to firms