

# UNIT 7

## Money, Banking and International Trade

(6 Hours) — Applied Economics (CAEC353), BCA III/VI

### ⚠ Please Read: Possible Errors

These notes were prepared with the help of AI from the syllabus outline. They **may contain errors** — in definitions, dates, figures, Nepal-specific details (e.g., Nepal Rastra Bank policies, exchange-rate arrangements, statistics) or numerical examples.

Please **cross-check with your prescribed textbook, class notes and official NRB publications** before relying on anything here, especially for exams. Report any mistakes to your teacher or the note provider.

## 7.1 Concept and Functions of Money

### Meaning of Money

**Money** is anything that is generally accepted as a medium of exchange, a measure of value and a store of value in a given economy. In a barter system, exchange required a *double coincidence of wants* (each party must want what the other has). Money removes this difficulty, so trade becomes easy and specialisation grows.

Modern money is mostly **fiat money**: it has value because the government declares it legal tender, not because of any metal content. Examples are Nepali rupee notes and coins issued by Nepal Rastra Bank, plus bank deposits that can be transferred by cheque, card or digital payment.

### Functions of Money

| Type      | Function                     | Explanation                                                                         |
|-----------|------------------------------|-------------------------------------------------------------------------------------|
| Primary   | Medium of exchange           | Accepted in payment for goods, services and debts; ends the need for barter.        |
| Primary   | Measure (unit) of value      | All goods are priced in one unit (Rs), so values can be compared and accounts kept. |
| Secondary | Standard of deferred payment | Loans and future contracts (salaries, instalments) are expressed in money.          |
| Secondary | Store of value               | Purchasing power can be saved for the future (weakened when inflation is high).     |

| Type       | Function          | Explanation                                                               |
|------------|-------------------|---------------------------------------------------------------------------|
| Contingent | Transfer of value | Value can be moved across places and persons (bank transfer, remittance). |

*Note: Some textbooks use the classification of primary, secondary and contingent functions (Kinley) while others simply list four functions. Follow your textbook's classification in exams.*

## 7.2 Value of Money

The **value of money** is its purchasing power — the quantity of goods and services one unit of money can buy. It is **inversely related to the price level**: when prices rise, each rupee buys less, so the value of money falls, and vice versa.

### Formula

Value of money =  $1 \div \text{Price level}$  (or =  $100 \div \text{Price index}$ )

Quantity theory (Fisher):  $MV = PT \Rightarrow P = MV \div T$

where M = money supply, V = velocity of circulation, P = price level, T = volume of transactions.

### Example 1

The consumer price index (CPI) rises from 100 to 125. Find the value of money.

### Solution

Value of money =  $100 \div 125 = 0.80$ .

One rupee now buys only 80% of what it bought in the base year, i.e., the value of money has fallen by 20%.

### Example 2

M = Rs 200 billion, V = 5, T = 500 billion units of transactions. Find the price level using Fisher's equation. If M doubles (V, T constant), what happens?

### Solution

$P = MV \div T = (200 \times 5) \div 500 = 2$ .

If M doubles to 400,  $P = (400 \times 5) \div 500 = 4$  — the price level doubles, so the value of money is halved.

Interpretation: with V and T constant, prices change in proportion to the money supply.

## 7.3 Money Supply and its Components

**Money supply** is the total stock of money held by the public (households and firms) at a point in time. Money held by the government and the central bank, and the reserves of banks, are normally excluded. Money supply is grouped into measures according to **liquidity** — how quickly an asset can be turned into cash without loss.

| Measure               | Components                                                                                       | Remarks                                                               |
|-----------------------|--------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| M1 (Narrow money)     | Currency held by the public (notes + coins) + demand deposits                                    | Most liquid; used directly for payments.                              |
| M2 (Broad money)      | M1 + saving deposits + fixed (time) deposits (and other deposits as defined by the central bank) | The main measure used by Nepal Rastra Bank in its monetary programme. |
| M3 and wider measures | M2 + other less liquid financial assets                                                          | Definitions differ between countries; not always used.                |

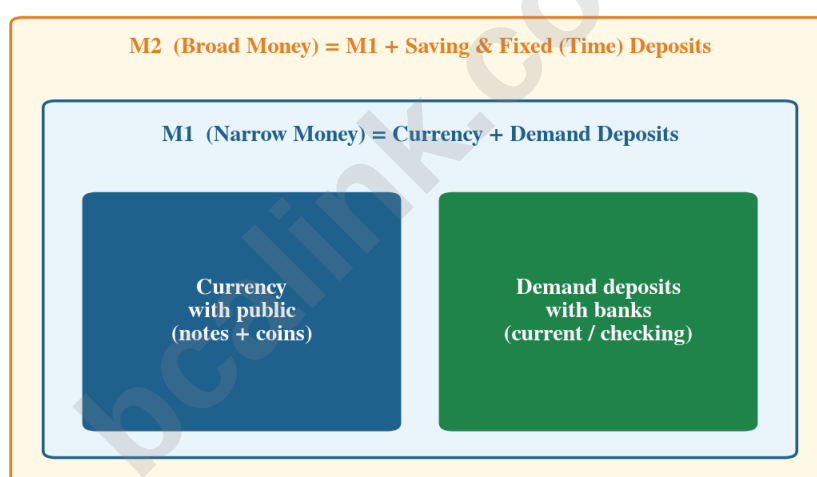


Figure 7.1: Nested structure of M1 and M2

*Note: Nepal Rastra Bank reports 'narrow money (M1)' and 'broad money (M2)'; exact composition (e.g., treatment of foreign-currency deposits) can vary between publications, so confirm with the latest NRB definitions.*

## 7.4 Inflation: Types, Causes and Effects

### Meaning

**Inflation** is a sustained rise in the general price level over time, which reduces the purchasing power of money. It is usually measured as the percentage change in the Consumer Price Index (CPI).

### Formula

$$\text{Inflation rate (\%)} = [(CPI_1 - CPI_0) \div CPI_0] \times 100$$

### Example 3

CPI was 200 last year and is 212 this year. Find the inflation rate.

### Solution

$$\text{Inflation} = (212 - 200) \div 200 \times 100 = 6\%.$$

## Types of Inflation

| Basis    | Type                       | Meaning                                                                             |
|----------|----------------------------|-------------------------------------------------------------------------------------|
| By speed | Creeping (mild)            | Very slow rise in prices, roughly below 3% a year; often regarded as harmless.      |
| By speed | Walking (trotting)         | Moderate rise, about 3–10% a year; needs policy attention.                          |
| By speed | Running                    | Rapid rise, about 10–20% a year; damages savings and planning.                      |
| By speed | Galloping / Hyperinflation | Extremely fast rise (often 50%+ a month for hyperinflation); money loses its role.  |
| By cause | Demand-pull                | Aggregate demand exceeds available supply — 'too much money chasing too few goods'. |
| By cause | Cost-push                  | Rising costs (wages, raw materials, fuel, imported inputs) push prices up.          |
| By cause | Imported                   | Rising prices of imports (or of a trading partner) are passed on domestically.      |
| Related  | Stagflation                | High inflation together with stagnant output and high unemployment.                 |
| Related  | Deflation / Disinflation   | Falling price level / a fall in the rate of inflation.                              |

*Note: The percentage ranges for creeping, walking, running and galloping inflation vary by author; treat them as approximate.*

## Causes of Inflation

- **Demand-side:** increase in money supply, bank credit expansion, higher government spending, rising incomes and remittances, increased exports, cut in taxes.

- **Supply-side:** higher wages without productivity gains, increase in prices of fuel and raw materials, supply shortages, hoarding and black-marketing, natural disasters or transport disruption, higher indirect taxes.
- **Structural / external:** weak agriculture and production base, heavy dependence on imports, and exchange-rate links with trading partners.

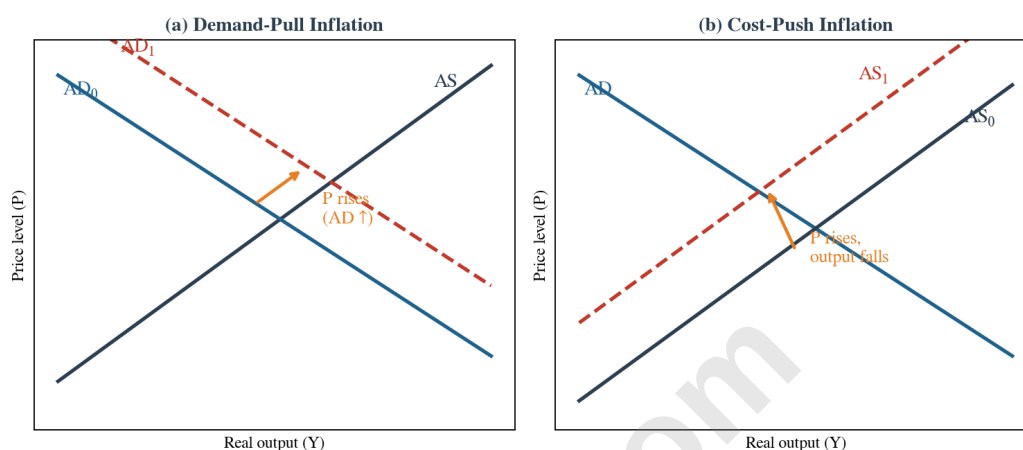


Figure 7.2: Demand-pull inflation ( $AD$  shifts right) and cost-push inflation ( $AS$  shifts left)

*Note: Nepal has a very open border and a fixed exchange-rate peg with the Indian rupee, and imports much of its consumption goods from India, so Indian price movements strongly influence Nepal's inflation. Check current data for the exact situation.*

## Effects of Inflation

| Area                | Effect                                                                                                                            |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| Income distribution | Fixed-income groups (pensioners, salaried workers) lose; debtors gain and creditors lose; traders and speculators often gain.     |
| Production          | Moderate inflation may encourage production; high and unstable inflation raises uncertainty and discourages long-term investment. |
| Savings             | Real value of savings and interest falls if inflation exceeds interest rates; people shift to gold, land and other real assets.   |
| External sector     | Domestic goods become costlier relative to foreign goods, so exports fall, imports rise and the trade deficit widens.             |
| Government          | Real value of tax revenue and public debt may change; cost of public projects rises.                                              |
| Social              | Widens inequality, increases hardship for the poor and can cause unrest.                                                          |

## Control of Inflation (Brief)

- **Monetary measures:** raising bank rate/policy rates, increasing cash reserve ratio (CRR) and statutory liquidity ratio (SLR), open market operations (selling securities), credit control.
- **Fiscal measures:** reducing public expenditure, raising taxes, increasing public borrowing to absorb purchasing power.
- **Supply-side and other measures:** increasing production and imports of scarce goods, improving supply chains, price control and rationing, wage-price policies.

## 7.5 Banking: Role and Functions of Commercial Banks

A **commercial bank** is a financial institution that accepts deposits from the public and lends money to households, businesses and government to earn profit. In Nepal, commercial banks (class 'A' institutions) are licensed and regulated by Nepal Rastra Bank under the Bank and Financial Institutions Act and related laws. Examples include Nepal Bank Limited (the first bank, established in 1937), Rastriya Banijya Bank and many private-sector banks.

### Functions of Commercial Banks

| Category                  | Functions                                                                                                                                                                                                                                                                       |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Primary functions         | <b>Accepting deposits</b> — current, saving, fixed and recurring deposits.<br><b>Granting loans and advances</b> — overdraft, cash credit, term loans, loans against security, discounting of bills.<br><b>Credit creation</b> — creating deposits through lending (see below). |
| Agency functions          | Collection and payment of cheques, bills and dividends; remittance and fund transfer; buying/selling securities; acting as trustee or executor; payment of insurance premiums, utility bills etc.                                                                               |
| General utility functions | Safe custody through lockers; issuing debit/credit cards, letters of credit and guarantees; foreign exchange dealing; digital and mobile banking; financial advice.                                                                                                             |

### Role of Commercial Banks in the Economy

- **Mobilising savings** and channelling them into productive investment (capital formation).
- **Supporting trade, industry and agriculture** through credit and trade finance.
- **Providing payment services** and the mechanism for the central bank's monetary policy.
- **Promoting financial inclusion** through branch expansion and digital banking; handling remittances, which are large in Nepal.
- **Creating employment** and supporting government through bond purchases and revenue collection.

## Credit Creation

Banks keep only a fraction of deposits as reserves and lend the rest. Loans are redeposited in the banking system, which allows further lending. In this way, an initial deposit can create a multiple expansion of total deposits.

### Formula

Money (credit) multiplier =  $1 \div \text{Reserve ratio}$

Total deposits created = Initial deposit  $\times (1 \div \text{Reserve ratio})$

Credit created = Total deposits – Initial deposit

### Example 4

A customer deposits Rs 10,000 in a bank. The reserve ratio is 10%. Find the total deposits and credit created (assume no cash leakage and all loans are redeposited).

### Solution

Multiplier =  $1 \div 0.10 = 10$ .

Total deposits =  $10,000 \times 10 = \text{Rs } 1,00,000$ .

Credit created =  $1,00,000 - 10,000 = \text{Rs } 90,000$ .

The higher the reserve ratio, the smaller the credit creation.

*Note: In practice, cash held by the public, excess reserves and the demand for loans reduce the actual multiplier below this simple textbook value.*

## 7.6 Central Bank: Nepal Rastra Bank (NRB)

The **central bank** is the apex monetary authority of a country. It controls the money supply and credit, regulates the banking system and manages the country's foreign exchange. **Nepal Rastra Bank** is the central bank of Nepal. It was established in 1956 (2013 BS) under the Nepal Rastra Bank Act, 2012 BS; it now operates under the Nepal Rastra Bank Act, 2058 BS (2002 AD), and later amendments.

### Functions of Nepal Rastra Bank

| Function          | Description                                                                                                         |
|-------------------|---------------------------------------------------------------------------------------------------------------------|
| Issue of currency | Sole authority to issue notes (and the government mints coins as arranged); ensures adequate supply of clean notes. |

| Function                                | Description                                                                                                                                                                       |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Banker to government                    | Keeps government accounts, manages public debt (issues treasury bills and development bonds), provides advice on financial matters.                                               |
| Banker's bank and lender of last resort | Holds reserves of commercial banks, provides refinancing/liquidity, and acts as clearing house for interbank settlement.                                                          |
| Monetary policy                         | Formulates and implements monetary policy to maintain price stability and support growth, using instruments below.                                                                |
| Regulation and supervision              | Licenses, regulates and supervises banks and financial institutions; sets capital adequacy, provisioning and lending rules.                                                       |
| Foreign exchange management             | Manages foreign exchange reserves, exchange-rate arrangements and foreign exchange rules; maintains the peg of NPR to INR (Rs 1.60 per INR since 1993, per official arrangement). |
| Payment system                          | Oversees payment and settlement systems and promotes financial inclusion and financial stability.                                                                                 |

*Note: Verify details such as the exact exchange-rate peg and the latest policy rate names with NRB publications, as arrangements can be revised.*

## Instruments of Monetary Policy

| Type         | Instrument                                                       | How it works (to control money supply)                                                         |
|--------------|------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| Quantitative | Cash Reserve Ratio (CRR)                                         | Raising CRR cuts banks' lendable funds; lowering it increases them.                            |
| Quantitative | Statutory Liquidity Ratio (SLR)                                  | Banks must hold a share of assets in liquid form (e.g., government securities).                |
| Quantitative | Bank rate / policy rate                                          | Raising the rate makes borrowing costlier and curbs credit; lowering it does the opposite.     |
| Quantitative | Open Market Operations (OMO)                                     | Selling securities absorbs liquidity; buying securities injects liquidity.                     |
| Qualitative  | Credit rationing, margin requirements, moral suasion, directives | Regulate the direction, purpose and amount of credit (e.g., loans against shares or vehicles). |

## Commercial Bank vs Central Bank

| Basis     | Commercial bank | Central bank (NRB)                                       |
|-----------|-----------------|----------------------------------------------------------|
| Objective | Profit          | Public welfare, stability of prices and financial system |

| Basis               | Commercial bank                         | Central bank (NRB)                          |
|---------------------|-----------------------------------------|---------------------------------------------|
| Dealing with public | Directly deals with public and business | Generally does not deal with public         |
| Note issue          | Cannot issue currency notes             | Sole authority for note issue               |
| Credit control      | Follows credit policy                   | Controls credit of the whole banking system |
| Role in crisis      | Borrows from central bank               | Lender of last resort                       |

## 7.7 International Trade

### Internal (Domestic) Trade vs International Trade

| Basis               | Internal trade                                | International trade                                             |
|---------------------|-----------------------------------------------|-----------------------------------------------------------------|
| Meaning             | Trade between people/regions within a country | Trade between two or more countries                             |
| Mobility of factors | Labour and capital move freely                | Limited mobility due to laws, language, culture and distance    |
| Currency            | Same currency                                 | Different currencies; exchange rates involved                   |
| Restrictions        | Few or none                                   | Tariffs, quotas, customs, licensing, technical standards        |
| Risk and cost       | Low; simple documentation                     | Higher: transport, insurance, exchange rate and political risks |
| Payment             | Settled domestically                          | Settled through foreign exchange, letters of credit, etc.       |
| Policy              | Uniform national policies                     | Different policies and laws in each country                     |

### Balance of Trade (BoT)

**Balance of trade** is the difference between the value of a country's **visible exports and visible imports of goods** over a period (usually a year). Services are not included.

- **Trade surplus:** Exports > Imports (favourable).
- **Trade deficit:** Imports > Exports (unfavourable).
- **Balanced trade:** Exports = Imports.

## Balance of Payments (BoP)

**Balance of payments** is a systematic record of **all economic transactions** (goods, services, income, transfers and capital) between the residents of a country and the rest of the world during a period. It is prepared using double-entry bookkeeping, so in principle the BoP always balances in accounting terms; a **deficit or surplus** refers to a particular part of the account (for example, the current account or the overall balance after changes in reserves).

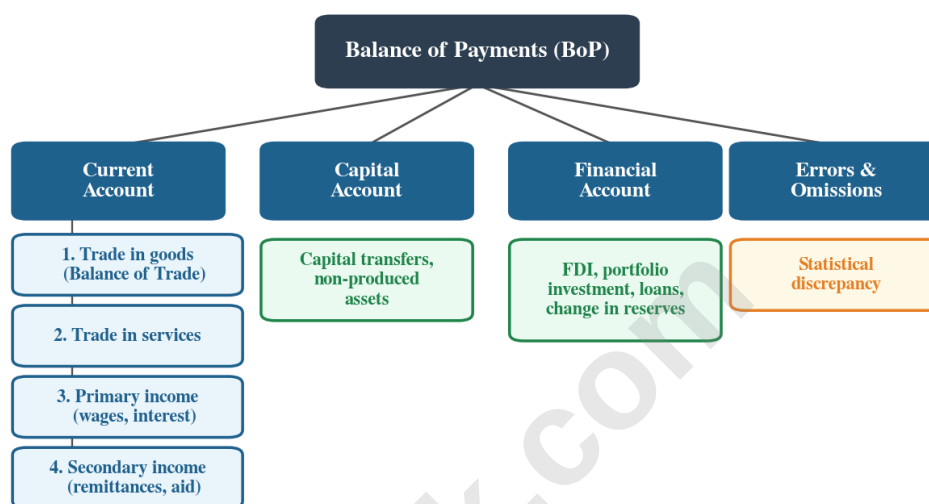


Figure 7.3: Broad structure of the Balance of Payments

*Note: Older textbooks may show BoP as 'current account' and 'capital account' only (with the financial items inside capital account). Newer IMF presentation (BPM6) separates a financial account, as shown here.*

### Example 5

A country records the following (Rs million): Merchandise exports 300, merchandise imports 900, service exports 150, service imports 100, net primary income –50, net remittances/transfers +450. Compute (a) balance of trade and (b) current account balance.

### Solution

(a)  $\text{BoT} = 300 - 900 = -600$  (trade deficit of Rs 600 million).

(b)  $\text{Balance of services} = 150 - 100 = +50$ .

$\text{Current account} = \text{BoT} + \text{services} + \text{primary income} + \text{transfers} = -600 + 50 - 50 + 450 = -150$ .

The current account has a deficit of Rs 150 million: large remittances offset most of the trade deficit.

*Note: The numbers above are illustrative, not actual Nepali data. Nepal typically has a large trade deficit financed mainly by remittances, and it is best to check current NRB / Ministry of Commerce data.*

## Balance of Trade vs Balance of Payments

| Basis             | Balance of trade                         | Balance of payments                                                                                  |
|-------------------|------------------------------------------|------------------------------------------------------------------------------------------------------|
| Scope             | Only visible goods (exports and imports) | All transactions: goods, services, income, transfers, capital and financial flows                    |
| Nature            | A part of the current account            | A wider concept including BoT                                                                        |
| Coverage          | Narrow                                   | Comprehensive                                                                                        |
| Capital movements | Not included                             | Included                                                                                             |
| Balance           | Can show surplus or deficit              | Balances in accounting terms; surplus/deficit refers to specific accounts or overall reserves change |
| Use               | Indicates trade competitiveness          | Indicates overall external position of the economy                                                   |

### Key Takeaways

- ✓ Money is a medium of exchange, unit of account, store of value and standard of deferred payment.
- ✓ Value of money =  $1 \div \text{price level}$ ; it moves inversely to the price level.
- ✓  $M1 = \text{currency} + \text{demand deposits}$ ;  $M2 = M1 + \text{saving and fixed deposits}$ .
- ✓ Inflation is a sustained rise in the price level; it is demand-pull, cost-push or imported, and hurts fixed-income groups and savers.
- ✓ Commercial banks accept deposits, give loans and create credit; credit multiplier =  $1 \div \text{reserve ratio}$ .
- ✓ NRB issues currency, acts as banker to government and banks, controls credit and manages foreign exchange.
- ✓ BoT covers only goods; BoP covers all international transactions and is much broader.

### Reminder

This document may contain errors. Verify important facts, figures and formulas with your textbook and official sources before using them in exams.

— End of Unit 7 —