

Circular flow of income

- Diagrams used to illustrate the flows of money income in one direction in the economy and the flows of g and s in the opposite direction. To keep these diagrams simple, certain assumptions are made.
- Please note the following:
 - Only money flows are shown. The corresponding flows of g and s are in the opposite direction.
 - The flows relate to the production and sale of domestic g and s .
 - Only firms buy/sell investment goods from/to other firms.
 - Households are assumed to own all factors of production, whether directly (labour) or indirectly (firms)

Aggregate Supply

- How do firms decide how much to supply?
 - The future is always uncertain so firms do not know for certain the level of demand for their products.
 - Hence they make estimates of the level of demand, and then supply that estimated amount.
 - We can write this relationship as:

$$AS = AD_{est}$$

- If the firms' estimates are all correct, that is, $AD_{est} = AD$, then the output that is produced by firms (AS) will be purchased by all the buyers of this output (AD) and the economy will be in equilibrium ($AS = AD$).
- If the firms' estimates are wrong, in part or in whole, then $AD_{est} \neq AD$, and hence $AS \neq AD$.
- Two cases arise in disequilibrium.
 1. $AD_{est} > AD$ or $AS > AD$. Firms produce too much and there is unsold output. This accumulates in the firms' warehouses as unplanned inventories. This is a situation of excess supply of output.
 2. $AD_{est} < AD$ or $AS < AD$. Firms produce too little to meet demand and have to draw on their inventories of stock to satisfy the unmet demand. This is a situation of excess demand for output.
- Changes in inventories or stocks are the signals that tell firms whether they have undersupplied, oversupplied or correctly supplied.

Components of income

- Income is used to (a) pay taxes T , (b) buy consumption g and s , C , and (c) to save the remainder S , in some form.

$$Y = C + S + T$$

$$\text{Disposable income} = Y_d = Y - T = C + S$$

- Saving has to be held in some form. These forms consist of financial assets – deposits in a bank, bonds, shares, etc – or physical assets – property (residential or commercial), vacant land, or collectibles (artwork, gold, stamps). Each of these has its advantages and disadvantages, and people usually hold some combination of these forms.

Determination of Components of AD

1. **Consumption (C)**: mainly determined by current domestic income, but also influenced by interest rates, taxation, wealth and expectations of the future.
2. **Investment (I)**: mainly determined by firms' expectations of the uncertain future, but also influenced by interest rates, taxes and subsidies, and unused capacity.
3. **Government spending on final g and s (G)**: depends on government fiscal policy which depends on the economic thinking of the government. Some key influences include unemployment, economic growth, infrastructure needs, and the state of the government's finances (the budget balance).
4. **Exports (X)**: largely determined by the level of world income, world economic growth, and AUD exchange rates.
5. **Imports (M)**: largely determined by the level of domestic income, AUD exchange rates and any infrastructure needs of the importing country

Determination of Employment

- The main determinant of the quantity of output and hence unemployment, is the level of AD.
- The general causal chain is as follows:

$$AD_{est} \rightarrow AS \rightarrow Y \rightarrow \text{employment and inflation.}$$

- As the level of AD varies, so does the quantity of output (AS) and hence the employment of all resources.

Three outcomes arise in the absence of discretionary MP and FP:

1. Unemployment equilibrium. Here AD is insufficient or too low to ensure the full employment of resources, particularly that of labour.
 2. Full employment equilibrium with zero (or near zero) inflation.
 3. Inflationary equilibrium. Here AD is excessive and produces both full employment and significantly high inflation.
- Is more common than (3), and (2) is very infrequent. Remember these outcomes relate to the capitalist or market economy when left to itself.

Paradox of thrift

- An example of the fallacy of composition when planned individual outcomes do not sum to planned aggregate outcomes.
- Suppose many or all households plan to save more. The only way to save more is to reduce consumption. But if nearly everyone consumes less, then $C \downarrow \rightarrow AD \downarrow \rightarrow AS \downarrow$. That is, firms will cut back production because inventories increase and signal that AD has fallen. Firms then cut back on employment and income (wages and profits) falls. Those people with reduced incomes (reduced to zero in the case of those made unemployed) will not be able to save what they wanted to save. Thus total saving will be less than the sum of all the intended savings and may even be lower than what it was previously.

Fiscal Policy (FP)

- FP is the use of government spending and revenue instruments to influence the levels of aggregate demand, output, employment and economic growth.
 1. On the spending side, the main instrument is G, expenditure on final g and s by the government. E.g. infrastructure projects such as railways, schools, hospitals, ports, etc.
- A second instrument is transfer payments (TP) such as unemployment benefits or subsidies to firms, but these work indirectly by encouraging households and firms to spend more on C and I.
 2. On the revenue side, the main instrument is taxation rates on income (personal or company income) or on expenditure (GST). These also operate indirectly by encouraging households and firms to spend less or more on C and I.

Stimulatory FP and AD

- Suppose economy is in recession or growing too slowly. The government can address this by increasing G or lowering tax rates.
 - a) $G \uparrow$. Suppose government decides to fund the building of a second Sydney airport by the private sector. This directly affects the production of g and s, with the effects spread out over time.
 $G \uparrow \rightarrow AD \uparrow \rightarrow Y \uparrow \rightarrow N \uparrow$ (and possibly inflation \uparrow) \rightarrow growth \uparrow
 - b) Tax rates \downarrow . Suppose government lowers personal income tax rates. This directly increases the disposable income of households but only affects AD if this leads to more consumption expenditure on g and s (as distinct from just saving or paying off existing debts).
- Personal tax rate $\downarrow \rightarrow Y \text{ disposable } \uparrow \rightarrow C \uparrow \rightarrow AD \uparrow \rightarrow Y \uparrow \rightarrow N \uparrow$ (and possibly inflation \uparrow) \rightarrow growth \uparrow
- Similarly, decreases in company tax rates will encourage higher I and AD.