BUSINESS CYCLES

Describe the term: Business Cycles

- It refers to the phenomenon of successive periods of increasing and decreasing economic activity.

OR

- A business cycle is defined as the recurrent but not periodic pattern of expansion and contraction in the level of economic activity that occurs within a country.

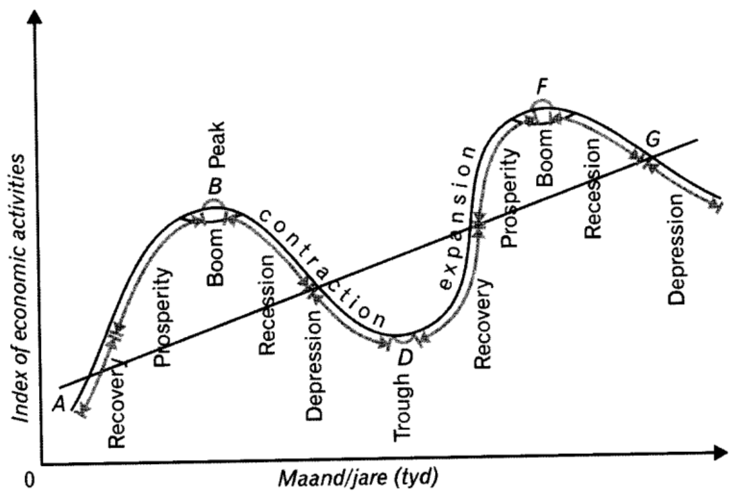
- It is closely monitored by the South African Reserve bank.

REGULARITY OF BUSINESS CYCLES

- Economic activity of a recurring nature at varying intervals.

RERIODICITY OF BUSINESS CYCLES

- Occurrences related to economic activity at regular intervals.



- Economic activity clearly show periods of contractions **(Recession / Depression)** and periods of expansions (**Recovery / Prosperity**) in the economy.
- It is shown by the upward and downward movements of the curve.
- A period where there is a general increase in economic activity is known as **UPSWING.**
- A period of general decline in the economic activity is called a **DOWNSWING.**
- The business cycle oscillates between the upper **(Peak)** and lower **(Trough)** turning points.
- The length of the business cycle is measured from **Peak to Peak** or from **Trough to Trough**.
- The entire period from the **Peak to the Trough** is known as the Downswing.
- The entire period from the **Trough to the Peak** is known as the Upswing.
- The period immediately before and through the upper turning point of the cycle is called the **BOOM.**
- The period immediately before and through the lower turning point is known as the **SLUMP**.

COMPOSITION OF BUSINESS CYCLES

Period of Recovery

- There is a greater demand for goods and services
- This lead to an increase in Production
- More jobs are created
- Business confidence rises and there is increased spending by firms
- There is increased economic activity and the country enters into a period of prosperity

Period of Expansion

- There is a great degree of optimism in the economy
- Entrepreneurs borrow more money to buy machines and equipment (Investment)
- Employment levels rise, and this give rise to a rise in salaries and wages and spending increases
- A peak is reached
- There is a larger amount of money in circulation and this leads to an inflationary situation in the economy and lead to a recession.

Period of Recession

- A recession phase is when there is negative economic growth rate for two consecutive quarters.
- It is introduced by a decrease in profits of businesses that is the result of inflation and over production
- There is a decrease in production that lead to a drop in employment
- Unemployment increase and this give rise to a feeling of pessimism
- There is a decrease in economic activity, and the economy slows down

Period of Depression

- During a depression money is in short supply, leading to a further decline in spending
- There is a negative impact on investment spending
- Economic activity is at its lowest, and a trough is reached
- Cost of production decreases
- This encourages foreign trade and leads to a recovery.

FEATURES OF BUSIENESS CYCLES

Trend

- It is the general direction of the economy
- The trend line that rises gradually will be positively sloped – it indicates an growing economy – it indicates an increase in GDP
- A gradually rising trend line represents the average effect on the economy over time

Trend line:

- It represents the average position of a cycle.
- Indicates the general direction in which the economy is moving.
- An upward trend suggests that the economy is growing.
- Trend line usually has a positive slope, because production capacity increases over time.

Length of business cycle

- It is measured from peak to peak or from trough to trough
- It is the number of years it takes for the economy to get from one peak to the next
- Longer cycles show strength and shorter cycles show weakness

Amplitude of the business cycle

- The amplitude refers to the vertical difference between a trough and the next peak of a cycle
- The larger the amplitude the more extreme changes may occur
- e.g. during an upswing unemployment may decrease from 20% to 10 %
- (i.e. 50 % decrease)
- A large amplitude during an upswing indicates strong underlying forces – which result in longer cycles

POLICIES USED BY THE GOVERNMENT TO SMOOTH OUT BUSINESS CYCLES

- Government must intervene in the economy with policies to smooth out peaks and troughs.

- Higher peaks lead to Inflation.
- Lower troughs lead to Unemployment.

- The new economic paradigm, results in the state using monetary policy and fiscal policy to smooth out the business cycle

<u>Fiscal policy</u>

- It has been successfully used to stimulate a depressed economy

<u>Stimulate Private sector demand / Private sector demand can becomes too low (at E)</u>

- An increase in unemployment is the indicator.
- The government has **THREE choices** that can lead to an increase in Total Spending and therefore an increase in Demand.

1. Decrease Taxation (T)

- Households and producers have more disposable income in their pockets which they can spent on goods and services.
- There is an increases consumption spending which lead to an increase in demand.
- The economy is stimulated and it leads to Employment.

2. Increase Government Spending (G)

- Achieved with borrowed money
- Reason: as a result of the deficit on the budget
- Total spending increase
- Demand increase
- The economy is stimulated and employment increase.

3. Increased government spending and simultaneously decreasing taxes.

- This will have a double strength effect.
- Government spending increase.
- Consumers and producers have more money in their pockets to spend on goods and services.
- Demand increase.
- Employment increase.

<u>Reduce private sector demand / Private sector demand can become too high at (E)</u>

- Inflation is the indicator.
- The government has **THREE choices** that can lead to an decrease in Total Spending and therefore an decrease in Demand.

1.1 Reduced Government spending (G)

- Unspent money is preserved (Frozen)
- Total spending decrease.
- Demand decrease.
- Inflation will decrease.

1.2 Increased Taxation

- Tax income is preserved (frozen).
- Consumers and producers have less money in their pockets to spend on goods and services.
- Demand decrease.
- Inflation decrease.

1.3 Reduced Government spending and simultaneously increasing taxation

- This will have a double strong effect.
- Government spending decrease.
- Consumers and producers have less money to spend on goods and services.
- Demand decrease.
- Inflation decrease.

Monetary policy

- Monetary policy uses **Interest rates and Money supply** too expands or contract aggregate demand.
- Large increases in money supply lead to inflation
- Monetary policy can be utilised more effectively to dampen an overheated economy with severe inflationary pressures.

Monetary policy instruments:

1. Interest Rates
2. Cash reserve requirements
3. Open market transactions
4. Moral Persuasion
5. Exchange rates

1. Interest Rates

Overheated economy / Boom – Increase interest rates
Decrease Money supply

- This will make credit more expensive and reduce and discourage consumer credit.
- Demand will decrease.

Recession / Slump - Decrease Interest Rates
Increase Money supply

- This will make credit cheaper and it will increase and promote consumer credit.
- Consumer Demand will increase.
- Stimulate the economy

2. **<u>Cash reserve requirements</u>**

- Banks are required by law to keep cash reserves at the SARB.
- SARB can increase or decrease these cash requirements.

Overheated economy / Boom

- An increase in the cash reserve requirements - Decrease the supply of capital to commercial banks, so that banks have less money to lend to consumers.
- Demand will decrease.

Recession / Slump

- A decrease in the cash reserve requirements – Increase in the supply of capital to commercial banks, so that banks have more money to lend to consumers.
- Demand will increase.

3. **<u>Open market transactions</u>**

- The SARB can directly increase or decrease the amount of money in the economy.

Overheated Economy / Boom

- If they want to reduce the supply of money in the economy, they can sell government bonds / securities on the open market.

Recession / Slump

- If they want to increase the supply of money in the economy, they buy government bonds / securities on the open market.

4. **<u>Morele persuasion</u>**

- The SARB can enter into discussion with banks, to
- Morally persuade them to limit credit and increase the cooperation to fight inflation

5. **<u>Exchange rate policy</u>**

➢ Central banks (SARB) can use the following ways to stabilize exchange rates.

i. Free floating
ii. Control (Managed) floating

Free floating

1. Demand and supply determine the price of foreign currency.

2. Controlled (Managed) floating

3. The central bank interferes in the foreign exchange markets by buying and selling the currency in order to stabilize it.

OBSERVATIONS WITH REGARD TO BUSINESS CYCLES

(20)

Variables		Early upswing	Late upswing	Early downswing	Late downswing
Example	**Interest rates**	**Rates fall further**	**Rates increase**	**Rates increase**	**Rates are low**
(a)	Credit demand	Demand increases	High demand	Demand starts falling	Low demand
(b)	Inventories	Decrease	Increase	Unplanned increase	Decrease
(c)	BoP current account	Still in surplus	Deficit	Surplus	Surplus
(d)	Unemployment	Decreases	Low	Increasing	High
(e)	Consumer spending	Increasing	High	Decreasing	Low

MONETARIST APPROACH (EXOGENOUS APPROACH / REASONS) as a cause of business cycles.

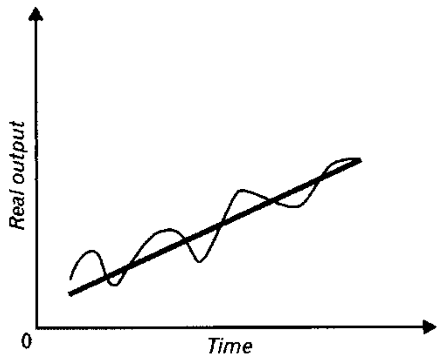


Figure 2.3: The monetarist view of business cycle behaviour

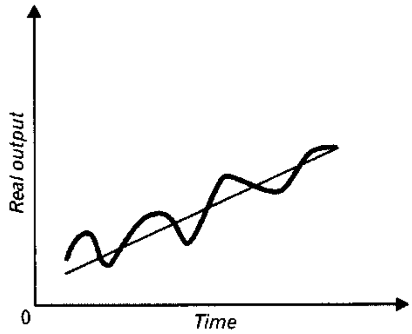
- It is also called the sunspot theory / exogenous approach
- Believe markets are inherently stable.
- Departures from the equilibrium state are caused by exogenous factors (factors outside of the market system).
- When disequilibrium exist in the economy, Market forces (supply and demand) kick in and bring the economy back to its natural state or equilibrium route.
- Government interferences are not part of the normal forces operating in the market.
- Governments should not interfere in the markets.

- The straight bold line indicates the natural growth of the economy.

- **Cause of economic fluctuations**

1. are inappropriate government policies
2. undesirable increases and decreases in money supply
3. weather conditions
4. shocks (September 11) severe increases in the price of fuel and wars
5. structural changes

ENDOGENOUS APPROACH as a cause of business cycles.



gure 2.4: The Keynesian explanation of usiness cycles

- Also known as the Keynesian Approach or Interventionists
- Hold the view that markets are inherently unstable
- Level of economic activity constantly tend to be continually above or below its potential
- Price mechanism fails to co-ordinate demand and supply in markets
- Prices are not flexible enough e.g. wages
- Business cycle is an inherent feature of market economy

- The potential growth path is indicated by the thin black line.
- The cyclical bold line around the thin black line indicates the real path of the economy.
- Governments must intervene in the economy processes to smoothen the peaks and the troughs as far as possible.

Reasons (Causes) of business cycle

1. ripple effect / indirect links
2. mismatches (wrong combinations) in the economy
3. disequilibria

KINDS OF BUSINESS CYCLES

KIND OF BUSINESS CYCLE	DESCRIPTION
Business Cycles	**In South Africa ±60 months.** There are clear expansions and contraction periods. During these periods the major sectors of the economy move up and down more or less together. There duration is not fixed.
Kitchin Cycles	**They last between 3 to 5 years.** This happen because businesses adapt their inventory levels.
Jugler Cycles	**They last 7 to 11 years** Are caused by changes in net investments by business and the government.
Kuznets Cycles	**They last 15 to 20 years.** They are caused by changes in the building and construction industries. They are also called building cycles.

THE NEW ECONOMIC PARADIGM

- In real life circumstances, governments must strive towards economic growth.
- They must do it irrespective if markets are inherent stable or inherent unstable.

- Governments learned to be pragmatic.
- They apply policies that are not extreme but it must be transparent.

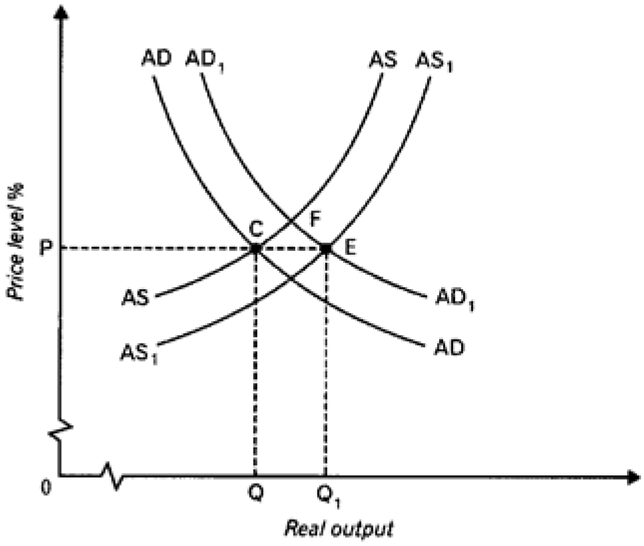
- Economists are convinced that it is possible for production output to rise at a high rate for an extended period of time, without being tripped by supply constraints and without the pressure of inflation.
- This paradigm lies in demand-side and supply-side policies.

(A) DEMAND SIDE POLICY

- Monetary policy and Fiscal policy focus on Aggregate Demand.
- Demand side policy is relying on Aggregate Demand only.
- Demand side policy does not render ideal results on its own.
- Growth is often cut short because of all sorts of bottle necks that develop in the economy.
- Bottle necks such as, inflation, balance of payment s deficits, and shortages of skilled labour, etc.

- It is clear that Aggregate Supply also needed to be managed.
- It the cost of increasing production is flexible, a greater real production output can be supplied at any given price level.

1 Inflation



- **Aggregate Demand (AD)** is the total spending on goods and services in the economy. AD = C+I+G+(X-M).

- **Aggregate Supply (AS)** is the total quantity of goods and services supplied at every price level.
- It is the total value of goods and services produced in the economy in a given period.

- At Point C, Aggregate Demand (AD) and Aggregate Supply (AS) are in equilibrium.
- When Aggregate Demand (AD) increases in the economy, it shifts the Aggregate Demand (AD) to the right AD_1.
- If the Aggregate Supply curve responds promptly and increase, the Aggregate Supply (AS) shifts to the right to AS_1.

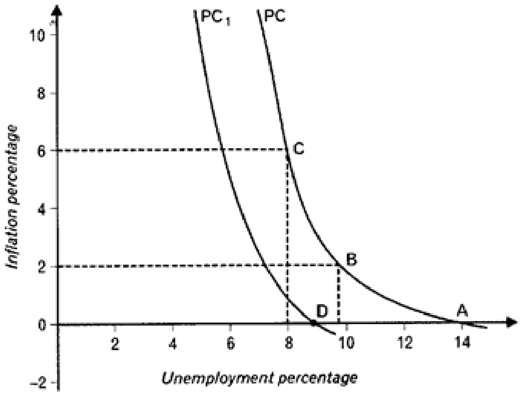
- **At Point E t**he new equilibrium is formed – The new AD_1 and AS_1 intersect at Point E.
- At this point a larger production output becomes available (Q – Q1), without any price increases.
- This occurs over the long-term – because aggregate Supply adjust easier over long-term.

- Supply does not adjust easy over the short term.
- **Over the short-term:**
- When Aggregate Demand (AD) increase, it shifts to the right (AD_1) and when Aggregate Supply (AS) remains unchanged , the AD_1 intersect the AS at point F.
- At Point F a new equilibrium is formed.

- At **Point F** real production increase but the price also increase.
- Inflation increase.
- To solve this problem, a situation must be created where supply is more flexible.

2 Unemployment

- Unemployment is illustrate by the **Philips Curve (PK-curve)**
- **The Philips curve illustrates the relationship between Unemployment and Inflation.**
- As unemployment decrease, Inflation Increased and vice versa.



- PK-curves indicate the original situation.
- At Point A the PK-curve intersects the x-axis.
- This indicates the Natural unemployment rate, 14%.

- **Point A** indicates the natural employment level.
- At this point unemployment is 14% with no inflation pressures (0% inflation)

- A movement left from Point A to Point B will cause a decrease in unemployment (increase in employment) and an increase in inflation.

- **At Point B**
- If economic growth occurs and it causes a decrease in unemployment to 10%, it mean the more people will get a job.
- Wages increase (people have more money) and this will lead to an increase in inflation up to 2%.

- **At Point C**
- If unemployment decreases to 8% - this will lead to an increase in inflation to 6%.
- This increase in inflation is caused by an increase in wages of people because they have more purchasing power.

- If unemployment decrease, then inflation will increase
- The government decides the amount of unemployment they will accept for less inflation.

- **Supply side measures can be used to shift the PK curve to PK_1.**

- Supply side measures are::

1 Improved education
2 Effective training
3 Fewer restrictions on migration of skilled labour.

- If the PK curve shifts to the left (PK_1), the natural level of unemployment will decrease from 14% to 9%.
- It means that unemployment is lower at 9% and the inflation rate is 0%.

(B) SUPPLY SIDE POLICY

1 Reduction of cost

- **Infrastructure services**: Are supplied by the government. It contributes substantially to the cost of businesses.

- **Administrative cost**: Inspections, Reports on the implementation of laws, Regulations, all contribute to increased costs and expenditure of businesses.

- **Cash incentives:** Subsidies can e given to businesses when they want to establish their business in neglected areas where unemployment is high.

2 Improving the efficiency of inputs.

- **Tax rates:** High personal income tax is disincentives to work. Higher company taxes are disincentives to investment.

- **Capital consumption**: Replacing of capital goods create opportunities to keep up with technology and to compete with their competitors.

- **Human Resources**: The quality of labour of people increased the efficiency of businesses. The quality human resources are created by improving health care, education, Training schemes, etc.

- **Free advisory services**: These are services that promote exports. E.g. Research, agricultural services, Statistical information, etc.

3 Improving the efficiency of markets

- **Deregulation**: It is the removal of laws and regulations and all other forms of government control to make the markets more free.

- **Competition**: It creates the establishment of new businesses. It also attracts foreign investment.

- **Leveling of the playing fields**: Private sector businesses cannot compete with the public sector.
  Public enterprises have legislative protection and they are supported by the government.
  Privatisation are important.

FORECASTING

CHARACTERISTICS OF FORECASTING

1. **Description of Forecasting**

- Forecasting is the process of making predictions about changing conditions and future events that may significantly affects the economy.

- Accurate prediction is not possible in Economics.
- The best the economists can do is to try and forecast what might happen.
- There are a number of techniques that are available to help economists to forecast business cycles e.g. economic indicators, trend line, etc.

2. **LEADING ECONOMIC INDICATORS**

- These are indicators that change before the economy changes
- They give consumers, business leaders and policy makers a glimpse of where the economy might be heading
- When these indicators rise, the level of economic activities will also rise in a few months' time.
- E.g. job advertising space/inventory/sales ratio

3. **LAGGING ECONOMIC INDICATORS**

- They do not change direction until after the business cycle has changed its direction.
- They serve to confirm the behaviour of co-incident indicators.
- E.g. the value of wholesalers' sales of machinery if the business cycle reaches a peak and begins to decline then we are able to predict the value of new machinery sold

4. **CO-INCIDENTAL ECONOMIC INDICATORS**

- They simply move at the same time as the economy moves
- It indicates the actual state of the economy.
- E.g. value of retail sales.
- If the business cycle reaches a peak and then begins to decline, then the value of retail sales will reach a peak and then begin to decline at same time

Leading indicators	Co-incidal indicators	Lagging indicators
• Nett new companies registered • Number of new vehicles sold • Nett gold and other foreign reserves • Number of residential building plans passed • Share prices • Real export of goods (gold excluded) • Gross operating surplus as % of GDP • Labour productivity in manufacturing • Job advertisements in Sunday Times • Commodity prices in US $ for a basket of SA export commodities • Opinion survey of the average hours work per factory worker in the manufacturing sector • Opinion survey on stocks in relation to demand: manufacturing and trade • Opinion of business confidence of manufacturing, construction and trade • Opinion survey of volume of orders in manufacturing	• Registered unemployed. • Physical volume of manufacturing production. • Real retail sales • Real merchandise imports. • Utilization of capacity in manufacturing • Gross value added at constant prices excluding agriculture, forestry and fishing • Industrial production index • Value of wholesale, retail and new vehicle sales at constant prices • Total formal non-agricultural employment	• Employment in non-agricultural sectors. • Hours worked in construction • Cement sales in tons • Number of commercial vehicles sold • Real investment in machinery and equipment • Unit labour cost in manufacturing • Wholesale sales of metals, machinery and equipment • Prime overdraft rate of banks • Value of non-residential buildings completed at constant price

5. LENGTH

- Is the time it takes for business cycle to move through one complete cycle (measured from peak to peak)
- It is useful to know the length of the cycle because the length tends to remain relatively constant over time
- If a business cycle has the length of 10 years it can be predicted that 10 years will pass between successive peaks or troughs in the economy
- Longer cycles show strength
- Cycles can overshoot

6. **AMPLITUDE**

- The amplitude shows the vertical difference between the through and the following peak of a cycle.
- It measures the distance of the oscillation of a variable from the trend line
- A large amplitude during an upswing indicates strong underlying forces – which result in longer cycles
- The larger the amplitude the more extreme the changes are that may occur.
- E.g. During the upswing inflation may increase from 5% to 10%. (100% increase)

7. **TREND**

-
- A Trend is the movement in a general direction of the economy
- It indicates the direction of the economy- is there a increase or decrease in the level of outputs
- It usually has a positive slope because production capacity of the economy increases over time.

Trendline:

- It represents the average position of a cycle.
- Indicates the general direction in which the economy is moving.
- An upward trend suggest that the economy is growing.
- Trendline usually has a positive slope, because production capacity increases over time.

8. **EXTRAPOLATION**

- It is when forecasters use past data e.g. trends and by assuming that this trend will continue, and then they make predictions about the future
- E.g. if it becomes clear that the business cycle has passed through a trough and has entered into a boom phase, forecasters might predict that the economy will grow in the months that follow
- It's also used to make economic predictions in other settings e.g. prediction of future share prices

9. **MOVING AVERAGE**

- It is a statistical analytical tool that is used to analyse the changes that occur in a series of data over a certain period of time
- E.g. the moving average could be calculated for the past three months in order to smooth out any minor fluctuations
- They are calculated to iron out small fluctuations and reveal long-term trends in the business cycle