The Basics of Business Management – Vol I

Leadership, Financial Management and Economics



ELLY R. TWINEYO KAMUGISHA

THE BASICS OF BUSINESS MANAGEMENT – VOL I LEADERSHIP, FINANCIAL MANAGEMENT AND ECONOMICS

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PART	I: LEA	DERS	AND	MANA	GERS

1 INTRODUCTION TO MANAGEMENT AND LEADERSHIP

In this introductory part, we will begin by understanding the basic definitions of the concepts.

What is an organisation?

We can simply refer to an organisation as a collection of people working together to achieve a common goal. These people are working together to achieve a common purpose, which is usually the organisation's set objectives. Working together, people are able to accomplish tasks that one individual would not have been able to do. Organisations are supposed to have a vision, mission, goals and objectives. They undertake various activities which emanate from those goals. Some scholars have asserted that organisations are systems of inter-dependent human beings¹. Organisations are supposed to do what an individual human being would not do or achieve alone.

What is management?

Several definitions of management have been given. According to Peter Drucker (1955)², a management guru, management is concerned with a systematic organisation of economic resources to make these resources productive. Other definitions look at what management does. Such definitions refer to management as the process of planning, organising, leading and controlling the efforts of organisation members and using all other organisational resources to achieve stated organisational goals³;.

Organisational behaviour: To understand organisations and management, we need to first understand organisational behaviour. This is a multi-disciplinary field which studies the individual, group and organisational processes in order to know the behaviour of people in an organisational setting. There are various definitions of the concept. Pheysey et al. (1971)⁴ referred to organisational behaviour as "the study of structure, functioning and performance of organisations and the behaviour of groups and individuals within them".⁵

Leadership: This is a common term. But what does it mean? If you asked a group of top executives in any part of the globe why organisations succeed, you will most likely hear them all say "executive leadership." Indeed, leadership is the way to success for all organisations – business, politics, sports and the family. In fact Aristotle, the philosopher, advised that if you cannot lead and manage your family, you should not aspire to enter politics. Indeed, he viewed the ancient Greek polis (ancient Greek city state) as starting from family to forming villages and finally the city state (e.g. ancient city state of Athens).

We can define leadership as the process of directing and influencing others to achieve group goals. These groups are usually in organisations. Leaders are usually people who have a lot of influence over others. Regarding leadership, we could note the following:

- i. A leader influences other people who may be followers or subordinates;
- ii. There is unequal distribution of power between the leader and those that are led (the group mates); and
- iii. Leadership involves using different types of power to influence the subordinates' behaviour.

Qualities of leadership: There are various studies that have suggested qualities that people often associate with leadership. We shall look at the following (Fiedler 1967⁶):

- · Has vision and is committed to the purpose or goals of the organisation;
- Guiding others through providing a role model and through willingness to serve others first;
- Optimism Very few pessimists become leaders;
- Dedication of one's life to serve a cause;
- A clear sense of purpose;
- Self-knowledge; and
- Ability to encourage and nurture those that report to them.

Leadership styles: Tannenbaum and Schmidt (1973)⁷ developed a leadership style continuum grouping leaders into three categories. Based on the use of authority, leaders can be referred to as the following:

- i. Autocratic A leader who commands and expects compliance without question.
 Such a leader is dogmatic and is willing and able to give or withhold rewards or administrative punishments;
- ii. Participative (or democratic) A leader who consults with subordinates on the proposed decisions and actions and encourages participation from those subordinates; and
- iii. Free Rein (laissez-faire) Leaders who use very little if at all of their power but instead give their subordinates a high level of independence in their work.

Leadership style	Behaviours demonstrating leadership style
Autocratic	 Leader take decisions without reference to anyone else There is a high degree of dependency on the leader because staff are not encouraged to make suggestions on the running of the organisation This style can demotivate staff and result in a high staff turnover
Democratic	 Leaders encourage discussion and debate throughout the group before final decisions are actually – and implemented. Leaders consult and also persuade the team before implementing a decision This approach motivates staff as they feel involved in the process of decision-making This can improve development and sharing of ideas and experiences within the organisation
Laissez-faire	 Leaders exhibit 'let it be' as it is – leadership responsibilities are shared by all – and the leader leaves it to the group This approach is useful in entities where creative ideas are important Can be highly motivational as people have control over their own working life, without unnecessary restrictions from authority This approach relies on good team and on good interpersonal relations between the group

Table 1: Leadership styles

McGregor's Theory X and theory Y

Douglas McGregor (1960)⁸, in his book – *The Human Side of Enterprise* – broadly set out two approaches to human nature which he termed Theory X and Theory Y. McGregor believed that the way people were managed affected their work behaviour and attitudes. He proposed a consultative approach to management as a way to encourage Theory Y behaviour among staff. According to him, Theory X places exclusive reliance upon external control of human behaviour, while Theory Y relies more on self-control and self-direction.

Theory X Theory Y⁹ • People are passive – even resistant • People are not by nature passive or to organisational needs. They must resistant to organisational needs be persuaded, rewarded, punished, • People will exercise self-control and controlled - their activities must be directed. self-direction towards achieving the • The average man is by nature indolent organisational objectives they work as little as possible • People are motivated and ready to • People lack ambition, dislike responsibility work and achieve organisational goals and prefer to be led. • The essential task of management is • They are inherently self-centred and to arrange organisational conditions indifferent to organisational needs and methods of operations so that They are by nature resistant to change people can achieve their goals.

Table 2: Theory X and Theory Y Source: Adapted from McGregor, D., 1960. The Human Side of Enterprise (McGraw-Hill)⁹

Management Process: Henri Fayol (1903)¹⁰ was one of those management theorists who undertook a systematic approach to analysing and defining the job of managers. He gave managers five functions:

- 1. Planning: setting organisational objectives and the methods of achieving them.
- 2. Organising: establishing the structure of tasks to be performed to realise the set goals and objectives.
- 3. Commanding: giving instructions to the subordinates to undertake tasks.
- 4. Coordinating: harmonising the activities of individuals and groups within the organisation in order to help an organisation to perfect and achieve its objectives.
- 5. *Controlling:* monitoring which is continuous during implementation and evaluation (which is an audit) of the activities in order to correct activities and ensure that work is done according to plans.

An effective manager must:

- 1. Identify symptoms causing problems within an organisation;
- 2. Analyse or diagnose the causes of the situation;
- 3. Propose how it might be solved;
- 4. Suggest treatment and monitor progress;
- 5. Develop strategies to prevent further problems; and
- 6. Control and evaluate performance of his/her staff.

Some brainstorming sessions may produce a list of characteristics that effective managers have. These include the following:

Leadership	Decisive
Visionary	Trusted
Self-starter	Knowledgeable
Good communicator	Alert
Analytical	Persuasive

Differentiating Leaders and Managers

The McKinsey 7-S framework

In 1982, Peters and Waterman¹¹ developed a model that may help us to distinguish between managers and leaders – the 7-S framework which shows the link between 'hard' and 'soft' skills. Hard technical skills – structure, strategy and systems – were proposed as distinctive competences of managers while the soft, people-oriented skills – skills, style and staff – were proposed as more distinctive in leaders. Both the managers and leaders were linked together by the *shared values*.

We should emphasize that modern approaches to business management recognise the need for a leader to be a good manager too.

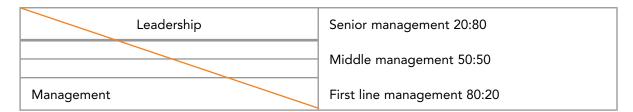


Figure 1: Balance between leadership and management

Behavioural traits of successful leaders

The behavioural theories have focused on what leaders actually do - the leadership styles.

- Physique
- Technical knowledge
- Intelligence
- Perception and caring
- Courage and risk-taking
- Persistence
- Innovation and creativity
- Position in the organisation
- Subjective assessment by subordinates
- Peer assessment
- Length in an organisation

Table 3: Behavioural traits of successful leaders

Authority, Delegation, Responsibility and Accountability

Delegation of authority: Delegation refers to the process of assigning work from the top to the lower level of an organisation (from superior to the subordinate). The person who has been delegated has authority to accomplish the assigned task. The process of delegation involves:

- Allocation of duties
- Delegation of authority
- Assignment of responsibility
- Creation of accountability

Authority: This is the right to take a final decision. It moves in a downward direction, from a supervisor to a junior.

Responsibility: This is the obligation to perform the duty. Responsibility cannot be delegated.

Accountability: The person that has been delegated (the subordinate) must be held answerable to the duties that they have carried out.

Stakeholder mapping and stakeholders influence

Stakeholders: The stakeholders of an organisation are all those individuals or organisations that have an interest in an organisation. They include the following:

- Shareholders
- Employees
- Consumers
- Suppliers
- Competitors

- Financial institutions
- Government
- Local community
- Non-Governmental Orgainsations
- The media

Figure 2: Organisation's stakeholders

Stakeholder mapping: Every organisation needs to know their stakeholders well. The power (or influence) and level of interest that each key stakeholder has needs to be understood in order to manage the organisation's relations with each of them.

Influence: Stannack (2003) defines influence as the apparent ability to use power¹². Influence is importance because it helps leaders and managers to obtain compliance, obedience, conformity and commitment from their people¹³.



Sources of power of stakeholders: Johnson and Scholes (1999)¹⁴ explain stakeholders' sources of power in two ways.

- Internal stakeholders (within the organisation): The chain of command hierarchy which is formal with power control of strategic resources, possession of knowledge and skills.
- External stakeholders: They have control of strategic resources of key raw materials or money (like a bank) or possession of knowledge and skills.

Managing stakeholders

To be able to manage different stakeholders, the organisation needs to understand their level of influence (power) and their level of interest. The power or influence can either be high or low. It is the same for interest. Those who have both high influence and high interested should always be involved in the key activities or programmes of the organisation. Such stakeholders include shareholders, managers and, in some cases, the government.

Power and Authority

Power can be referred to as the ability for a leader or manager to take action. Authority will then be referred to as the right to take action. In management, the person supposed to take action should have the power to do so.

There are seven different sources of power, five of them originally proposed by French and Raven (1959)¹⁵:

- 1. Legitimate power (position power) This is power which comes with the position that one holds within a group or organisation. The subordinates will accept instructions or even orders from their managers. This is often referred to as position power. Managers have authority because of their position within the formal structure of the organisation. Every organisation has an organogram showing reporting and responsibilities of different levels of management and officers.
- 2. Reward power This refers to the extent to which the manager uses the intrinsic and extrinsic rewards to control other people in the organisation. It is about having the authority to use an entity's resources for rewards or recognition as perceived by the follower. For example, the manager who has the power to reward can offer the supervisee more pay, perks, promotion or more responsibility.

- 3. Coercive power This is the power that is based on the subordinate's fear of the supervisor's punishments and threats. For example, this kind of power can be viewed from the extent to which a leader (or supervisor) can deny desired rewards or administer punishments and threats to the subordinates. The supervisor can withhold or delay increasing the subordinate's pay or perks, promotion, or more responsibility.
- 4. *Expertise power* This is the ability to influence another's behaviour because you possess skill, knowledge or competence, expertise and/or experience or judgment that the other person needs but does not correctly have.
- 5. Referent power This is the influence that a person exercises over others because they believe in him/her or his/her ideas. Some people will want to be associated with the leader who has a long term vision. They will respect and listen to him/her. We can talk of the ability to identify with and be influenced by the manager. This can also be based on the perception that the manager has attractive personal traits or charisma.
- 6. *Personal power* This is the power that a person derives from the trust and support of colleagues¹⁶.
- 7. *Connection power* This is based on personal and professional access to people and information. It is often based on a person's networking ability.

Management - Leading and influencing people in an organisation

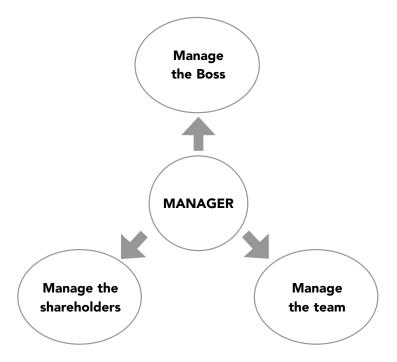


Figure 3: Influencing in at least three directions

To be effective at the workplace, managers need to appreciate that they can and should influence in at least three directions.

- 1. Managing upwards (or managing the boss): First and middle level managers need to understand how to communicate with their senior managers in order to get things done. They need to understand what motivates, or frustrates their managers. They also need a through understanding of their working style. When is it right to approach? In all cases, supervisees need to communicate with their managers. Do let your manager understand the challenges you are facing and the required support to achieve the work targets.
- 2. *Managing the team:* A manager has to influence his/her team members to improve on their attitudes, behaviours and performance in order to achieve improvements in the organisation. Managers have to provide the focus for the work and, through teamwork, drive the work forward.
- 3. *Managing stakeholders:* Managers have to create a sense of ownership in their stakeholders. When stakeholders are handled well with effective communications they can promote the name or brand of the organisation.¹⁷

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Determinants of job satisfaction	Determinants of job dissatisfaction
Achievement	Poor or bad supervision
 Recognition 	Company policy
 The nature of work itself 	 Adminsitrative policies
 Responibility 	Salary
 Advancement 	 Unfair salary discrimination¹⁷
	Work conditions
	 Interpersonal relations

Table 4: Determinants of job satisfaction and dissatisfaction Source: Adapted from Herzberg et al (1959)¹⁸

Managing Conflict

Perspectives on conflict

There are various perspectives explaining conflicts in teams:

- 1. The *unitary perspective*: This perspective seeks to develop an organisation that is integrated and entirely harmonious where all staff work to achieve organisational and personal objectives without conflicts among themselves. This is against the observation that conflict is dysfunctional and harmful and mainly caused by poor communications, personality differences as well as resistance and non-cooperation by certain members of the group.
- 2. The *pluralist perspective*: This perspective sees conflict between competing groups within an organisation as inevitable, inherent in the functional and hierarchical structure of almost all organisations. It is the role of management to be adept at handling conflict and also balancing competing interest groups.
- 3. The *radical perspective*: According to this perspective, conflict reflects the inequalities within an organisation and is the means through which change is affected. Therefore, change is viewed as the natural outcome of the struggle between workers the one side and owners and managers on the other. Workers view the managers as representing the interests of owners. This is always not the case, though, as managers sometimes seek and represent their own interests.

Is conflict within a group necessarily a bad thing?

According to Mullins (2005), 'conflict is not necessarily a bad thing. Properly managed, it can have potentially positive outcomes' 19. Others, such as Townsend (1985) cited in Mullins (2005) share a similar viewpoint: "A good manager does not try to eliminate conflict. He tries to keep it from wasting the energies of his people" 20.

The sources of conflict within a group/organisation

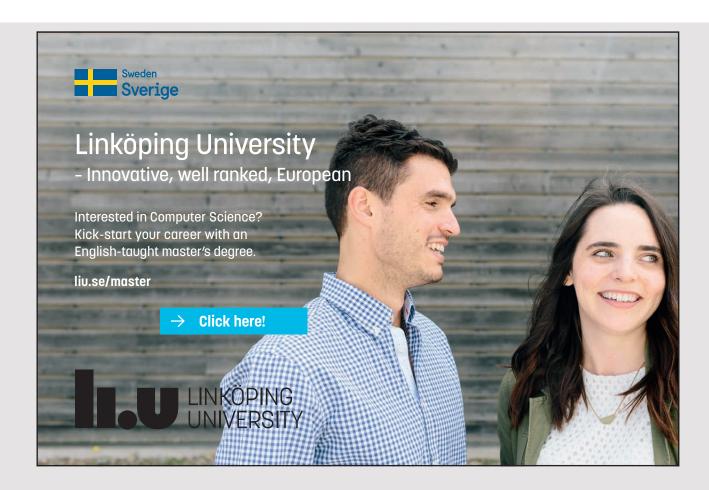
There are several potential sources of conflicts in an organisation that have been identified by researchers and authors²¹:

- Differences in perception and attitudes Perception usually refers to how we see the world around us while attitude is a learned predisposition. Individuals see things differently (influenced by attitudes and perception) and this sometimes leads to clashes between people.
- Competition for fewer resources in an organisation means that people engage in more competition and hence more disagreements or conflict.
- The 'silo' structure of the organisation's departments (and their staff) whereby each department tries to compete with others, resulting in conflicts. Insular thinking (the 'silos' approach) is almost inevitable in functional structures of a traditional organisation.
- Poor role definition by managers: Role ambiguity and situations where two people
 doing things or activities that seem to be similar yet have two different titles cause
 conflicts as the two try to out-compete each other. Role conflict creates a lot of
 demoralisation for staff and it should be avoided.
- Lack of fair and equitable treatment (whether perceived or real) leads to tendencies of tension and conflict by those feeling or actually being inequitably treated. Some managers give different salary rates for staff at the same level of employment, rank and seniority²². Sometimes supervisors earn more than their juniors (direct supervisees)²³. Poor managers tend to have 'favoured' children over other workers and this is a time bomb as it can result in bitter conflicts and strikes.
- Different educational backgrounds of people in a group may cause conflict. It is common to find those having science–related courses viewing social scientists in a negative light. There is a general tendency by the former to think they were 'blighter' than the other professions.
- The changing external environment due, for example, to changes in technology are most likely to lead to loss of customers, change in the way things were being done, loss of jobs and, therefore, increased competition for jobs. In such a situation, conflict is inevitable.

Strategies for Managing Conflicts

Conflict needs to be managed well to ensure harmony and employee productivity in an organisation. Managers should spend more time guiding their teams to increase productivity, increase sales and help an organisation realise more profits; and less time in meetings to resolve conflicts. Some of the ways of reducing and managing conflicts within an organisation include:

- Clear job specification and job description to avoid role ambiguity;
- Organisational clarification of goals and objectives to provide a clear focus for all.
 One of the questions that arises here is "Why are we going where are we going?")
- Establishment of Human Resource Development policies and procedures which are fair and equitable (For example, it should be clearly written how staff get promoted or demoted).
- Allocation of resources among departments and staff that reflects the activities to be undertaken as well as inputs and expected outputs. In other words, distribution of resources within an organisation should be transparent and clearly justified.
- Leadership and management approaches that are participative and supportive. People usually oppose plans that they were not involved in preparing. Management consultation with staff is viewed by the staff as a sign of respect, trust and value of their contribution to the entity.



- Creation of appropriate reporting lines and procedures to minimise unnecessary 'red' tape bureaucracy because if there is unnecessary bureaucracy, subordinates do not report and managers never get to know what is happening in the organisation.
- Regular training in group processes skills (communication, negotiation and problem solving, etc.) for both management and staff.
- Deliberate effort to understand the social and psychological aspects of individual staff and how to support them when they encounter social and psychological challenges.

Managing Change

Change is a fact of life. It is the only thing that does not change when everything else changes. It can be predictable or unpredictable, slow or fast, incremental or transformational and planned or unplanned. It is in most cases uncertain. Conditions, situations and time change. Conditions can never remain the same. Change in an organisation can either be due to internal factors or the influence of the external environment – government policy, influence of government relations with other countries, competition and others.

Drivers of change

The global drivers of change in the age of the internet, fast transportation and intercultural relations include:

- Advances in technology, especially the Information and Communication Technology (ICT) internet, social media (Facebook, Twitter, WhatsApp, Instagram and others).
- Globalisation a company in one country is competing with companies in the whole world and it is easy to know whether it has quality or not. The internet enables us to search for the competitors of the company without the company necessarily knowing that we are comparing its offer with others.
- Knowledge explosion and changing consumer tastes.
- Changing demographics with mostly a young 'global' population that favours 'global' brands and that heavily uses the internet to reach and communicate with family, friends and their managers.
- Demanding stakeholders shareholders, staff, customers, financial institutions, government, civil society organisations and the public in general that require ethical entities.
- "Chinazation" of markets and trade through which there is a Chinese product in almost every part of the world.
- Influence of international non-governmental organisations on ethics, good governance and human rights.

Managing change

As we have observed, change can be unpredictable or predictable and planned or unplanned. Generally, change must happen and, therefore, organisations need to prepare to manage it. Some of the measures for mitigation of change are as follows:

- Continuous professional training for staff and management which helps an
 organisation to keep abreast of the changing external environment (technology,
 economy, government, demography, etc.) and of changes in the way things are
 done and.
- Constant communications with stakeholders including staff which helps to reduce possible shocks that changes in both the internal and external environment may cause to people.
- Investment in research to ensure that it keeps organizational innovation and creativity as well as avoids being outcompeted by the others.
- Multi-skilling staff in order to avoid job losses resulting from changes in technology, among others.
- Establishment of participative and supportive leadership and management, including management consultation with staff which is viewed by staff as a sign of respect, trust and valuing their contribution to the entity.

Time Management

Introduction: Time is a limited and non-renewable resource. It is like mineral oil. Once it is gone, it is gone. It is not replenishable. So we should use it sparingly – efficiently and effectively. Every second counts. Therefore, we should spend it efficiently and productively.

Ever heard of the "Is this jar full" story and the rocks? You have never heard about the story about how a facilitator used a jar to illustrate the importance of putting the 'big rock in the jar first' and then the other things later? You need to read Carlson, R. (1997), Don't Sweat the Small Stuff. In the story, the time management expert, begun his lesson by stuffing different materials in a jar. Every time he put stuff, he would ask: Is this jar full? To which he would get different responses. He begun by putting in fist-sized rocks, then gravel, then sand, and finally, water. The gist of his demonstration was that: If you do not get in the big rocks first, then you'll never get them in at all. If you sweat the little things (i.e. gravel, the sand), then you will fill your life with little things²⁴.

Your big rocks of life

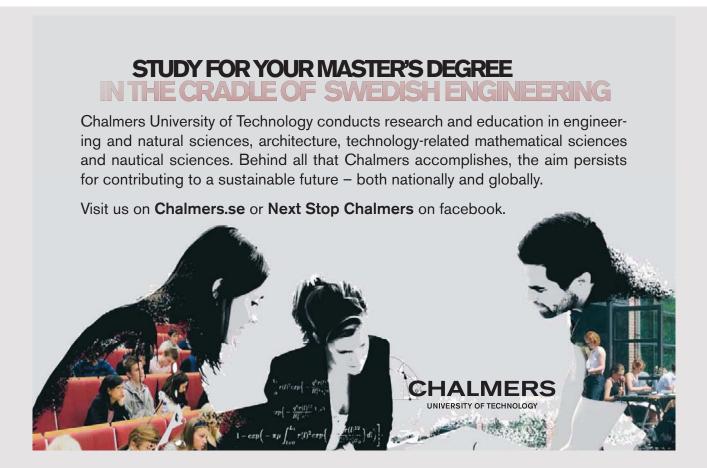
(It is you who decides which your **big rocks** are)
Your job
Your education – your study course
Your children
Your spouse
Your loved ones
Your friendships
Your dreams

Prioritize

Do Delegate Delay Delete

Table 5: Your big rocks of life and prioritizing

Have you ever been stuck in a traffic jam when you are supposed to be in an examination, an interview or to give a keynote address to the Very Important Persons (VIPs)? How about being left by a plane when you have been sent to represent your boss or your country at an important conference? Or did your computer crash when you were preparing a presentation for that most important deal? If this applies to you, then you are like most of us. There is a tendency for human beings to postpone action until the last hour. This has to change otherwise we will lose great opportunities and even probably end up losers in life.



Time management is important for all of us as employees, managers, students, teachers, and leaders.

Time is a scarce resource which has to be managed efficiently. In economics, the factors of production have been identified a labour, capital, land and entrepreneurship. Technology has also been identified as mostly enhancing productivity. Time as a resource is appreciated when considering productivity. Productivity of the factors of productions requires technology and time. To be effective and efficient requires both money and time management. In some sectors, time is of essence. Countries that have been successful and also happy (according to happiness indices) manage their time well. Successful people and organisations usually manage their time well. Time management, like personal financial literacy (planning for what you earn), has not prominently featured on the timetables and syllabi of universities, colleges and schools. Yet, it is important.

Time management can be defined as the process of ensuring that the limited time a person has is used according to the activities that need to be done. It requires planning and scheduling the activities according to their importance and urgency. Importance and urgency should go together. In other words, an activity that is important and urgent should be undertaken first. This requires that there is a list of activities to undertaken, reasons why they have to be undertaken and when they have to be undertaken. Unfortunately, most people and organisations have instead been plagued with procrastination.

Procrastination

Procrastination has variously been accepted as the thief of time²⁵. It means putting things off until a future time; promising yourself to do it later. Most people, including the successful ones now, have procrastinated at some time in their lives. There are various reasons for procrastinating:

- You have too many things to do;
- You don't think that you have the requisite skill or knowledge to handle the task;
- You are not interested in the task;
- You are afraid of trying and failing;
- You set yourself unreachable goals (you're a perfectionist?); and
- You are not clear about what is expected.

If you want to manage your time, please deal with procrastination. Below is how to deal with procrastination:

- Set **SMART** (Specific; Measurable; Achievable; Realistic; Timed plus Targeted) goals;
- Do the most important things when your energy is at the highest;
- Do 'important and urgent' things first;
- Break large tasks into smaller ones;
- Identify your personal time wasters and reduce them;
- Avoid work marathons because they will break you down (e.g. because you wasted your time, you have to work a 12 hour period);
- Take off time to rest but plan and schedule that rest; and
- Spare some extra time for the unexpected things because they too usually happen.

Personal business

- Seeing a doctor or dentist
- Buying clothes
- Visiting friends
- Paying utility bills water, hydro, etc.
- Attending to non-work phone calls

At the work place

- Numerous personal calls
- Lunch time with friends (good but consumes time)
- Reading newspaper during working hours (read them before work or during the lunch hour)
- Moving around and talking to every colleague at work
- Absence of a timetable/a day's itinerary
- Starting work late
- Developing poor travel/visit plans (do you have journey, a map and schedule?)

Table 6: Time wasters

Principles of Time Management

The principles of time management are meant to guide you in decision making and planning how to spend your time effectively and efficiently. These are listed below:

- 1) Set goals and establish priorities;
- 2) Spot the time wasters;
- 3) Think quality not quantity of time;
- 4) Organise yourself for success prioritize, clear your desk, delegate some work to others, stay healthy in body and mind and act purposefully and positively;
- 5) Write a Daily Time Schedule (Time, Activity and Priority); and
- 6) Work to suit your preferred lifestyle.

Attributes of time

- Time is neutral
- Time cannot be saved for future use (therefore time wasted can never regained)
- Each activity requires a minimum quantum of time
- Time has a value like currency (money)
- Time is cumulative in nature

Planning for your time

Bad time management may be equated to stress – and no one works well under pressure. To use your time efficiently and effectively, you need to plan your time²⁶. First list the activities to de undertaken then rank them in a descending order according to priority, prepare a week's plan and implement it.

How will spend your time in lifetime?

If you are an average American, in your lifetime you will spend: Seven years in the bathroom, six years eating; five years in line, three years in a meeting, two years playing telephone tag, eight months opening junk mail and six months at the red lights. You will also get interrupted 73 times a day, less than 5 minutes a day and exercise for less than 3 minutes a day²⁷.



Time	Task	Subject	Priority
5:00			
6:00			
7:00			
7:15			
7:45			
8:00			
8:15			
8:45			
Up to 5:45			
1			

Table 7: A Winner's time schedule

Hour/ Day	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
7 AM							
8 AM							
9 AM							
10 AM							
11 AM							
12 Noon							
1 PM							
2 PM							
3 PM							
4 PM							
5 PM							
6 PM							

Table 8: Weekly worksheet

Important-Urgent matrix

The matrix helps in taking decisions on which activities to perform first and those that may either be done later or not at all.

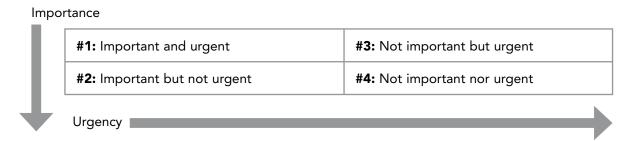


Figure 4: Important-Urgent matrix Importance

Good time management requires that, based on the importance and urgency matrix, you should do the following:

- 1) Focus the activities that fall in the box marked #1. Give the time and attention that their importance and urgency requires.
- 2) Activities in the box marked with #2 are important but not urgent. They may be postponed temporarily. One may be able to spend less time on them for now. You should, however, not forget about them.
- 3) You may decide to eliminate the activities in the box marked with #3. Though they are coming up very soon, they are not really that important.
- 4) If you are very short on time, you will probably want to eliminate activities in box marked with #4.

The Pareto 20/80 Rule on Time Wasting

Vilfredo Pareto was an Italian economist who is credited with the 20/80 Rule. In modern times and in business management, it means that 20 percent of customers give the company 80 percent of the profits. It also means that 80 percent of customers give the company 20 percent of the profits. The rule has been applied to time management to mean that most people use 20 percent of their time doing important things and then waste 80 percent. We need to use more of our time doing things that help add value to ourselves. We need to get more time from the 80 percent and add it on the 20 percent. Imagine what would happen if we used 80 percent of our time doing effective and important activities or things! This world would be full of hard workers and probably more millionaires (not time wasters).

NT

2 MANAGEMENT OF CASH

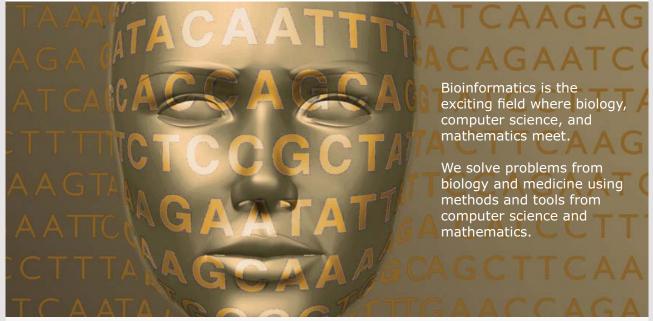
Cash is the most liquid current asset. Cash management is concerned primarily with the optimisation of the amount of cash available while maximising the interest earned by spare funds not required immediately. Available cash includes:

- Coins and notes;
- Money in current accounts and short term deposits;
- Unused bank overdraft facility;
- Foreign currency; and
- Deposits that can quickly be converted into the local currency.

We should note that cash does not include stock, money owed by customers or long term deposits (if they cannot be withdrawn).



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Holding cash can become a cost in itself to the organisation. Holding cash in order to meet short term needs incurs an opportunity cost equal to the gains (returns) which could have been earned if the cash had been put to the productive use. However, by operating with small amount of cash balance the organisation will increase the risk of being unable to meet debts as they fall due. So it is necessary that an organisation holds an optimum cash balance.

The need for cash: There are **three motives** for an organisation choosing to hold cash: Transaction, precautionary and speculative motives.

- 1. *Transaction motive:* Organisations need cash reserves to be able to purchase goods and services. They need the cash to balance the short term cash inflows and outflows. It should be noted that cash inflows and outflows are not usually perfectly matched. The optimum size of the cash reserve can be estimated by forecasting cash inflows and outflows and by having prepared a cash budget.
- 2. *Precautionary motive:* Organisations keep some cash reserves to avoid unexpected demands for cash in the short term. They just take precaution. Reserves for precautionary motives maybe in the form of easily realised short term investments (e.g. near cash items, treasury bills).
- 3. *Speculative motive:* This is the motive of holding cash reserves so that the business can take advantage of any attractive investment opportunities that may arise.

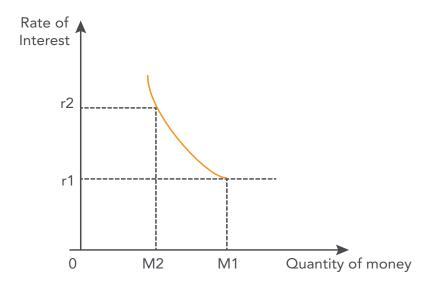


Figure 5: Speculative demand and interest rate

As Figure 5 shows, demand for money (cash) increases as the rate of interest falls. When the rate of interest is expected to fall, speculators convert bonds to cash to avoid capital losses and thereby increasing demand for money. When the rate of interest is expected to increase, speculators purchase bonds; and hence demand less money. They will sell their bonds and make capital gains when the demand for them increases at a higher price. However, there can be a liquidity trap. A liquidity trap (r1, M1) is a point below which interest would be too low to encourage speculators to invest in bonds.

Cash Budget: Cash budget incorporates estimates of future inflows and outflows of cash over a short term period of time projected. The period may usually be a year, half a year, or quarter year. Effective cash management requires that the cash budget be further broken down into monthly, weekly or even on a daily basis.

These are two components of the cash budget: Cash inflows and cash outflows



Cash Inflows	Cash Outflows			
 Cash sales Cash received from debtors Receipt of a bank loan Cash received from loans, deposits Interest on saving and investments Cash receipts of other revenue income Cash received from sales of investments or assets Shareholder investments Increased bank overdrafts or loans 	 Purchase of stock, raw materials or tools Cash purchases Cash payment to creditors Cash payment for other revenue expenditure (wages, rent) Cash payments for asset acquisition (e.g. a building, machinery, office furniture, etc.) Cash payments for withdrawals, taxes (Income tax, corporation tax, VAT, etc.) Repayment of loan 			

Table 9: Main sources of these inflows and outflows

Particulars	Month		
r ai ticulai s	January	February	March
Estimated Cash inflows			
I. Total Cash inflows			
Estimated cash outflows			
II. Total cash outflows			
III. Opening cash balance			
IV. Add/ Deduct surplus/Deficit during	g the month (I–I	II)	
V. Closing cash balance (III–IV)			
VI. Minimum level of cash balance			
VII. Estimated excesses or shortfall of	cash (V–VI)		

Table 10: Cash budget M/S Moode Enterprises Ltd

What is Cash flow?

Cash flow is the measure of an organisation's ability to pay the bills on a regular basis. It depends on the amounts and timing of money flowing into (cash inflow) and out (cash out flows) of the business each week, month, quarter or year. Good cash flow allows a business to pay its bills on time.

Determining optimum cash levels: Optimum cash levels will vary from organisation to organisation. This is due to the size of the organisation, time period and the reasons it wants to hold cash. Whether it is a small organisation or a big one, the optimum amount of cash held will depend on the factors listed below:

- The forecast of future cash inflows and outflows;
- The efficient management of the cash flows;
- The availability of liquid assets to the organisation;
- The availability and borrowing capability of the organisation; and
- The organisation's risk appetite (i.e. the organisation's tolerance of risk).

Cash flow problems: There are number of reasons why an organisation may experience cash flow problems. They include the following:

- Poor credit controls;
- Failure to fulfill your orders;
- Poor management accounting;
- Inadequate supplier management;
- Ineffective ordering services;
- Poor marketing; and
- Poor control of overheads.

The organisation may be making losses on a regular basis. This could result in liquidation, bankruptcy or even acquisition. We have to say that making losses in the short run need not be a problem but making regular losses is a problem. Inflation can also lead to cash flow problems. The current high price level may affect cash reserves. Inflation maybe a source of cash flow difficulties since even historical profit may prove to be insufficient to fund the replacement of assets that are important to the organisation.

Overtrading (also termed *undercapitalisation*) happens if an organisation is trying to support a very large volume of trade with a very small working capital base. This can cause cash flow problems. Even if the organisation is operating profitably, overtrading can lead to a liquidity crisis. The organisation will be unable to meet its debt obligations as they fall due. Why? This is because cash has been absorbed by the growth of non- current assets, inventory and trade receivables.

Poor cash management when dealing with the seasonal business

There is need for good cash management when dealing with a seasonal business as the cycle sales patterns may lead to cash flow imbalances. The organisation needs to manage the cash reserves well during the season of boom. Cash flow problems may also result from sizeable one-off items of expenditure such as redemption of debt capital or investment in non-current assets.

Remedies for cash flow problems

- 1) Postponement of expenditures on non-essential capital.
- 2) Acceleration of the rate at which cash flows into the business by, for instance, offering discounts for early payments to customers, an aggressive credit recovery policy (by closing overdue accounts), or even having a grand sale to clear unwanted inventory.
- 3) Selling and converting into cash the investments that were probably bought with the surplus cash from previous period. This will also generate cash reserves.
- 4) Postponement or reduction of cash outflows by delaying to pay suppliers and by rescheduling loan payments.
- 5) Reduction, or stopping altogether, of dividend payments (This is resented by shareholders and is usually considered by the capital market as a sign of financial weakness).



3 CREDIT MANAGEMENT

In most business-to-business purchases, companies extend credit facilities to their customers. Credit is a crucial tool for attracting and keeping customers. However, if not well managed, credit facilities can affect cash flow management. Poorly managed credit, for instance, can result in delays in converting sales into cash.

Credit policy: The term credit policy here refers to the decision variables that influence the amount of credit that a company may extend to customers. Those variables include the length of credit period to be extended, the quality of goods to be given on credit, the cash discount to be given and any terms to be offered to the customers.

- 1) A *lenient credit policy* (or relatively *liberal credit policy*). This will result in a high level of receivables. A lenient credit policy will result in greater defaults in payments by the financially weak customers and this will result in the increasing size of receivables. This policy encourages even those financially strong customers to delay making payments, which will result in increasing the size of account receivables.
- 2) Strong credit policy (aggressive credit policy): Such a policy ensures that those who owe a company pay on time. There are staffs whose core role is debt correction by physically walking into clients offices and picking the cheques.

Determinants of credit policy

- 1) The level of credit sales required to optimise the profit.
- 2) The credit period, that is the duration of credit period extended (15 days, 30 or 45 days).
- 3) Cash discount, discount period and seasonal offers (e.g. sales promotions).
- 4) Credit rating or standard of a particular customer (with regard to **5Cs** of credit evaluation and rating below:
 - i) Character willingness to pay for the goods purchased;
 - ii) Capacity ability to pay;
 - iii)Capital financial resource of a customer;
 - iv) Condition(s) prevailing economic and market conditions; and
 - v) Collateral security e.g. a property title.
- Profits.
- 6) Market and economic conditions prevailing.
- 7) Collection policy.
- 8) Paying habits of customers.
- 9) Billing efficiency, record keeping, etc.
- 10) Grant of credit: size and age of receivables.

4 MANAGEMENT OF WORKING CAPITAL

All organisations, especially businesses, have to consider the management of working capital as vital to their operations and success.

Objectives of working capital management

- 1) To increase the profitability of the organisation; and
- 2) To ensure the organisation has sufficient liquidity to meet short term obligations as they fall due.

Working capital is the cash needed to pay for the day-to-day operations of the business. It is the difference between the *current assets* and the *current liabilities* of a business.

Current Assets = Assets held in cash form e.g. at bank or those that can be

quickly converted into cash

Less

Current liabilities = Money owed by a business that will need to be paid in the

next 12 months

Equals

Working capital

Net working capital: current assets minus current liabilities.

Current assets: may include stocks of raw materials, work in progress and finished goods, trade receivables, short term investment and cash.

Current liabilities: may include trade payables, overdrafts and short term loans

Current Assets	_	Current liabilities	Equals
Stock (raw materials, work in progress, finished goods)	Less	Trade creation (taxation, dividends, short term loans)	Working capital
Debtors: Cash at bank, short term investment			

Structure of current Assets and current liabilities

Working capital is also called circulating capital or current capital in some text books.



Level of working capital

To understand the level of working capital, we need to understand the following working capital policies: aggressive policy, conservative policy and moderate policy.

- 1) **Aggressive policy:** With regard to the level of investment in working capital, an aggressive policy means that an organisation will choose to operate with a lower level of inventory, trade receivables and cash for a given level of activity or sales. Such policy will increase the profits of the organisation since less cash will be tied up in current assets. But such a policy could increase risks since the possibility of cash reserve shortages and running out of physical inventory is increased.
- 2) **Conservative policy:** Under this policy, there is a more flexible working capital policy up to a given turnover. It is associated with maintaining a larger cash balance (probably even investing in short term securities, offering generous credit terms to customers and holding higher levels of inventory). This kind of policy will likely give a lower risk of financial/cash problems and inventory problems. It is, however, likely to reduce the level of profitability.
- 3) **Moderate policy:** This is the policy which is in the middle of both the aggressive policy and conservative policy. An organisation decides on such a policy for fear of the extremes of the first two policies.

Current assets (CA)	Stocks	100,000
	Debtors	250,000
	Cash	150,000
	Prepayments	<u>50,000</u>
Less		550,000
Current Liabilities (CL)	Creditors	200,000
	Taxes	100,000
	Dividends	30,000
	Short term loans	120,000
Equal		450,000
Working capital (CA-CL)		100,000

Table 11: Example: calculating working capital M/s Moode Enterprises

Adequate working capital: Having adequate working capital should be the concern of every business because either a shortage or an excess of working capital are bad for business. The situation shows that financial and management accounting has loopholes.

Advantages of adequate working capital

Since working capital is the "lifeblood" of the business, having *adequate amounts* has several advantages.

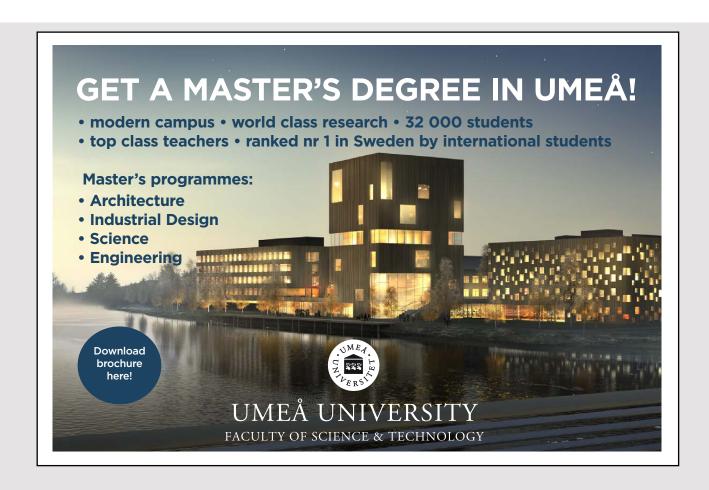
- 1) Solvency of the business: this ensures uninterrupted flow of production. Continuous production keeps business in the market serving their customers.
- 2) Good will: good will is as important as a good name or brand in the market. With sufficient working capital a company is able to make prompt payments and in turn will help it create and maintain good will.
- 3) Getting loans on favourable terms. A business that has adequate working capital and is solvent with good credit standing can obtain bank loans on easy and favourable terms.
- 4) Regular supply of raw materials, adequate working capital enables a business to ensure regular supply of raw materials and hence continuous production.
- 5) Regular payment of operational expenditures (salaries and wages, day to day expenditure). Timely payment of salaries and wages raises employee morale and their efficiency and ultimately business realises increased production and sales performance.
- 6) Cash discounts on purchases. A business with sufficient working capital usually obtains cash discounts on purchases; which reduces its costs.
- 7) Buying in bulk and enjoying economies of scale in production. A business with sufficient working capital will afford to purchase in bulk when prices are lower (hold inventory and later enjoy higher prices). It can also buy in bulk and produce more quantities, which reduce its costs of production. Moreover, when it buys in bulk it can enjoy advantages of bulk transporting.

Disadvantages of excessive (redundant) working capital

- 1) Presence of idle funds earning no profits for the business(no proper rate of return on its inventory).
- 2) Unnecessary purchasing and holding of large inventories possibly causing chances of pilferage, theft, waste and losses. (Do not forget the costs of inventory).
- 3) Redundant working capital may give rise to speculative transaction motives which could backfire.
- 4) Some businesses may fail to keep good working relationships with financial institutions because they have excessive working capital. This is bad because in future they may not attract loans on favourable terms.
- 5) A business with redundant working capital may become too lenient with its credit policy. Normally a business should pressurise those who have bought on credit so as to have a healthy cash flow.
- 6) The value of shares may fall due to the low rate of return on investments.

Dangers of inadequate working capital

- 1) Failure to pay short term liabilities as they fall due;
- 2) Inability to buy in bulk and enjoy associated advantages;
- 3) Failure to pay day-to-day expenses which can result in poor employee morale and inefficiency;
- 4) Underutilisation of the fixed assets (The business may fail to produce at optimum but at excess capacity and this means that the equipment or machines are not being utilised efficiently); and
- 5) Decline in the rate of return on investments because there is no money to invest.



Finance Instrument	Description
Line of Credit	Maximum loan limit established. Firm draws on loan as needed up to limit.
Accounts Receivable (AR) Loan	Loan secured by accounts receivable
Factoring	Sale of accounts receivable to a third party collector (factor). Factor bears collection risk.
Inventory Loan	Loan secured by inventory
Term Loan	Medium-term loan. Principal repaid over several years based on a fixed schedule.

Table 12: Summary of Working Capital Finance Instruments

Determinants of working capital

The optimum level of current assets is important for business to keep operating and also keep a good image. The optimum level of current assets will depend on a number of factors. The factors are both in the internal and external environment. They include:

Internal factors:

- *Nature and size of business:* For example, a small business will not require the same amount as a large concern. A business engaged in public utility services such as electricity, water, sewerage management will require <u>less</u> current assets due partly to the sales of services and the cash nature of the transactions. It will however invest more resources in fixed assets.
- *Volume of sales:* With the increase in sales, there is more demand for working capital needed for production of finished goods and payment of debtors.
- *Production policy:* In case of seasonal fluctuations in sales, production will fluctuate accordingly and ultimately requirement of working capital will also fluctuate. However, the sales department may follow a policy of off-season discount, so that sales and production can be distributed smoothly throughout the year and sharp variations in working capital requirement are avoided.
- *Conditions of supply:* In situations where the supply of stocks is prompt and ample, fewer funds will be required. Where supply is unpredictable (or even seasonal) more funds will have to be invested in inventory.
- Availability of credit: A business that is able to obtain a credit facility from banks and its suppliers on easy and favourable terms will require less working capital. The absence of credit facilities will imply that a business needs more working capital.

- Changes in the general price level: When the increase in general price level remains high for most products and services, this is referred to as inflation. With an increase in the general price levels, a business will need more working capital perhaps for the same magnitude of current assets. The effect of rising prices will be different for different businesses of different sizes and ages.
- Firm's Credit policy: A business that follows a lenient or liberal credit policy to all customers requires more funds. The business with a stringent or rigid (strict) credit policy and extends credit facilities to few potential customers will require less amount of working capital.
- Management and coordination activities in the business: Working capital requirements will depend upon the organisation and the coordination between production and distribution activities. Proper coordination of production and distribution of goods may reduce the amount of working capital required. This is because minimum funds will be invested in obsolete inventory and non-recoverable debts among others.
- Growth and expansion of the business: The working capital requirements of an enterprise tend to increase with growth in sales volume and growth in fixed assets. A business that is growing needs funds to invest in fixed assets so as to keep pace with its growing production and sales.
- *Profit margin and dividend policy:* The size of working capital in a business is dependent upon its profit margin and the dividend policy. Therefore, a high net profit will contribute towards the working capital, especially when it has been earned in cash. On the other hand, distribution of a big portion of profits in form of cash dividends will result in a reduction in cash reserves and in turn reduce the businesses working capital.

External environmental factors

- Business cycles and fluctuations: Business cycles in business include boom, slum and even a recession. During a recession, the overall purchasing power is very low and the business's customers will hardly make purchases. This affects working capital. Under boom, the business may make additional investments in fixed assets in order to increase its productive capacity. For example, the company may purchase a new and high capacity machine.
- *Taxation policies:* Tax policies of the government can affect the level of working capital of a business. If the government imposes high taxes on the businesses, they will be left with minimum profits for distribution and retention purposes.

- *Import policies and regulations:* The government import policies may also influence the levels of working capital of a business.
- Changes in the levels of technology: Technological changes and advancements in the area of production can affect the levels of working capital. When a business acquires and installs a new machine (replacing the old one) and the machine can utilise less expensive raw materials (or uses less raw materials), this may reduce the levels of inventory required. This will in turn reduce working capital needs.

Sources of working capital

The choice of the source of finance that a company uses to finance its working capital and other activities depends on a number of factors such as availability of funds, the length of time such funds may be required for, the purpose for which the funds are required, the size of the company and the rate of interest. For the discussion of the financing of the working capital, the two main factors that need to be considered are the risk of the finance used and the cost of using short or long-term sources of finance.



Short-term source	Long-term source
Overdrafts	Own Capital
Short-term bank loans	Debentures
Trade credit	Long term loans

Table 13: Sources of finance

Sources of Working Capital for Small Businesses

Commercial banks are the largest financing source for external business debt, including working capital loans and they offer a large range of debt products. Savings banks are increasingly providing small business loans and, in some countries, microfinance institutions are becoming a common source of micro credit for small businesses.

Principles of working capital

- 1) The principle of risk variation: This principle assumes a definite relationship between the degree of risk and the rate of return. As a business assumes more risk, it increases the possibility of higher profits or losses. This also means that as the level of working capital, relative to sales decreases, the opportunity for gain (profit) and loss also increases. Therefore, risk in this case refers to the inability of a business to maintain sufficient current assets to meet its obligations as they fall due. So if the level of working capital increases, the amount of risk decreases and the reverse is true.
- 2) The principle of cost of capital: The principle asserts that different sources of finance have different costs of capital. The cost of capital moves inversely with risk and, therefore, additional risk capital will likely result in a decline in the cost of capital.
- 3) The principle of maturity of payment: Every business should endeavour to ensure that maturity of payments (of its short term debt instruments) relate to its flow of internally generated funds. To lessen risk, there should be the least disparity between maturity of payments and the flow of internally generated funds.
- 4) The principle of equity position: This principle states that the amount of working capital invested in each unit of business should be justified adequately by the enterprises/company equity position. It simply implies that every dollar invested in the working capital should contribute to the net worth of the company.

Control of working capital

Working capital requirements depend upon the level of operation and the length of the operating cycle. Monitoring the duration of the operating cycle is an important ingredient of working capital control. In this context, the following points should be borne in mind:

- 1) The duration of the raw material stage depends on regularity of supply, transportation time, price fluctuations and economy of bulk purchase. For imported, materials, it takes a longer time.
- 2) The duration of the work-in-process depends on the length of manufacturing cycle, consistency in capacities at different stages and efficient coordination of various inputs.
- 3) The duration of the finished goods depends on the pattern of production and sales. If production is fairly uniform throughout the year but sales are highly seasonal or *vice versa*. The duration of finished goods tends to be long.
- 4) The duration at the debtors' stage depends on the credit period granted, discounts offered for prompt payment and efficiency and rigour of collection efforts.

The operation Cycle: The operation cycle refers to the time required to sequence events in a manufacturing business. This cycle has implications for working capital management.

The operating cycle:

- 1) Conversion of cash into raw materials;
- 2) Conversion of raw materials into work-in-progress;
- 3) Conversion of work in progress into finished products;
- 4) Conversion of finished products into debtors and bill receivables (through sales); and
- 5) Conversion of debtors and bills receivables into cash.

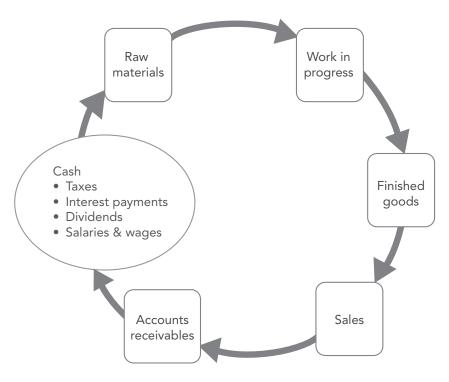


Figure 6: Operating cycle of an SME manufacturing company



Duration of the Operating Cycle

The duration of the operating cycle is equal to the sum of the duration of each of these stages less the credit period allowed by the suppliers of the firm. In symbols

O = R + W + F + D - C

Where:

O = duration of operating cycle;

R = raw material storage period;

W = work-in-process period;

F = finished goods storage period;

D = debtors collection period; and

C = creditors payment period.

Petty Cash

This refers to a sum of money set aside in an imprest account (or petty cash fund) to be used to make minor disbursements. These disbursements are small obligations paid out in cash when issuing a cheque would be expensive and time consuming. Such money is, for example, used to pay for office cleaning detergents, special taxi hire (or cab fare), a stapler or a punching machine, etc.

Imprest account: This is an account into which a fixed amount of money is put in order to make minor disbursements. It varies in amount for different organisations. Most organisations agree on an amount for a period of one month (but some organisations have it for a week). This amount is usually kept by finance or accounts section in cash, in a safe.

Restrictions on petty cash: In most organisations, petty cash cannot be used for:

- 1) Equipment purchase;
- 2) Personal loans or salary advances;
- 3) Cashing cheques; and
- 4) Out of station or night and per diem allowance.

5 FINANCIAL RATIOS AND INVESTMENT ANALYSIS

Financial analysis: Let us first understand what is meant by financial analysis and then we will discuss financial ratios later. Financial analysis refers to the selection, evaluation and interpretation of financial data (to create information) to assist in making investment and finance decisions. Financial analysis assists individuals and management of organisations when deciding to invest and take financial risks.

The primary source of financial data for someone interested in investing in a certain company is the data provided by that company itself – usually in its annual report to the Board and shareholders. The second source of information is the government agencies where we can obtain economic data such the Gross Domestic Product (GDP) and the Consumer Price Index (CPI). This information will be useful when assessing the historical performance (especially recent performance) and be able to forecast future prospects of a company, an industry or sector.

Information on consumer spending, producer prices, consumer prices, market size and competition can be obtained from the government agencies and the private associations (such as manufacturers associations).

Financial Ratios: A ratio is a mathematical relation between one quantity and another. For example, in a restaurant, you can mix your soup ingredients in ratios. Ratios may be expressed by or in form of a) percentages or fractions; or b) a stated comparison between numbers such as 1:4 = 1/5; or 100/200 = 1/2 = 50% = 0.5. A *financial ratio* is a comparison of one bit of financial information and another. Financial ratios are aides to the analysis and interpretation of financial statements. They help in examining the overall picture portrayed by financial statements as they facilitate the analysis and comparison of the results from the accounting information obtained. These ratios are used to test profitability or solvency, liquidity and the stability of the firm.

Financial Ratios	
Liquidity ratios	 Current ratio Quick ratio Cash ratio Cash conversion ratio
Profitability ratios	5) Profit margin 6) Return on assets 7) Return on equity 8) Return on capital employed 9) Return on investment (ROI) 10) Return on Capital Employed (ROCE)
Debt ratios (Financial Leverage Ratios)	11) Debt ratios 12) Debt equity ratios 13) Capitalisation
Operating performance ratios	14) Fixed asset turnover 15) Sales/revenue per employee 16) Operating cycle

Trust and responsibility

NNE and Pharmaplan have joined forces to create NNE Pharmaplan, the world's leading engineering and consultancy company focused entirely on the pharma and biotech industries.

Inés Aréizaga Esteva (Spain), 25 years old Education: Chemical Engineer

– You have to be proactive and open-minded as a newcomer and make it clear to your colleagues what you are able to cope. The pharmaceutical field is new to me. But busy as they are, most of my colleagues find the time to teach me, and they also trust me. Even though it was a bit hard at first, I can feel over time that I am beginning to be taken seriously and that my contribution is appreciated.



Financial Ratios	
Cash flow ratios	17) Operating cash flow/sales ratio 18) Free cash flow/operating cash ratio 19) Cash flow coverage ratio 20) Dividend payout ratio
Investment valuation ratios	21) Per share data 22) Price/book value ratio 23) Price/cash flow ratio 24) Price/earnings ratio 25) Price/sales ratio 26) Dividend yield

Table 14: Financial Ratios

Liquidity Ratios: These ratios are also referred as Working Capital Ratios.

Liquidity ratios try to measure the ability of a business to meet its short term debt obligations. Can the business pay its short term debts? These ratios compare the most liquid assets of a business (i.e. those that can be easily converted into cash) with its short – term liabilities. The general rule is that the greater the liquid assets compared to the short-term liabilities, the better as the business can be able to pay its short term debts as they fall due. On the contrary, the business will be in danger if its short term liabilities exceed the liquid assets. The company in such a position will have difficulties funding its ongoing operations and also paying its short term obligations.

Each ratio uses different types of assets on the calculations. However, it must be noted that while each ratio has to include current assets, some conservative ratio will exclude certain current assets that cannot easily be converted into cash.

Let us look at the ratios under liquidity measurement ratios.

Current ratio: Can the current assets available cover current liabilities?

This is a popular ratio used to measure the position of current (or working) capital of a business'. It tests the liquidity of the business by comparing the position of current assets with current liabilities.

Current ratio = <u>Current assets</u> Current liabilities The current assets value should out-way the current liabilities and the recommended ratio is 2:1.

Current assets	Short term liabilities
Cash	Notes payable
Cash equivalents	Payables
Marketable securities	Current portion of term debts
Receivables	Accrued expenses
Inventory	Taxes

Table 15: Current assets and Short term liabilities

Weaknesses of using current ratio

We should note that current ratio can be misleading and not very useful. A high current ratio, for instance, means that you have more un-utilised cash — which is not always good. Neither is a low current ratio necessarily bad because it means that you have put more funds into buying raw materials and further investment for expansion. In real business life, the current ratio may not help. It is based conceptually on the liquidation of all of a company's current assets in order to meet all its current liabilities. It takes some time to convert a company's working capital assets into cash in order to pay its current debt.

We note following:

- 1) You have to avoid a situation where the bills come due faster than the cash is being generated.
- 2) You should never pay bills using working capital but instead pay using cash.

Quick ratio (Acid test ratio): Also referred to as the Quick Acid Ratio, is a liquidity indicator that measures the amount of the most liquid current liabilities. In its calculation, it excludes inventory and other current assets that are more difficult to convert into cash. So a higher ratio means that a company is in a more liquid current position.

Quick Ratio

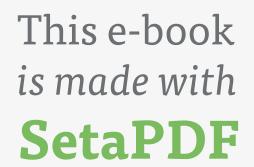
- Liquid Assets (current assets stock)
 Current liabilities
- Cash & equivalents + short term investments + accounts receivable
 Current liabilities

The ratio measures the companies' ability to meet its short term obligations using the available liquid assets. The standard/appropriate ratio should be 1:1.

Author's comments: This is a more conservative test of liquidity than the current ratio. It excludes inventory hence focusing more on the more liquid assets of a company. The weakness is that its calculation includes accounts receivable components.

Cash ratio: This ratio refers to the amount of cash, cash equivalents (or invested funds) that are there in current assets to cover current liabilities. It only considers the most liquid short term assets of the company: those that can be most easily used to pay off current obligations.

Cash ratio = <u>Cash + cash equivalents + invested funds</u> Current liabilities







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This ratio is the most stringent of the ratios. It only considers the most liquid short term assets of the company. It does not include inventory and accounts receivables. There is no guarantee that these two can be converted to cash in a short term to meet current obligations or liabilities. This ratio is not popularly used in financial reporting by financial analysts (or auditors). There are reasons for this:

- High levels of cash assets to cover current liabilities can be viewed as poor assets utilisation. Why not use this amount of money to generate more returns or return it to shareholders in form of dividends.
- This ratio simply gives an intensity perspective of liquidity but its usefulness as a ratio is limited. Most companies will not fully cover current liabilities. It is, therefore, not vital to focus on this ratio being 1:1 (i.e. current assets: current liabilities).

Profitability Ratios: Profit has always been considered as the main indicator of a successful business. Profitability of a company is a good indicator of that company's survivability. It also indicates how beneficial the company is to its shareholders. Profit is important to the company. Profitability ratios tend to measure the stability or viability of a business undertaken by an organisation. However, the real test of success or failure of a business is to evaluate its profit earning capacity in relation to the capital employed. The profitability ratios indicate a degree of success in achieving profit levels. The ratios compare components of income with sales. These ratios help users understand how well the company utilised its resources in generating profit and shareholder value.

We can also refer to profitability ratios as profit margin ratios.

Gross profit margin: This is a ratio of gross income (or profit) to sales

Operating profit margin: This is the ratio of operating profit to sales. Operating profit includes operating income and income before interest and taxes (EBIT).

Net profit margin: The ratio of net income (net profit) to sales. How much money is left after all expenses.

Return on Assets (ROA): This ratio will indicate how profitable a company is relative to its total assets. This ratio will show how well or poorly management is employing the company's total assets to make a profit. The higher the return on assets for a company, the more efficient management is utilising the company's asset base. ROA is calculated by dividing a company's net income to average total assets. It is expressed as a percentage.

The general rule is that investment professionals would like to see a company's ROA at no less than 5%. However, banks strive to record ROA of 1.5%. The ROA varies according to the type and nature of business.

Return on Equity (ROE) or Return on Investment (ROI): This is the ratio that indicates how profitable a company is by comparing its net income to its average shareholder equity. It shows how much the shareholders earned for their investment in the company. The higher the percentage the more efficient management of the company is in utilising its equity base and the better return is to the investors.

This ratio is widely used by investors. It is an important measure of a company's earnings performance. Generally, financial analysts consider a ROE of 15–20% as an attractive level of investment quality. It will encourage potential investors to put money into such a company.

Return of Capital employed (ROCE): The Ratio measures the yields/results from the employed capital and the higher ratio is always preferred.

Where by: Net capital = Total Fixed Assets + Current Assets - Current Liabilities

This ratio measures the efficiency in utilizing the available resources. It also indicates the level of cost control applied in carrying business operations.

Asset turnover ratio: This ratio measures the level of asset utilisation in generating revenue or sales and the higher ratio is always preferred.

Asset turnover ratio = <u>Total sales</u>

Capital employed (fixed assets)

Capital Structure (or Gearing) Ratios: These ratios measure the contribution of financing by owners' equity with the financing from the firms' creditors. The creditors in this case include all the parties that provide long term loans to the firm and include preference shareholders, debentures and other long term creditors. The ratios measure the financial stability or position in the firm and the ability of the firm to pay its long term debts. These ratios solve long term solvency. The following are important capital structure ratios:



Debt equity Ratio: This ratio shows the relationship between owners' equity (i.e. funds contributed by owners or shareholders' equity) and the funds provided by the creditors (that is, the debt).

For example long term debt 10million:

Owners' equity	<u>8m</u>	<u>10</u>	=	1.25	
Capital Employed	18m	8			

Balance sheet equation: K = L + OE

Where:

K = total business capital/investment

L = Loans from all sources

OE = Owners' Equity

Equity Ratio: This ratio represents the relationship between owners' equity (OE) and total capital employed. This is a measure of the financial strength or weakness of the enterprise. If the owners' equity is a small portion of the total assets or capital employed, then the enterprise may be considered to be financially weak and vice versa.

Equity capital = Ordinary share capital + Reserves attributable to ordinary shareholders.

Interest Cover Ratio: This measure or indicates the number of times the company could pay its interest expenses using the available profits. Should be 2:1

Activity Ratios: These ratios are known as *turnover or asset ratios*. Activity ratios measure the efficiency of the firm in employing or utilizing the available resources. These ratios include:

Ratio of stock turnover = Cost of sales

Average stock

= (opening stock + closing stock)

This ratio measures the rate at which stock is turned into sales. It is an indicator of the firm's shares in the market or it measures the firms share in the market. The more the times we turn inventory into sales, the more the market share.

Age of inventory or stock turnover period: This ratio measures the length of time the company takes to convert an item of stock into sales. The fewer the days, the better.

Age of inventory or stock turnover period

= Average stock × days in a year Cost sales

Or

= <u>Number of days in a year</u> Stock turnover

Debtors' turnover: This indicates how efficiently funds invested in debtors are being managed. The calculated ratio shows the number of times of cash collections in a given period. If the collection times are few, it indicates that a company's funds (cash) are tied up in the debtors for a long time.

Debtors turn over = <u>Credit sales</u> Average Debtors

Turn over period (debtor's collection period): This ratio measures the number of days it takes the company to realise its sales from the debtors. In short it indicates the number of days the company takes before it collects money from the debtors.

Turn over period (debtor's collection period)

- = <u>Average debtors × Number of days in a year</u> Current sales
- = <u>Number of days in a year</u>
 Debtors turn over

Creditors Turnover: This indicates the number of times a firm pays its own creditors in a given period.

Creditors Turn over =

Credit purchases

Average creditors (opening + closing creditors)

2

Creditors' payment period: It measures number of days a firm takes before its creditors are paid. The days should always be higher than the debtors' collection period.

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Creditor's payment period

- = <u>Number of days in a year</u> Creditors turn over
- = <u>Average Creditors × number of days in a year</u> Credit purchases

The summarised accounts of Moode Limited for the years ended 31st March 2013 and 2014 are as follows:

Balance sheet	<u>2013</u> 000	<u>2014</u> 000
Investments at cost	16,000	10,400
Land	12,600	8,800
Plot (NBV)	1,200	1,200
Building (NBV)	15,800	8,000
Debtors	13,000	11,000
Bank	10,000	800
Total Paid	68,600	47,600
Shares of 20% @	10,000	8,000
Shares premium	2,800	2,600
Revaluation Reserve	4,000	-
POL Account	5,000	5,000
10% Debentures	30,000	20,000
Creditors	12,000	20,000
Proposed Dividend	4,000	4,000
Bank	800	-
Total	<u>68,600</u>	47,600

Table 16: Summarised accounts of Moode Limited

Total Assets = Total Fixed + Total Current Assets Net Capital Employed = Total assets - Current Liquidity

Profit and loss Account	2013 '000	2014 '000
Sales	40,000	40,000
Cost of sales	24,000	20,000
Gross profit	16,000	20,000
Less expenses	12,000	12,000
PBIT	4,000	8,000
Less interest	2,000	2,000
Less Taxation	1,000	6,000
Profit after taxation(PAT)	1,000	3,000

Table 17: Profit and loss Account of Moode Limited

Using the financial statements:

- a) Provides the liquidity position, profitability levels, leverage position and efficiency of the firm.
- b) Using the ratios you have calculated above, comment on the financial position and prospects of Moode Limited.
- c) Basing on the analysis you have carried out, would you advise your client to buy shares in the same firm? Give reasons to support your case.

Liquidity Position	=	Current Ratio			
		(Acid Test or Quick	Asset 1	Ratio)	
Current Ratio	=	Current Assets	=	23,000 =	1.37:1
2012		Current Liabilities		16,800	
			=	19,200 =	1.6:1
				12,000	
Quick Asset Ratio	_	Current Assets – St	ock		
Quick 1155ct Ratio	_		OCK		
		<u>Liquidity Assets</u>	=	10,000 =	1.6:1
		Current Liabilities		16,800	
			=		0.60:1

Notes

- 1. The firm is not managing its WC well.
- 2. These ratios help suppliers or short term loan providers. Such a firm will not easily get suppliers.

Probability Ratios:

ROCE = $\frac{\text{Profit before tax} + \text{Interest}}{\text{PBIT}} \times 100$

Net capital employed

(2013) = Total Assets- Current Liabilities

Total Fixed Assets = (16,000+12,600+1,200+15,800) + (13,000+1,000)

= 68,600 (16,800) 51,800

ROCE $4,000 \times 100 = 4,000 = 7.72\%$

51,800 518

 $(2012) 8,000 \times 100 = 22.3\%$

35,600



ROI = Profit after tax interest (PATI)
$$\times$$
 100
Owner's equity

(2014) (2013)
ROI =
$$\frac{1,000}{21,800} \times 100 = \frac{1000}{218} = 4.6\%$$
 = $\frac{3,000}{15,600} \times 100 = 19.2\%$

(Profit Margin) Net Profit $\% = \frac{\text{Profit before Interest and tax (PBIT})}{\text{Total sales}} \times 100$

(2014) (2013)
$$4,000 \times 100 = 10\%$$
 $8,000 \times 100 = 20\%$ $4,000$ $4,000$

Notes

- 1. Profitability levels are declining. It is not recommended to invest in this company.
- 2. Liquidity is also declining meaning that there is little cash at hand.
- 3. Leverage ratio help to analyse the financial position of the firm
 - Debt equity ratio
 - Equity ratio
 - Interest cover ratio
 - Capital employed

Notes: The company is increasingly depending on loans year by year

b) Debt Total capital employed
$$20.000 \times 100 = 42\%$$
 $30.000 \times 100 = 43.7\%$
 $67,600$
 $68,600$
Own Equity (is 56.3%)

Notes: The situation is worsening; the company is borrowing more than its own contribution

c) Interest cover Ratio = <u>PBIT</u> Interest charged

20142013
$$4,000 = 2$$
 $8,000 = 4$ $2,000$ $2,000$

Stock turnover = <u>Cost of sales</u> Average stock

Age of stock/stock turnover period = $\underbrace{\text{Number of days in a year} \times \text{Average stock}}_{\text{Cost of sales}}$

How long does the company take to utilise all stock?

Debtors Turnover Ratio = <u>Credit sales (Total sales)</u>
Average debtors

How many times does the company's customers pay/settle debts? If you do not have credit sales use *total sales figure*.

2014	2013
Debtors Turnover ratio	
40,000 = 4 times	40,000 = 5 times
10,000	8,000

If you do not have debtors figure, take total debtors

Debtors' collection = Average debtors × days in a year

Credit sales

= Number of days in a year

Debtors turn over

2014 2013

360 = 90 days 360 = 72 days

Creditors' turnover ratio = <u>Credit + purchase</u> (total purchase)

Average creditors

5

Costs of sales

Total purchases = sold + closing - opening

= 24,000 + 13,000 - 11,000

= 26,000

2014 2013

26,000 = 2.1 31,000 = 3.8

12,000 8,000



Creditors' payment period = $\underline{360}$

Creditors turn over

Or <u>Number of days in a year × Average Creditors</u> Credit purchase

Compare Creditors payment period

171.4 Days 94.7 days Debtors' period 90 days 72 days

This is okay because Moode Limited must collect debts before paying the creditors.

As a financial advisor, you should use capital structure ratio, stability ratios and liquidity ratios to advise your clients on investment. The client is looking at long term investment.

Investment Decision

1) Capital Asset, capital expenditure

Cash flows take a long time to be realised. For example, it takes 20, 50 or more years. Once funds have been committed, it is difficult to reverse (extremely expensive to rectify). It requires a lot of careful consideration. It is a decision that shapes the fortunes of the organisation; and determines the business risk of the organisation.

2) Revenue expenditure (working capital)

It is used by an organisation to translate capital assets to productive resources and to generate cash flows. It is instrumental for short term capital in commercial organisations. The areas where firms can invest in or commit resources include plant and machinery, advertising and other form of promotion as well as ware housing, among others.

How to identify investment opportunities?

- R&D;
- Talk to customers;
- Internet;
- Competitors;
- · Sales force; and
- Work force.

Steps for project analysis

- 1) Perception of the need for investment objective: Market leader? Or Follower?
- 2) Formulation of alternative courses of action.
- 3) Evaluation of the alternatives.
- 4) Selection of the best option.
- 5) Analysis.
- 6) Market preparation sell more existing products/services in existing market.
- 7) Market Development sell existing products in new markets.

Product

- 1) Development sell new products in existing markets; and
- 2) Diversification selling new products in new markets.

Organic Growth versus Acquisition

Organic Growth: Company growing from internally generated resources

Retain the earnings and plough back the earnings.

A company in *organic growth* should do the following:

- 1) Finance all its investment through retained earnings;
- 2) Determine whether a company can use existing staff and resources to create the growth;
- 3) Determine whether the firm can open up new factories, new deposits close to the existing ones in order to achieve operational efficiency; and
- 4) Determine whether the firm can benefit from economies of scale through bulk purchasing, pool financing and management services.

Acquisition: Growing through acquiring shares or other companies. Acquire shares of the victim firm by offering shares of own company. This can also be done when the firm needs to diversity into new products, new markets, etc.

Decision choice of project for investment

Methods of evaluating investment decisions

- 1) Non-discounted cash flow methods. Do not take into account time value of money. Not based on cash flows. Just consider profits.
- 2) Discounted cash flow methods. Take into account time value of money. These methods use cash flows (received or spent).

Non Discounted Cash flow Methods

Pay Back Period (PBP): How long does it take me to recover my investment? This considers the period it takes for the inflows to equal out flows.

Decision: Given 2 mutually exclusive investments then a project with a shorter payback period is accepted. This method is mostly used in the initial project evaluation.

	Project P	Project Q
Capital Assets Investment	60m	60m
Profit before depreciation		
Year 1	20m	20m
Year 2	30m	20m
Year 3	40m	5m

Table 18: Illustration: A firm has two (2) mutually exclusive projects P and Q



Determine Pay Back Period. Which period can be undertaken?

Where

Co: Initial investment cost
C: Annual cash inflow

Advantages of Payback

- 1) It is simple to calculate payback period;
- 2) It is widely used;
- 3) It can be used as an initial screening method to eliminate inappropriate project; and
- 4) Tends to minimise financial and business risk²⁸.

1. 5 Years

Disadvantages of Pay Back

- 1) It ignores cash flows after recovery of the initial outlay
- 2) It assumes that the monetary amount (e.g. US\$10) of the first year is the same value for the subsequent years. It ignores the time value of money. It does not compensate the firm for the risk it has undertaken. It does not take into account inflation or even the possibility of not getting back what the firm invested.
- 3) There is difficulty in selecting a project to pursue when two projects have the same recovery period in years.

- 4) Choice of a cut-off period. This is done arbitrarily by management; for example management simply says we want to recover this money in 2 years.
- 5) It concentrates or leads to excessive investment in the short period investment. You lose out on the long term competitiveness. You cannot compete if firms are aiming at long term businesses.
- 6) It considers short term risk and not bothered by the risk after pay-back period.

Accounting Rate of Return (AAR): This enables management (and especially finance managers) to measure the estimated average stability of the project. It is comparable to the target level of stability.

ARR can be ROCE or ROI

Formula

ARR = <u>Estimated average profits</u> × 100

Estimated average investment

= <u>Estimated total profits</u> × 100

Estimated initial investments

= <u>Estimated average profits</u> × 100

Estimated initial investments

Illustration: A company is contemplating an investment decision and has two decision alternatives

Products	X	Y
Cost (US\$) 000	10,000	13,000
Estimated life	4 Years	4 Years
Estimated future profit		
Year 1	5,000	10,000
Year 2	4,000	4,000
Year 3	1,000	1,000
Year 4	4,000	1,000
Total	14,000	16,000

Table 19: Investment decision and has two decision alternatives

Average profits

$$X = 14,000$$
 $Y = 16,000$
 4 4
 $= 3,500$ $= 4,000$

ARR = <u>Average profits</u> Initial Cost/Investment

 $X = 3,500 \times 100$ $Y = 4,000 \times 100$ 10,000 13,000= 35 per cent = 31 per cent

Advantages

- i) It is simple to calculate. Considers profitability (i.e. shows relative efficiency of use of resources) hence determines the profitability of the project.
- ii) Profits = TR TC (Total Revenue Total costs).



Disadvantages

- i) The use of profitability does not consider time value of money.
- ii) Profits are a vague measure of success. TR = has non cash measure. TC = has non cash / cost items. Remember human resource efficiency is a non-cash item. Discount received is other income. Discounted allowed by a firm is an expense. Depreciation is an expense but no money has been taken out of the company.
- iii)It, therefore, ignores important aspects of the project success. In project accounting you should include the following:
 - · Do not forget human resources efficiency is non-cash item
 - Discount received other income
 - Discount allowed expense
 - Depreciation expense (but no money has gone off the company)
 - Bad debts expense
 - Valuations of inventory

Time Value of Money

The value of money (in US\$, or others currencies) today is better than the value of money next year. Successful Investments should usually generate a positive cash flow over a period of time. We are looking for adequate compensation for waiting for cash flows over a period of time. In most cases compensation is in terms of interest rates. Whoever gives their money to you today expects to have it back with an interest. Banks make profit by, among others, lending money at a profit (interest). Let us look at present valve (PV), future valve (FV) and a discounting rate; and compounding.

PV = Discounting the FV of future cash flows

FV = Compounding the PV of the present cash flows

NPV

Using an appropriate rate of return:

$$PV = FV = FV = PV (1+r)$$
 $1+r$

Where:

PV = Present Value of cash flows

FV = Future Value of cash flows

V = Required Rate of Rate (or the opportunity cost of money)

For example:

PV = 1,000,000 r = 10%......compounding rate FV = PV (1+r) = 1,000,000 (1+10%) = 1,000,000 (1+10/100) = 1,000,000 (1+0.1) = 1,000,000 (1.1)

NPV

Let us present the equation of the PDV of \$10

= 1, 1000,000

PDV of \$10 paid after 1 year = \$10/ (1=R)

PDV of \$10 paid after 2 year = $$10/(1=R)^2$

PDV of \$10 paid after 1 year = $$10/(1=R)^3$

PDV of \$10 paid after 1 year = $10/ (1=R)^n$

Interest Rate	1 Year (\$)	2 Years (\$)	5 Years (\$)
0.1	9.900	9.800	9.510
0.2	9.800	9.610	9.060
0.3	9.710	9.430	8.630
0.4	9.620	9.250	8.220
0.5	9.520	9.070	7.840
0.6	9.430	8.900	7.470
0.7	9.350	8.730	7.130
0.8	9.260	8.570	6.810
0.9	9.170	8.420	6.500
1.00	9.090	8.260	6.210

Table 20: PDV of \$10 paid in future

Investment Analysis and Portfolio Management

The term *investing* can be associated with various activities but the common aim of these activities is to make the funds invested during the time period generate more wealth. Investing should help enhance the investor's wealth. The sources of funds to be invested include assets already owned, savings and borrowed money. To invest requires that you save first. You forego today's consumption. By foregoing today's consumption and (investing their) savings, investors hope to increase their future wealth. Once they have generated more wealth, after investing, investors can then expand their consumption possibilities.

Individuals and businesses can put their money in real or financial investments. Real investment generally involves some kind of tangible asset for example, real estate such as land and houses or production facilities (e.g. factory machinery). Financial investments involve contracts (in paper form or e-contracts) as stocks, bonds, etc. Like in corporate finance, investment analysis is built on a common set of financial principles such as present value, future value and the cost. When issuing securities and selling them in the market the company is interested in higher price; as issuing securities is viewed by the company as a source of lower cost of capital when compared to obtaining a bank loan. On the other hand, the investors will use valuation search for attractive securities with a lower price and potential higher required rate of return on their investment.

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Speculation: This is a common term in investment theory and practice. It involves purchasing the saleable securities whose prices are likely to increase rapidly within a short term horizon so that they get a quick profit. Speculators are always looking for and buy at low prices and sell at dear ones. Their primary concern is with anticipating a price rise for certain securities (or shares) and profiting from market fluctuations. We should note that the fluctuations in the market are at times very difficult to predict. This makes speculation investments the highest risk. It is not advisable to invest all your money in speculative businesses.

Types of investors: There are two types of investors: individual and institutional investors. Individual investors (sometimes called retail investors) are individuals investing on their own. Institutional investors are entities such as commercial banks, insurance companies, investment companies, pension funds and other financial institutions.

Types of investing and alternatives for financing

Direct investing: An investor can use direct or indirect types of investment. Direct investing is where the investor buys financial assets²⁹ directly from the financial markets. Such investors who invest directly through the financial markets take all the risk. Their success will depend on their understanding of financial market operations, its pricing fluctuations and inflation and on their abilities to analyse and evaluate the investments.

Indirect Investing: Indirect investing involves financial intermediaries (financial institutions as brokers or agents). Under indirect investing, individuals buy and sell financial assets or instruments of financial intermediaries (the financial institutions) which always invest large pools of funds in financial markets and hold their portfolio. The investor who uses indirect investment entrusts management and sales of their financial assets to the financial intermediaries. The risk to the investor here will be associated with the credibility of the chosen financial intermediary and the professionalism of that institution's fund managers. It is, therefore, important that investors here chose reputable financial intermediaries which have been in the markets for long. Investors need to ask independent advisors about reputable financial intermediaries before choosing one.

Direct transactions: Investors can bypass both financial institutions and financial markets and perform direct transactions, for example by lending.

How do companies obtain funds or financing?

Companies obtain the required funds directly from the general public by going to the financial markets – and issuing and selling their securities. They may also obtain funds indirectly from the general public through using financial intermediaries³⁰.

Types of investing	Alternatives for financing	
Direct investing via financial markets	Raise equity capital or borrowing in financial markets	
Indirect investing via financial institutions	Borrowing from financial institutions	
Direct transactions	Borrowing, partnership contracts	

Table 21: Types of investing and alternatives for financing

The investment environment: *Investment environment* can be defined as the available investment vehicles in the financial market for the investor and the places for transactions with these investment vehicles.

Financial markets: are a set of arrangements that allows buyers and sellers come to exchange or trade in various investment vehicles. In the financial markets, investors trade their financial assets to those requiring them. Funds move from those with the surplus to those with a shortage. Those who have surplus cash to buy securities from those who are selling existing securities or issuing new ones.

Functions of financial markets: According to Fabozzi (1999)³¹, financial markets provide three important economic functions in an economy:

- a) Determining the prices of assets traded through the interactions between buyers and sellers;
- b) Providing a liquidity of the financial assets; and
- c) Reducing the cost of transactions by reducing explicit costs. Explicit costs such as money spent on advertising of offers to buy or sell a financial asset.

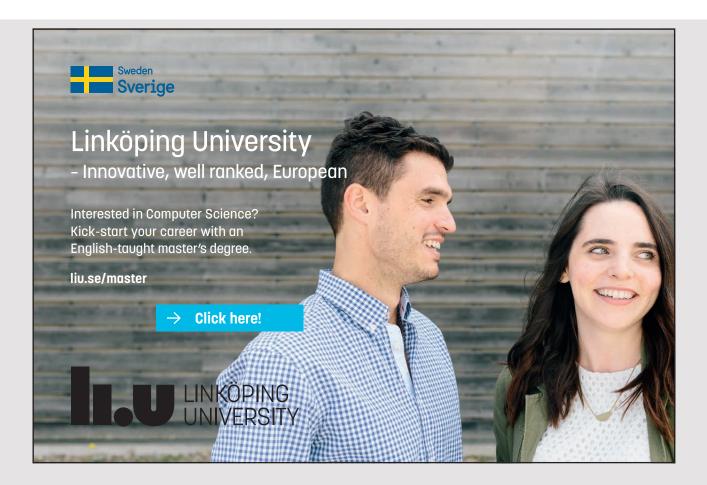
Primary and secondary markets:

Primary markets: This is where individuals, companies and government entities can raise capital and where the first transactions with newly issued securities are performed. This is where a company can issue and sell an initial public offering (IPO) and trade in the IPO for the first time. With an IPO, the company's shares are traded in the primary market for the first time. In the primary market, investment banks play a vital role. They usually handle issues in the primary market; and can act as underwriter of a new issue – guaranteeing the proceeds to the issuer. The issuer is the company that has put out an IPO and the issue are the shares being offered to the public.

Secondary markets: This is where previously issued securities are traded among the investors. These markets include the security or stock exchanges, over-the-counter markets and the alternative trading system (an electronic trading mechanism). Usually, individual investors do not have access to the secondary market. They use brokers³² to act as intermediaries for them. Brokers receive and deliver orders from investors in securities to the secondary market place; and have these orders sold.

Money market and capital markets

Money market: This is a market where only short term financial instruments are traded. Capital market: Only long term financial instruments are traded. In this market, firms and governments are allowed to finance spending in excess of their current incomes.



The capital market and stock exchange

What is a capital market?

The capital market should not be viewed as a single institution. It is comprised of all the institutions (including banks, insurance companies, pension funds and other financial intermediaries) which are concerned with either the supply of or demand for long term funds or securities – which are claims on capital. It is, therefore, the market for long term loanable funds. It is distinct from the money market which is the market for short term funds. Countries usually have a government regulator established by an Act: a capital market regulation authority.

What is the stock exchange?

The stock exchange is where buying and selling of securities takes place. It has been referred to by John M. Keynes in his "General Theory" as a casino. Keynes says that it is a place of much speculation (like a casino) where dealers are mainly interested in making immediate capital gains via buying securities at one price and selling at another. It may, therefore, not help in the raising of long term funds or risk capital for industrial development.

Item/Features	Money market	Capital market	
Period of circulation of securities traded	Short term; and less than 1 year	Long term; and more than 1 year	
Degree of risk	Low; trading is in short term securities with lower levels of risk but high liquidity	More risky; trading in long term securities	
Sources of funds	Commercial banks; non-financial business organisations that have excess funds	Commercial banks; insurance companies; pension funds; investment funds companies;	
Financial instruments	Certificate of deposits; Treasury bills (T-bills); Commercial paper; Bankers acceptances; Repurchase agreements;	Common stock; preferred stock; treasury bonds; municipal or city bonds; Corporate bonds; Others: life insurance, pension funds and hedge funds	
Purpose of raising money	To finance working capital and current needs	To finance further business development and long term investment projects	

Table 22: Money markets and capital markets compared

Investment vehicles: We can look at the main types of financial investment vehicles. These are:

- 1) Short term investment vehicles;
- 2) Fixed income securities;
- 3) Common stock;
- 4) Speculative investment vehicles; and
- 5) Other investment tools such as life insurance, pension funds and hedge funds.

Short term investment vehicles: These are all those investments that have a maturity of one year or less. Short term investment vehicles are usually referred to as money-market instruments because they are traded in the money market. The money market presents the financial market for short term marketable financial assets. Usually, the risk as well as the return on investment of short term investment vehicles is lower than for other types of investments.

Main types of short term investments

- · Certificate of deposits,
- Treasury bills (T-bills),
- · Commercial paper,
- Bankers acceptances,
- Repurchase agreements, etc.

Main types of short term investments

- 1) Certificate of deposits: a debt instrument issued by a bank that shows a specified amount of money that has been deposited at the issuing financial institution. This document bears a maturity date and specified interest rate and can be issued in any denomination.
- 2) *Treasury bills (T-bills):* these are securities representing financial obligations of the government. The bills have maturities of less than one (1) year. They are issued at a discount from their nominal value and the difference between nominal value and discount price is the only sum that is paid at the maturity. The interest is not paid in cash. Instead it only accrues. They are usually issued on auction basis; on a competitive bid basis and the bidder offering the highest prices is allocated the T-bills. T-bills can be traded before their maturity. They are regarded as high liquid assets.

- 3) Commercial paper: these are short term promissory notes usually issued by corporations. Issuing commercial paper directly from an investor is a form of short term borrowing by large corporations, which corporations regard as cheaper than relying solely on bank loans. It can be issued directly to an investor or through an intermediary. It is issued at a discount and its maturity period is between 30 to 60 days or less. Its market is not as liquid³³ as that of the T-bills. It is also riskier because the corporation may default.
- 4) Bankers' acceptances: these are created to facilitate commercial trade transactions. A bank accepts responsibility to repay a loan to the holder of the vehicle in the event that the debtor fails to perform. They are short term fixed income securities that are created and issued by non-financial firms whose repayment is guaranteed by a bank. It has a higher interest rate than other short term investment vehicles.
- 5) Repurchase agreements (usually a "repo"): the sale of a security with a commitment by the seller to buy the same security back from its purchaser at a specified price and at an agreed future date. We can look at a repo as a collectivized short term loan where collateral is the security. The interest cost of the loan, from which repo rate can be calculated, is the difference between the purchase price and the sale price. The period of maturity of a repo is very short. This is because of concerns about possible default risk. It can be a loan for one day (referred to as overnight repo). Any repo beyond one day is called term repo.

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Fixed income securities: These are the investment vehicles whose return is fixed up to some redemption date or even indefinitely. Long term debt securities are traded in the capital markets. The fixed amount may be stated in money terms or indexed to some measure of the price level at the time of sell. Fixed income securities can either be long term securities (e.g. bonds) or preferred stock.

- 1) Long term securities (the bonds): Long term securities have maturity period longer than Declared dividend 1 year. The investor (buyer) of long term securities is lending money to the issuer who undertakes to periodically pay interest on this loan and to repay the principal sum at a stated maturity date. The main example of long term debt securities are bonds. Bonds can be issued by governments, municipalities and cities, companies or agencies.
- 2) Preferred stock: these are equity securities which have an infinite life and they pay dividend. Preferred stock is attributed to the fixed income securities because its dividend payment is fixed in amount and known in advance. The major difference between bonds and preferred stock is that for preferred stock the payment flows are infinite (for ever), once the preferred stock is not callable. So if the issuer fails to pay the dividends in any year, the unpaid dividends will have to be paid if the preferred stock issued is cumulative. The most common preferred stock is issued as noncumulative and callable. If preferred stock is issued as noncumulative, then the dividends for the years with losses do not have to be paid. In terms of priorities during the payments of income and in case of company liquidation, the preferred stockholders are paid after the debt securities but before the common stockholders.

Common stock: this is also another long term investment vehicle. It represents the ownership interest of corporations or the equity of stockholders. The issuers of common stock are companies seeking to receive funds in the financial market. The issuing of common stock and selling them in the financial market enables the company to raise additional equity capital more easily when using other alternative sources. Common stock has no stated maturity date. Usually each common stock owned entitles the stockholder to one vote in the corporate shareholders' meeting. The common stockholders are entitled to receive declared dividends and also their share of residual assets (if any) in the event of company bankruptcy. This investment vehicle will be covered later under Investment in Common Stocks.

Declared dividend: A company will pay dividends only after other liabilities (such as interest payment plus taxes) have been settled. Typically companies do not pay all their dividends earnings in cash. So a special form of dividend called stock dividend is issued to investors demanding dividends. Through the stock dividend, a company pays common stockholders in stock rather than cash.

- 3) Speculative investment vehicles: related to speculation already explained, these can be defined as investments with a high risk and high return on investment. Speculators aim to gain from market fluctuations. Examples of speculative investment vehicles are options, futures and commodities usually traded on the stock exchange. These commodities could be coffee, tea, cotton, grain, metals, etc. Using these speculative investment vehicles, speculators usually try to buy low and to sell high. The speculators' primary concern is to anticipate and profit from the expected market fluctuations. Speculators can also buy short term investment such as common stock and speculate.
- 4) *Options:* An option contract gives the owner the right to buy or to sell a financial asset at a stated price from or to another party. It gives the contract owner the right but not the obligation to buy or sell. The buyer of the option contract must pay a fee called option price for the seller. It is a derivative financial instrument.
- 5) Futures: A future contract is an agreement between two parties that they agree to transact with respect to some financial asset at a predetermined price at a stated future date. In this contract, one party agrees to buy the financial asset while the other party agrees to sell it. Futures are a derivative financial instrument. There are two main groups of people who deal with options and futures contracts. These are the speculators and hedgers. Hedgers buy and sell futures to offset their otherwise risky position in the market. Speculators usually buy and sell futures with one motive of making a quick profit.

Other ways to invest

- i) Transactions using derivative instruments are not limited only to financial assets such as options and futures. There are other derivatives involving commodities such as coffee, tea, cotton, grain, precious metals, etc.
- ii) Investment tools such as life insurance, pension funds and hedge funds: Insurance companies assume the risks of other companies or individuals in exchange for a flow of insurance premiums. There are three types of insurance companies (and most times one company has all these types) that are common: life insurance; non-life insurance (e.g. for property); and re-insurance.
- iii) *Pension funds* are fund pools that are accumulated during an employee's working life years and they pay retirement benefits during that employee's retirement years (non-working years).
- iv) *Hedge funds* are unregulated private sector investment partnerships usually limited to institutions and "high net worth" individuals who are seeking to exploit several market opportunities. They aim to earn larger returns than are ordinarily available.

The investment management process: This is the process that describes how an individual investor should go about making decisions of buying or selling their investments. It is, therefore, the process of managing disposable funds (money after taxes) available to an investor. *It can be summarised in a 5-step procedure:*

- 1. Setting the investment policy;
- 2. Analysis and evaluation of investment vehicles;
- 3. Formation of diversified investment portfolio;
- 4. Portfolio revision; and
- 5. Measurement and evaluation of portfolio performance.



Setting the investment policy: The first step in investment management is setting of the investment policy. An investment policy includes setting investment objectives and identification of constraints to investment. The investment policy should have specific objectives with regard to investment return requirements and risk tolerance of the investor. Identification of risk tolerance is a very important objective because every investor wants to earn the highest return possible on his investment. Because there is a positive relationship between risk and return, investment objectives should be set in terms of both risk and return. Setting one's investment objectives depends on first assessing the current and future financial objectives. So for example the investment policy may define the target of average return on investment as 17% and to avoid more than 10% losses. This stage concludes with the identification of potential categories of financial assets for inclusion in the investment portfolio. Identification of potential categories is based on one's investment objectives, amount one has available for investment and the duration or period of time one wants to invest (time horizon) and the tax status³⁴ of the investor.

Analysis and evaluation of investment vehicles: This step involves identifying those specific assets in which to invest and then determining the proportions of these financial assets in the investment portfolio. Once the investment policy has been set up, then the available types of investment can be analysed. At this stage, several relevant types of investment vehicles and individual vehicles inside these investment vehicles are examined. The purpose of the analysis and evaluation is to identify those investment vehicles that currently appear to be mispriced. There are two main forms of analysis of investment vehicles: technical analysis and fundamental analysis.

Technical analysis: This involves the analysis of market prices in order to predict future price movements for a particular financial asset traded on the market. The basis for this analysis is the trends in historical prices and it is assumed that the historical trends or patterns repeat themselves in the future.

Fundamental analysis: Simply put, fundamental analysis focuses on the evaluation of the intrinsic value of the financial asset. It is assumed that intrinsic value is the present value of the future flows from a particular investment.

Formation of diversified investment portfolio

An investment portfolio is a set of investment vehicles formed by a particular investor seeking to realise their defined investment objectives. At this stage, the investor considers the issues of investment selectivity, timing and diversification. *Selectivity* refers to the process of micro forecasting and focuses on forecasting price movements of individual financial assets. *Timing* involves macro forecasting of price movements of a particular types of a financial asset relative to fixed income securities in general. *Diversification* involves forming the investor's portfolio for decreasing or limiting risk of investment.

Portfolio revision: This stage of investment management process is concerned the periodic revisions of the three previous stages. Portfolio revision is the process of selling certain issues in a portfolio and purchasing new ones to replace them. The main reasons for portfolio revisions are varied but include the following:

- The constant need for diversification of the portfolio. Individual assets in the
 portfolio usually change in risk-return characteristics and their diversification effect
 may be lessened.
- Changing investor objectives overtime. This will influence an investor's portfolio (which may no longer be optimal).
- Positive or negative economic growth in the economy influences investor portfolio revision. During changes in the economy, certain industries and companies become either less or more attractive as investments.

Measurement and evaluation of portfolio performance:

This is the last stage of the investment management process and involves determining periodically how the portfolio has performed in terms of the return earned and the risk of the portfolio.

The Theory of Investment Portfolio Formation

The modern portfolio theory: The Markowitz portfolio theory: Harry Markowitz, in his article, "Portfolio Selection" published in the Journal of Finance in 1952³⁵, introduced the new approach to portfolio formation. The new approach looks at portfolio formation by considering the *expected rate of return and risk of individual stocks and their interrelationship as measured by correlation.* The diversification of stocks plays an important role in the modern portfolio theory. Prior to this new theory, investors would consider each investment individually – not as a portfolio (which is a collection of securities or investments). Markowitz approach is that at the beginning period, the investor must make a decision on what specific securities to invest their funds and to hold these securities until the end of the period. As the portfolio is a collection of securities or investments, the investment decision at the beginning period is equivalent to selecting an optimal portfolio from a set of possible portfolios. The Markowitz Portfolio Theory helps to address the problem of optimal portfolio selection.

We can use indifference curves in selecting the most desirable portfolio. Each indifference curve represents an investor's preferences for risk and return.

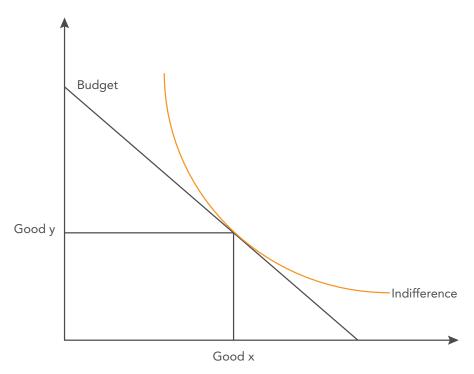
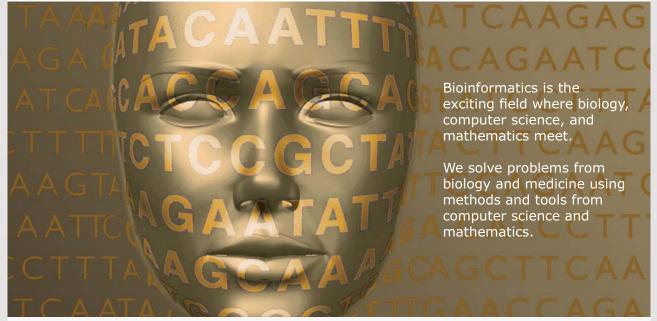


Figure 8: Indifference Curve



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Each point on an indifference curve represents a combination of risk and return that gives the same level of utility as any other point on the same indifference curve. An indifference curve above another one indicates higher levels of utility. Therefore, indifference curves that are northwest of any other indifference curve represent higher levels of utility while those that are southwest represent lower levels of utility. As is shown on the figure, an investments portfolio with a greater level of risk for the same return makes an individual worse-off (as you move in the eastern direction) while a portfolio(s) with higher returns for similar levels of risk (as you move in the northern direction) makes an individual better off. One method of reducing risk is for such an investor to hold all his wealth in cash – and the probability of a loss would be zero (with the exception of inflation risk). It should be noted, however, holding cash results in zero rate of return.

Capital Asset Pricing Model (CAPM): CAPM was developed by Sharpe in 1964³⁶. CAPM simplifies Markowitz's Modern Portfolio theory and makes it more practical. Measuring risk in CAPM is based on the identification of the two key components of total risk (systematic risk and unsystematic risk) as measured by variance or standard deviation of return. Systematic risk is that risk associated with the market (purchasing power risk, liquidity risk, interest rate risk, etc.). In CAPM, investors are compensated for taking only systematic risks. CAPM only links to investments taking the market as a whole. The key point in CAPM is that the more systematic risk the investor carries, the greater their expected return. Unsystematic risk is unique to an individual asset. This risk can be business risk, financial risk or other risks related to investment in a particular asset. An investor can diversify away from unsystematic risk by holding many different assets in a portfolio. However, systematic risk cannot be diversified.

Theoretical Assumptions of CAPM model: CAPM can predict what an expected rate of return for the investor should be, given other statistics about the expected rate of return in the market and systematic risk. Systematic risk is market risk. We can have six assumptions about CAPM.

- 1) All investors focus only on one period expectations about the future;
- 2) All investors are price takers (price makers) and they cannot influence the market individually;
- 3) There is risk free rate of return at which an investor may either lend or borrow money. Lend here means 'to invest';
- 4) All investors are risk averse;
- 5) Taxes and transaction costs are irrelevant; and
- 6) All investors can freely and instantly access information.

Arbitrage Pricing Theory (APT): APT was proposed by Stephen S. Ross and was presented in his article "The Arbitrage Theory of Capital Asset Pricing" in the Journal of Economic Theory in 1976. It is now a widely applied investment tactic. Arbitrage can be understood as the earning of riskless profit by taking advantage of different pricing for the same assets (or security). APT states that the expected rate of return of security is the linear function from the complex set of economic factors common to all securities and can be estimated using a formula. It has to be noted that arbitrate in the APT is only an estimate. APT does not require identification of the market portfolio but it requires the specification of the relevant macroeconomic factors. The empirical study which was done by Ross and Roll (1984)³⁷ identifies four factors (economic variables) to which assets that may even be having the same CAPM Beta are differently sensitive. These four factors (economic variables) are rate of inflation, industrial production, risk premiums and the slope of the term structure in interest rates.

In real world, an investor will choose the macroeconomic factors which seem important and related to the expected returns of the particular asset. Such macroeconomic factors that an investor could consider (which can be included in using APT Model) are GDP growth, interest rate, exchange rate and a default spread for corporate bonds. Organisational investors and investment analysts are always watching macroeconomic variables and statistics on the money supply, inflation, unemployment, changes in GDP growth, political changes and events and changes in the global value of the US dollar and the Euro and any other variable that may influence trading.

Market efficiency theory: This theory was proposed by Eugene Fama (1965)³⁸ in his article "Random Walks in Stock Market Prices" which was published in Financial Analyst Journal in 1965. The theory of market efficiency states that the price which the investor is paying for the financial asset has to fully reflect fair and true information about intrinsic value of this specific asset or fairly describe the value of the company that has issued this security³⁹. The theory requires that sellers (security issuers) should avail all known information about the security to the buyers (investors). All known information can include past information (last year/quarter/month financial reports) and current information and upcoming organisational events (such as shareholders' meeting) that are key to the performance of the issuer of the security.

Investment of Stocks

Stock represents part of ownership in the firm (Common stock = Common share = Equity in the issuer's organisation). There are two main types of common stock and preferred stock. The types of stock have already been defined and explained. In this section, we will look at the analysis of stocks.

The main features of the common stock:

- 1) Basically each common stock owned by an investor entitles them to one vote in corporate shareholder's meeting;
- 2) Investors enjoy benefits in form of dividends, capital gains or both;
- 3) Common stock has no stated maturity. (However some corporations pay cash to their shareholders by purchasing their own shares; referred to as share buyback.

It should be recorded here that:

- 1) Usually the firm does not pay all its earnings in cash dividends;
- 2) Dividends are paid to shareholders only after other liabilities such as interest payments have been settled;
- 3) There is a special form of dividend which the corporation pays in stocks rather than cash.
- 4) Common stocks generally provide a higher return (but have higher risk). An investor earns capital gains when they sell at a higher price than the purchase price. A capital gain is the deference between the purchase price and selling price.



The main advantages of investing in common stock

- Common stock has a very high liquidity and can easily be moved from one investor to another;
- The income from such investment is higher;
- The invest has a chance of receiving operating income in cash dividends;
- · The transaction costs involved with common stock are relatively low; and
- The nominal price for a common stock when compared with other securities is lower.

The main disadvantage of investing in common stock

- The operating income is relatively low because the main income is received from capital gains i.e. the change in stock price; and
- · Common stocks are more risky when compared with other securities.

Analysis of stock: The main objective for undertaking analysis of stocks is to identify the attractive potential investments in stocks. Although technical analysis is used by many investors when analysing stocks, fundamental analysis is the most commonly used approach. Stock analysis helps an investor to forecast the future changes in GDP, changes in sales, future sales, earnings for a number of the firms and other industries for various indicators. There are two alternative approaches for fundamental analysis:

- i) The Top-down forecasting approach; and
- ii) The Bottom-up forecasting approach.

With the 'Top-down' forecasting approach, the investor first makes analysis and forecasts for of the economy, followed by that of industries and finally for the companies. When using 'Bottom-up' forecasting approach, the investor starts with an analysis and forecasts for companies, followed by analysis and forecasts for the industries or sectors and lastly analysis and forecasts for the economy. In both the 'Top-down' and 'Bottom-up' approaches, the industry forecasts are based on the forecasts of the entire economy while company forecasts are based on the forecasts for that company's industry and for the whole economy.

Regardless of the different two approaches, the analysis of common stocks is based on the E-I-C analysis.

The E-I-C analysis

- **E** (**Macroeconomic**) **Economic analysis:** This is a macroeconomic analysis of the macroeconomic situation in a particular country and its potential influence on the profitability of stocks.
- **I Industry analysis:** Evaluating the situation in the particular industry or economic sector and its potential influence on the profitability of stocks.
- **C Company analysis:** Financial evaluation of the individual companies from the shareholder approach.

(Macroeconomic) Economic analysis looks at the country's economic cycle, its fiscal policy and monetary policy and related factors such level of inflation, unemployment rate, level of consumption, growth of investments into businesses and foreign trade and exchange rates. Knowing the stage at which an economy is (stage of growth, decline, recession, or peak) matters to investors and even government planners. It affects business activities in a country. The monetary policy looks at the ability of the central bank to use the money market instruments in time to stabilise the national currency against foreign currency, or stabilise the general price level (inflation) by controlling the money in circulation. The fiscal policy basically is concerned with the national budget allocation and expenditure, budget deficit and public debt. Government expenditure influences the level of business in the economy. Government is at times the biggest spender and purchaser of certain goods and services.

Industry analysis looks at the nature of the economic sector or industry (whether it competitive or monopolistic); the level of technology being used; level of regulation and administration within industry; the stage at which the sector: introductory or recently established; growth; maturity or decline stage. Investors may seek to invest in those industries which are either stable for a long period or are growing; not those in a decline stage. Overall, the development of a sector can be analysed by focusing on the current and anticipated demand, the costs, prices and the influence of general economic conditions on the sector. With such analysis, the investor may consider whether the economy is growing or not, level of inflation, interest rates and exchange rates and how they are influencing the sector and political situation and regulation risk of the country where the company issuing the stocks is located.

Company analysis (see fundamental analysis): Let us look at fundamental analysis next.

Fundamental analysis: The base for the company analysis is fundamental analysis covering the publicly disclosed and audited financial statements of the company. We critically analyse the Balance Sheet; Profit/Loss Account; Cash flow Statement; and Statement of Profit Distribution. The analysis should use a period not less than 3 years. The ratio analysis is used to measure the soundness or otherwise of the company. As already mentioned in this book, ratios are used in analysis of the performance of any business. A ratio helps an investor to compare firms of same or different sizes.

Fundamental analysis includes the examination of the main financial ratios: profitability ratios; liquidity ratios; debt ratios; asset – utilisation ratios; and market value ratios. The other ratios have already been covered under the *Financial ratios* part of the book. Here we cover the market value ratios.



Capitalisation	Number of common stock × Market price of the common stock	
Earnings per share (EPS)	(Net Income – Cash Dividends of Preferred stock)/Number of Common Stocks	
Price/Earnings Ratio (PER)	Market price of the stock/Earnings per share	
Book value of the stock	(Equity–Preferred Stock-Preferred Stock dividends)/Number of Common Stock	
Market price to Book value	Market price of the stock/Book value of the stock	
Dividends per share (Dividends – Preferred stock dividends)/ Number of Common Stock		
Payout Ratio	Dividends per share/Earnings per share	

Table 23: Market Asset Valuation

(Market) Asset Valuation ratios help an investor to quickly understand how attractive or not the stocks in the market are. However, an investor will not base only on these asset valuation ratios to make a decision to invest. When looking for long term investments (and not very short term speculation), investor must analyse both current market results and the potential of a stock issuing company to generate earnings in the future. The investor has to compare the performance of a company with others of the same size in the industry and some home country before making the final decisions to invest. This is called benchmarking a firm with one of a similar size.

Investment in bonds: The main example of long term debt securities are bonds. Bonds can be issued by governments, municipals and cities, companies or agencies. Preferred stock is attributed to the fixed income securities because its dividend payment is fixed in amount and known in advance. The major difference between bonds and preferred stock is that for preferred stock the payment flows are infinite (for ever) since the preferred stock is not callable. Bonds are identified by the following characteristics:

- They are typically securities that are issued by a corporation or governmental body for a specified period. Bonds are due for payment at maturity when their face value (par value) is returned to the investors.
- They usually pay fixed period instalments called *coupon payments*. There are some bonds which pay variable income.
- When the investor buys a bond, they become a creditor of the bond issuer. The buyer does not gain any kind of ownership rights to the issuer's property or physical assets unlike the case with equity securities.

The main advantages of the bonds to the buyer (investor)

- They are a good source of current income;
- Investment in bonds is relatively safe from large losses;
- Some bondholders, such as the default bond holders, receive their payments before shareholders can be paid or compensated;

The main disadvantage of the bonds to the buyer (investor);

• Potential profit from investment in bonds is limited.

Methods of evaluating the factors that influence investing in bonds

An investor has to consider and evaluate a wide array of factors that may influence their investment results. The factors to evaluate are related to the results of performance and financial situation of the firm that is issuing the bond. There are two broad types of tools used for this analysis: quantitative and qualitative analysis tools.

Quantitative tools: Quantitative methods use quantitative indicators to evaluate the situation of the firm issuing the bond. Quantitative indicators are financial ratios which allow assessing the bond issuing firm's financial situation, debt capacity and its credibility. Assessment of the credibility of the issuer is important because bonds are debt instruments and the investor in bonds becomes a creditor to the issuing firm. The purpose of this analysis is to assess the issuer's ability to undertake the liabilities in time. Like the fundamental analysis for common stock, bonds analysis (referred to as 'bond credit analysis') uses financial ratios. The key instruments of quantitative analysis are the estimation of the issuer's financial ratios based on the main financial statements. The main financial statements of the firm are the Cash flow statement; Balance sheet; Profit and loss account; etc. As we see, some ratios for analysis of stocks are also used for bonds analysis. The key financial ratios for bond analysis are: Debt/Equity Ratio; Debt/Cash flow ratio; Debt coverage ratio; and Cash flow/Debt service ratio.

Qualitative tools: Qualitative indicators measure the subjective factors influencing the credibility of the company; which ultimately influence the investor's decision to invest in bonds of an issuing company. These factors are qualitative but not less important. Oftentimes these qualitative measures are the dividing line between effective and ineffective bonds. The qualitative indicators are grouped under the following headings: economic fundamentals; market position; management capability; bond market factors; and bond ratings.

Economic fundamentals focus on the examination of the business cycle, the macroeconomic situation and the situation of the particular economic sectors or industry in the economy of a country. It is important to undertake this analysis in order to establish how a firm will be able to perform under favourable or unfavourable conditions in a given country's economy. The analysis will help an investor to evaluate their risk of purchasing the bonds in a firm that may (not) withstand the conditions in the economy.

Market position is described by market share in the market and the size of the firm. Market position is measured in percentages because a market is assumed to be 100 percent in total. Ceteris paribus (all the other conditions being equal and constant), the firm which commands a larger market share and is itself larger in size generally has a higher credit rating. Such a firm will dominate the market and set prices that make it more competitive. Such a firm also enjoys the economies of scale (such as high scales of production) including obtaining discounts at purchases due to bulk buying.



Management capability: Management capability, though it is somehow difficult to measure, is an important aspect that an investor has to consider when making investment decisions. Investors who are seeking to purchase only high quality (meaning *low risk*) bonds usually choose those firms whose managers follow the conservative policy of borrowing. High risk-taking investors will seek for firms whose management uses the aggressive policy of borrowing.

Bond market factors that the investor has to consider include the term to maturity, the sector in the economy, the quality of the bonds, the level of inflation and the supply and demand for the credit.

Bond ratings: the ratings of bonds add together most of the factors that have already been examined above. A bond rating refers to the grade given to bonds which indicates their quality. The ratings are provided by private independent rating agencies such as Standard & Poor's or Moody's and Fitch. Bond ratings are expressed as letters ranging from 'AAA' (the highest grade) to 'C' which "junk" and indicates the lowest grade.

Psychological aspects in investment decision making

For a long time and basing on economic theory⁴⁰, the finance and investment decisions have been thought to be based on only rational decisions and that they are usually unbiased in their predictions about the future. All the investment theories including the modern portfolio theory were developed basing on rational decision making by investors. In real life, people sometimes make irrational decisions and they make mistakes in their forecast of the future. They at times make emotional choices. Since investors are people, they do sometimes act irrationally in making investment decisions. Over the past decade, evidence has been mounting showing that psychology and emotions indeed influence financial and investment decisions. Both psychologists and economists now agree that investors can be irrational. It is, therefore, important to understand individual investor's behaviour and psychological biases that influence their decision making. Let us look at the important psychological aspects and characteristics of investor's behaviour and decision making.

Overconfidence: Overconfidence causes an individual to overestimate their knowledge, risk and their ability to control certain events. Surprisingly individuals are more overconfident when they feel like they have control of the outcome. This is despite the fact that it may clearly not be the case, but is just an illusion. These illusions also happen when people are investing.

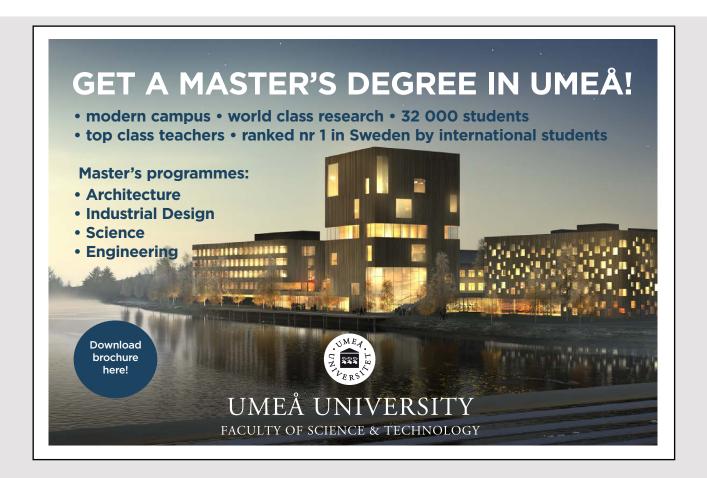
Negative outcomes of overconfidence

To realise a better return on investment requires carefully information search, analysis and decision making. Overconfidence causes investors to misinterpret the accuracy of the information and even overestimate investor's skills in analysing it. This usually occurs after people have first registered some success. After some initial success in trading, investor may exhibit overconfidence behaviour tendencies. Such people tend to believe that successes are a result of skill and that failure is simply bad luck⁴¹. Overconfidence may lead investors to poor trading decisions which are usually exhibited as excessive trading, risk taking and ultimately resulting in portfolio losses. Overconfident investors tend to increase the amount they trade because overconfidence causes them to think that they are certain about the markets and their opinions. Generally, high prices generated more by traders in the market than by economic fundamentals such as level of growth, stability of the currency and general level of financial markets stability can cause a sharp fall in the market, a market bubble and with other factors lead an economy to a recession. Overconfidence based trading can be hazardous to an investor when it comes to accumulating wealth. An investor may face high commissions as a result of excessive trading. High commission costs are not the only problem caused by excessive trading to an investor. It also leads to other losses because overconfidence leads to trading too frequently and at times purchasing the wrong stocks. Overconfident investors may sell a good performing stock in order to buy a poor performing one. Overconfidence tends to affect investors risk-taking behaviour; and they become somewhat irrational. Investors' belief in the accuracy of their forecasts increases with more information they are accessing. Yet information alone, without the ability to interpret it can not make an investor take a good decision on where and when to invest.

Market bubble: A situation when high prices seem to be generated more by trader's optimism (investors) in the market than by factors responsible for the growth of the economy. Speculators in the future price or value of land or housing for example may make them pay high prices for them thereby hiking the price and the demand. Once other investors have seen the rising demand and price in the given asset, they will also be attracted. The result is that everyone investor has put their money in this asset and consequently there are no more people looking to buy it. So, eventually, its price and demand fall drastically. This is the bubble.

Disposition effect: Fearing regret and seeking pride causes the investors to be predisposed to selling potential stocks with growing market prices (referred to as *selling winners*) too early keeping stocks with negative tendencies in market prices (referred to as *riding losers*) for too long. Shefrin and Statman (1985)⁴² were the first economists to show this effect which is called the *disposition effect*. People usually want to avoid actions that create regret⁴³ and seek those actions that cause them pride⁴⁴. Seeking pride, as they avoid regret, affects people's behaviour; and, therefore, their investment decisions too. Several empirical studies have provided evidence supporting the fact that investors behave in a manner more consistent with the disposition effect.

Emotions and investor's decision making: Research by psychologists as well as economists now agrees that emotions affect decision making. Mood affects the predictions of the people about the future. People who are in a bad mood are more pessimistic about the future than people who are in their good moods. When we translate this into investment decision making behaviour, we find that investors who are in a jovial mood are more likely to give a higher probability of positive changes taking place. It is, therefore, likely that such people in a good mood will invest in more risky assets. An investor who is in a good mood is more likely to overestimate the stock growth rate. Bad mood will reduce the willingness to invest in risky assets.



Perception of investment risk: Attitude which is a learned predisposition influences perception. Perception can be referred to as the way we see the world around us. Perception varies from one individual to another. The past decisions and outcomes will affect current decisions. Therefore, it is common that people are willing to take more risks after earning gains and less risk after previous losses. The situation where investors are less willing to take more risks after financial losses is referred as 'snakebite effect'. People remember this loss for a long time and become more cautious. Having lost their money in an investment, people fear and feel that they will lose again in future. So they avoid taking risk in their investment decisions. They also develop a fear of buying new stocks fearing another loss. For people who have registered abnormal financial gains – like a jackpot from a casino – experience what can be termed 'house-money' effect ⁴⁵. This effect predicts that people are more likely to purchase higher risk stocks after locking in gain by selling stocks at a profit. In other words, people are willing to take more risk, after experiencing a gain or profit.

Mental accounting and investor's decision making: Mental budgeting matches the emotional pain to emotional joy in financial decisions and investment outcomes. Investors use financial budget to manage their expenditure.

Portfolio Management Evaluation

Active and passive portfolio management: We need to distinguish between *active* and *passive* portfolio management. Under active portfolio management, we can observe three things about active investors. They:

- i) Believe that from time to time there are mispriced securities or groups of securities in market;
- ii) Do not act as if they believe that security markets are efficient; and
- iii)Use deviant predictions i.e. that their forecast of risk and return differ from consensus opinion.

We can make the following observations:

- i) A larger percentage of institutional investors (or organisations) invest more passively than do the individual investors.
- ii) As a strategy, an investor should mix active and passive investment management. They should invest passively in the markets they consider to be efficient and actively in those markets considered inefficient. So combine passive and active investment by investing part of your money in active and the other part in passive investments. They call it not putting all your eggs in one basket.

Asset allocation: Investors should be looking for investment where a combination of risk and expected return is optimal. Asset allocation focuses on determining the mixture of asset classes that is likely to provide this combination of risk and expected return that is optimal for an investor. We should not think that asset allocation equals diversification. It is not true. Asset allocation focuses on investment in various asset classes. An asset class refers to a group of securities with similar characteristics and properties. Asset classes can be common stocks, bonds, derivatives, etc. Diversification tends to focus more on security selection – selecting the specific securities held by an investor within an asset class.

Let us look at two categories of asset allocation: Strategic and tactical asset allocation

Strategic Asset Allocation: This refers to identifying asset classes and proportions for those assets that will comprise the normal asset allocation. It is used to determine the long term asset allocation weights. Here we can use fixed weightings approach. Under this approach, the investor allocates a fixed percentage of the portfolio to each of the asset classes.

Asset class	Allocation(percentage)	
Common stock	30	
Bonds	50	
Short term securities (including Certificate of deposits,	20	
Treasury bills (T-bills), Commercial paper, Bankers acceptances,		
Repurchase agreements)		
Total Portfolio	100	

Table 24: Example of asset allocation in the portfolio

Tactical Asset Allocation: Tactical Asset Allocation establishes temporary asset allocation weights that occur in response to temporary changes in capital market conditions. Under tactical asset allocation, asset weights are occasionally revised to help an investor attain constant goals. The investor's goals and risk – return preferences are assumed to remain unchanged but the asset weights are occasionally revised. Therefore, there can be alternative allocations, under tactical asset allocation, related with different approaches to risk and return; identification of conservative, moderate and aggressive asset allocation. The conservative asset allocation is focused on assuring low return with low risk. Aggressive asset allocation is focused on providing high return and high risk. Moderate asset allocation focuses on average return with average risk.

Asset class	Alternative Asset Allocation		
Asset class	Conservative	Moderate	Aggressive
Common stocks	20%	35%	70%
Bonds	50%	40%	20%
Short term securities	30%	25%	10%
Total Portfolio	100%	100%	100%

Table 25: Comparison between the alternative asset allocations

Monitoring and revision of portfolios: Portfolio revision is the process of selling certain issues in a portfolio and purchasing new ones to replace them. The main reasons for portfolio revisions are varied but include the following:

- 1) The constant need for diversification of the portfolio. Individual assets in the portfolio usually change in risk-return characteristics and their diversification effect may be lessened.
- 2) Changing investor objectives overtime. This will influence an investor's portfolio (which may no longer be optimal).
- 3) Positive or negative economic growth in the economy influences investor portfolio revision. During changes in the economy, certain industries and companies become either less or more attractive as investments.

Monitoring the portfolio: There is need to monitor changes in the market. Investment decisions have to consider the dynamics in the investment environment. In a dynamic environment, changes continue to happen. When implementing an investor's portfolio monitoring, the following three areas should be monitored:

- 1) Changes in market conditions;
- 2) Changes in investor's circumstances; and
- 3) The asset mix in the portfolio.

When implementing an investor's circumstances, the following areas must be considered:

- 1) Changes in wealth;
- 2) Changes in time horizon;
- 3) Changes in liquidity requirements;

- 4) Changes in tax circumstances;
- 5) Changes in legal considerations; and
- 6) Change in other circumstances and investor's need.

Portfolio performance evaluation: This involves periodically determining how the portfolio performed in terms of return earned and risk experienced by the investor. To evaluate a portfolio, there is need for appropriate measures of return, risk and relevant standards. Relevant standards are referred to as benchmarks. Generally, the market value of a portfolio at a point in time is determined by adding the market value of all securities in a portfolio held at that particular time. We can also measure in the same way the market value of the portfolio at the end of the period. The main idea behind undertaking a performance evaluation is to compare the returns which were obtained on portfolio with the results that could be obtained if more appropriate alternative portfolios (referred *benchmark portfolios*) had been chosen for the investment. When selecting alternative portfolios (*benchmark portfolios*), the investor should be certain that they are relevant, feasible and known in advance.



PART III: MICROECONOMICS

INTRODUCTION

Generally, the discipline of economics is about the study of a human being as a member of society and not as an individual. It is a science which studies human behaviour as a relationship between ends and scarce means which have alternative uses⁴⁶. Human wants are insatiable. They are endless. There are four essential economic activities which are resource maintenance and the production, distribution and consumption of goods and services.

In economic theory, we can look at two parts of economics: Microeconomics and Macroeconomics.

Defining Microeconomics

Economics is usually divided into two key parts – microeconomics and macroeconomics. Here let us look at microeconomics. *Microeconomics* is the study of the economic behaviour of individual units of an economy (such as a person, household, firm, or industry). It is not the study of the aggregate economy. (See macroeconomics for aggregate analysis). Microeconomics is primarily concerned with the factors that affect individual economic choices, the effect of changes in these factors on the individual decision makers, how their choices are coordinated by markets and how prices and demand are determined in individual markets. Under the study of Microeconomics, the main subjects covered include theory of demand, theory of the firm, the theory of supply and demand for labour and other factors of production.

Basic principles of Economics: The basic principles of economics try to explain the fundamental economic problems. We shall look at *scarcity, choice and opportunity cost*.

Scarcity: Scarcity is concerned with economic goods. Scarcity means that all commodities are relatively fewer than people's desire for them.

Choice: Due to scarcity of economic goods, individuals have to make rational decisions (not emotional) on what to buy or leave. If we assume that human beings are rational⁴⁷, then they would rank their needs in their order of preference. It means that they follow a priority list: satisfying the most pressing wants and buying the less urgent needs later and, may be, in smaller amounts. We can refer to the list of wants ranked according to priorities as the scale of preferences.

Opportunity cost: In life and economic terms there are various alternatives to choose from. Serious considerations have to be borne in mind when making choices. The alternative foregone when choice is made is referred to as *opportunity cost*. Scarcity makes individuals choose to buy one item and leave out the other. You can choose to buy a car and forego a plot of land. If you had the finances you would acquire both the car and the plot of land.

Economic Systems: Economic systems refer to the organised way in which a state or nation allocates its resources and apportions goods and services in the country. It is concerned with the way the economy of a given country is operated or managed. The following are the economic systems that have operated in different countries:

Free Enterprise Economy (example USA, UK): The price of goods and services is determined by forces of demand and supply. The government does not interfere but intervenes in the operations of the market during a market failure (government comes in to provide, for example, public health centres or public schools). This system allows for individual ownership of property and the means of production. Under this system, the free enterprise is the right of individuals to make their own choices in the purchase of goods, the selling of their products and their labour and their participation in business structure.



There is the *Command or Socialist or Centrally Controlled Economy such as the* former Union of Soviet Socialist Republics (USSR). There is also mixed economy which is neither a fully capitalist nor a traditional economy. Examples of the mixed economy include most African countries.

There is the *Social Market Economy (SME)* – a hybrid of capitalism and socialism. This system is practiced in Germany.

Mixed Economy: This is an economic system in which some resources and enterprises are owned by the state while some are owned by the private enterprises or individuals. There is a continuing debate over whether there is any pure capitalist or socialist economy in the world. Some economies, especially in the European Union (EU) and the United States of America (USA) tend to lean more to capitalism while there are still countries in continental Europe, Latin America and Asia that tend to lean more towards the command economies.

Useful concepts in economics

Wealth: In the finance and accounting professions, wealth is a measure of the value of all of the assets of worth owned by a person, community, company or country. Wealth is calculated by taking the total market value of all the physical and intangible assets of the entity and then subtracting all debts. For individuals, net worth is the most common expression of wealth. Countries refer to it as gross domestic product (GDP) or GDP per capita.

In economics, wealth refers to those goods which possess the following characteristics:

- 1. They are scarce;
- 2. They provide utility (or offer satisfaction);
- 3. They have a money value; and
- 4. They are capable of being exchanged.

There are three kinds of wealth:

- 1. Personal wealth (an individual's items bought and utilised by individuals such as shoes, clothes, radio, watch, TV, etc.)
- 2. Business wealth (assets such as buildings and equipment that are utilised in business).
- 3. Social wealth (assets such as schools, public health facilities and roads that are owned not by individuals but the public or community).

Resources: Also referred to as factors of production or inputs or means of production include natural resources such as land, water, minerals and man-made resources (capital) as well as human resources (labour and entrepreneurship).

Wants: Desires or needs of a human being. They are unlimited. One has to make a choice – based on available resources and considering the opportunity cost.

Commodities: These are goods or services produced by factors of production and consumed by human beings to satisfy their wants (desires or needs).

Goods: Goods are tangible things which satisfy human wants. Different categories of goods can be looked at here. There are *free goods* which are assumed to exit in non-exhaustible amounts such that an individual's desire for them can be satisfied at a zero price (e.g. air). There are also *economic goods* that arise out of scarcity and choice. These goods have three key characteristics: they provide satisfaction, are relatively scarce and have value (obtained from the market at price).

Final goods: goods ready for use. You can buy a car and use it (drive it) for mobility.

Intermediate goods: good to be used in the process of production – e.g. raw materials or work-in-progress.

Private goods: These are goods or services that excludable, rivalrous and they are charged a price in the market. These are exclusively enjoyed by an individual that has acquired them (from the market) – e.g. private or personal cars, boats, houses, etc. It should be noted that government through, for example, annual road license, property tax on buildings (commercial, or non-commercial e.g. own residence), may raise taxes from individuals and firms enjoying private goods.

Public goods: Generally, the term has often been used to mean any good or service (such as defence, public roads, and non-charge public health facilities) supplied by the public sector. In economics, we refer to them as goods or services provided by government, non-rivalrous and non-excludable and the market would not provide them. Such goods or services have the following characteristics:

- i) Non-rivalrous: If one individual consumes the good, it that does not prevent anyone else from consuming the same good.
- ii) Non-excludable: No person can be excluded from consuming that good.
- iii) Free rider: If people cannot be excluded from the benefits of such goods as national defence, they have an incentive to have a free ride that is, consume it without paying for it. The quantity of a good that a person is able to consume is not influenced by the amount the person pays for that good.

Services: Services are identifiable, intangible activities that are sometimes the main object of a transaction and at other times support the sale of tangible products⁴⁸. There are several services offered in an economy and they include teaching, medical services, financial services (banking, insurance), marketing services (advertising, sales promotions, etc.), entertainment (music, dance and drama), tour and travel, repair and maintenance.

Economic Agents: These are decision making units in any economic system. They include households (as owners of factors of production), firms (that employ factors of product; they invest) and central authorities (government agencies – central bank, police, etc.).

Trust and responsibility

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Inés Aréizaga Esteva (Spain), 25 years old Education: Chemical Engineer

– You have to be proactive and open-minded as a newcomer and make it clear to your colleagues what you are able to cope. The pharmaceutical field is new to me. But busy as they are, most of my colleagues find the time to teach me, and they also trust me. Even though it was a bit hard at first, I can feel over time that I am beginning to be taken seriously and that my contribution is appreciated.



Economic Questions

The economic questions that confront an individual, household, firm, and a country, in the midst of scarcity of resources and the need for opportunity cost, are: **What? Why? How? When? Where? For whom?** These economic questions may be tackled differently in different socio-economic systems – and individuals, households, or firms – but they usually have to be addressed. We will briefly look at them here.

- 1. What? This addresses decisions on what individuals, households, or firms can produce or purchase given their current resources (human resources, time and finance) and technology. Because of scarcity of resources, individuals, households, or firms, have to decide what to buy. Purchase decisions have to be informed by the availability of financial resources. This question can also be asked about the entire economy considering its human resources, time and finances.
- 2. Why? Individuals, households, or firms have to answer this. Why do you want to produce this? Why do you want to buy this? Decisions must be made about why you have chosen this item and not the other one. Again, choices are informed by the available resources (human resources, time and finance) and necessity.
- 3. *How?* How to buy, for example, refers to the methods an individual, households, or firm will follow to finally purchase and acquire the item. There is also the question of how to produce which confronts individuals, households, or firms. This question is usually about the methods of production which considers the appropriate technology to be used as well.
- 4. For whom? Individuals, households, or firms have to make choices about the target for their choice of purchase or production. For whom are you producing this item? For whom are you buying this item (it can be self, your child, other users, etc.)? At the national level, this concerns the distribution of the national product to different sectors and interest groups.
- 5. When? Decisions have to be taken about consumption, saving and investment today or in future. If an individual, household, or firm decides to consume now, they forego future investment. This will deny them future revenue streams that would accrue from their investment decisions made today. Therefore, when to consume, save and invest is important.
- 6. Where? This is a question about where to produce or deliver the service from: farm in rural areas, a factory near the source of raw materials, or a shop in town.

6 SUPPLY AND DEMAND

The supply schedule

A schedule, in a table form, showing the various quantities of a commodity in the market at various prices per period of time. See the example in Table 26.

Price (\$)	2	4	10
Quantity of beef supplied (in Kilos)	100	300	1000

Table 26: Supply Schedule for Beef

The Supply Curve:

This refers to a curve indicating the quantity of a good that producers (sellers) are willing to supply (sell) at a given price (holding other factors that might affect quantity supplied). Normally, the supply curve slopes upwards from left to right indicating that the higher the price the higher is the quantity supplied – ceteris paribus. This is respecting the law of supply.

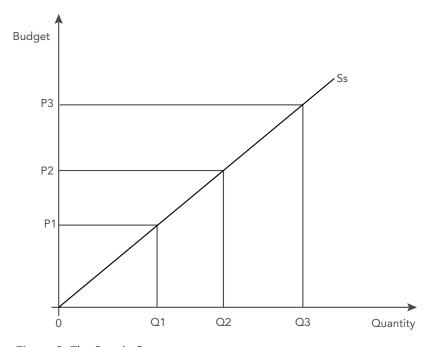


Figure 9: The Supply Curve

The vertical axis of the graph shows the price of a good, P, measured in US dollars per unit. This is the price that the sellers receive for a given quantity supplied. The horizontal axis shows the quantity, Q, measured in the number of units per period. We can, therefore, state that the supply curve is a relationship between quantity supplied and the price at which it is supplied.

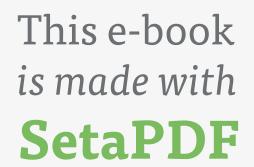
We can express this relationship in an equation:

Qs = Qs(P)

The theory of supply: The law of supply states that, *ceteris paribus*, the higher the price the higher the quantity supplied; and vice versa. A higher price may enable a producer to expand production by hiring extra workers or by having existing workers work overtime. The producer may also invest in better equipment and increase the size of its plant – and expand production over a long period of time.

Determinants of Supply

- i) Price;
- ii) The available production technology;
- iii) Prices of resources (human, capital, natural) used in the production of the product being supplied;
- iv) Prices of substitutes;
- v) Price of related goods and services; and
- vi) Producer expectations about future prices and technology.







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The theory of demand

Demand: This refers to the desire of an individual or firm backed by the ability and willingness to acquire the commodity desired. Demand is the relationship between the quantities of a good or service consumers are willing to purchase and the price charged for that good or service.

Types of demand

Derived demand: This refers to the demand for an item not for its own sake but due to demand for another item. For example demand for cotton material is derived from the demand for the shirts, dresses, trousers and other items made out of it. If the demand for these products declines, the demand for cotton material will also decline.

Complementary (joint) demand: This refers to demand for commodities that are used together and, therefore, an increase in the demand for one leads to an increase in the demand for the other. Examples include tires and vehicles, arms and ammunitions, vehicles and petroleum products, etc.

Competitive demand: This refers to the demand for commodities that serve almost the same purpose such that an increase in the demand for one results into a decrease in the demand for another. For example coffee and tea, iron sheets and roofing tiles.

Composite demand: The total demand for a commodity is got by adding up quantity demanded for several uses. For example steel is demanded for making steel bars, bodies of vehicles, railways, etc.

Independent demand: Here the demand for one product does not affect or is not affected by the demand for other commodities. In real life, such commodities are rare.

Demand Schedule:

A schedule shows, in a table form, the quantity of a commodity in the market that buyers are willing to purchase at each possible price. See example in Table 27.

Price (\$)	100	70	50	30	20	10	5
Quantity of Beef Demanded (in Kilos)		1	2	3	4	5	6

Table 27: Demand Schedule for Beef

Effective Demand: Effective demand is what is important to sellers and the entire economy because it is the actual buying of the commodity or service that matters to GDP. Demand is not simply a quantity consumers wish to purchase such as '10 mangoes' or '20 shares of Coca Cola'. It is the people who are willing and able to pay the given prices for the good (and use the good) that matter to production – *effective demand*. There is an English adage that "If wishes were horses, beggars would rid them". And there was a satirist (a medical doctor by profession) who remarked that if wishes were beer bottles, he would have died a long time ago. So wishes (expressed as wants or needs) are not what matters in the market. Adam Smith⁴⁹, more than two centuries, also referred to *effectual demand*.

A very poor man may be said in some sense to have a demand for a coach and six; he might like to have it; but his demand is not an effectual demand, as the commodity can never be brought to market in order to satisfy it.

(Adam Smith, The Wealth of Nations, Chap. 7, p. 52)

By their nature, markets do not take into account wants or needs that are not backed by the ability to pay.

Demand curve: The demand curve shows the quantities that buyers are ready to purchase at various prices. The vertical axis of the graph shows the price of a good, P, measured in US dollars per unit. This is the price at which the buyers are willing to purchase a given quantity of the good. The horizontal axis shows the quantity, Q, measured in the number of unit per period. The demand curve represents the relationship between quantity demanded of a good and all possible prices charged for that good. The demand curve, therefore, expresses the relationship between quantity demanded and price.

We can express this relationship in an equation: Qd = Qd(P)

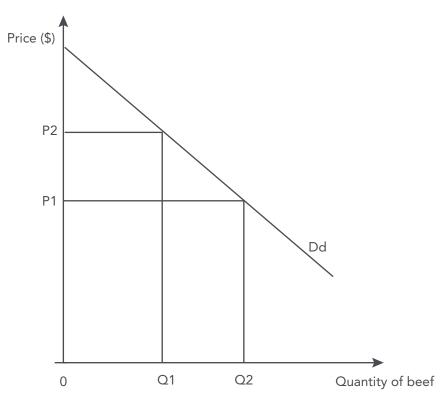


Figure 10: The Demand Curve.



The demand curve in the figure slopes downwards. This means that consumers are always willing and able to buy more when the price is lower – and less when the price rises. At a lower price, current consumers are likely to buy larger quantities (than before) and new ones may begin to consume the good. There are other non-price factors that affect the quantity demanded – and we discuss them next.

Determinants of quantity demanded

Quantity demanded refers to the specific quantity desired for a good at a given price. It is typical to give a time period when describing quantity demanded. In order to identify the factors that determine quantity demanded of a commodity, we need to first assume that other factors are constant, *ceteris paribus*. These are the factors:

The price of substitutes: Substitutes are different goods that compete with the good under consideration. Examples of substitutes include Coca-Cola and Pepsi Cola, butter and margarine, owning homes and renting apartments, driving a European car and a Japanese car. It is likely that the demand for Coca Cola rises if the price of Pepsi Cola rises. It is also likely that the demand for Coca Cola also falls if the price of Pepsi Cola falls.

The prices of compliments: The demand for one product encourages the demand for a complementary product. Such products complement each other either in common usage, or are products where buying one of them would either necessitate (or encourage) the buying of the other. Complementary products can be products that are sold together, bought together, or used together. One aids or enhances the other. Examples of these goods include paint and paint brushes, car and fuel, tyres and cars, pen and ink, printers and toner cartridges, and soup and crackers. Take the example of cars and fuel. If demand for cars rises, then there will also be a rise in the demand for fuel.

Level of income of potential buyers: We normally can expect that as one's income rises, the demand for the product that he usually consumes will rise. The reverse is also a likely situation – as one's income falls, the demand for the product that he usually consumes will fall. A good which follows this rule as presented here is called a **normal good**. Occasionally, we shall encounter a good for which the statement is not true. That is called an *inferior good*. For these goods, as income rises, the demand for the product falls. Alternatively, as the income of consumers of these goods falls, the demand for the product rises. People used to buy black and white television sets only because they could not afford a colour television set. As income rises, people buy fewer black and white television sets as they can afford and buy coloured sets. As income rises, people are less likely to use the bus and more likely to own a car.

Tastes and preferences: Tastes and preferences involve the psychological reasons for liking or disliking a particular good. So the principle is that the more (less) we like a good or service, the greater (less) is our demand for it. Tastes and preferences change for different goods and services and overtime.

Fashions and fads: Hot weather usually increases the demand for swimwear. Advertising and branding can help change fashions.

The population (number of buyers): The market demand is simply the sum of the individual demands. If there are more buyers, there must be more market demand.

Expectations (about prices, income and availability): Expectations affect people's demand for various products. For example, people commonly buy foreign currencies because they expect the prices of the foreign money to rise soon. Here, the price has not yet changed; buyers simply expect that it will change soon. The principle here is that if buyers expect the price to rise, the demand rises today; and vice versa.

What are the kinds of expectations one might have that will affect the demand for products?

- i) If one expects that the product will soon be unavailable, the demand will rise today. This is usually the case in the retail of petroleum products. Expecting that fuel stations would soon be out of the products (mainly petrol and diesel), buyers usually rush to stock-up.
- ii) If one expects that one's income will fall, the demand for most products will fall.

Taxes, subsidies and regulations: A rise in taxes will affect the price of a good in question; since the tax will be added to the price. This depends on the price elasticity of demand. Subsidies will likely reduce the price of a good; since a subsidised good may have taxes removed or the producer may get support during the production of the good. In the EU, agricultural production and exports are subsidised under the CAP (Common Agricultural Policy).

The Market Mechanism and Price Determination

The price theory is the basis of exchange in economics. It is the study of price and its determinants. Prices are relative values of goods and services at a particular time. In a market, buyers and sellers exchange goods or services at a price. In the current era, money is used as a medium of exchange. Historically, most transactions took place via a barter system. Barter trade, however, suffers from the challenges of double coincidence of wants.

How is price determined in the market?

- Forces of demand and supply
- Haggling a (process of bargaining)
- Sales auction
- Fixing prices by treaties
- In some countries, prices can be fixed by government. The government can set a price for certain products (price ceiling). Any company selling above may be punished.

Equilibrium Price (market clearing price): The concept of equilibrium is very important in economic theory. Equilibrium is a state of rest when there is no reason for anything to change unless disturbed by an outside shock. The equilibrium price is the price that equates the quantity supplied and quantity demanded. Under the market mechanism, there is a tendency, in a free market, for prices to change until the market clears (at a market clearing price) — that is, until the quantity supplied equals quantity demanded. In Figure 11, at PeQe, there is neither excess demand nor excess supply — and there is no pressure for the price to change further.

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There is not always an equilibrium – at times there can be a shortage or even a surplus. A **shortage** is a situation in which the quantity demanded exceeds quantity supplied. If the price were to go below PE, the suppliers would be discouraged from putting their products on the market. This would affect the amount supplied below what is being demanded by the market. During a shortage, consumers trying to obtain goods they require outcompete each other by paying higher prices for goods – and this will entice producers to produce more. The price will rise until it reaches PE. On the other hand, there could be a **surplus** – a situation in which the quantity supplied exceeds quantity demanded. This would happen if the price, P1, was above the equilibrium price, PE. At above price, PE, producers will try to produce and sell more than consumers are willing to buy.

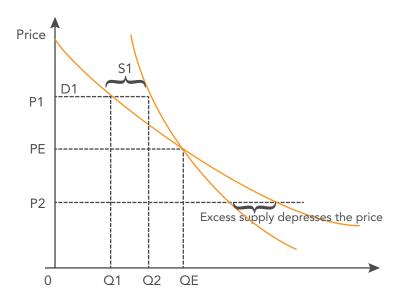


Figure 11: The Equilibrium Price (market clearing price)

The equilibrium price QE is the only price at which both the households and firms have no reasons to change their market plans.

Elasticity

Elasticity is useful in explaining relationships between two variables. It is independent of the units, such as quantity (units) or price in which the variables are measured. It can simply be referred to as the responsiveness of dependent variables to independent variables. The knowledge of elasticity of either supply and/or demand is particularly useful to decision makers – whether in government or private sector. For example, if we are informed that the demand elasticity of Ugandan fish fillets to the EU is 2, then it means that a 1% price rise causes a 2% fall in quantity demanded. Here we are saying that the elasticity is -2 as the price causes a fall in quantity demanded. The more elastic the demand and supply curves are, the greater the decline or fall in sales.

Importance of elasticity

Elasticity and government taxation: The size of the elasticity for a product will indicate the extent to which a product's sales may fall when a tax is imposed. The more elastic the demand and supply curves, the greater the decline in sales. Government tax revenue equals the amount of the tax multiplied by the after tax quantity of sales. Noting this therefore, the government will experience the lowest loss in tax revenue when it imposes a tax on goods with low demand and supply elasticity; and vice versa. Elasticity can also be inelastic. Inelastic demand elasticity means that, whether you increase or reduce the price of such a product, its demand will not necessarily increase or fall. An example is salt. Households will not buy more salt simply due to a fall in its price. They will continue to buy that amount that they need for use.

Elasticity of supply: The degree of responsiveness of quantity supplied to factors (variables) which influence the quantity supplied. The independent variables that influence quantity supplied include price of the commodity, price of other commodities such as substitutes, price and cost of factors of production, level of technology, government policy on that particular commodity (taxation, subsidization etc.), demand and number of producers and the goals of firms in the sector.

Elasticity of demand: It refers to the degree of responsiveness of quantity demanded to the independent variables which influence quantity demanded. The factors that influence quantity demanded include the price of the commodity, income levels of the potential consumers and the prices of other commodities such as substitutes.

Price elasticity of supply: The supply curve normally slopes upwards from left to right – from point O of the quantity supplied and price curves. Price elasticity of supply can be referred to as *unit elasticity of supply*, *elastic supply and inelastic supply*.

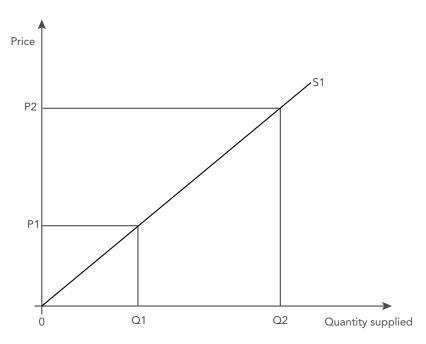


Figure 12: Price elasticity of supply

Figure 13 shows **unit elasticity** of supply at all points along the curve. This implies that when price is doubled, it will cause an exact doubling of the quantity supplied. Therefore, the percentage change in quantity supplied will equal percentage change in price.



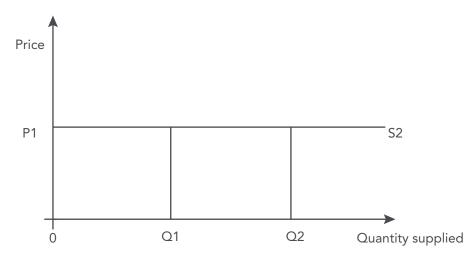


Figure 13: Perfectly elastic supply curve

Figure 13 shows a perfectly elastic supply curve. Any change in price will result in more percentage in quantity supplied. At S2 an infinite quantity will be supplied at constant price (P1).

We need to explain **unit elasticity**. This is when the price is doubled, it will cause an exact doubling of the quantity supplied. Therefore, the percentage change in quantity supplied will equal percentage change in price.

Formulae: Price elasticity of supply = <u>Proportionate change in quantity supplied</u>

Proportionate change in price

OR

= (-) <u>Percentage change in quantity supplied</u> Percentage change in price

$$= \frac{\Delta Q/Q}{\Delta P/P} \qquad = \frac{P\Delta Q}{Q\Delta P}$$

$$= (-) \Delta Q \times 100 \qquad = (-) \Delta Q d \times P$$

$$= \frac{Q}{\Delta P \times 100} \qquad Qd \qquad Q$$

Where:

 ΔQs : Change in quantity supplied

 ΔP : Change in commodity's own price

P: Original price

Qs: Original quantity supplied

Figure 14 shows that the supply curve is inelastic at all points. This implies that any change in price will result in a less than proportionate change in quantity supplied.



Figure 14: Inelastic supply curve

ELASTICITY OF DEMAND

Price elasticity of demand: This explains the relationship between quantity demanded and the changes in the price of the commodity.

Price elasticity of demand (Ep)

= <u>Proportionate change in quantity demanded</u> Proportionate change in price

= (-) <u>Percentage change in quantity demanded</u> Percentage change in price

$$= \frac{\Delta Q/Q}{\Delta P/P} = \frac{P\Delta Q}{Q\Delta P}$$

$$= (-) \Delta Q \times 100 = (-) \Delta Q \times P$$

$$Q = Q$$

$$\Delta P \times 100$$

$$P$$

$$Q = Q$$

$$Q = Q$$

Where:

Qd: quantity demanded

P: original price

ΔQ: change in quantity demanded

 ΔP : change in price

Inelastic demand: This is when price elasticity of demand is zero. We can refer to inelastic demand if the change in demand is less than proportionate -, that is, the change in quantity demanded does not respond to changes in price at all.

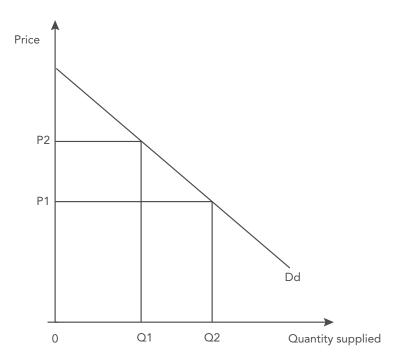


Figure 15: Inelastic demand curve

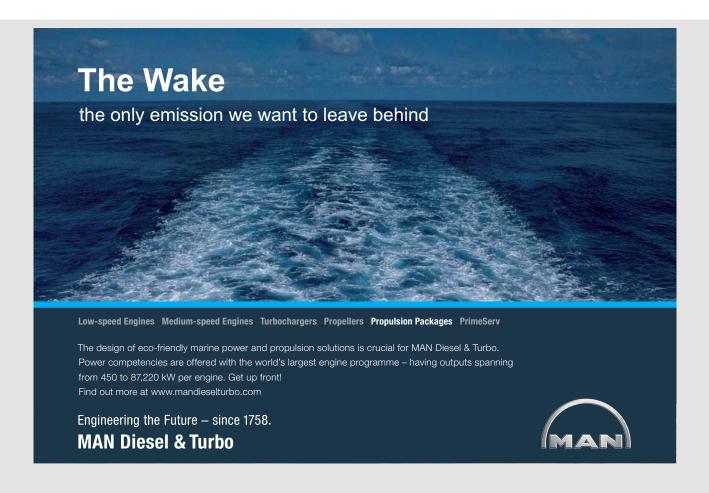




Figure 16: Perfectly inelastic demand

Elastic demand: This is where a change in price results in a more than proportionate change in demand. Therefore, a percentage change in quantity demanded is greater than a percentage change in price.

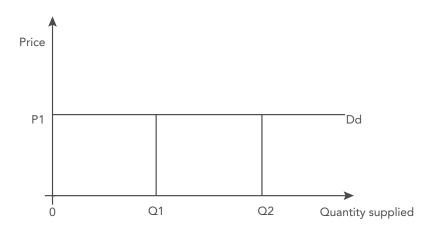


Figure 17: Perfectly elastic demand curve

At *OP1* customers buy indefinitely but purchase nothing at all below *OP1*.

Income elasticity of demand: This measures how demand responds to a change in income. It is always positive for a normal good but negative for an inferior good. Therefore, the quantity demanded of an inferior good falls as income rises. Normal goods can be divided into luxury or superior goods and essential or basic goods. Essential goods have an elasticity of less than one. Demand for basic goods such as soap and beans rise at a slower rate than income. Income elasticity of demand for luxuries is greater than unity. Quantity demanded of luxuries such as luxury cars, etc. rises more than proportionately with income.

Income elasticity = <u>Proportionate change in quantity demanded</u>

Proportionate change in income

$$= \underline{\Delta Q \times 100}$$

Q

$$\Delta Y \times 100$$

Y

$$= \underline{\Delta Q} \times \underline{Y}$$

 $\Delta Y \ Q$

Where:

 ΔQ : Change in quantity demanded

Q: Quantity demanded

 ΔY : Change in income

Y: Original income

Please note the following:

- 1. An income elasticity of demand which is greater than 1 (>1) means that there is more demand for the commodity or service in the market. There is a bigger proportionate increase in quantity demanded.
- 2. When there is an increase in income, there can happen the following:
 - a) An increase in demand for the commodity in question;
 - b) A decrease in demand; and
 - c) No change in quantity demanded of a commodity in question.

For most goods (luxuries and essential commodities) income elasticity of demand will be positive.

Income elastic: This means that income elasticity is greater than one. Therefore, quantity demanded will change proportionately more than a change in income (ceteris paribus). It is income that is a key determinant of quantity demanded here. So an increase in consumers' income will result in an increase in quantity demanded. Whereas a fall in consumers income will lead to a decrease in quantity demanded. This applies to normal goods.

Income inelastic: This refers to a situation where income elasticity of demand is less than one but greater than zero. A percentage change in income leads to less percentage change in quantity demanded. We can say the following:

- 1. For inferior goods, the quantity demanded decreases as incomes increase;
- 2. For normal goods, as the income increases, the quantity demanded also increases; and
- 3. For necessities, as income rises, the quantity demanded remains constant. Salt is a common example.

In developing countries especially in Africa, the good can be a luxury because of income levels of a household. In Uganda, Tanzania and Malawi, for example, sugar is variously seen as a luxury in most rural areas. Most of these households will mix water and tea or coffee and just drink without adding any sugar at all. This is not because the doctors have advised them to reduce sugar intake. Not at all. It is because of lack of money to buy sugar!



Importance of income elasticity

- 1. Income elasticity is a key indicator when estimating future demand. It should help producers plan future output. As consumers' income increases, the producers should increase supply.
- 2. Knowing the income elasticity of necessities, inferior goods, luxuries and non essential goods helps investors decide where to put their money to gain future market.

Cross elasticity of demand: This is the measure of the degree of responsiveness of quantity demanded of a commodity (say beef) to changes in prices of complementary or substitute commodities such as chicken, or beans. It describes the complementary or substitute relationship between two commodities. A cross elasticity of demand of -0.1 for milk with respect to the price of sugar indicates that a 10% rise in the price of sugar is associated with a 1% fall in the demand for milk.

Put the other way: It implies that a cross elasticity of 0.4 for butter with respect to the price of margarine indicates that a 10% rise in the price of butter will result in a 4% increase in the demand for margarine. We should note that:

- 1. Cross elasticity for complementary goods is negative;
- 2. Cross elasticity for substitutes is positive; and
- 3. It is possible to get a cross elasticity of demand very close to zero when there is no complementary or close substitute relationship between two commodities.

Cross elasticity of demand = <u>percentage change in quantity demanded of commodity x</u> Percentage change in the price of another commodity y

$$= \frac{\Delta Qx \times 100}{Qx}$$

$$\frac{\Delta Py}{\Delta Py} \times 100$$

$$Py$$

$$= \frac{\Delta Qx}{\Delta Py} \times \frac{Py}{Qx}$$

Consumer Behaviour and an Individual's Consumption Choices

Consumption and Consumer Sovereignty

Consumption: Simply put, consumption is the process by which goods and services are put to final use by people. People refers to two groups of individuals – the customer *who pays* for the good or services; and the consumer who is the *ultimate user* of the good or services that have been purchased by the customer. Sometimes, the customer is at the same time the consumer. The importance of consumption is that it is the indicator for what quantities the market wants – or will require in the future. In traditional economics, firms are in business solely to make profits; and they can make profits when their products are liked and bought in commercially viable quantities. For these firms, therefore, consumption is very important to their main objective – profitability. There are other organisations, such non-profit organisations that are established to fill the gap that has been left by these profitmotivated firms. We are not discussing them here.

The consumer as sovereign: For a long time now, from Adam Smith onwards, much of economic discourse has assumed that everything about the successful functioning of the economy is anchored in the final demand for goods and services. In the 1770s, Adam Smith said, "Consumption is the sole end and purpose of all production and the welfare of the producer ought to be attended to, only so far as it may be necessary for promoting that of the consumer" The traditional economic approach, therefore, views the consumer as sovereign. Consumer sovereignty is the belief that consumer satisfaction – consumers' needs and wants – determine the nature of all economic activities in an economy. Each consumer behaves in a rational manner to maximise his/her self-interest in order to maximise satisfaction. Consumer's needs and wants determine the shape of all activities in an economy. Economic activities are there to satisfy consumer choices. Consumers dictate what the market has to deliver – so that they consume it. The consumer is a king.

Traditional approach to Utility Theory: The theory of utility was first presented by Jeremy Bentham (1748–1832) when he stated that people will choose those options that give them more pleasure and less pain⁵¹. So utility can be viewed in hedonistic terms (using an imaginary instrument, hedonimeter⁵²) as a measure of pleasure and pain. It is based on the principle that a customer chooses what will offer him/her the highest satisfaction. The theory of utility is about a rational human being making choices driven by self-interest and constrained by their income. Such a human being does not buy goods on impulse or emotion but does so based on reason – the need. Such a person is referred to in economic text books as *homo economicus* ('an economic man'). The theory is based on the following assumptions:

- The consumer prefers more of his/her desired goods and services to less;
- The consumer tastes and preferences are known and complete; and
- The consumer has perfect information (and that this information enables a consumer to make choices between present and future consumption).

The *homo economicus* has to maximise their satisfaction both today and in future and these assumptions enable them to compare and add together all their consumption choices. We need to say that, ultimately, the consumer desires will be different from his/her actual purchases and uses. It is not the wishes ('wanting') but the actual purchases ('enjoyment') that matter to individuals. And that effective demand matters to the economy.



The theory looks at individual consumer behaviour – with the choices an individual makes so as to achieve maximum satisfaction subject to the income constraint. The theory, therefore, looks at an individual's demand function and helps explain the relationship between the quantity demanded and the price of a particular good or services at a certain time, assuming that other factors affecting quantity demanded remain the same.

Individual's demand function: The utility theory model as a model of consumer behaviour uses two analytical tools – the indifference curves and the budget constraint lines.

An indifference curve is a graphical representation of the various combinations of two goods or services which give the consumer the same level of satisfaction. The consumer will choose to consume the maximum amount possible of the two goods or services given his/her income or budget, which is represented graphically by the' budget line'.

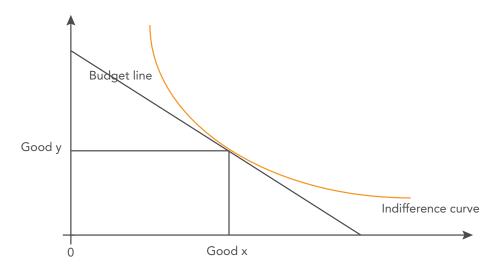


Figure 18: Indifference Curve

Figure 18 shows the indifference showing the bundles of two goods, x and y. The graph shows the combination of two goods, x and y, that give equal satisfaction and utility. The consumer will be satisfied at any point along the curve assuming that other things are constant. Therefore, at each point on the curve, the consumer has no preference for one bundle of good y over good x. In figure 18, each point on the indifference curve shows that the consumer is indifferent between the two goods and all points give him the same utility.

Several factors account for consumer satisfaction. It can change with a change in income (the budget is the constraint to personal choices being made), changes in relative prices of goods, tastes and preferences, among others. Regarding tastes and preferences, it is a key assumption in economics that when an individual's income increases (or decreases), his/her tastes and preferences change. Those that have been going to certain low end restaurants now move to upmarket ones as their income rises.

There is another view of consumer behaviour, that is, the marketing view. This is widely covered under the part on marketing in Volume II of this book.

Experienced Utility and Decision Utility

Utility has been divided into two: experienced utility (utility as hedonic experience⁵³) and decision utility (utility as a representation of preferences). This distinction has been strongly proposed by behavioural economists (Kahneman et al. 1997⁵⁴, 2000⁵⁵, 2005⁵⁶, 2006⁵⁷). Decision utility ('wanting')⁵⁸ is the weight of an outcome in a decision while experienced utility⁵⁹ is hedonic quality, as in Bentham's usage. Experienced utility ('enjoying') can be reported in real time (instant utility), or in retrospective evaluations of past episodes (remembered utility⁶⁰). Decision utility is a representation of preferences⁶¹ and the concept of preference is understood in terms of choice: a person's preferences are the mental entities that explain his choices and are revealed in those choices. Accordingly, pleasure and pain are attributes of a moment of experience⁶². There is also remembered utility as part of experienced utility. Past experiences influence future enjoyment of a good or service. People tend to re-visit the restaurant where they had a nice meal.⁶³

"Nothing in life matters quite as much as you think it does while you are thinking about it".

(Schkade and Kahneman (1998) 63

People's decision utilities are revealed by their choices⁶⁴. When people purchase what they had predicted in decision utility, then experienced utility and decision utility will not be different. This does not always happen because of the state of the individual at the time of decision utility or predicting. A hungry shopper may order more than he/she will actually consume when time to consume actually comes.

The "hungry shopper" who missed lunch on Monday was used by Kahneman and Thaler (2006) to explain the effect of the current emotional state – and hence the difference between decision utility and experienced utility. The "hungry shopper" example illustrates a proposition that has been systematically explored in numerous studies: forecasts of future hedonic and emotional states are anchored in the current emotional and motivational state. The outcome has been labeled a "projection bias".

(Kahneman and Thaler 2006, p. 222-3)65

Limitations of the Neoclassical Consumer Theory and the Behavioural Economics Approach to Utility⁶⁵

The traditional utility approach provides a simple model about how consumers make choice, but with fairly restrictive assumptions which are different from what happens in the real world.

Consumers always face the challenge of perfect information. For example people marry without perfect information. They may have ample information but later find out that some key information had been kept by one of the parties. Not every consumer has the privilege of reading consumer review report about the failures of some products and brands. Lack of information has led marketers to engage in advertising⁶⁶ – which is at times persuasive and not giving all the information. Search costs (including time to read consumer review reports or search on net) lead some consumers to purchase without enough information.

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Sometimes consumers buy based on impulse (or emotion) than reason (at times with the influence of advertising and other marketing communication tools). They just have the money to buy that other item that was not on their shopping list. So they buy it. Consumers' tastes and preferences are not always known and complete. Also, tastes and preferences change overtime because consumers are likely to change their tastes and preferences when their income changes. Consumer's choices may be influenced by reference groups or aspirational groups and aggressive marketing. Reference groups include family, friends and colleagues while aspirational groups are the groups that an individual wishes (aspires) to belong. There is also conspicuous consumption which takes into account how consumers' choice is influenced by social status. People buy certain goods because they have been bought by others in their class. People make predictions of what (and at times how much) they want to consume based on their present state of mind and motivations. At the time of actual usage, their evaluations and decisions change. What people wish to have is not always what they later purchase and use. Therefore, decision utility is different from experienced utility.

It may not apply in the age of affluence in developed countries where there has developed a situation of consumerism⁶⁷.

More limitations of the traditional theory of consumer behaviour have led to the emergence of the behavioural economics approach explained below. Kahneman and Thaler (2006) based on empirical work, have asserted that people do not always know what they like – that is, what will provide them the highest satisfaction. They present some of the main behavioural ideas about consumer behaviour that violate utility maximisation.

- 1. These include framing effects⁶⁸, anchoring, forecast bias, context of choice and peak/end rule. Peak-end rule⁶⁹: a simple average of the quality of the experience at its most extreme moment and at its end predicted retrospective evaluations with substantial accuracy⁷⁰.
- 2. People do not always know what they like; they often make systematic errors in predicating their experience of outcomes and, as a result, fail to maximise their experienced utility⁷¹.
- 3. Because of the "focusing illusion" (exaggerating the importance of the current focus of one's attention), individuals' forecasts of experienced utility are subject to systematic error⁷².

7 THEORY OF PRODUCTION

The term production refers to the processes during which some material thing is physically converted into something more useful – which can be consumed as a final product or used for processing of other products. Generally, we can view production as the transformation of resources or commodities into goods that will finally be used by consumers. In economics, production includes manufacturing, mining and farming. All these sectors involve some kind of transformation of goods from one form to another. We should note that production does not only refer to processes that make tangible goods only, it also includes providing services. For example, the services of teachers, lawyers, tax auditors, mechanics, musicians and the hotel chefs are all part of production. The final output of the teacher can be assessed from the quality of the employees we use in our companies.

Therefore, production converts some resources or commodities ('inputs'), into new goods and services ('outputs') as a flow over some period of time. Production cannot be done without technology. The higher the level of the technology the more efficient the producer firm is likely to transform materials into quality finished products. Poor technology is more costly to the firm in terms of inefficiencies and delays in processing, the number outputs produced per round and the quality of the product produced. During the process of production, the quantity of output that is produced is related to the amount of resources (or raw materials as we say in manufacturing) used and the effectiveness with which those resources are combined. Technology aids production. We must say that financial resources are important for the acquisition of technology and equipment and raw materials in the process of production.

The process of production:

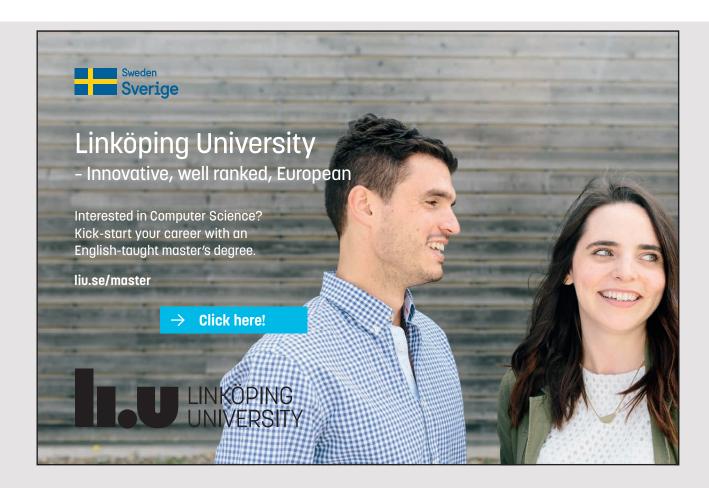
The process of production involves the following:

- a) Changing the form: raw materials are processed into finished goods.
- b) Change of place (and transportation) of raw materials and commodities. This involves movement of materials and flow of information (logistics management).
- c) Change of ownership: it involves the exchange of goods and services.
- d) It also involves provision of direct services.

The production decisions of the firm

There are mainly three production decisions of a firm:

- i. **Production technology:** A firm has, in a practical way, to describe how inputs (such as labour, capital and raw materials) can be converted into outputs (radios, cars, cell phones, televisions). A firm can produce a particular level of output by using different combinations of inputs.
- iii. Cost constraints: Costs influence the technology and quantities of inputs and outputs. Firms must carefully take into account the prices of labour, capital and other inputs before embarking on production. Some inputs might be so expensive during some periods while others will be relatively cheap. The firm has to consider the overall cost and the cost of each input, against the projected revenue from the sale of the outputs. Remember that the key motive of most commercial firms is profit and, therefore, costs should not make the firm lose its main objective of ultimately being profitable. We have to say that in modern business management, a firm's costs of production include logistics (warehousing, handling, transport, etc.) and marketing costs.



iii. **Input choices:** When technology to use has been considered, the firm has to make decisions about the quantities (in numbers) of inputs, their cost and the expected outputs (in numbers too). This is not about guess work. It is the work of experts who have to calculate inputs and outputs expected.

Factors of Production

These factors are important in the production process. To transform raw materials (like copper) into wires requires a combination of factors of production. In economics, these factors of production can be classified into land, capital, labour and entrepreneurship (or enterprise).

Reward for factors of production: The price for land is referred to as rent. The price for labour is wages (for low grade employees) and salaries (for upper grade staff). The price for capital is interest. Interest is the price for future value of money (or investment) and is the reward for entrepreneurs.

My money is capital to me and more valuable to me today than tomorrow. So if you have to use my money (borrow it) today and pay it in future, I will charge you some interest. There is time value of money. That interest is in addition to the principle sum that you are borrowing. The entrepreneur is rewarded with profit. In a free market economy, the price for any factor of production is determined by the forces of demand and supply.

Land: Land⁷³ is a term used in economics to refer to all natural resources that can be used in production. Such resources include land itself, soil, minerals, natural forests or water. The reward for land is rent. Land is an immobile factor of production. It cannot be transferred from one location to another. It is also fixed in supply and is, therefore, perfectly inelastic supply. Land reclamation from mashes, sea or ocean cannot be viewed in economics as increasing land supply because the mashes, sea, or ocean are also regarded as land. The value of land will depend, among other factors, on location. Land situated near a beach, for instance, will be more expensive than land in the middle of some rural dwellings.

Labour: This refers to any kind of human effort that contributes towards the processes of production. Labour may be mental or physical (manual labour) acquired (via training) or inherited (such as the art of blacksmiths). Classified according to the level of training, labour can be looked at as unskilled, semi- skilled or skilled. The reward for labour is wages and salaries. The rewards will depend on the level of skill or qualifications attained. Efficiency (cost saving) and effectiveness (doing the job right) of labour can be affected by a person's health, education, nutrition, technology, capital, rewards or incentives offered to the position of the person giving the labour.

Capital: This refers to any physical assets (stock) that are capable of creating other goods or services. It can be described as real or money capital, private or community owned capital. Real capital refers to the stock of physical assets which are capable of producing other goods or services. Examples of real capital (stock of physical assets) are roads, factories, machines, railways, ports, airports and buildings. Money capital (financial capital) refers to a method of payment for capital. Money capital is not directly productive. It aids production as a method of payment for capital goods. Money capital can be in foreign currency or local currency. It is the paper notes and coins used to pay for capital goods, raw materials and support services. Social capital is an important aspect in economics; and trust is what is referred to as social capital. Trust is important. A company will attract more cheap finance if it is viewed as credible or trusted.

Capital accumulation, technology and economic growth: The key ingredients of economic growth are labour, capital and technology.

Technology enhances the productivity of labour. Technology can be defined as the application of knowledge to solve problems or invent useful tools. During the Stone Age era, the early applications of knowledge to create technology can be seen in the development of simple tools from wood or shards of rock. It continued to develop to a stage where metal was used to make stronger tools. In the current era we talk of computers and the internet. In future we may talk of 'teleporting' a human being from one location to another!

Technology improvements: Innovations, R&D are vital for the growth and development of an economy. Technology is a result of R&D. Inventions and innovations are important for growth. Technology improves the quality of capital through inventions and innovations. In the current world, the higher the level of technology in a country, the higher has been the level of development. Capital progress or technological improvements lead to new and even better methods of production which result into increased output: more quantity and better quantity.

Capital is very important in growth and development of an economy.

Capital accumulation: The increase in the stock of capital enhances the country's capacity to produce goods and services. It also leads to a rise in real goods and services. It can lead to an increase in the stock of machines which can enhance the productivity of labour. The process of capital accumulation involves increasing the volume of savings through the financial system (banks) and these savings have to be converted into investment. Postponed consumption results in savings and once invested, the saver expects a return on money invested.

Entrepreneurship (or enterprise): The word entrepreneur originates from the French word, entreprendre, which means "to undertake". In a business context, it means to start a business. Schumpeter (1934)⁷⁴ states that the entrepreneur is the innovator who implements change within markets through carrying out new combinations. The carrying out of new combinations can take several forms:

- i) the introduction of a new good or quality thereof;
- ii) the introduction of a new method of production;
- iii) the opening of a new market;
- iv) the conquest of a new source of supply of new materials or parts;
- v) the carrying out of the new organisation of any industry.

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Carton, et al. (1998)⁷⁵ provide that "entrepreneurship is the pursuit of a discontinuous opportunity involving the creation of an organisation (or sub-organisation) with the expectation of value creation to the participants. We can refer to an *Entrepreneur* as the one who assumes the task, management and risks of organising other factors of production. This person becomes the funder for the organisation's establishment, coordinator and leader, risk taker, key decision maker and innovator in the undertaking. While in most cases the reward is profit, at times there are losses in the enterprise instead. We also have to note that most entrepreneurs are not necessarily good managers. They are leaders and vision holders. They guide management to do the work of creating more capital.

The Cost of Production

Economic Costs

i) Economic Cost versus Accounting Cost: Accounting costs refer to the costs of a project presented in terms of monetary outflows alone. Economic Costs are the costs of a project including opportunity costs. Economic costs are obtained by adding accounting costs and opportunity costs

Accounting Costs	US\$		
Planting materials	10,000		
Fertilizers	4,000		
Weeding	5,000		
Transport	4,000		
Interest on bank loan	8,000		
Depreciation of equipment	5,000		
Total Accounting Costs		36,000	
Opportunity costs			
Foregone return on equity capital	7,000		
Foregone wages, salaries	15,000		
Total Additional Costs		22,000	
Total economic costs			58,000

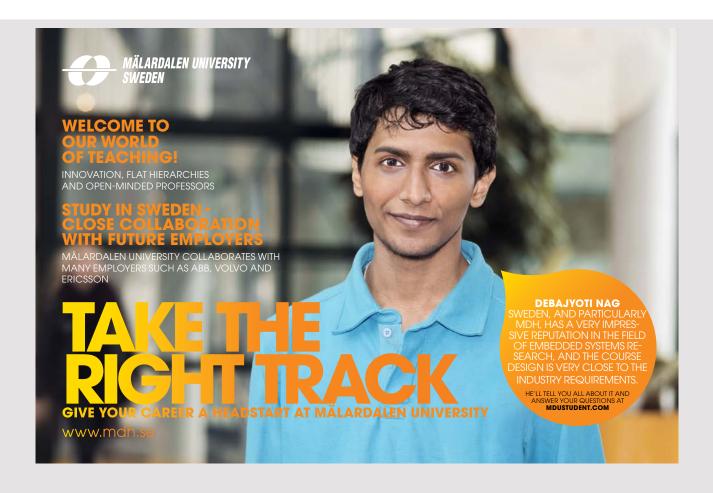
Table 28: Costs of Corn farming

- ii. Transaction Costs: These are the costs of arranging economic activities gathering information (research), paying executives to make needed decisions, lawyers to help in contract preparation, process of hiring workers (advertising, interviewing, etc.), dinners and lunch when the firm is negotiating deals, etc.
- iii. Internal and External Costs: Internal costs The costs of a project from the perspective of the economic actor making the production decisions. External costs: The costs of a project that are borne by persons or entities (such as the environment) that is not among the economic actors directly responsible for the activity. Some of the external costs are actually external diseconomies to society (e.g. pollution, noise).
- iv. Costs and Productive Efficiency: Efficiency: We need to discuss costs and allocative efficiency. To achieve allocative efficiency, a firm has to produce output at a point where marginal cost (MC) equals price (P). A firm will also achieve productive efficiency when it combines resources (money, time, human resources, and machines) in such a way that it produces a given output at the lowest possible average total cost (ATC).

Opportunity Cost: This is the cost associated with opportunities that are forgone when the firm does not put its resources to their best alternative use. A firm that owns land can either use it for its own agriculture or rent it out to other firms to use for whatever purpose. Each of the decisions taken involves an opportunity cost. How about the firm that has office space and uses it as an office – without paying for it? It could have let out this space out and got rent out of it. Now it uses it, without paying for it, as if it has no value. There is an opportunity cost here, where the alternatives that are foregone do not reflect monetary outlay. Although an opportunity is often hidden, it should be taken into account when making economic decisions by the firm's managers.

Sunk Cost: This is an expenditure that has been made and cannot be recovered. This is usually the expenditure that is undertaken before the project is funded – it involves the costs of preparing the project proposal, among other activities. Because a sunk cost cannot be recovered, it should not influence the firm's future decisions. The sunk cost is usually visible (and its figure known) but after it has been incurred it should always be ignored when management is making future economic decisions. In the economist's view, *Economic Cost = Opportunity Cost*.

Fixed Cost and Variable Costs: Total costs of production (TC) – also 'the total economic costs of production' can be divided into two components – fixed costs (FC) and variable costs (VC)⁷⁶ – and this can be presented graphically by the total cost curve⁷⁷. How does a company distinguish FV and VC? The distinction is based on the period of time that is being considered. Over a very short period of time – for example, a few months – most of the firm's costs are fixed. In this very short period of time, a firm cannot easily lay off-workers (no matter how much or how little the firm produces) and is committed to payment of the ordered raw materials. In the long term (e.g. three years) many costs become variable. Over a period of three years, a firm can make decisions in which it can reduce its output, reduce the number of its workforce, sell some of its equipment and machinery and buy few raw materials – and so forth. We should note that over a very long period of time horizon (e.g. 10 years), almost all costs are variable. For example, workers and their managers can be laid off, and equipment and machines can be sold off or not be replaced when they become obsolete.



- a) Fixed Cost (FC): These are the costs that do not vary with the level of output and that can be eliminated only by shutting down the firm's activities (going out of business). For a manufacturing concern, the fixed costs may include expenditure for plant maintenance, insurance, buildings, heat and electricity and a small number of long term managers.
- b) Variable cost (VC): These are costs that vary as output varies VC increase as output increase and vice versa. They include expenditures for wages, salaries, raw materials and transport, among others.

Costs in the Short Run

Rate of output (Unit/Year)	Fixed Cost (US\$/Year)	Total Cost (US\$/Year)	Marginal Cost (US\$/ Unit)	Average Fixed Cost (US\$/Unit)	Average Variable Cost (US\$/Unit)	Average Total Cost (US\$/Unit)
0	30	0	30	-	-	-
1	30	30	60	30	30	60
2	30					
3	30					
4	30					

Table 29: Firm's Costs

Marginal Cost (MC): MC, which is sometimes called *incremental cost*, is the increase in cost that results from producing *one extra unit* of output. We should note that fixed cost does not change as the firm's level of output changes. Therefore, MC is equal to the increase in VC. We can also say that MC is equal to the increase in total cost (TC) that results from an extra unit of output.

$$MC = \underline{\Delta VC} = \underline{\Delta TC}$$

$$\Delta Q \quad \Delta Q$$

When computing MC, we ignore the fixed costs because we assume that fixed costs have to be met. We are, therefore, only interested in the *cost of additional*, or *last*, or *marginal unit* of production.

The firm can experience *constant*, *increasing* or *decreasing marginal cost* of production. *Constant marginal cost*: Each unit of the variable input (with a variable cost) which has a constant price, adds exactly the same amount to total output and, therefore, the cost for each additional unit is the same. Simply put, constant marginal cost is the case where the cost of producing an additional unit of output stays the same as more output is produced. Here the TC curve will be a straight line.

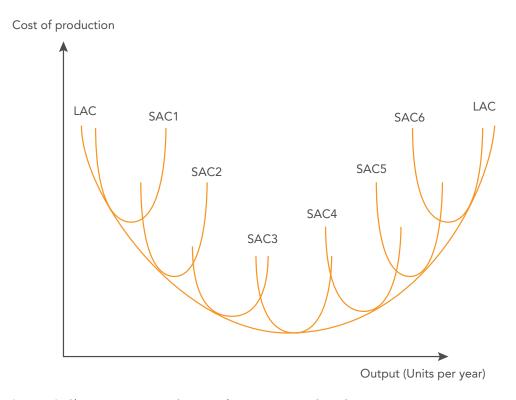


Figure 19: Short-Run Average Curve and Long Average Cost Curve

Increasing marginal cost: The case where the cost of producing an additional unit of output increases as more output is produced. For example, in the case of our corn growing, diminishing marginal returns to fertilizers application will lead to increasing marginal costs to production.

Decreasing marginal cost: The case where the cost of producing an additional unit of output falls as more output is produced.

Average Total Cost (ATC): Simply put, this is the cost per unit output computed as total cost (TC) divided by the quantity of output produced. ATC has two components: Average Fixed Cost and Average Variable Cost (AFC). Average Fixed Cost – fixed cost divided by the level of output. Because fixed cost is constant, AFC declines as the level of output increases. Average Variable Cost – variable cost divided by the level of output.

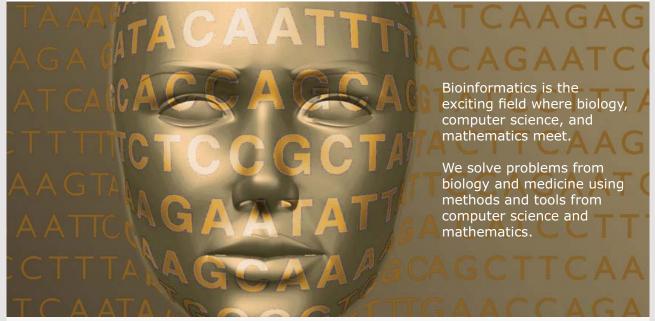
Cost in the long Run

In the long-run, an enterprise has a high degree of flexibility. As we have already stated, under Cost of Production, in the long-run, all inputs are variable (and their costs become variable costs). A farmer can buy (or rent/lease) more land or farm equipment (tractors, hullers, mowers, etc.). A manufacturing concern can build a new factory and install new machines and can hire or fire some of the workers – based on their contribution to productivity and innovation, among others.

Marginal cost, which is the case in the short—run where one input is fixed, is not relevant in the long-run because in the long-run, all inputs are variable. We do, however, calculate average total cost (ATC) per unit of production by dividing total cost (TC or ATC) by the quantity of output produced at each production level. In the long-run, where all inputs are variable, the firm is more concerned with long-run average cost. Long-run average cost is the cost of production per unit of output where all the inputs can be varied in quantity. It is, therefore, logical to think (it may not always because it is not only costs that affect survival of firms) firms will tend to reach a size (an optimum size) where the long-run costs are lowest. Below the optimum level of production, firms whether big or small would be unnecessary expensive to operate. They are most likely to be more inefficient and sometimes ineffective.



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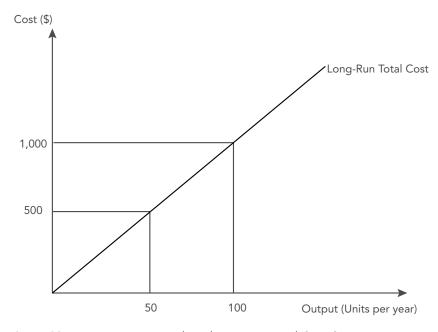


Figure 20: Firm's Expansion Path and Long-Run Total Cost Curve

Long run average cost (LAC)

The long-run average cost curve (LAC) is the curve that relates average cost of production to output when all inputs (including capital) are variable. Like the short-run average cost curve (SAC)⁷⁸, the long-run average cost curve (LAC) is U-shaped. While the cause of U-shaped SAC is diminishing returns to a factor of production, the cause of U-shaped LAC is increasing and diminishing returns to scale. We need to also look at the long-run marginal cost curve (LMC). The *long-run marginal cost curve* (LMC), which can be determined from the long-run average cost curve, measures the change in long-run total costs due to an incremental increase in output.

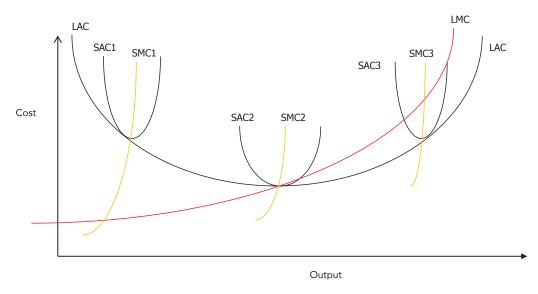


Figure 21: Long Run Marginal Cost

Economies and Diseconomies of Scale

Economies of Scale: Economies of scale accrue to a firm when it is producing in large quantities. These are advantages in form of reduced average cost of production. A firm can for example enjoy discounts on bulk purchases.

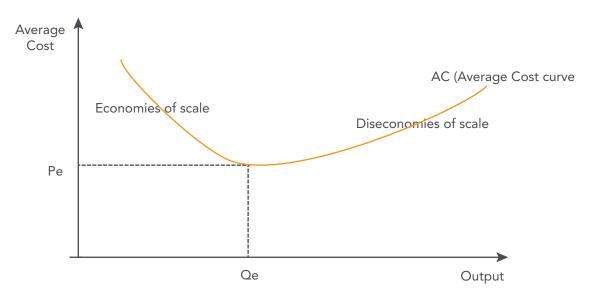


Figure 22: An illustration of economies of scale

Economies of scale can be looked at as the following:

- a) Real economies of scale: Those are the economies of scale that are associated with efficient production processes and methods. They include a reduction in the amount or volume of raw materials used as well as reduced labour costs and increased capital savings.
- b) Pecuniary economies of scale refer to the advantages of large scale production due to paying lower prices for the factors of production which are used in the production and distribution of the product.
- c) Internal economies of scale: these are the advantages of large scale production enjoyed by a single firm due to specialisation in production of certain products. We can look at them from the following viewpoints:
 - i. *Managerial economies:* A large firm can afford to have management put under separate departments production, marketing and sales, logistics, procurement, finance and administration and R&D. It can also afford to hire specialists and consultants such chartered financial analysts, chartered procurement personnel, engineers, chartered marketers, etc. These will help the firm to be efficient and effective, with good customer care.



ii. *Technical economies:* These arise due to use of better machines in the production process. There is specialisation and specialists use the machines for which they are more skilled at using. The firm can afford to buy specialised machines (such as tractors, milking machines, packing machines, etc.) which will lead to an increase in output and reduced average costs. (Remember that Average Cost equals Total Cost divided by Output (AC = <u>TC</u>).

Q

- iii. Research (R&D) economies: A large firm can afford the cost of research on product quality, branding and new technology which is efficient and effective. A small firm cannot.
- iv. *Marketing economies:* A large firm can afford to buy in bulk and enjoy discounts of bulk purchasing. This will enable the firm to sell the final product on the market at competitive prices. The purchasing discount can now be reflected in reduced prices of its products. The firm can also afford to use the saved money in form of discount purchases for advertising and other promotions. Advertising costs do not increase at the same rate as increased output. Advertising costs increase less than proportionately as output increases. The firm does not spend more to advertise more units of output. Even it can afford to distribute its samples at a lower cost. The firm may use the savings from bulk purchases to design and brand its products to become competitive. A new and better design with a good name can attract more buyers. Branding is a pull strategy in marketing communications. Customers are attracted to (or pulled by) the brand.
- v. *Financial economies:* It is hard for a small firm without collateral securities to obtain a loan from the financial institutions. Financial institutions tend to trust large firms. They at times request them to take loans instead of the firms being the ones to make such a request. These firms can even obtain loans at cheap rates. These firms have got a large pool of assets, collateral securities and good reputation. They have a name and in business a name matters.
- vi. *Risk bearing economies:* These are two main ways for a large firm to reduce risk. It can afford to purchase a comprehensive insurance policy. Secondly, it can produce a variety of products or product versions and sell to different markets (diversification of markets). This will help spread and reduce the risk.
- vii. *Transport economies:* It is possible for a large firm to transport in bulk and negotiate transportation concessions. A small firm does not enjoy such advantages.
- viii. Storage economies: When materials are stored in bulk, storage costs per unit output reduces. A storage facility whose storage capacity is 1000 units will charge a firm same amount whether it keeps there 1000 units or 600 units.
- ix. Welfare economies: These can also be referred to as social economies. A large firm can afford to negotiate a better rate and provide its workers with medical insurance, better housing and education for the children of workers etc. A small firm cannot afford to provide welfare facilities to the staff.

d) External economies of scale: These are the economies of scale enjoyed by the entire industry. They can be in form of reduced average costs of production resulting from the expansion of the industry as a whole. They arise from the concentration of the firms doing related work in one area. Silicon Valley in the USA is one example. Most IT companies are based in this valley. Service providers such ISPs can charge a lower rate because there are many users. The providers can sale more units and enjoy the benefits of higher sales revenue – maximisation. There can be economies of concentration, economies of information, external information and external financial economies.

Diseconomies of scale: A large firm may suffer disadvantages of increased costs of production per unit output. Over expansion can result in higher costs of production. These diseconomies can either be internal or external.

- a) Internal diseconomies: We can look at the following categories of diseconomies:
 - i) *Technical diseconomies:* As the firm over-expands, also the wear and tear of machines increases resulting from their intense use.
 - ii) *Managerial diseconomies:* At times over-expansion creates problems for management. It becomes difficult to access the last person on the shop floor. The firm cannot easily get to know the problems facing workers. Supervision of workers becomes hard. Coordination between management and workers suffers. Effective monitoring and supervision declines and the result is inefficiency and increased per unit cost of production.
 - iii) Financial diseconomies: To produce at full capacity, large firms require more finances. These finances may not be internally available. This may result in the firm over borrowing. This cost of borrowing is reflected in interest payments. Such a firm may be making more money but saving little due to interest payments.
 - iv) *Marketing diseconomies:* The firm that has over expanded may soon fail to get ample quantities of raw materials. This may affect the level of production. It may also fail to meet the demand that it had created. Some customer may, for instance, switch to other brands and this will affect profitability.
- b) External diseconomies: Over expansion of the industry as a whole can result in diseconomies. Land rent may go up because of high competition, accommodation and the cost of living may generally go up. Environmental deterioration may arise due to too much production in factories and transport costs may also increase because there now more vehicles causing congestion on the roads in the area where the industry is located.

Law of Diminishing Marginal Returns

The law of diminishing marginal returns states that as the use of an input increases in equal measure with other inputs fixed, a point will eventually be reached at which the resulting additions to output decrease. Let us use labour as a variable factor to explain this. When the amount of labour input is small — and capital is fixed — extra units of labour add considerably to output, usually because workers are allowed to devote themselves to specialised tasks. When the firm buys too many units of labour (too many workers), some of the workers become ineffective and the marginal product of labour falls. This law applies in the short-run.

Assumptions of the law of diminishing marginal returns:

- i) It applies to the short run when at least one input is fixed;
- ii) It applies to a given production technology;
- iii) It assumes that all labour units are of equal quality; and
- iv) Diminishing marginal returns results from the limitations on the use of other fixed inputs (e.g. poor use of machinery) not from the declines in the worker quality



Labour Productivity

Sources of growth in labour productivity in an economy

- i) Growth in the stock of capital the total amount of capital available for use in production. An increase in capital means that more and better machinery are acquired and each worker can produce more output per hour worked.
- ii) Technological change the development of new technologies that allow labour and other factors of production to be utilised more effectively and produce higher quality goods.

Labour demand and the production function

What does a firm consider when making decisions on how many workers to employ?

Let us talk about the **Marginal Product of Labour (MPL)**. What is it? Why should we discuss it here?

MPL is the key feature of the production function of any labour market. MPL refers to the amount of extra output that one more worker can produce while *keeping fixed the stock of capital and the level of technology.* Graphically, it is assumed to be decreasing with the level of employment – this is to say that 'too many cooks spoil the broth'. The MPL plays a key role when a firm, in the developed economies, is considering how many workers to employ. Each additional worker should produce extra output equal to the MPL.

- i) If the firm can sell this output for a price (P), then hiring one more worker yields additional revenue of $P \times MPL$.
- ii) Every additional worker hired increases the firm's recruitment and training costs the firm has to pay wages, employment taxes (e.g. mandatory contribution by the firm to the Personal Income Tax (PIN) for every work (this is Pay As You Earn (PAYE)), office costs (furniture, equipment) and other expenses. The wage costs can be summarized as W. If P × MPL exceeds W, then hiring an extra worker leads to an increase in *profits*, while if P × MPL is less than W, profits fall.
- iii)Alternatively, we can say if MPL>W/P (*real wage*), the firm should hire workers and if MPL<W/P, the firm should reduce its workforce. (The term W/P is the *real wage* and reflects how much the firm has to pay its workforce relative to the price of its output.

Profit Maximization

Profit can be referred as Profit = Revenue - Costs.

Profit maximisation is the behavioural assumption underlying the traditional neoclassical model of the firm. Anderson and Ross (2005)⁷⁹ present the profit maximisation as the most important assumption about the theory of the firm. Perhaps the most important of the assumptions that make up the theory of the firm is the assumption that firms maximise profits (and minimise costs) by setting output where marginal costs equal marginal revenue⁸⁰. The same argument has been presented by others. Accordingly, in traditional economics theory, firms that do not come close to maximising profit are not likely to survive. Firms that do survive in competitive industries make long—run profit maximisation one of their highest priorities⁸¹. To maximise profit, a firm has to find that level of production that maximises the difference between total revenue and total cost. Profits are maximised when marginal cost (MC) equals marginal revenue (MR)⁸². This can be expressed as MC=MR⁸³.

Criticisms of the traditional theory of profit maximisation

The traditional theory of profit maximisation has been criticized. First, the existence of lack of prefect information, or information asymmetry, affects the decisions of the firm. The managers of the firm fail to make the collect decisions and incur the necessary costs when undertaking investments. Lack of adequate information for decision making is a bigger problem in developing countries where information, for example on taxes, GDP, poverty levels and population is either outdated or inadequate. Anderson and Ross (2005:32)⁸⁴ challenge the assumption that the firm automatically maximises profits via the mechanisms of setting MC = MR. They argue that given the constraints of time, uncertainty and other factors, real decision makers within the setting of the firm face on a daily basis, even the firm that set out to maximise profit may not accomplish that goal.

Managers should not only be concerned with a firm's profit maximisation. However, for smaller firms managed by their owners, profit will more likely dominate almost all the firm's decisions⁸⁵. Managers may be more concerned with such goals as revenue maximisation, revenue growth, or the payment of dividends to satisfy shareholders. They might also be overly concerned with the firm's short-run profit (perhaps to earn a promotion or a large bonus) at the expense of its longer-run profit, even though long-run profit maximisation better serves the interests of stockholders⁸⁶. We should say that maximising the market value of the firm is a more appropriate goal than profit maximisation for most firms that seek a long term view. This is because the latter includes the stream of profit that the firm earns over a period of time. Therefore, there are other goals of the firm (and its management) other than profit maximisation.

Other alternative models

There have come up alternatives to explain the behaviour of the firm and these are sometimes so-called behaviourial models. The two main ones are the shareholder theory and the stakeholder theory.

Shareholder theory⁸⁷ (or the *stockholder theory*) views making profit for shareholders as very vital. This theory has a lot to relate with the traditional theory of profit maximisation. Managers should focus on making profits for the owners of companies. According to Friedman (1970:1)⁸⁸, in a free-enterprise, private-property system, a corporate executive is an employee of the owners of the business. He has direct responsibility to his employers. That responsibility is to conduct the business in accordance with their desires, which generally will be to make as much money as possible while conforming to their basic rules of the society, both those embodied in law and those embodied in ethical custom. Under the **shareholder** (*stock holder*) *theory*, corporations are just carrying out the will of their shareholders with regard to the value of the company's shares and the dividends to be paid out to the shareholders.



The **stakeholder theory**⁸⁹ argues that the firm has got a myriad of stakeholders⁹⁰, in addition to the stockholders. Godwin et al., $(2009:409)^{91}$ says that the theory sees the contemporary corporation as a complex social organisation with multiple constituencies. These include the managers, the other employees, the creditors, suppliers, customers and the community. All these stakeholders have an interest in the success of the firm. These stakeholders, according to Freeman and Read $(1983)^{92}$, can be viewed as two categories of stakeholders:

- i) The narrow definition looks at groups that are vital to the survival and success of the corporation; and
- ii) The wider definition as any group or individuals who can affect or be affected by the corporation.

The latter definition will, therefore, include the community and even the pressure groups. The former will include managers, other employees, creditors, suppliers and customers.

The firm has a responsibility to make profits but will not have the goal of profit maximisation. This is because it has other responsibility to stakeholders (and society). It would, therefore, be necessary that the surplus made by a firm should not only be given to shareholders in form of dividends but also be used for further investments that can create more jobs. It can also be used to build a school or hospital for the children from the neighbourhood. This can be viewed as *corporate social responsibility*.

Principal Agent theory: According to Godwin, et al. (2009:414)⁹³, the Principal – Agent theory assumes that at every level of the organisation people act from self-interest (mainly with regard to financial motivations). This theory looks at the conflict between managers and owners of the firm. The managers want more remuneration in form of salary increments and commissions. They may be forced to engage in unethical business practices to achieve their goals. The owners of the business want long-term performance and profitability. They want a valuable company. Enron Corporation collapsed due to the principal-agent problems. Its executive led it to bankruptcy due to their unethical and highly dubious ways in their efforts to maximise the corporation's share price so that they could receive higher remuneration.

Happiness Model: Recent information shows that companies are depending more on intangibles such as human capital and brand94 capital and less on physical capital and working capital. This means that 'people' and their role in the firm is becoming important and keeping them motivated will be vital for the survival and success of the firm. The happiness and wellbeing of the workers will lead them to perform and enhance productivity, and ultimately firm profitability. Workers make the products that companies sell. Workers perform the services that companies offer to clients. They can contribute positively or negatively depending on the way they feel that they being treated - whether they are valued and treated well or badly. It has emerged that in companies where employees have reported high levels of satisfaction, these companies have got valuations that are significantly greater than those where employees reported less satisfaction. Different studies⁹⁵ have found a positive correlation between employee wages and various measures of productivity. It is not explicit wages that account for employee satisfaction. It is the well-designed compensation package that offer employee satisfaction. Quoting various studies, Booth (2012:138-9) asserts that happiness and wellbeing at a work place contributes to employee performance that is reflected in the overall firm performance⁹⁶. However, generally, economists are skeptical of the socalled happiness model. This is because companies that employ high performers are already paying them well and they, therefore, perform well. Unlike the economists, organisation behaviourial disciplines find that employee happiness matters to organisational performance. Their research evidence⁹⁷ for companies both in the USA and Germany show that people centred practices are strongly associated with higher profits and significantly lowers employee turnover. Some of the aspects that are people centred practices cited include job security (to eliminate the fear of layoffs), careful hiring (emphasizing a good fit with the company culture), power to the people (via decentralised and self-managed teams), generous pay for performance, training and less emphasis on status (to build a 'we' feeling), trust building (via the sharing of critical information). They see these factors as a package deal - installed and coordinated in a systematic manner. They should not be implemented as parts but as a package.

8 MARKET STRUCTURES AND COMPETITION

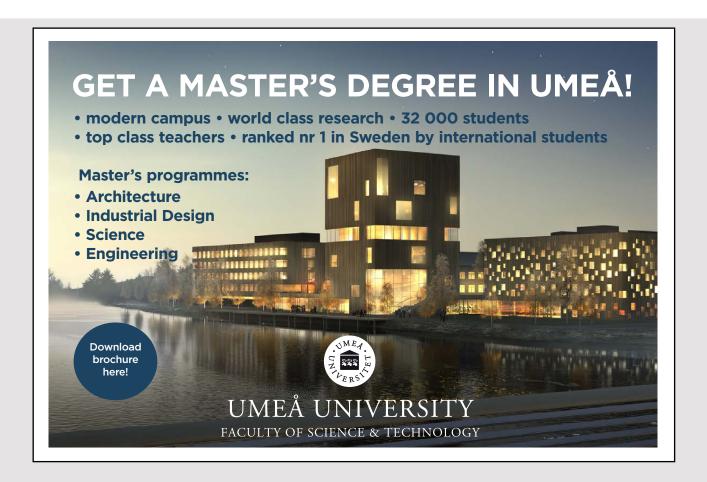
There are four idealised (ideal as opposed to reality) types of market structures:

- 1) Perfect competition: Many sellers in the market selling identical goods.
- 2) Pure monopoly: A market that has only one seller and many buyers.
- 3) Oligopoly: There are so few sellers that each needs to watch what the others are doing.

Before we examine the market power under different market structures – perfect competition, monopoly, and oligopoly – we will first look at the price mechanism in a competitive market.

Price Mechanism

The price mechanism comes from Adam Smith's invisible hand theory. In a free market economy (as opposed to the command economy) each individual as a consumer, producer or resource owner is engaged in an economic activity with a large measure of freedom. Resources are privately owned. Prices are determined by the forces of demand and supply.



Advantages of the price mechanism

Such a system has got several advantages when it is operating in developed economies.

- 1) Prices determine what to produce. It means that consumers determine what product is produced and sold to them. There is consumer sovereignty (in marketing the customer is king). Whatever consumers do not choose will not be produced.
- 2) Resource allocation. Factors of production will be allocated to the production of commodities which will attract high prices.
- 3) Income distribution. In such an economic system, those who can offer goods and services that are in demand have their incomes rise.
- 4) Price provides incentive to investment: instead of consuming or spending all one's earnings today, they invest in those ventures which show future attractive prices.
- 5) A price mechanism encourages competition. Competition results in quality products, efficient production. In a competitive environment, inefficient firms are eliminated.

Market Structures

There are three main market structures – perfect competition, oligopoly and monopoly. We will look at them briefly.

Perfect Competition

Conditions of Perfect Competition:

- 1) There is free entry and exit for producers of the good or services within an industry. There are no barriers to entry or exit of firms from the industry.
- 2) All buyers and sellers have *perfect information* on where the good or service is available, the price at which it is offered and whether profits are being made.
- 3) There are several small sellers and buyers too small that no individual seller or buyer can affect the market price.
- 4) Within the market, only one kind of good or service (which is identical) is traded. Since the good or service traded is identical, buyers won't care which firm they buy from.
- 5) Free from government intervention and therefore no Government intervention through fixing prices, offering subsidies, or nationalising some of the firms. The government of course comes in to tax the industry.

Oligopoly

Oligopoly is the prevalent form of market structure in most societies. In the oligopoly market structure, the products may or may not be differentiated. What matters is that only a few firms account for most, or all of, the total product. In such a market, some or all firms earn substantial profits over the long run because barriers to entry make it more difficult (not impossible) for new firms to enter. Examples of oligopoly sectors include automobiles, steel, aluminum, petrochemicals, and electrical equipment.

Managing an oligopolistic firm is complicated because pricing, output, advertising and investment decisions involve important strategic considerations. When making decisions (pricing, location of offices, advertising and administrative costs) each firm under oligopoly must carefully consider how its actions affect its rivals and how its rivals are likely to react. Any decision each firm here undertakes will also be considered by others before they also make a decision. The idealised market structure of oligopoly is characterised by the following conditions:

- 1) There are only a few sellers in the market and at least some of which control enough of the market to be able to influence the market price.
- 2) Entry is difficult not restricted.
- 3) Completion not based on price but other marketing factors output, advertising and location.

Monopoly

Pure monopoly: A market that has only one seller and many buyers. Pure monopoly cases are rare, but in near-monopoly markets only a few firms compete with each other. So we better say pure monopoly as a market that has one seller and many buyers is rather highly idealised. This is not to say that it completely does not exit.

Examples of monopoly: We can try to find some examples of near-monopolies if not pure monopolies. For example Microsoft Corporation's dominance in the Personal Computer (PC) operating system can be a good example here. We can also look at an example of local monopoly – where a firm is the only supplier in a given geographical area (however small the area is). In order to understand monopoly, we should note that the firm does not necessarily have to be so big to have monopoly power – it has to be just large in relation to the relevant market. The only pay or cable TV, or dance club, or dance and drama theatre, or even a movie theatre in a small town is also a local monopoly.

Natural monopolies: Economies of scale may make it too costly for more than a few firms to supply the entire market. In some cases, economies of scale may be so large that it is most efficient for a single firm (natural monopoly) to supply the entire market. The minimum efficient scale of the producing firm or unit is large relative to the total market demand. Therefore, we can say that a natural monopoly is a firm that can produce the entire output of the market at a cost that is lower than what it would be if there were many firms.

Conditions of pure monopoly:

- i) There is only one seller and many buyers;
- ii) The good being sold has no close substitutes (This means that buyers must buy from the monopolist or not at all); and
- iii) There are barriers (economic, legal and deliberate) to entry that prevent others firms from entering the market and start to produce the good.



Barriers to entry of firms:

Economic barriers: Economic barriers emanate primarily from the nature of technology used in production. Production technology can be characterised by high fixed costs, size of the market and economies of scale, or network externalities and all this can discourage entry of new firms to compete with the monopolies. First, high fixed costs on entry prevent potential competitors from entering the sector on a small scale and expanding. It means, therefore, that competitors must invest large scale operation at the outset, which may be too risky - and, therefore, most firms do not enter this sector/industry. Second, is the size of the market relative to the minimum efficient scale of the firm. A market may too small for several firms to invest and operate in it efficiently. Therefore, if several firms try to operate in this market, they will incur higher average costs. It is then left to only one firm - the monopolist – to serve efficiently. Only a monopolist who captures the entire market will be able to move further down along the long-run average cost curve, producing efficiently98. Thirdly, there is network externality in production – a property that a particular technology exhibits when it is advantageous to adopt that technology because other economic actors have adopted it99. For example, nearly all PC users have come to use Windows operating systems – giving Microsoft Corporation a big degree of monopolisation 100.

Legal barriers (also called natural barriers to entry): Legal barriers include copyrights (which protect creative works), franchises and concessions (which directly prohibit entry), patents (preventing other firms from using technological innovations – until the patent expires¹⁰¹) and trade marks (which protect brand names). For example, a firm may have a patent on the technology needed to produce a particular item. Until the patent expires, it is impossible for other firms to enter the market. Another natural barrier is the copyright. This, like the patent, is another legally created right that works in the same way as the patent. A copy right can limit the sale of the copyrighted material (a book, music, or a computer software program) to a single company. The government can also give an operator's license to a firm which prevents new firms from entering the market – for some time – and this has mostly been done for telephone services and television broadcasting.

Deliberate Barriers: Deliberate barriers to entry by firms include physical, financial and 'political intimidation' of potential competitors. The monopolist may use both exclusionary practices and predatory pricing to discourage potential competitors. Exclusionary practices are where a monopolist gets its suppliers (example of essential raw materials) to agree not to sell goods or services to potential competitors or distributors to agree not to stock the products of a potential competitor. Predatory pricing is where a seller temporarily sets a price for its goods or services below cost in order to drive weaker competitors out of business.

Political: In developing countries, a monopolist who is well-connected can secure political support that blocks competitors from entering its territory. It can obtain exclusive rights and other companies cannot be licensed in its industry.

Sources of monopoly power

Monopoly power is the ability to set prices above marginal cost. The amount by which price exceeds marginal cost depends on the elasticity facing the firm (the less elastic the firm's demand curve, the more monopoly power that the firm has). The final determinant of the firm's monopoly power is, therefore, the firm's elasticity of demand.

Why do some firms (such a retail supermarket chain) face demand curves that are more elastic than those faced by other firms (such as sellers of designer clothes)?

Let us look at three factors that determine a firm's elasticity of demand:

- i) The elasticity of market demand: this limits the potential for monopoly power. This is because the firm's own demand will be at least as elastic as market demand.
- ii) The number of firms in the market: in the market where there are many firms, it is unlikely that any one firm will be able to affect price significantly.
- iii) The level of interaction and competitive rivalry among the firms in the market: whether there only two or three firms in the market, each will be unable to profitably raise price very much if the rivalry among them is very aggressive (with each firm trying to capture as much of the market as it can).

Profit Maximisation for a Monopolist

As we have already said, the monopolist, as a sole producer of a product, is in the market facing many buyers. It can decide to raise the price of the product and still sell its products. There are no competitors such that when the monopolist raises the prices of its products, the competitors charge lower prices and capture a larger market share at the expense of the monopolist's expense. However, this does not mean that the monopolist can always charge any price it wants; especially if its objective is to maximise profits¹⁰². Higher prices may, for instance, discourage potential customers from purchasing the product. Take the example of a book. It is copyrighted, meaning that only one company in the world sells it. Will it charge US \$1000 per copy and still achieve the profit motive? The answer is No. This is because potential customers will not simply buy the book unless the price is justified.

To maximise profit, the monopolist must first determine its costs and the characteristics of market demand.

Measures to control monopoly

Economies should endeavour to minimise monopoly in the market because they may rip off consumers with high price, yet producing inefficiently. Microsoft was charged with monopoly practices in the US during the 1990s and reached a settlement with the US government, in 2001 to change some of its practices which were creating barriers to market entry.

Measures can include:

- i) Taxation: The government can impose a tax to discourage monopoly practices and to take away part of the abnormal profits
- ii) Anti-monopoly legislation (Anti-trust laws): Laws can be imposed to discourage creation of monopolies (e.g. by some competitor companies merging to form one company that becomes a monopoly). The US has such laws.
- iii) Government can deliberately subsidise companies wishing to enter the market and break the monopoly.
- iv) Nationalisation of monopolies: This is the extreme case where the government, in public interest, can nationalise such enterprises.



- v) Fixing prices of commodities that are being distributed by monopolies: This is again the extreme case where the government, in public interest, can fix prices for the commodities supplied by such enterprises.
- vi) Government operating monopolies that provide basic services. For example, for a long time the UK operated services such as telecoms as monopoly public entities.

Information, Market Failure and the Role of Government

Markets with Asymmetric information: What happens to some parties in the market where some party has more information (about a product or services) than others?

We will continue to state that the market is an efficient allocator in a competitive market when the consumer and producer have perfect information about the possible exchange. However, it is common to find that some party in the market has more information (about a product or services) than others — **asymmetric information**. In most cases, the seller of the product knows more about its quality than the buyers do. It also follows that employees know more about their own skills and abilities than the employers. Asymmetric information explains many of the institutional arrangements in our society. We will look at three situations or arrangements in our society where sellers try to avoid some of the problems associated with asymmetric information by giving buyers potential signals about the quality of their products or services¹⁰³.

- i) It is one reason automobile (motor vehicle dealer) companies offer warranties on parts service for new cars;
- ii) It is also the reason retail stores (on behalf of the manufacturers) offer warranties on parts service for household appliances (fridge, stove or range, washer, dryer, etc.) and
- iii)It is why employees sign contracts that include incentives and rewards.

The implications of asymmetric information about product quality were first analysed by George Akerlof (1970). In his article, "The Market for the 'Lemons," Akerlof used the example of used cars to capture the essence of the problem associated with asymmetric information¹⁰⁴. According to him, in the market, there are new cars and used cars; and there are good cars and bad cars (the bad cars are known as "lemons" in America)¹⁰⁵. A new car may be a good car or a lemon and of course the same is true of used cars¹⁰⁶. However, it is the owner of the car who has more information about it than the prospective buyers. The potential buyer can hire a mechanic to check the car's quality but still the owner will know more about its several aspects of quality and operations (fuel usage, speed, stability on the road during bad weather, etc.).

It is true to say that used cars, markets for insurance, financial credit and employment, among others, are characterised by asymmetric information about product quality.

Implications of Asymmetric Information

Lack of information by the buyers, as we have seen in the case of used cars, can result in market failure in both developed and developing countries. Buyer's lack of good information and this prevents a mutually beneficial exchange between the seller and buyer from occurring.

Asymmetric information is associated with the problem of adverse selection. *Adverse selection* arises when products of different qualities are sold at a single price because buyers are not sufficiently informed to determine the true quality at the time of purchase¹⁰⁷. As a result of this, too much of the low-quality product and so little of the high-quality product are sold in the marketplace. In some cultures and economies, people have made it an adage that "Quality products are never sold in our market" because they have no true information about the quality of the products in their markets.

Market signaling: To minimise the problems associated with asymmetric information, sellers send buyers in some markets signals that convey information about a product's quality. This concept of market signaling was first presented by Michael Spence¹⁰⁸. In the labour market, the employers may send employees signals about the quality of people they want to hire. For example, the employer can state the level of formal education and work experience. Education level can, for example, be measured by several things: number of years of schooling, number of diplomas or degrees, the reputation of the university or college that awarded the diplomas or degrees as well as the grade of the diplomas or degrees. Education can directly or indirectly improve an individual's productivity by providing skills, information and general knowledge that will be helpful at work. We can say, therefore, that education is a useful signal for the kind of the employees that a company is looking for. It is also a useful signal for productivity because more productive people find it much easier to attain higher levels of education¹⁰⁹. Productive people tend to be more intelligent, more motivated, more disciplined, more energetic and hard-working¹¹⁰.

Moral Hazard: This is the possibility that a person's behaviour may change because they have insurance. In general, moral hazard occurs when one party whose actions are unobserved affects the probability of a payment. For example, when my home is fully insured against theft, I may be less diligent about locking the doors when I leave and probably chose not to install an alarm system. Why this behaviour? Because I am confident that if the thieves break-in and steal, I will be compensated by the insurance company, anyway.

Market Failure

The notion of a market failure might be understood as a case where a market fails to satisfy peoples' preferences. It is something that is inherent to the market that causes the market equilibrium allocation to be inefficient. In explaining market failure, Francis Bator (1958)¹¹¹ in his classic article, "The Anatomy of Market Failure", begins as follows:

What is it we mean by "market failure"? Typically, at least in allocation theory, we mean the failure of a more or less idealised system of price-market institutions to sustain "desirable" activities or to estop "undesirable" activities. The desirability of an activity, in turn, is evaluated relative to the solution values of some explicit or implied maximum-welfare problem.

(Bator 1958:351)

Why Markets Fail?

In the absence of conditions for a perfect market, there is likely to be no efficiency in market operations. This means that the market is likely to fail to perform well as the efficient allocator of goods and services in an economy. Generally, competitive markets fail because of four basic reasons: *market power; incomplete information; externalities; and public goods.*

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Market power: Inefficiency arises when a producer or supplier of a factor input has market power. Such a producer may decide to supply at lower than the level of efficiency. Such a producer may, therefore, choose the output quantity at which marginal revenue, rather than price, is equal to marginal cost and sell less output at a price higher than it would charge in a competitive market.

Incomplete information: Information is important to the operations of the market – mainly for consumers to make purchase decisions. If consumers do not have accurate information about market prices or product quality, the market system will not operate efficiently for the consumers. Imperfect information or lack of information about the market conditions, prices and exchanges causes a market failure. This can happen in both developed and developing countries. In less developed countries in Africa, consumers and sellers are most times ignorant about where to buy or sell the product at the right price. Most rural folks in developing countries are paid the lowest prices for their produce because of lack of market information.

Externalities: This is a special type of public goods or public "bad" whose crucial characteristic is that it is generated and received outside the market. Pollution is an externality which is a public "bad". Externalities form part of the external diseconomies and external economies.

Divergence between private and social costs and benefits: Human beings are by nature selfish. They pursue self-interest. Private firms pursue the profit motives of their firms. Profit is the major corporate goal of most private firms. A central proposition in economic theory is that an economic agent (individual or firm) in a market situation will only consider its own private costs and benefits when undertaking market activities or actions. This is to say that the agent is always seeking to maximise its self-interest. In trying to maximise its private benefit or interest, the agent might impose some costs (e.g. pollution or congestion) on other economic agents or the wider community. This will affect social benefit maximisation. In a free market economy with little or no regulation, private firms seeking to maximise private interest may cause social costs to current and future society. For example, the firm's private benefits from the sale of fish can lead to over fishing. This will deny future generations the food of fish.

External costs (diseconomies)	External benefits (economies)
Pollution discharged by nearby factories	Commercial agriculture (bee keeping) benefiting from private gardens of neighbouring households.
Congestion caused by private motorists increasing transport costs for common transport (e.g. buses)	Passers-by enjoying the view and scent of nearby private gardens.

Table 30: Externalities

Public goods: markets undersupply public goods because of being non-excludable and non-rivalrous – the *free rider problem* (already discussed)¹¹². The price mechanism operates well and is an effective allocator of resources under a perfect market. Market imperfections and lack of the requisite infrastructure make the market a poor distributor of goods and services. So, the market mechanism cannot be relied upon when allocating public goods such as roads, ports, harbors, hospitals, public schools, defense and security. Adam Smith, the economist who proposed the invisible hand, was also aware of the possibility that the sellers (left unregulated) would be unfair to the public. He explained that "People of the same trade seldom meet together, even for merriment and diversion, but the conversation ends in a conspiracy against the public or in some contrivance to raise prices"¹¹³. Allocation of a public road should not depend on its economic viability (as the World Bank currently advices). If this is done, it means that areas of a country which do not have economic resources cannot economically gain from good social services since they will not have good public infrastructure.

Correcting Market Failure

Pigovian taxes: Taxes designed to correct negative externalities are often called Pigouvian taxes because it was Arthur Pigou (1920), an English economist, who firsts suggested a tax that would internalise the externality. There are such taxes where the polluter pays (such as environmental taxes or green taxes). In Uganda, East Africa, there is an environmental levy for importing second-hand cars.

Public policy and market failure: The government or the state provides public goods free of charge (roads, railways, hospitals, ports, harbors and public schools, among others). These public goods would not be provided at all if the state did not provide them. This is a classic example of the role of government in promoting the market economy. Public provision of these services replaces the role of the market. The government can also impose a complete ban on goods deemed harmful to society or to local industries. This is not any more encouraged under a globally liberalised trade system supervised by the World Trade Organisation (WTO). Still, there is a lot of protectionism in trade. Countries still tend to impose trade barriers on goods (imports) from other countries.

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PART IV: MACROECONOMICS

INTRODUCTION

Macroeconomics deals with the aggregate behaviour of all individuals in an economy. It is the study of the behaviour of an economy at the aggregate level. It is not the study of the level of a specific subgroups or individuals (which is referred to microeconomics). The main subjects studied under macroeconomics include growth, inflation, unemployment and industrial production, and international trade. Under macroeconomics, economists do study the effect of government policy on these factors.



9 ECONOMIC GROWTH AND ECONOMIC DEVELOPMENT

National Income

Each financial year, government has to calculate total national income. This is the income held by a country in a given fiscal or financial year. It is referred to in most countries as Gross Domestic Product (GDP). In other countries they use Gross National Product (GNP) or Gross National Income (GNI). In this book, we will use GDP.

GDP is a total measure of the flow of goods and services at the market value that have resulted from current formal product or expenditure in a country during the financial year (including net income from abroad). It includes four types of final goods and services:

- i) Consumer goods and services to satisfy immediate needs and wants of the people within a country
- ii) Gross private domestic investment in capital goods. This consists of fixed capital formation, residential construction, and inventories of final and intermediate goods.
- iii)Goods and services provided by government; and
- iv) Net income from abroad (exports minus imports of goods and services)

The following factors should be taken into consideration regarding the concept of GDP:

- 1) Measuring the goods and services for GDP during the year in terms of money at current prices
- 2) When estimating the GDP of the economy, the market price of only final products should be taken into consideration.
- 3) Goods and services provided free of charge should not be included in the calculation of GDP
- 4) Transactions which do not arise from the produce of current year should not be included in GDP
- 5) Profits earned or losses incurred due to changes in capital assets as a result of fluctuations in the market prices are not included in GDP

Three Approaches to measuring GDP

Let us look at the three approaches of estimating GDP.

The income approach: This method adds up all remunerations paid to the people as wages and salaries, rents, net interest, dividends, undistributed corporate profits, taxes, cost of depreciation, and net income earned from abroad.

	Items	US\$
1.	wages and salaries	30
2.	Income from rents	9
3.	Net interest	8
4.	Profits of companies	10
5.	Taxes (direct and indirect)	12
6.	Depreciation	8
7.	Net income earned from abroad (x-m)	23
		100

Table 31: GDP measured using income approach

The expenditure approach: Using this method, GDP is calculated as the sum total of expenditure that has been incurred for goods and services in a country during one year. It includes the following items: private consumption expenditure, government expenditure on goods and services, and net foreign expenditure (value of exports – expenditure on imports).

$$GDP = C+I+G + (x-m)$$

Where: C - Consumption by households or private consumption expenditure

I – Investment expenditure by the private sector

G – Government expenditure on goods and services

(x-m) – Value of exports (x) - expenditure on imports (m)

The value added approach: The money value of final goods and services produced at current prices during the year is considered. This is done so as to avoid double counting.

Difficulties in measuring national income

- 1. National income is always measured in money but there are a number of goods and services that have no direct money value that are excluded. Consider the services provided by mother (a house wife) in raising children which include washing clothes, cooking, taking them to medical facilities for treatment, and shaving them. These services she provides are excluded.
- 2. Possibility of double counting: There is a likelihood of failure to distinguish between final and intermediate goods. There is even difficulty of separating a final good from and intermediate one. For example wheat flour can be used by a household as a final product but when used by a bakery it is an intermediate product.
- 3. Income earned from illegal activities such as drugs, gambling, laundered money, and smuggling are not included in the calculation of national income. Yet some households and individuals enjoy life using money earned from such activities.
- 4. There is a difficulty in estimating money earned in the informal sector (whether they are legal or illegal). There are households and individuals that depend on goods and services that have not been sold in the market. Again the example of the services of a house wife or grandmother providing services to the children in household. There are some households that own land and eat what they have harvested fruits and vegetables, milk, others.
- 5. There is the possibility of wrongly including *transfer payments* in the calculation of national income. Transfer payments refer to a one-way payment of money for which no money, good, or service is received in exchange. Governments use these payments as a way of redistributing income through giving out money under social welfare such as old age, disability pensions, student grants, and unemployment compensation. These payments should be deducted from national income figures.
- 6. Price changes during the year make it difficult to calculate GDP which has to be measured in money.
- 7. Capital gains (or losses) which accrue to the property owners due to an increase or decrease in the value of their capital assets are excluded from GDP because they do not result from current economic activities.
- 8. Several public services are consumed during the year but can not be estimated correctly for GPD calculation. Such services include the police, military, and health.

Economic growth has been defined as the quantitative increase in the volume of goods and services in the economy overtime. Economic growth is a positive change in the level of production of goods and services by a country over a certain period of time. It is often measured as a rate of change in the Growth Domestic Product (GDP) overtime. It can be viewed as either nominal or real economic growth.

Nominal growth can be defined as economic growth (GDP) including inflation. It just looks at the given period's GDP figures without removing inflation.

Real growth is nominal growth minus inflation. It presents the real picture of the economy during a stated period of time. It presents the actual performance of the economy, without inflation. It is real GDP that presents a good picture of economic performance.

Factors for economic growth

The key ingredients for economic growth are capital, labour and productivity. The sources of economic growth are known to be capital accumulation and utilisation, technology and labour productivity. Traditionally, these sources included land. Once ingredients are mixed very well - and with good political leadership - the economy will achieve rapid economic growth. Economic growth is vital and necessary for development. Ultimately, countries aim to achieve development in its varied multidimensionality - economic, political and social.

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All in all, growth is achieved by improvement in productive capacity (or increased productivity) and use of relevant technology, access to the markets for the products produced by the country, enabling environment for doing business (including political stability) and managing of population growth rates. As the experience of China has shown, it is possible to achieve impressive levels of growth (and reduce poverty) in a period of 30 years. Populous China was able to get 300 million people out of absolute poverty within three decades – and to become the world's leading exporter (overtaking Germany in 2009).

To be able to reduce poverty in a country, it is necessary that GDP is increasing at sustained rapid level of growth. It should be persistent not intermittent. Countries trying to boost economic growth need to rethink their population policies. Countries that have achieved high levels of growth have also had their population control strategies – they reduced the rate of population growth. China has had 'One Child' policy (with other negative drawbacks). Japan began to realise high levels of growth during the Meji period – once it had strong population controls strategies. Without population control measures, the benefits of growth may not trickle down. The big numbers, mostly of young dependents, need social amenities – good public health facilities, community centres, schools and so forth.

Generally, during economic growth the following aspects should increase or improve:

- i) There should be an improvement in the utilisation of available natural resources (water resources, land, minerals and forests). Idle resources are not good enough for the growth of the economy. The Democratic Republic of Congo (DRC) is believed to have an estimated US \$22 trillion worth of natural resources. This is what has been estimated observers say that the wealth could be far more than this. Surprisingly, DR Congo is one of the least developed countries, perpetually depending on foreign aid! If economic growth is to be achieved, natural resources have to be exploited in such a manner that it benefits current and future generations. Well-managed activities on the utilisation of natural resources (fishing, farming, mining and lumbering) will help benefit society today and in the future. Poor land use, for example, may leave the soil bare and cause soil erosion. Even the soil may no longer contain nutrients for plans. To improve such land requires fertilizers and mulching where necessary. You can use irrigation and tractors to improve on labour productivity in the agricultural sector.
- ii) There should be an increase in capital accumulation in the economy. Capital can be accumulated through increased savings by individuals, firms and government and accumulation of foreign exchange through more export receipts. We say that public works that help people earn income as construction workers but also add on the stock of roads, railways, harbours, ports and so forth help a country to accumulate physical capital.

- iii) A rise in the numbers of people becoming entrepreneurs (pioneering innovations and inventions locally) and increasing on the number of jobs in the economy. As already mentioned in this book, the reward for entrepreneurship is interest. Interest is earned from an investment (bonds, buildings, rented land, etc.)
- iv) Technical progress inventions and innovations which leads to creation of new products and increases productivity of capital. Better tools and equipment are invented and used to speed up production whether in industry, services or agriculture.
- v) Increasing and improving the quantity and quality of labour through education and skills acquisition, improved health of the labour force through improved working conditions and employment policies.
- vi) There tends to emerge specialisation with skilled trades and professionals focusing on what they have learnt and specialised in. This tends to increase efficiency of factors of production which ultimately results in time saving, improved skills and experience by workers and better products and services on the markets due to the foregoing.
- vii) Economies that are on a path of economic growth necessarily have been seen to experience a reduction in the population growth rate. This reduction is due to family planning. Either people begin to value the quality of their families (health and education) or government puts in place strong population checking policies.
- viii) Markets can be domestic or export markets. Markets should be available to buy the increased number of the products being produced by capital, efficient labour and technology. Without markets, entrepreneurs will be discouraged from investing. With markets, the people invest, earn interest, expand, hire more workers and pay taxes.
 - ix) There will emerge a favourable environment for further growth. A favourable economic environment include stabilising prices, better salaries for workers, a predictable tax regime, improving institutions to protect and promote investors, traders, workers and visitors. There will be improvement in political stability and respect for life. Attitude and beliefs towards work change positively. People love work instead of dependency.

Determinants of economic performance

Investment is the most fundamental determinant of economic growth. Both foreign and domestic investments are vital. FDIs are vital for boosting capital injection and technology transfer in the economy and exports.

Human capital is another source of growth. Because 'human capital' refers principally to workers' acquisition of skills and know-how through education and training, the majority of studies have measured the quality of human capital using proxies related to education (e.g. school-enrolment rates, tests of mathematics and scientific skills, etc.)¹¹⁴. Innovation and R&D activities may influence the rate of growth positively. This is due to increasing use of technology that enables the introduction of new and superior products and processes. Economic policies may influence aspects of the economy through, for example, investment in infrastructure and human capital, improvement of the political and legal institutions that support private sector development.

Macroeconomic conditions are regarded as necessary but not sufficient conditions for economic growth. Generally, a stable macroeconomic environment may favour growth, mainly through reduction of uncertainty, whereas macroeconomic instability may have a negative impact on growth through its effects on productivity and investment (e.g. higher risk). Several macroeconomic factors with impact on growth have been identified in the literature, but considerable attention has been placed on inflation, fiscal policy, budget deficits and tax burdens¹¹⁵.



Openness to trade has been identified by literature as another determinant for economic growth. There is ample literature that has found out that economies that are more open to trade and capital flows have higher GDP per capita and grew faster. Openness is usually measured by the ratio of exports to GDP. There is another measure of openness which seems appropriate and that has been proposed by Sachs and Warner (1995). According to this measure, an economy is considered to be quite open if it satisfies the following five criteria:

- a) average quota and licensing coverage of imports are less than 40%;
- b) average tariff rates are below 40%;
- c) the black market premium is less than 20%;
- d) no extreme controls are imposed on exports; and
- e) the country is not under a socialist regime.

Institutional framework: the role of institutions¹¹⁶ in boosting economic performance have for a long time been acknowledged (since 1955 by Lewis¹¹⁷ and Ayres 1962¹¹⁸). Rodrik (2000)¹¹⁹ has highlighted five key institutions (property rights, regulatory institutions, institutions for macroeconomic stabilisation, institutions for social insurance and institutions for conflict management) which exert direct influence on economic growth and also affect other determinants of growth such as the physical and human capital, investment, technical changes and the economic growth processes. There is a relationship between political factors and economic growth. Political instability will likely increase uncertainty, discouraging investment and eventually hindering economic growth. Countries that have experienced long spells of political instability have also had retarded growth. There are many examples in Africa such as the DRC, Somalia, Central African Republic, and Sudan.

Social capital: this is an important aspect in economics. Trust is what is referred to as social capital. Trusting economies are expected to have stronger incentives to innovate, to accumulate physical capital and to exhibit richer human resources, all of which are conductive to economic growth¹²⁰. A company will attract more cheap finance if it is viewed as credible or trusted.

Social-cultural factors have a bearing on economic growth. Ethnic diversity, in turn, may have a negative impact on growth by reducing trust, increasing polarisation and promoting the adoption of policies that have neutral or even negative effects in terms of growth (Easterly and Levine, 1997¹²¹). There are other social – cultural factors that may have an indirect influence on economic growth. These include ethnic composition and fragmentation, language, religion, beliefs, attitudes and social/ethnic conflicts. With good political leadership, cultural diversity can have a positive effect since it may give rise to a pluralistic environment where cooperation can flourish. But it may have a negative impact on growth due to the emergence of social conflicts caused by feelings of unfair distribution of the 'national cake' by some ethnic groups. This is most common in Africa.

Economic growth versus economic transformation

Some economists working in developing countries show economic transformation as being characterised by three features¹²²:

- i) The structure of the economy changes depicting an increase in the share of manufacturing coupled with a sustained decline in the share of agriculture;
- ii) The share of agriculture employment falls while the share of total labour force in other sectors of the economy increases; and
- iii) Economic activity shifts from rural areas to the cities, leading to an increase in the degree of urbanisation.

An economy can experience growth without transformation but once it has economic transformation, it also grows at the same time. While you can have growth without economic transformation, you can never have economic transformation without growth ¹²³. Agricultural reform and expanded investment in rural infrastructure can provide the basis for economic transformation. China did it and it became the basis for economic transformation and poverty reduction.

Experience shows that for agriculture based economies, economic transformation begins with reforms in agriculture in order to raise productivity. This was the experience of South Africa in the 1950s and early 1960s and China in the late 1970s (after China embraced market friendly policies). Economist Schultz (1978)¹²⁴ has argued that productivity-led agricultural growth is more important for economic transformation than simply sending "surplus" labour to urban industry.

The quality of basic education is also important in achieving inclusive growth rather than merely economic growth. Quality (not merely quantity) of education is important. A country does not need to have youth who are both unemployed and also unemployable.

Vocational and technical education are thus necessary to economic transformation.

There is also the need to organise and link the domestic economy to the global value chains. To export. To realise more exports requires that there are quantities with the required quality, improvements in product design, marketing, and logistics.

Attracting and retaining FDIs is important because of the technology and capital that they bring into the country.

Above all, the state must play the role of formulating policies and promoting private sector development. The need for public institutions to support the private sector as it grows is important. Such institutions include investment and export promotion agencies as well as the Justice, Law and Order Sector (JLOS) institutions.

In Africa, selective support to loyalist members of the private sector and obstructing the market is common. This is bad because it distorts the markets. It is generally recognised by economists and other development experts that markets suffer failure because of lack of information by all players. It is, however, important for government to ensure that state interventions are temporary and that the regulatory framework does not hinder the private sector.

Theories and stages of economic growth

In 1960, Rostow wrote "The Stages of Economic Growth" 125 and identified 5 stages of economic growth. Let us look at them.



Stage	Comment	
Stage 1: Traditional Society (based on pre-Newtonian attitudes)	 Economy dominated by subsistence agriculture Output is consumed by producers – and not traded. Family and clan connections played a large role in social organisation 	
Stage 2: Preconditions for Take-off (Transitional Stage)	 Society, because of education, reduces the degree of traditional ways of life¹²⁶ and there is change of attitude. Banks and other institutions for mobilizing capital appear. Entrepreneurs emerge (as Rostow puts it: New types of enterprising men come forward – in the private economy, in government, or both – willing to mobilise savings and to take risks in pursuit of profit or modernization)¹²⁷ Traditional society persists side by side with modern economic activities 	
Stage 3: Take-off According to Rostow, the take-off of Britain happened after 1783; France and the United States before 1860; Germany in the 3 rd quarter of the 19 th century; Japan in 4 th quarter of the 19 th century; Russia and Canada before 1914; India and China in 1950s ¹²⁸	 Changes in the social, political and institutional framework. There is a surge of technological development in industry and agriculture New industries expand rapidly; and there emerges the services sector to support them; a further expansion in urban areas and in other modern industrial plants¹²⁹. Agriculture is commercialized – and agriculture productivity rises. 	
Stage 4: Drive to Maturity	 A long interval of sustained progress 10–20% of the national income steadily invested. More improvement in technology in new industries The economy engages in international trade. Import-substitutions (goods formerly imported are produced at home). 	

• Stage 5: High Mass Consumption	Very high figures of GNP Leading sectors shift towards durable consumers' goods and services More working population in offices or skilled factory jobs; and there is increased proportion of urban to total population. Societies allocate more resources to social welfare and security.
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Table 32: Rostow Stages of Growth 126

Source: Adapted from Rostow, W.W., (1960). The Stages of Economic Growth, Chapter 2: Cambridge University Press.

Some comments about Rostow's model

He assumed that an economy takes between 20 years and 40 years to develop from Take-Off to Maturity¹³⁰. This may not be the case for all economies. China, for example, has achieved high levels of growth within a span of 30 years – becoming the major exporter and getting 300 million people out of poverty. These stages may help us to develop a theoretical basis for understanding economic growth process but in reality countries do not follow them. Other than the developed countries, some countries seem to not develop as prescribed by Rostow. There is the emerging argument that the key examples that Rostow uses, Britain and USA were developed originally by free slave labour and discrimination. The great grand-children of the slaves (whose grandparents provided free labour to achieve economic growth in Britain and USA) are still among the poorest, unemployed and discriminated in modern Britain and USA. In 2012, USA had around 45 million poor people, mostly African-Americans.

Benefits of economic growth

There are several benefits in an economy that has achieved high level levels of sustained rapid economic growth.

- i) Increase in material prosperity with a lot of choices for consumers, services, capital goods and so forth.
- ii) With availability of goods and services giving consumers choice, the general price level is likely to stabilise. The economy's currency is likely to gain value as the rising general price level (inflation) affects the value of a currency. To say it strictly, developed countries tend to have strong currencies UK, USA, Germany, France, etc.
- iii) There is a possible increase in levels of employment due to increasing levels of investment.

- iv) There is likely to be an improvement in the BOP positions (a favourable trade balance) as there is increased production for exports.
- v) Increase in government revenue due to the wide tax base that captures more tax revenue.
- vi) Generally, there is increased life expectancy for people reduced mortality rates because of availability of people who are educated and informed and about diseases and there are better health services.
- vii) Retrogressive traditional cultures disappear and people enter the globalised world using gadgets that are used in other parts of the globe (cell phone; computers; cameras; etc).
- viii) Finally, democracy begins to emerge autocratic leaders get repressed by progressive ones as the middle class demand better service delivery from their governments.



Middle class: Was first defined by the sociologist, Wright C. Mills, 1951, in his book – White Collar. He looked at the middle class – the usually college-educated, deskbound employees of a newly technocratic corporate economy. Later, the definition was extended to include blue-collar workers who were earning big and had solid incomes because of a booming post-Second World War industrialisation and better bargaining power of the unions for their members to benefit from the industrial economy. The middle class is important as employees and a market of consumers. We will define the global middle class using Kharas and Gertz (2010:3)¹³¹ as "those households with daily expenditures between US\$10 and US\$100 per person in purchasing power parity terms". They prefer quality and produce few children because of their understanding of the economics of raising children and managing a family.

The poor unfortunately produce more. In Africa, among others, they produce more children as insurance – so that when others die some may remain. We note that the middle class in Asia is predicated to increase from 500 million to 3.2 billion within twenty years; as North America and Europe share drops¹³². For example, since 2010 almost all the South Koreans have been in the middle class¹³³. This gives a fair distribution of income in this economy.

In 2015, the share of the US income held by the middle class was 43 percent; 49 percent held by the upper class; and the lower class only held 9 percent¹³⁴.

Costs of economic growth

There are some costs that society faces during the process of economic growth.

- i. Households have to forego current consumption in order to save and later invest;
- ii. More people have to forego leisure as growth requires hard work; and
- iii. What people traditionally used to cherish (such as big families in Africa and Asia) begin to disappear.

Human Development Index (HDI): To overcome the deficiencies of GDP as a measure of welfare, the United Nations has developed the Human Development Index (HDI) – that combines data on life expectancy, years of schooling and income per capita in order to give a broader measure of a country's development. There has emerged a recent school of thought: that instead of using GDP as a measure of wealth, use the happiness rate. That it is better to ask people how happy they feel. People in richer countries are more likely to report themselves as happy. We can deduce that there is a relatively close link between happiness and income. Based on the World Happiness Index 2013, there are no African countries between the ranks of position 1 to position 60¹³⁵. Even with the Prosperity Index, there are no African countries between position 1 and position 75¹³⁶. The prosperity index looks at such variables as entrepreneurship, health, security, freedom and governance.

Economic development refers the qualitative and quantitative increase in the level of goods and services in a country during a given period of time. Economic development¹³⁷ is a process whereby an economy's real national income as well as per capita income increases over a long period of time. It includes changes in resource supplies, in the rate of capital formation, in demographic composition, technology, skills and efficiency as well as in institutional and organisational set-up. It also implies respective changes in the structure of demand for goods, in the level and pattern of income distribution, in size and composition of population, in consumption habits and living standards and in the pattern of social relationships and religious dogmas, ideas and institutions. It, therefore, does not only consider quantities produced in the economy for a given period but it also considers the quality of the goods and the quality of life. Economists can measure economic development using *real GDP per capita income* or by *measuring the increases in things that improve quality of life for human beings* (medical care, shelter, food, clothing, education and so forth). Economic development is about more than just economic growth; as it as we state below:

- i) It is achieved after a very longer period of time than economic growth. It may sometimes take a century for a country to achieve economic development.
- ii) It considers the distribution of GDP and efforts to reduce poverty, inequality and unemployment.
- iii)It considers the type and quality of things that people want and demand and improvements in the technology used (and methods) to make them.
- iv) It considers the improvements in the quality of life and happiness. People in richer countries are more likely to report themselves as happy. We can deduce that there is a relatively close link between happiness and income. Based on the World Happiness Index 2013, there are no African countries between the ranks of position 1 to position 60¹³⁸. Most Africans can generally be regarded as mostly unhappy because of their low levels of income. Most of these the countries in Sub Saharan Africa (SSA) are least developed and, therefore, with high levels of absolute poverty.
- v) It considers improvements in economic institutions and economic organisation. It is also concerned with other institutions (political or otherwise) that support growth: judiciary; police; and so forth.
- vi) In modern economics, economic development considers the cost-benefits scenario arising from activities geared to economic growth (e.g. pollution, noise from many vehicles, traffic jams and so forth).

Underdevelopment and Poverty in Developing Countries

Underdevelopment: We have already said that sustained and rapid economic growth enhances economic development. Developed countries went through long periods of economic growth before they achieved economic development. Underdevelopment refers to a situation where a country has not yet utilised its resources (natural, human, time, etc.) efficiently and effectively – and, as a result, the country's per capita income is low. Underdeveloped countries are usually commonly referred to as least developed, third world, developing countries or low income countries. Two-thirds of the world's least developed countries are found in Africa.

Characteristics of underdeveloped countries

These countries have similar characteristics. We look at them here.

- i) Viscous cycles of poverty where persistent absolute poverty is caused by low incomes that lead to low savings which too lead to low levels of investment and low levels of capital accumulation which result in low incomes. It is a cycle of poverty.
- ii) Low levels of living which are manifested quantitatively and qualitatively in the form of low income (poverty), inadequate housing, poor health, limited education, high infant mortality, low life and work expectancies and in many cases a general sense of malaise and hopelessness¹³⁹.



- iii) High rates of population growth causing high levels of dependency burden: More than five-sixths of the world's population lives in less developed countries and less than one-sixth in developed nations¹⁴⁰.
- iv) Low levels of productivity caused by, among others, the technology used, levels of education and skills, inadequate managerial competence, access to information, worker motivation and institutional flexibility. These countries have high birthrates and high death rates. Birthrate is referred to *as crude birthrate* the yearly number of live births per 1000 population¹⁴¹. These countries have high birthrates (above 20 per 1000 while no developed nation has a birth rate above 20 per 1000)¹⁴².
- v) Low levels of education and high illiteracy rates: Despite attempts by least developed countries to provide universal education to primary and post primary education, there are still low levels of literacy in these countries. The drop-out rates are still high and the drop outs cannot be described as literate.
- vi) Most people in these countries depend substantially on agricultural production and primary products as exports. Agriculture is mainly subsistence and with limited commercial farming. While only 27 percent of people in developed countries live in rural areas, in Less Developed Countries (LDCs) this number is over 60 percent. Only 5 percent of people in developed countries depend on agriculture yet in LDCs this is around 60 percent¹⁴³.
- vii) They have less developed domestic markets with high levels of limited information. Due to lack of good roads, railways and limited access to market information, most people in rural areas sell their produce immediately after harvest in local markets attracting low price.
- viii) There is too much dependence on and dominance by the donor countries which causes a lot of vulnerability in international relations. Donors and recipients rarely sit around the same table and enjoy cordial equal level relations. In most cases, policies and laws of the recipient countries are influenced (or we use the word 'dictated'?) by the donors.
 - ix) Political instability: Most of these countries have experienced political turmoil, conflicts or war. For example, between 1946 and 2014, more than 45 of the 54 African countries had experienced some form of coup d'état¹⁴⁴. These countries had also experience several internal conflicts, political turmoil and even fully-blown wars.
- x) High levels of underemployment and unemployment: Due to low levels of saving and later investment there are bound to be fewer enterprises without ample jobs. Even the government, because of its poor economic performance, cannot absorb more people as employees. In these countries, those who have jobs are underemployed, underpaid and in most cases without formal contracts.

The main characteristics of developed countries:

- i) High rate of capital formation;
- ii) The industrial sector is significant;
- iii)The services sector is also bigger than agriculture sector;
- iv) Low population growth rates; and
- v) Use of high production technologies and high skills.

Poverty in Developing Countries

Poverty has been defined variously by experts. The United Nations (UN), the World Bank and country specific definitions have been presented. Three ways to measure poverty have also been presented.

Meaning of Poverty: According to the World Bank, poverty means the inability to attain a minimal standard of living. According the UN, it means the denial of choices and opportunities that are basic to human development, reflected in a short life, lack of basic education, lack of material means, exclusion and a lack of freedom and dignity. Some Governments in developing countries have viewed poverty as powerless. For example, the Government of Uganda defines poverty as "as low incomes, limited human development, and powerlessness" (PEAP 2004). Poverty is hunger; lack of shelter; being sick and not being able to see a doctor; not being able to go to school and not knowing how to read; not having a job; fear for the future, living one day at a time; losing a child to illness brought about by unclean water; powerlessness and lack of representation and freedom.

The UN distinguishes between human and income poverty:

Human poverty takes into account other factors, such as life expectancy, infant malnutrition, illiteracy and lack of food or clean water. Basic needs definition also goes beyond money, to include all the things that a person needs in order to survive – including employment and participation in society. Human poverty implies deprivations of a long and healthy life, knowledge, a decent standard of living. It means denial of choices and opportunities most basic to human development, reflected in a short life, lack of basic education, lack of material means, exclusion and a lack of freedom and dignity. There is income poverty, absolute poverty and relative poverty.

Income poverty means that you are poor if you have less money than the defined poverty line for your country. Individuals have little or no money to spend on essentials such as food. There are two types of income poverty: absolute poverty and relative poverty.

Absolute poverty is defined according to an absolute minimum standard, which is often called the 'poverty line'. Absolute is used here to indicate a fixed and minimum set of basic resources which all individuals are said to require in order to physically sustaining life. Absolute poverty refers to an income level below what is necessary to meet basic needs. The UN measure for absolute poverty is USD 1 per day. The absolute poverty line is set in terms of a particular living standard, defined in a common currency and held constant for all countries and regions. If the basic needs are not available – housing, food, clothing and water, then one is said to be 'absolutely poor'. According to Robert Chambers (1983, 1994, 1995)¹⁴⁵, the poor are "weak, powerless and isolated; they are often reluctant to push themselves forward".

Relative Poverty: This is basically a comparison of different levels of income. It varies with per capita income. A relative poverty line is different in all countries. High-income countries have a higher poverty line than low-income countries.

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The Poverty Line: The UN defines poverty as not living on US \$1 a day. The World Bank has raised it from US\$ 1 a day to US \$1.25 per day. Let us get a practical explanation of the poverty line from Uganda. In Uganda, poverty is determined based on the national poverty line (the poverty headcount measure), not the UN US \$1 a day. The national poverty line is the cost of obtaining 3000 calories per day using the food basket of the poorest 50 percent of Ugandans at 1993 prices. Non-food requirements are estimated as the non-food spending of those households whose total consumption is just equal to the food poverty line. The rationale for this is that if households are sacrificing the food expenditure needed to meet calorie requirements for non-food spending, then this non-food spending must be considered vital.

Causes of Poverty in Sub-Saharan Africa

Internal Causes of Poverty: The main causes of poverty in Sub-Saharan Africa include corruption, poor methods of farming and production, poor education, poor infrastructure, lack of production and marketing information and advice, poor national planning and resource allocation, wars and internal conflicts¹⁴⁶. For example the history of lack of resources has subjected families to chronic poverty – with no hope of ever earning income.

External Causes of Poverty: Poverty in Sub-Saharan Africa is also caused by external factors which include unfair trade rules under the WTO¹⁴⁷ and bilateral arrangements, unending debt and amortizations, unfair aid terms and conditionality, "lip service" or ignoring the plight of the poor by developed countries. Take the example of subsidies and unfair trade terms¹⁴⁸. Developed countries have subsidies to give to producers and farmers and exporters – what is termed domestic support and export subsidies¹⁴⁹. Domestic support and export subsidies make EU, US exports cheaper and hence out competing domestic goods in Latin America, and parts of Asia and indeed other countries. Two examples will suffice: In 2005, 20,000 cotton farmers in the US received government payments equivalent to the market value of the crop and more than US Aid to Sub-Saharan Africa (HDR 2005). In the recent times, in the EU, a farmer has been getting Euro 1.6 (US \$3) per day per cow as domestic or farm support under EU CAP. Is not this more than twice the UN measure of poverty, i.e. 1 US\$ a day!

The champagne glass model of global poverty

The Champagne glass effect – the global distribution of income: the less developed countries' situation has similarities with the global distribution of income. Global income distribution resembles a champagne glass¹⁵⁰. At the top, where the glass is widest, the richest 20 percent of the population hold three-quarters of the world income. At the bottom of the stem, where the glass is narrowest, the poorest 40 percent hold 5 percent of world income and the poorest 20 percent hold just 1.5 percent. The poorest 40 percent roughly corresponds to the 2 billion people living on less than \$2 a day.

10 POPULATION, UNEMPLOYMENT AND THE LABOUR MARKET

The world currently (in 2014) has a total of 7.18 billion people with china at 1.36 billion, India at 1.24 billion, USA at 318.8 million and Africa with a combined total of 1.26 billion people¹⁵¹.

Key concepts

- 1. Total fertility rate: the average number of children a woman would have, assuming that current age-specific birthrates remain constant throughout her child-bearing years that is, 15–49 years of age)¹⁵²
- 2. Population growth rate: The rate of population increase is measured quantitatively as a percentage yearly net relative increase (or decrease) in population size due to natural increase and net migration¹⁵³. Natural increase in population measures the excess of births over deaths (that is the difference between fertility and mortality).
- 3. Youth dependency ratio: The proportion of youths (under age 15) to economically active adults (ages 15 to 64).
- 4. Birth rate: Number of live births per 1000 population in a year.
- 5. Death rate: Number of deaths per 1000 population in a year.

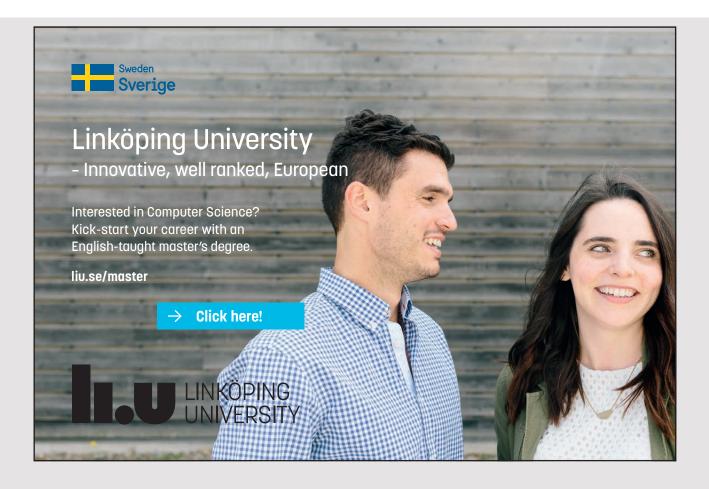
Demographic transition and demographic dividend

Demographic transition refers to the process by which fertility rates eventually decline to replacement levels¹⁵⁴. Todaro and Smith (2003) state that *demographic transition* has three stages that the populations of almost all contemporary developed nations went through to current levels.

Stage	
Stage 1:	For centuries, before their economic modernization, these countries had stable or very slow growing populations as a result of a combination of high birthrates and high death rates ¹⁵⁵ .
Stage 2:	Occurred when modernization started, with better public health methods, healthier diets, higher incomes and other improvements led to a huge reduction in mortality that gradually raised life expectancy from under 40 years to over 60 years. However, the decline in the death rates was not immediately followed by fertility ¹⁵⁶ .
Stage 3:	Starts when the forces and influences of modernization and development caused the beginning of a decline of fertility and eventually falling birthrates converged with lower death rates – living little or no population growth ¹⁵⁷ .

Table 33: Demographic transition 155

The 'Demographic dividend' has been identified as important for growth. Demographic dividend is defined as a rise in the rate of economic growth as a result of a rising share of working age people in a population. This situation occurs with a falling birth rate and the consequent shift in the age structure of the population towards adult working ages. It is commonly viewed as a demographic gift or bonus and demographic window. Bloom and Canning (2000)¹⁵⁸ describe the "Demographic dividend as "the transition from high to low rates of mortality and fertility has been dramatic and rapid in many developing countries in recent decades. Mortality declines concentrated among infants and children typically initiate the transition and trigger subsequent declines in fertility. An initial surge in the numbers of young dependents gradually gives way to an increase in the proportion of the population that is of working age" Bloom and Canning (2000:1207)¹⁵⁹.



However, a population that is vital for enhancing growth and productivity – as a demographic dividend – is a 'quality' population. One that is educated, skilled and healthy. A healthy population will work hard because they know that living long requires more savings (postponed current consumption). Bloom and Canning $(2000)^{160}$ write that better health results in greater income in future. With regard to productivity, healthier populations tend to have higher labour productivity because their workers are physically more energetic and mentally more robust (Bloom and Canning $2000:1207)^{161}$. Health is an important form of human capital. It can enhance workers' productivity by increasing their physical capacities, such as strength and endurance, as well as their mental capacities, such as cognitive functioning and reasoning ability (Bloom and Canning $2005:2)^{162}$.

Theories and Models of Population Growth

The Malthusian Population Trap: The English clergyman, Reverend Thomas Malthus (1766–1834) – writing in 1798 in his *Essay on the Principle of Population* – feared that man's capacity to produce children was higher than his capacity to provide for them. He postulated a universal tendency for the population of a country, unless checked by dwindling food supplies, to grow at a geometric rate, doubling every 30 to 40 years while land and food supplies could only expand at an arithmetic rate¹⁶³. Due to the diminishing returns, to a fixed factor, land and food supplies are expected to expand at an arithmetic rate. We should also note that using mainly menial labour, there comes a time when a human being loses the capability to till the land and provide food for his big family. Because the growth in food supplies cannot keep pace with the expanding population, per capita food production will have a tendency to fall so low beyond the subsistence level. This would result in absolute poverty for the family which fails to subsist. According to Malthus, the only way to avoid this situation of chronic low levels of living was that people should engage in 'moral restraint' and limit the number of the children they produce. This is to say that there was need for family planning.

Malthus looked at what he called *preventive* and *negative* checks: To rise above subsistence levels of per capita income (which is can be defined as per capita food production in agrarian society), poor nations or poor families should initiate *preventive checks* (such as birth control) of the population. If preventive checks are not done, then negative checks (starvation, diseases, and wars) will inevitably happen as a restraining force on population expansion.

Criticism of the Malthusian model

The Malthusian Population Trap provides a theory on the relationship between population growth and economic development but, because it is based on a number of simplistic assumptions and hypotheses, it has failed empirical verification. This theory completely ignores the impact of technological progress in influencing the growth inhibiting factors of rapid population growth. Malthus bases his theory and conclusions on the limited supply of land. However, technology has been able to raise the quality or productivity of available land – although the quantity of land has remained the same. It is now possible, too, to increase the quantity produced per hectare and improved the quality of the produce using fertilizers, improved seeds and good post-harvest handling practices. With markets (domestic and exports markets) it is possible to get better prices.

Malthus also assumes a direct and positive relationship between a country's population increase and the level of national per capita income. Based on research in LDCs, it has been found that there is no clear correlation between population growth rates and the level of per capita income¹⁶⁴. The theory should have used the family's decision on the number of children. It is the decisions of the family (husband and wife) on the number of children they need – subject to the budget constraint – that ultimately influences family sizes and the total national population. Except in China, with One-Child Policy which is so radical, the government rarely determines the numbers of children a family will have. We note that China recently lessened this policy and currently there are some families with more than one child.

Labour Force

We should note at the outset that not every person of the working-age in the population of any given country is in the labour market — or looking for jobs. Some will be taking full-time educational courses, some will be sick or simply not wanting a job (those who remain at home raising children or caring for their relatives) and others will be institutionalised (such as those in jail). The remaining part of the working-age group — those willing and able to work — make up what we refer to as the *labour force*. The labour force is composed of those who have a job (the employed) and those who are able and willing to work but currently do not have a job (the unemployed). The employment rate refers to the percentage (or proportion) of the labour force that is currently having a job. Unemployment rate is the percentage of the labour force without a job.

Causes of unemployment in Sub-Saharan Africa and Latin American Countries

- i) Few industries;
- ii) Poor skills to march required jobs in industries and services;
- iii) Agriculture not attractive to the youth;
- iv) Wars and conflicts;
- v) Corruption, nepotism and other forms of job discrimination;
- vi) FDI bringing in staff from their home countries;
- vii) Poor agricultural productivity; and
- viii) High cost of credit from commercial banks discouraging entrepreneurs from investment

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11 INTERNATIONAL TRADE

Domestic trade	Exchange of goods and services within one country's international boundaries/borders.	
International trade	Exchange of goods and services across international boundaries/borders.	
Tradable and non-tradable goods	 Tradable goods and services that can be sold in another location distant from where they are produced (e.g. oil products). Non-tradable goods and services that cannot be sold in another location distant from where they are produced (e.g. housing, real estate, construction, hotel accommodation, all public services, local transportation, haircuts and dry cleaning)¹⁶⁵. 	
	The key element that distinguishes tradable and non-tradable is where the price of the good or service is determined. If price is determined in the world market, the good or service is considered tradable. If price is setting takes place by the forces of supply and demand in the local market, a good or service is considered non-tradable.	

International Trade: Refers to the buying and selling of goods and services between and among countries. When goods or services are bought from another country, this is called import trade. The reverse is export trade. Trade in goods is referred to as visible trade while that of services is called invisible trade.

Import trade	Buying of goods and services from another country	
Export trade	Selling of goods and services to another country	
Visible trade	Trade in goods	
Invisible trade	Trade in services	

The theory of comparative advantage: International trade helps to produce and increase world output because it allows each country to specialise in producing the good in which it has a comparative advantage. The theory of comparative advantage was first presented by David Ricardo. A country has a comparative advantage in producing a good if the opportunity cost of producing that good in terms of other goods is lower in that country than it is in other countries of in which it has a comparative advantage both countries if each country exports the goods in which it has a comparative advantage of other goods. Is this true? It is a statement of the possibility, not of what actually happens in the real world. In the real world, there is no central authority deciding which country should produce roses and which one should produce computers. Nor is there anyone handing out roses and computers to consumers in both places. Instead, international production and trade is determined in the marketplace where 'supply and demand' rule of the production and trade is determined in the marketplace where 'supply and demand' rule of the production and trade is determined in the marketplace where 'supply and demand' rule of the production and trade is determined in the marketplace where 'supply and demand' rule of the production and trade is determined in the marketplace where 'supply and demand' rule of the production and trade is determined in the marketplace where 'supply and demand' rule of the production and trade is determined in the marketplace where 'supply and demand' rule of the production and trade is determined in the marketplace where 'supply and demand' rule of the production and trade is determined in the marketplace where 'supply and demand' rule of the production and trade is determined in the marketplace where 'supply and demand' rule of the production and trade is determined in the production and trade is determined to the production and trade is determined to the production and trade is determined to the product

Criticism of the theory of comparative advantage

The theory of comparative advantage states that all countries engaged in trade can benefit from trade. It does not, however, imply the following:

- 1) Under comparative advantage all countries gain from trade but not that all countries become wealthy. The standard of living in a country depends on its absolute productivity the more productive a country is compared with another the better the standard of living.
- 2) While two countries engaged in trade do benefit it, they do not benefit equally. For example, the greater the price of cut flowers is in world trade, the greater the gains for cut flower exporters (such Kenya, Uganda, Zambia and Zimbabwe).
- 3) Under comparative advantage, a country gains from trade in the aggregate and; it does not say that every citizen benefits.
- 4) According to Krugman and Obstfeld (2003)¹⁶⁹, there is a temptation to suppose that the ability to export a good depends on your country having an absolute advantage in productivity, yet an absolute productivity advantage over other countries in producing a good is neither a necessary nor a sufficient condition for having a comparative advantage in that good. They continue to state that the competitive advantage of an industry depends not only on its productivity relative to the foreign industry, but also on the domestic wage rate relative to the foreign wage rate. A country's wage rate, in turn, depends on relative productivity in its other industries¹⁷⁰.
- 5) Comparative advantage does not take into account the need for diversification and self-reliance (which tends to disagree with the principle of specialisation) where a country should aim to produce most of its domestic market requirements.

- 6) It assumes the practice of free trade in the world yet in the real world there are trade restrictions with trade barriers. Most markets do not easily allow trade and countries are always in endless meetings negotiating trade arrangements. Trade negotiations are not mainly for the developing, and countries in Africa, Latin America, and Asia. The EU and USA, for instance, have negotiated more trade agreements than any country on the globe. They, too, are looking for markets.
- 7) The opportunity cost of producing a product and exporting it should not ignore the costs associated with ensuring that the product reaches the market. If it ignores such costs as transport, other logistics and handling that influence the benefits from international trade, then it is not relevant and applicable to the situation of landlocked developing countries in Africa.
- 8) It is possible for a country to have absolute advantage in more than one product. Such a country should not necessarily focus only on one product.

The theory of absolute Advantage: A country should have one or more products it produces more efficiently (at less input costs) than anyone else. There has been a tendency to confuse *comparative advantage* with *absolute Advantage*. According to Krugman and Obstfeld (2003), it is comparative, not absolute, advantage that determines who will and should produce a good¹⁷¹.



Endogenous Advantage: International trade has always had its beginning on the premise that many goods are traded because they are unavailable from local production. Endogenous advantage arises from economic interaction of nations. This advantage usually co-exists with comparative advantage. Endogenous advantage results from economies of scale. Economies of scale can lead production of more quantities of an item at a lower cost. The country that has companies enjoying economies of scale will end up realising low prices. This has positive indicators for economic growth.

Case for and against international trade

Several researchers and authors have written about the case for and against trade. Some have even called for import substitution (produce what you have been importing). Let us look at the benefits or case for international trade.

Benefits of international trade

- i) Enables a country to get what they cannot produce, either due to, among others, seasonal or geographical factors. The USA, for example, that has a growing share of the market for winter roses is supplied by imports flown in from South America¹⁷². USA will also supply to South America what that region does not produce.
- ii) Enables a country sell what it produces but does not consume domestically. Uganda, Kenya and Zimbabwe, for example, produce rose flowers but they do not have a big domestic market and so they export them to other countries mainly via the *Dutch auction market* in the Netherlands.
- iii)Opportunity Cost: In order to produce the winter roses, the USA will have to produce less of other goods such cars or computers. Instead of the USA producing roses during winter, it can produce more computers and sell in different countries. This is the opportunity that a country can enjoy in international trade. The opportunity cost of roses in terms of computers is the number of computers that could have been produced with the resources used to produce a given number of roses¹⁷³.
- iv) Increasing employment opportunities: new job opportunities can be created in industries producing for export and associated services firms (transport, handling, etc.)
- v) It provides a market for the surplus production over a country's total domestic consumption. What cannot be purchased and consumed domestically can be exported.
- vi) Increases trade taxes: It generates government revenue in form of export and import duties.
- vii) Widened consumers' choice: International trade enables consumers in one country to get a variety of goods to choose from. This variety is composed of local and imported goods.
- viii) Covers domestic shortages: During a crisis (after war or natural disaster), the country can obtain imported goods to cover the shortage of the total domestic consumption.

- ix) Involves exchange of ideas and values: International trade, though mainly associated with exchange of goods, also involves exchange of ideas and values by different parties involved in trade.
- x) Promotes competition and improves the quality of goods consumed in a country: Domestic industries strive to improve on the quality of their goods to match the standard of imports.
- xi) Generates foreign exchange: International trade, particularly exporting, is a way of generating the much needed foreign exchange that may be used to import what a country does not produce. In most developing countries which mostly depend on export of cheap agricultural raw products, there is a lot of dependency on foreign aid. In this case, more exports would help reduce donor dependency.
- xii) Reduces the risk of war between countries: this is a long run claim by people such as Montesquieu and Immanuel Kant. Montesquieu (1748, The Spirit of the Laws) argues that 'commerce cures destructive prejudices'. Immanuel Kant (1724–1804) argued that sustainable peace could be built on a combination of democracy, international organisations and economic interdependence. The argument is that you do not fight the country that is buying products; and therefore providing you foreign exchange, jobs and incomes.

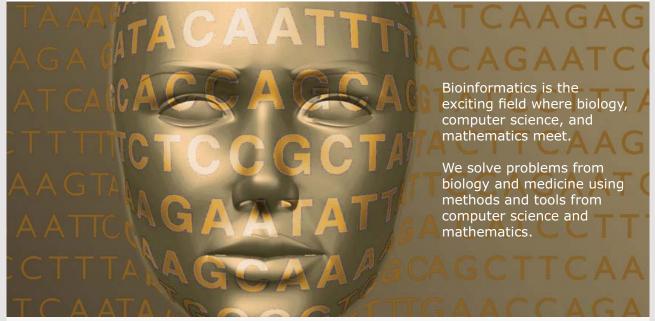
The Case against international trade: Arguments for trade restrictions/ protectionism

- 1) Adversely affects owners of resources: International trade can adversely affect the owners of resources that are 'specific' to industries that compete with inputs, i.e. cannot find alternative employment in other industries (Krugman and Obstfeld, 2003)¹⁷⁴.
- 2) Alters distribution of income: Trade can also alter the distribution of income between broad groups, such as workers and owners of capital.
- 3) Protection of infant industries: This is the argument that has, for long, dominated public policy where the domestic private sector seeks protection from imports competitions. They want to be given subsidies or to levy high taxes on imports and this may result in these industries being less efficient. All industries need are good roads, railways, constant supply of power, supply of raw materials and skilled manpower,
- 4) Promotes dumping: There is the argument that countries, especially developed nations, sell their commodities in poor countries at a price lower than that charged at home. Dumping makes domestically produced commodities less competitive after all they are not of the same quality. Imports from these countries tend to be of superior quality.
- 5) Loses employment opportunities: When a country imports a finished product, it means that it has lost jobs that should have gone to its people. The argument is that these imports should be produced locally hence creating employment. This is also related to Import-Substitution argument where goods that were being imported are produced by local industries.

- 6) Source of government revenue: Free trade, where taxes on imports are eliminated, denies the country revenue from taxes. Yet the country needs funds to run government and ensure service delivery.
- 7) Imports inflation: If goods are imported from a country facing high inflation levels, the inflation level in the importing country will also rise. The importing country can, therefore, only control its level of inflation by restricting import of such goods.
- 8) Promotes foreign aid dependency: The more the country exports and earns more foreign exchange, the better for those countries with regard to reducing donor dependency.
- 9) National welfare arguments against free trade: According to Krugman and Obstfeld (2003), most tariffs, import quotas and other trade policy measures are undertaken primarily to protect the income of particular interest groups. It is true to argue that though this is always the case, sometimes politicians put in place certain trade policy measures which are in the interest of the nation as a whole.
- 10) The terms of trade argument against free trade: However, the terms of trade argument against free trade has some limitations. Most small countries have very little ability to affect the world prices of either their imports or exports. In practice, the terms of trade argument is rarely used by governments as a justification for trade policy.



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Trade Restrictions (or protectionism?)

Tariff and non-tariff barriers: A tariff, which is the simplest form of trade policy, is a tax levied when a good is imported. There are two (2) types of tariffs:

- i) Specific tariffs which are levied as a fixed charge for each unit of goods imported. For example \$10 per 50kg of sugar
- ii) Ad Valorem taxes which are taxes levied as a percentage of the value of the imported goods. For example a 10% tariff that country × levies on imported sugar.

Many researchers on trade effects have argued that there is no free trade in this world. Krugman and Obstfeld (2003)¹⁷⁵ argue that it may be only Hong Kong which practices free trade. But Hong Kong, though it has some autonomy, is part of China which has trade restrictions. So countries use trade policy instruments variously to either promote or restrict trade. Depending on how a tool is used, it can either restrict or enhance trade. When a country uses these tools as barriers on imports, we refer to these tools as trade restriction tools. Here are a number of the tools that a country can use for trade regulation (in line with its own national trade policy).

- 1) Quotas: A country fixes the amount (quantities) or value (× US dollars) of commodities to be imported over a given period of time.
- 2) Tariffs: High taxes on imports can be deliberately imposed on goods to discourage their consumption. The taxes imposed can be specific (on the volume of commodities) or ad valorem (value of the commodities)
- 3) Foreign exchange control: In non-liberalised countries, the government can determine the amount of foreign exchange that is allocated for importation of goods and services¹⁷⁶.
- 4) Devaluation: When the official rate at which a country's central bank is exchanging the local currency for foreign currency (e.g. US dollar, or UK pound sterling) is abruptly reduced. This is a reduction in the value of the currency in terms of other currencies. This makes foreign exchange more expensive and this will result in imported goods being expensive and the exports cheaper. A devaluation policy is usually undertaken to encourage exports. Currency devaluation should not be confused with currency depreciation. Currency depreciation refers to the gradual decrease in the purchasing power of a domestic currency in foreign markets relative to domestic markets (and appreciation refers to a gradual increase).
- 5) Total ban: A country orders that certain products should not be imported into in the country. Importation of prohibited goods is a crime. Until recently, for instance, the USA had banned all imports from Cuba. During Apartheid regime in South Africa, most countries in Africa had put a total ban on its goods. Countries had, as well, banned its citizens from visiting South Africa.

- 6) Import licenses: Issuing of import licenses may be restricted and issued to very few persons; sometimes at such a high price as to reduce the number of importers.
- 7) An export subsidy is a payment to a firm or individual that sells a good abroad. A subsidy can be either specific (as a fixed sum per unit) or a percentage of the value exported.

Export Restraints: These are limitations on the quantity of exports, which is usually imposed by the exporting country at the request of the importing country.

Other trade policy instruments¹⁷⁷

- 1) Export Credit Subsides: An export credit subsidy is like an export subsidy except that it is extended to the buyer. Most countries have a government institution called the Export-Import Bank which provides loan at a subsidised rate with the purpose of aiding export.
- 2) National Procurement: Literature refers to national procurement as public procurement or a government purchasing. The purchases by the government can be directed towards domestically produced goods even when these goods are more expensive than imports. To support domestic producers, government owned companies buy from domestic suppliers even when these suppliers charge higher prices than suppliers based in other countries. These companies buy locally supplied products so as to support local enterprise.
- 3) Red-tape barriers (bureaucracy): A government can restrict imports without doing so formally. Such governments find it easy to do so under health and safety reasons and customs procedures. For example, most governments that use this approach give health and safety as reasons for temporarily banning imports from country × until tests have been undertaken on the samples of such imports.

The classic example¹⁷⁸ is the French Decree in 1982 that required all Japanese videocassette recorders to pass through the tiny customs house at Poitiers – effectively limiting the actual imports to a handful.

WTO: The World Trade organisation was established in 1995, in Geneva. This is the organisation that replaced the GATT – General Agreement on Trade and Tariffs – the provisional arranagement that governed world trade for 48 years. GATT was not an organisation but an agreement and the participating countries in this agreement were referred to as *contracting parties and not members*.

Economic Integration

Economic integration (regional integration) refers to the cooperation of countries – usually geographically close to each other – with the aim of enjoying economic benefits that accrue from trade, tourism and investment. Regional integration helps to create bigger internal markets, bigger bargaining/negotiation voice and is poised to benefit from international trade.

Stages of Economic Integration

- a) Preferential Trade Area (PTA): This may be regarded as the first stage of integration. At this stage, member states reduce tariffs between or among themselves on selected commodities and commit to further integration.
- b) Free Trade Area (FTA): At this stage member states eliminate all tariffs between and among themselves but continue to charge different tariffs on goods that are imported from third countries (non-member states).
- c) Customs Union (CU): This is the stage where the member states agree to the key elements of free trade among themselves. They too, adopt a common external tariff (CET) on all goods from third countries. For the East African Community (EAC) Customs Union, Partner states agreed that within their Customs Union¹⁷⁹:
 - i) Customs duties and other charges of equivalent effect imposed on imports shall be eliminated save as is provided for in Customs Union Protocol;
 - ii) Non-tariff barriers to trade among the Partner States shall be removed; and
 - iii) A common external tariff in respect of all goods imported into the Partner States from foreign countries shall be established and maintained.



- d) Common Market (CM): At this stage all elements of a customs union are embodied. Member states allow free movement of factor services, such capital and labour, among members. The EAC Common Market, for example, permits: free movement of persons; free movement of workers; right of establishment; and right of residence among member states¹⁸⁰.
- e) Economic Community (EC): All elements of common market are included in this stage. Countries at this stage engage in joint ownership of certain enterprises such roads, railways, ports, etc. Member states harmonise policies (on trade, investment, infrastructure etc.) and may adopt a common currency.
- f) Political Federation: At this stage, probably a rare stage, countries join together and form a federal government; with former members states (countries) becoming federal administrative unit of the central government which is now the federal government.

Conditions necessary for the success of economic integration

- 1) Geographical proximity: Countries to become Partner States in economic integration should be geographically close to each other. This is true for the EU, and EAC and ECOWAS¹⁸¹ in Africa. For example, member states of East African Cooperation (EAC) Uganda, Kenya, Tanzania, Rwanda and Burundi are geographically close to each other.
- 2) Member States should be more or less at the same level of economic growth. Countries which have quite different levels of economic growth may face problems of unfair sharing of trade and investment opportunities.
- 3) Ideological orientation: These countries should have similar political ideology. Communists cannot integrate well with capitalism. Why? The positions on profits, ownership of property and role of the state will be different between a communist and capitalist state.
- 4) Countries may be of slightly equal size. This helped small EU states to come together and form the bigger EU.

The need for economic integration:

- 1) Trade creation effect: When a union is created, member states agree to and eliminate tariffs between themselves. The net effect of this is that, facing lower priced, zero-tariff, imports from members, consumers increase their demand for the goods from within the region; and new trade will be created. If joining such an agreement leads to the replacement of high-cost domestic production by imports from other members of the agreement the case of trade creation; and therefore a country gains¹⁸².
- 2) Sharing of common services such as infrastructure and facilities: Members can construct and share such facilities as roads, railways, ports or harbours. This will reduce trade and particularly handling of goods and transport costs.

- 3) Increased bargaining power: member states can collectively negotiate trade and other economic agreements with other countries or regional blocs as a group (as opposed to negotiating as individual countries).
- 4) Intensity of competition within the economic group will result in improved performance of industries and services sector. This will result in improved quality of good and services.
- 5) Reduced regional conflicts: Member states rarely resort to war as a way of resolving conflicts or disagreements. Such issues as land issues at borders, or sharing of waters in the lakes or rivers can be discussed and resolved in the regional blocs meetings.
- 6) Easy to obtain big grants or loans for big regional projects from donors of financing organisations.
- 7) Attracting big investors who now target not one country but a region of countries, with a big market and GDP.
- 8) With a common currency, such as the Euro in the EU, there is increased flow of trade and investment as the challenges of currency convertibility are removed. In the EU, all countries use the Euro as the common currency.

The factors against economic integration

- 1) Trade diversion: This is the situation where efficient producers lose out to inefficient ones. If one of the member states industries and services sector are more developed than those of other members, less developed members may lose out. If joining leads to the replacement of low-cost imports from outside the zone with higher-cost goods from member nations the case of trade diversion a country loses¹⁸³.
- 2) Loss of tax revenue: When countries integrate and agree and remove internal trade taxes within the region, individual countries lose customs revenue. Developing countries in Africa depend largely on trade taxes but regional integration removes those taxes from inter-region trade.
- 3) Most developing countries in Africa produce and trade in almost similar commodities and, therefore, find that a regional market may not be meaningful. Instead, these countries need to import capital goods from developed nations to use to grow industries or undertake commercial farming. Therefore, these countries should be negotiating for trade and development cooperation arrangements with developed countries and their blocs (e.g. the EU).
- 4) Lack of good infrastructure still hampers smooth inter-regional trade among most African and Latin American countries' regional blocs.
- 5) Political factors still influence the inter-regional trade and effective operations of regional blocs. There is continuing mistrust among leaders in most regional blocs in Africa with some leaders alleging that a leader(s) of Member State(s) is plotting to overthrow his government.

- 6) Uneven growth and development among member states can result in most industries being located in the country. During first EAC and currently, Kenya is seen to be leading in industries and services where most Kenyan financial services dominate in the EAC.
- 7) Member states' consumers may be consuming the goods and services from within the region, whose taxes have been eliminated, which may not of good quality.
- 8) It requires that all member states tighten the administration of imports from third countries to reduce infiltration without paying taxes of those goods from neighbours that are not members.

Britain's Exit of EU

After 40 years as a member of the EU, Britain has exited the EU. In June 2016, Britain voted in a referendum by 52/45% to exit the EU. The then Prime Minister Cameron decided to resign as he had opposed what was dubbed 'BREXIT'. As of July 2016, Britain got a lady Prime Minister Mrs. Theresa May; a believer in British Exit (Brexit) from the EU.

What were the causes of Brexit?

- Immigration issues mainly from the new members of EU who seek jobs in Britain some of whom do not even speak English.
- Concerns over terrorism by immigrants
- Growing 'Britainism' especially among the mainly above 40 British men.



What are the consequences of Brexit?

There are likely to be political, social, and economic consequences for both Britain and the rest of the EU because of Brexit. Reports from both the government and private sources, within and outside the EU, show that Britain's exit is not good for Britain itself and the entire EU. These reports suggest that there will challenges and consequences with regard to trade within the EU, FDI, trade policy, liberalization and regulation, immigration, industrial policy, and international influence (among others).

Politically, Britain is no longer a member of the powerful EU leaders with a big bargaining voice with other blocs. It will require negotiating political relations with its former EU partners.

There are concerns associated with business or economic disadvantages due to the Brexit. Some analysts assert that both the break with the EU and the uncertainty associated with it would be bad for business and damaging to the UK economy¹⁸⁴. Economically, UK has to face both tariff and non-tariff barriers when trading with the EU. Trade within the EU is tariff-free. Regarding non-tariff barriers, the 28 members have created common minimum standards and got member states to recognize each other's rules. This means that a UK product does not have to face 28 different sets of national regulations and standards. For example, a British lawn mower can be sold across the EU without having to comply with 28 different standards¹⁸⁵.

EU members exporting to the UK will likely face both tariff and non-tariff barriers in the UK. However, the burden is bigger when UK is exporting to the EU, a bloc with 27 countries.

There is the issue of FDI. In 1997, FDI from other EU members into Britain accounted for 30 per cent of the accumulated stock of FDI in Britain. It has risen and by 2012, this proportion had reached 50%¹⁸⁶.

Another issue concerns EU migrations into the UK. Is this positive or negative to the UK economy? There is a big discussion. The Centre for European Reform (CER)¹⁸⁷ asserts that EU immigration is good for the UK: that it is good for public finances, as immigrants pay more in taxes than they receive in public spending; that there are some costs that arise from higher demand for housing and public services; that current levels of immigration help Britain to deal with the costs of an aging population by replacing retiring workers, and by raising more taxes (such pay as you earn or personal income tax) to pay for health and pension costs.

12 NATIONAL AND INTERNATIONAL COMPETITIVENESS

"I am a citizen, not of Athens or Greece, but of the world".

(Socrates, the Greek philosopher)

Historical Perspective of competitiveness

Trade theory and international competitiveness: Several writers have tried to explain the origins of the term competitiveness to the theories advanced by Adam Smith (1776) and David Ricardo. According to Adam Smith, specialisation can help a country become competitive. A country should specialise in producing goods and services in which it has absolute cost advantage over other countries. Such a country can then import those goods and services in which it has absolute cost disadvantage. This theory explains why countries, through exports and imports, can increase their welfare by simultaneously selling and buying goods and services in the international markets. According to Krugman (1994)¹⁸⁸, it is imports rather than exports that matter for a country. This is so because exports are important in order to pay for the imports that a country requires.

The theory of comparative advantage (David Ricardo): Ricardo (1817) was the first scholar to present the theory of comparative advantage. According to this theory, a country must specialise in those products that it can produce relatively more efficiently than other countries. This implies that inspite of the absolute cost disadvantages in the production of goods and services, a country can still export those goods and services in which its absolute disadvantages are smaller and then import goods and services with the lowest absolute cost disadvantage. Comparative advantage theory also considers specialisation as vital. Ricardo's theory of comparative advantage is based on the labour theory of value (Salvatore, 2002)¹⁸⁹. What does this mean? This means that labour is the only factor of production and that it is used in fixed proportions in the production of all products. The theory also assumes that labour is homogeneous (Salvatore, 2002). There is need to incorporate opportunity cost into the explanation of the theory of comparative advantage in order to make its assumptions realistic. If the theory of comparative advantage is looked in terms of opportunity cost, then a country will have a comparative advantage in the production of such goods and services that can be produced at a lower cost. This will then imply that a country enjoys a comparative advantage in the production of goods and services that can be produced at a lower opportunity cost than could be possible in other countries.

Management theory and international competitiveness: The management disciplines, not convinced by trade theories, have advanced new theories to explain national comparative advantage. Michael Porter¹⁹⁰, regarded as the world's competitiveness guru, puts it that competiveness can be explained by four classes of country attributes (explained by the diamond): factors conditions, demand conditions, company strategy, industry structure and rivalry and related and support industries. Porter (1990)¹⁹¹ views competitive advantage as resting on endorsements of inputs such as labour, natural resources and financial capital, yet, according to him, prosperity depends on creating a business environment, along with supporting institutions that enable the country to productively upgrade its inputs.

Definitions of Competitiveness

Competitiveness of a product: A product is competitive if it has a lower price and a unique differentiation within the competitive environment of a given sector. A competitive product must be able to bring in more sales revenue to the company. Customers must perceive its features or attributes as offering superior benefits than the competing products.



Firm level competitiveness: We will look at three generic strategies related to competitiveness at firm level. These are Porter's generic strategies which are cost leadership, differentiation and focus (focus on cost focus and differentiation focus). A widely accepted definition of firm level competitiveness is by D'Cruz (1992) who viewed the competitiveness of a firm as its ability to design, produce, and/or market its products superior to those provided by its competitors, considering both the price and non-price factors¹⁹². Porter says (1985) "it is the firm's, not nations, which compete in the international markets"¹⁹³.

Competitiveness seen from the exporting angle: According to Aaby and Slater (1989)¹⁹⁴, key issues of firm level competitiveness in order to enhance export performance includes variables such as:

- i) Firm characteristics: management commitment and management perceptions towards exporting, among others.
- ii) Firm competitiveness: technology, market knowledge, planning, management control and communication.
- iii) Strategy: market selection, product mix, product development, promotion, pricing and staffing.

Porter's three generic strategies: There are two main types of competitive advantage a firm can possess – *cost advantage and differentiation advantage*. The two basic types of competitive advantage when combined with the scope of firm's activities lead to three generic strategies which make a firm achieve a better position of performance within an industry: cost leadership, differentiation and focus. Porter (1985)¹⁹⁵ later divided the focus strategy into two sub-strategies: Cost focus and differentiation focus. In the cost focus, a firm seeks a cost advantage while in differentiation focus it seeks differentiation in its target segment(s).

Target	Generic strategies		
Broad (Industry Wide)	Cost Leadership (Advantage: Low Cost)	Differentiation (Advantage: Product Uniqueness)	
Narrow (Market Segment)	Focus		
	Cost Focus (Advantage: Low Cost)	Differentiation Focus (Advantage: Product Uniqueness)	

Table 35: Target market and generic strategies 196

The value chain and competitive advantage: Under the value chain, a firm's competitive advantage emanates from various discrete activities: *designing, producing, marketing, delivering and supporting its products*. Porter's value chain is a useful tool to disaggregate a firm's buyers, suppliers and the firm's activities into discrete but interrelated activities from which a firm's value stems.

Core Competency Theory: What are core competencies and capability?

Prahalad and Hamel (1990)¹⁹⁷ present core competencies as the collective learning in the organisation; especially regarding how to coordinate diverse production skills and integrate various streams of technology. Three issues can be applied to identify a firm's core competences: i) provides potential access to different markets; ii) makes significant contributions to end user value; and iii) difficult for competitors to easily imitate.

Capabilities: Capabilities can be viewed broadly to encompass the whole value chain or narrowly to apply to just specific technical and production expertise.

Implications for firm's strategy aimed at gaining competitiveness

Competencies are the basis of competitive advantage and, therefore, firms need to be organised as portfolios of competencies or capabilities rather than portfolio of businesses in order to emerge victorious amidst competitions. The theory argues for organising the firm along competencies or capabilities not into autonomous strategic business units (SBUS) – which are based on markets or products. There is need for continuous investment in core competencies or capabilities in order for a firm to remain competitive. Business and technological conditions are changing daily and, therefore, require continuous investment in areas that make a firm competitive.

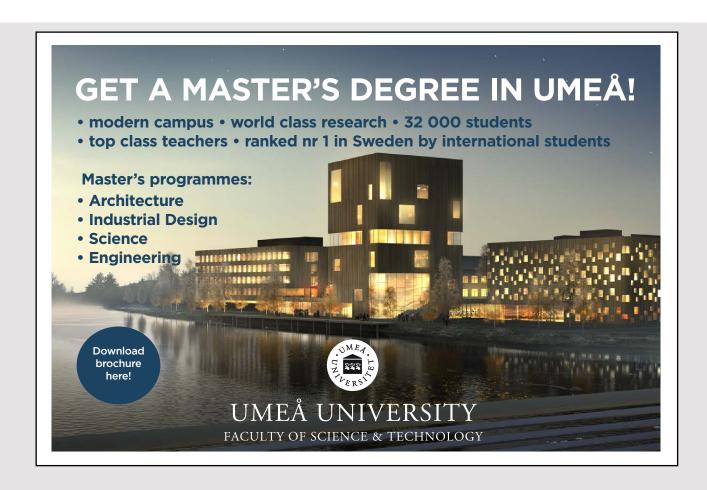
Resource – based view (RBV) of the firm: The RBV theory views the firm as a bundle of resources and capabilities that strategically focuses on four areas: i) factor market imperfections ii) the heterogeneity of firms; iii) varying degrees of specialisation; and iv) the limited transferability of corporate resources. The RBV framework combines the internal (core competencies) and the external (industry structure) perspectives of strategy. RBV attributes competitive advantage to the ownership of a valuable resource. Here resources are more broadly defined to be physical (e.g. capital, property rights), intangible (e.g. technological knowhow, brand names) and organisational (e.g. routines or process like lean manufacturing). It should be noted here that no two companies have the same resource. This is because no two companies have had the same set of experience, have the same assets and skills, and/or built the same organisational culture. For a resource to be the basis of an effective strategy, it must pass a number of external market tests of its value:

Collis and Montgomery (1995)¹⁹⁸ offer a series of five tests for a valuable resource and we briefly explain them here:

- i) Immitability: a resource that quickly depreciates cannot be a good source of competitive advantage.
- ii) Durability: a resource that quickly depreciates cannot be a good source of competitive advantage.
- iii) Appropriability: who captures the value that the resource creates? Company, customers, channels, suppliers, or employees?
- iv) Substitutability: It should not be easily substituted.
- v) Competitive superiority: Is the resource really better relative to competitors?

Implications for firm strategy to gain competitiveness

- 1) Managers should build their strategies on resources that pass the above five tests.
- 2) Continuous upgrading and improvements of resources is essential to succeed in highly competitive environment.
- 3) There is need to rethink the risks and benefits of diversification strategies by managers of firms.



Industry level competitiveness: The basic unit of analysis for understanding competition is the industry. An industry (whether product or service) is a group of competitors producing products or services that compete directly with each other (Porter 1990)¹⁹⁹. Porter says that the two central concerns that underlie the choice of a firm's competitive strategy are the industry (sector) structure and its position within its particular industry. He further puts it that in any industry – whether it is domestic or international – the nature of competition is analysed by studying *five competitive forces*: the threat of new entrants, the threat of substitute products or services, the bargaining power of buyers and the rivalry among the existing competitors. The collective strength of these five competitive forces determines the firm's ability to compete in an industry/sector. The five competitive forces²⁰⁰ determine, among others, industry profitability because of how they shape the prices that firms can charge, the costs they have to meet and the investment required to compete in the industry.

Competitiveness of a nation: The most popular models for national competitiveness are the trade theories (already discussed) and foreign exchange theories. We can add the recent theories of Porter's Diamond and the IMD country competitiveness indices and the competitiveness cube. According to (WCY 2009), a nation does not directly generate economic added value. Nations can establish an environment that hinders or supports the activities of enterprises. WCY assumption is that economic value is created by enterprises; whether that enterprise is owned by a private sector or government²⁰¹. WCY believes that competitiveness influences prosperity of people – a mix of income, standards of living and quality of life.

Determinants of National Advantage

Porter (1990) has identified four attributes of a nation that shape the environment in which local firms compete that promote or hinder a nation's creation of competitive advantage²⁰². These factors are factors conditions, demand conditions, related and supporting industries, firm strategy, structure and rivalry.

Factors conditions include labour, arable land, natural resource, capital and infrastructure. In terms of human resources, the following are key issues to consider for competitiveness – the quantity of labour, skills and the cost of labour. The more practical the labour force is, the more likely the country will create employment, jobs and new products. The Asian countries of Japan, South Korea, Singapore and Taiwan developed a more practical and skilled labourforce and it helped them enhance productivity and exports of manufactured products. These countries are now advanced.

Physical resources: Key issues with regard to physical resources include the availability, quality, accessibility, cost of land, water resources, hydro-electric power sources, mineral deposits and fishing grounds, among others. These factors affect the countries industries' productivity and profitability. For example high power costs negatively affect industrial production in developing countries. Most countries in Sub-Sahararan Africa have intermittent power outages which affect their industrialisation. Whenever power goes off, the factories cannot produce goods. This affects production every time there is a power outage.

Knowledge resources: A country's stock of scientific, technical and market knowledge have a bearing on the goods and services produced in that country. The growth and industrialisation of the Asian countries already mentioned above (add China) is attributed to their high level of scientific and technological inventions and innovation. Sub-Saharan Africa's lagging behind the rest of the world has been associated with their lower level of technology and scientific development.

Capital Resources: The amount, availability and cost of finance are pertinent to industrialisation. The availability of cheap credit has been associated with rapid growth of the private sector in developed and "advanced" developing countries.

Infrastructure: Includes transportation systems (air, water, rail and road), communication systems (telephones, voice, etc.) post (mail and parcel delivery), health care systems (health centres, equipment, etc.). Infrastructure – its type, quantity and user cost – has a big influence on a nation's competitiveness. According to Porter (1990) the mix of factors employed (known as factor proportions) differs widely among industries. A nation's firms gain competitive advantage if they possess low-cost or uniquely high-quality factors of the particular types that are significant to competition in a particular industry.

Demand conditions: The composition of home demand shapes how firms perceive, interpret and respond to buyer needs (Porter, 1990). It has been said that Italy gained a competitive advantage in leather and associated products because of the pressure the home buyer had put on the producers. Domestic buyers became the mirror for Italian leather industry through which they leant and improved their product offering locally and in the international markets. Also, the size of home demand matters a lot. For example if a country has got a large domestic market size, this can lead to a competitive advantage in industries since they are encouraged to produce more following effective demand pressures. Demand side economics asserts that the more the demand the higher the output produced to meet that demand. On the other hand, declining demand in the domestic market can foster managers to look for alternative markets abroad.

Related and supporting industries: While Hirschman (1958)²⁰³ emphasizes the importance of complementarities and linkages among industries to the development process primarily through providing a volume of demand for one another's products), Porter (1990) has broadened them to include industries in which a nation can succeed internationally. So the importance of related and supporting industries in a nation can be seen from the point of enhancing innovation or firm internationalisation²⁰⁴. For example, the presence of software firms in a country is vital for other industries. They can be used to enhance the performance of exporting firms. Efficient and effective suppliers aid early and rapid production of products which can either be consumed locally or exported. In modern times, time is of essence and has become vital for competitiveness. Also 'the first to the market' approach has made some brands very successful. Competitiveness of related industries usually leads to the growth and competitiveness of firms that use their products as raw materials or parts. For example Japan's cameras industries led to the growth and competitiveness of printing related industries (photo copiers, printing services). Effective Singapore port services led to the competitiveness in ship repair.



Firm strategy, structure and rivalry: This is a very broad determinant of national competitive advantage. It looks at the context in which firms are created, organised and managed as well as the nature of the domestic rivalry. Firm strategy and structure matter a lot and determine the competitiveness of a nation as a whole. National advantage results from a good match between these choices and the sources of competitive advantage in a particular industry. The nature of domestic rivalry influences firms' competitiveness via innovation and marketing effort. First, domestic rivalry forces firms to innovate and remain competitive domestically. Firms make products with superior product features or attributes either through product improvement (like having a VCR that now also prays CD/DVD), or create a completely new product (such a DVD player). Secondly, domestic rivalry forces firms to undertake aggressive promotions (advertising, branding, etc.) to remain in the market. Third, it forces firms to look for market segments outside the current market – and hence exporting. In Japan for example you have several rivals in the automobile industries sector (Toyota, Mitsubishi, Nissan, Honda, etc.) competing for the domestic and international markets.

The role of chance: Porter (1990) has argued that chance also played a role in most of the successful industries and their nations²⁰⁵. He found out occurrences that have little to do with circumstances in a nation and are often largely outside the power of firms and the national government influence which have influenced competitive advantage in some countries. He lists some of these occurrences: acts of pure invention; major technological discontinuities (e.g. biotechnology, microelectronics); discontinues in input costs such as the oil shocks; significant shifts in world financial markets or exchange rates; surges of the world or regional demand; political decisions by foreign governments; and wars. He contends that chance events play their role partly by altering the conditions in the diamond.

The role of government: According to Porter (1990), government's contribution to national competitiveness is by influencing the four determinants of national competitive advantage (in the Diamond)²⁰⁶. For example government can affect factor conditions through policies on subsidies, the capital market and education. In most developing countries, government has affected national competitiveness through policies such nationalisation of private enterprises, export promotion or import substitution.

Role of Regulation: Government has the duty to regulate the activities in an economy. It should set up institutions and laws and monitor the banking and financial sector operations, import and export business and generally ensure that there are no anti-competitive tendencies in the private sector. It also has to discourage creation of monopolies.

Competitiveness and wealth: There is a distinction between competitiveness and wealth²⁰⁷. A nation may be wealthy but not competitive. Also a nation may be competitive but not wealthy. It can also be both. Wealth may originate from two sources²⁰⁸: 1) natural resources (as is the case with most of Gulf countries) or 2) past competitiveness (such as for most EU industrialised nations). Wealth can be a great asset for future competitiveness (such as providing infrastructure and capital for future investment). But wealth can be an inhibitor for competitiveness when it encourages enjoying past savings or inheritance without working hard to generate more wealth.

Is Competitiveness of Nations a Dangerous Obsession?

The need for distinction between firm and nation's competitiveness

We need to distinguish a nation's competitiveness from that of a firm's or industry's competitiveness. For example, competition between USA and China is not like the zero sum game between Coca Cola and Pepsi Cola in any market. If one customer buys a can or bottle of Pepsi, it is Coca Cola's direct loss. However, the USA and China can both be winners through competition and cooperation, using different but at times complementary sources of comparative advantage. Krugman²⁰⁹ says that competition is mostly for firms. He says that countries do not always compete. They at times cooperate to enhance trade and regional integration. According to Krugman (1994), competitiveness of nations is a dangerous obsession²¹⁰. He does not believe that nations compete with other nations the same way companies do: that the USA and Japan are competitors in the same sense that Coca Cola competes with Pepsi Cola. He contends that it is more problematic to define competitiveness of a nation than defining competitiveness at firm level. He identifies three real dangers that could be caused by the current thinking about competitiveness of nations being similar to competitiveness between companies.

First, it could result in wasteful spending of government money supposedly to enhance a country's competitiveness. Second, it could lead to protectionism and trade wars. Lastly, it could result in bad public policy on a spectrum of important issues.

Public Trade Promotion Agencies and Commercial diplomacy

Economic diplomacy and Commercial diplomacy: Economic diplomacy is defined as the process through which countries tackle the outside world to maximise their national gain in all fields of activity, including trade, investment and other forms of economically beneficial exchanges, where they enjoy comparative advantage²¹¹. Economic diplomats also monitor and report on economic policies in foreign countries and give the home government advice on how to best influence them. Economic diplomacy employs economic resources, either as rewards or sanctions, in pursuit of a particular foreign policy objective. This is sometimes called 'economic statecraft'²¹².



Commercial diplomacy has been defined as services provided usually by the members of staff of a diplomatic mission, or trade promotion organisation/investment promotion agency to the business community with the aim of enhancing international business (import, export and FDI). It entails i) activities relating to trade policy making such as multilateral trade negotiations, trade consultations, dispute settlement, etc. and ii) business support services (Kostecki and Naray, 2007:1)²¹³. The actors in commercial diplomacy include the head of state (the president, or prime minister, or both), minister, ambassadors and their specialised mission staff (trade representative, commercial attaché, or commercial diplomat) and staff of public trade promotion and investment promotion agencies. Staff of these public agencies play the role of commercial diplomacy which is that of trade promotion (including seeking foreign markets, helping exporters understand export requirements and negotiating deals on behalf of exports, tourism promotion, and attracting FDI). The key activities of commercial diplomacy are about looking for market information and importers of their countries' exports. When interviewed, most of the commercial diplomats from Europe, USA and Latin America indicated that they spent 50 percent of their time on business intelligence and partner search²¹⁴. The trade promotion activities that they significantly engage in are involvement in trade fairs, trade missions and other trade promotion events (such as buyer-seller missions). Based on the interviews with commercial diplomats, government officials, experts and managers, the role of commercial diplomats' activities focuses on partner search, market information search, trade fairs, contract negotiations, investment facilitation, problem-solving and trade disputes²¹⁵.

The role of government in trade promotion: To promote trade, the government needs public agencies to facilitate trade particularly export and investment promotion agencies. Let us look at the functions of these agencies.

Export Promotion Agency (EPA)

In developing countries, the EPA is mostly a public agency responsible for export promotion. Most of these are semi-autonomous entities reporting to a Government Ministry or the Office of the President or the Prime Minister. The reason why most report to the head of state's office (the Office of the President or the Prime Minister) is to ensure that they obtain the political and financial support necessary to develop and promote exports.

Functions of the EPA²¹⁶

- Provide trade and market information on price, tariffs, packaging and other foreign market entry requirements;
- Provide export promotion services (trade fairs, trade shows, exhibitions, etc.);
- Promote the development of exports via advising on packaging, labeling, branding, etc.;
- Provide advisory services to the private sector on export marketing issues; and
- Propose policies to government related to export development and promotion.

Export promotion delivery vehicles

EPA may use the following export promotion delivery vehicles to increase exports:

- Creating awareness about export development and promotion;
- Building capacity of local firms on export related management via hands-on training for exporters;
- Selecting target markets (through market research, trade fairs, exhibitions, etc.) and informing the private sector about their availability;
- Identifying sales opportunities through brand promotion and opportunity matching, etc.; and
- Helping new exporters closing export deals (by being directly involved in the negotiation of their deals).

EPA can provide incentives to encourage the country's export businesses. Some of these export incentives are²¹⁷:

- Support for research and development activities;
- Support for attending domestic and international fairs and exhibitions;
- Support for training and education on the export process;
- Support for opening offices and stores abroad;
- Support for the establishment and enhancement of brand image in international markets; and
- Support for the establishment of a positive "Made in" image in international markets.

To achieve its objectives, EPA needs a national export strategy (NES) that has specific objectives, specific principles and key priority areas that it will focus on. These guiding principles may include the following:

- Increase export revenues through quantity and value addition, as well as through export diversification.
- Create a favourable business environment that encourages the formalisation of export-related industries and increase in the number of export firms.
- Improve the understanding of international standards, requirements and opportunities.
- Encourage institutional and public-private coordination around key market led export initiatives while maintaining a flexible export strategy based on continued monitoring and evaluation.
- Increase the export-related number of jobs, particularly those with high living standards.
- Improve and leverage human capital, innovation and technology investments, including the development of competitive mindsets across key export sectors.

Challenges facing export promotion agencies in developing countries

- Lack of adequate financial support from government.
- Lack of political support.
- Lack of skilled professionals.
- The World Bank and the International Monetary Fund (IMF) at one time advised governments to close public trade promotion agencies, especially those for exports, claiming that the private sector can do their work effectively without them.
- Small enterprises that lack adequate financial resources to engage in exporting.
- Lack of education institutions with curricula components for training in export promotion (The majority of the business schools and economics department in universities, in developing countries, do not train in export promotion).

Trust and responsibility

NNE and Pharmaplan have joined forces to create NNE Pharmaplan, the world's leading engineering and consultancy company focused entirely on the pharma and biotech industries.

Inés Aréizaga Esteva (Spain), 25 years old Education: Chemical Engineer

– You have to be proactive and open-minded as a newcomer and make it clear to your colleagues what you are able to cope. The pharmaceutical field is new to me. But busy as they are, most of my colleagues find the time to teach me, and they also trust me. Even though it was a bit hard at first, I can feel over time that I am beginning to be taken seriously and that my contribution is appreciated.



Export performance

Export performance has been defined as the outcome of a firm's activities in export markets (Shoham, 1996)²¹⁸. The literature reviewed indicates that there is no agreement on how to measure export performance²¹⁹. All measures of export performance represent financial, non-financial and composite scales. They include static measures such as export sales volume, export intensity (percentage of export sales to total sales), export profitability and percentage of export profits to total firm profits. Dynamic measures include growth in export sales, export intensity and profitability.

Generally, we can look at internal (organizational) factors and external (political, economic, and social) factors.

Internal (organizational) factors

- General company resources
- Knowledge of export marketing
- Management support
- Status of exporting organisation
- Technological intensity

External factors

- Export market attractiveness
- Trade barriers
- Physical distance to the market
- Psychological/cultural factors
- Domestic market attractiveness
- Type of market

Table 36: Internal and external factors

The measures that involve variables of a financial nature include export sales and their growth, export profits or export intensity. Qualitative measurements involve achievements in meeting certain strategic goals such as improvement in competitiveness, market share increases and the perceived export success by management and management satisfaction with export performance.

13 CONSUMPTION, SAVING AND INVESTMENT

We need to first define saving, investment and consumption. *Saving* is the part of income not spent on consumption and can, therefore, be put into investment. The more one saves, and later invests, the better for one's ability to meet future obligations. Most people save for retirement and emergencies. The more people in a nation are willing and able to save – and invest for the future – the better it will be for their economies as a whole.

Investment can be defined as the accumulation of stock (physical or financial) of capital. Investment is about goods purchased by individuals, companies or governments that increase their stock of physical or financial capital. It involves using money and other resources to undertake an activity or enterprise intended to make profit in future. Investment broadly includes spending on new plant and machines, buildings (including residential home building) and inventory (including materials in the stores and work-in-progress).

Consumption is the largest of the demand in the economy and plays an important role in the business cycle fluctuations. It represents the largest part of the economy's overall spending and is, therefore, a key determinant of GDP. Let us remember that sometimes GDP is viewed as total expenditure in an economy in a fiscal year. The size of consumption varies across developed and developing economies. Most economies consumption is on average 50–70 per cent. Consumption is estimated to account for around 65 per cent of the GDP of developed countries²²⁰. In the developing countries, especially in Africa, consumption can vary greatly from one country to another. For example it forms 94 per cent of the GDP in the Central African Republic (CAR) but 25 per cent in Equatorial Guinea²²¹.

Marginal propensity to consume (MPC): This is an important concept in Keynes' work. The marginal propensity to consume is the extra amount an individual will spend on consumption given an extra \$1. If the MPC is 60% (or 0.6), then from every extra dollar of income, the individual spends 60 cents. This is to say that the more income an individual earns, the more they increase consumption expenditure, but as Keynes said, 'not as much as the increase in their income'²²².

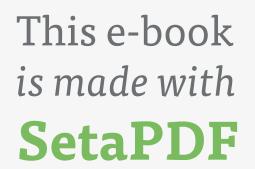
Foreign Direct Investments (FDI)

Let us first define FDI. The IMF (2004) defines foreign direct investment enterprise as "an incorporated or unincorporated enterprise in which a foreign investor owns 10 per cent or more of the ordinary shares"²²³. Related to the IMF definition, Feldstein (1995:43) explains FDI as follows: Companies make direct investments abroad by acquiring existing business assets of foreign companies, by starting new businesses with "green field" investments in plant and equipment and by increasing their investments in foreign businesses that they already own. These foreign investments can be either wholly owned by the parent company or owned jointly with foreign partners²²⁴.

The need for FDI in Least Developed Countries

There are mainly four major benefits of FDI.

i) Capital: Developing countries lack financial resources to exploit, for example, their natural resources. The process of acquisition and cost of capital in developing countries is very expensive. When FDIs come they bring finances from their countries – obtained cheaply – and help boost the country's amount of financial resources. FDIs can form joint ventures with local investors and such an arrangement can benefit from cheap finance sources associated with the FDIs.







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- ii) Technology and skilled manpower: Acquisition of modern technology and skilled manpower to help boost production and enhance productivity in developing countries is expensive or the technology is not even readily available. FDIs come with technology from their home countries. They have the financial capacity to acquire modern technology from other countries as well. There is the inflow of capital equipment machines, hard and software programmes.
- iii) Export Markets: They can produce and sell in their own countries. This has happened in Asian countries where big companies from USA go and invest there; and produce (there cheaply) and sell in the USA and other markets.
- iv) Reduce the levels of unemployment: Once well regulated, FDIs are supposed to increase on the level of employment in the economy. When they invest in manufacturing, for example, they hire locals to work. They are also likely to buy some of the raw materials locally which further creates more jobs and enables people to earn income.
- v) Local entrepreneurs may be encouraged by FDIs, especially where they are established, to work as subcontractors or suppliers of raw materials.
- vi) Increase the tax base which can result in an increase in tax revenue.
- vii) Financing local industries and projects: Some FDIs can provide venture capital to support some investments that promise a good return for both the local investor and the venture capitalist. Venture capital is cheaper than commercial bank loans in almost all LDCs.

Factors that are critical for attracting FDIs

The following factors have been found critical by various researchers²²⁵ for attracting FDI:

- i) Size of the market and growth.
- ii) Costs and skills: labour productivity (a ratio of a volume measure of output to a measure of input use).
- iii) The availability of good infrastructure: telecommunications and power supply.
- iv) Country risk: Political stability weighs a lot in terms of attracting or discouraging FDI. FDI are reluctant to move into a war zone. Some countries in are Africa can literally be described as permanent war zones.
- v) Openness of the economy.
- vi) Institutional environment: What matters for attracting FDI into a country is creating a friendly environment. This friendly environment for attracting FDI include policies and institutions that remove excessive regulation, protecting and enforcing property rights, fighting corruption, improvement in the quality and availability of infrastructure, and the need for political stability.
- vii) Availability of natural resources.

- viii) Concentration of other investors (agglomeration economies or effects).
 - ix) Return on investment.
 - x) Enforceability of contracts and transparency of the judicial system.
 - xi) Macroeconomic stability.
 - xii) A favourable attitude towards FDI.

Tax concessions and FDI inflow: Tax incentives are also not the main determinant of FDI inflow into a country. Overall, there are negative consequences of tax exemption especially for developing countries. Instead of generating jobs, paying taxes, producing exports and enhancing economic growth, FDIs are exempted from taxes through tax holidays. These tax holidays reduce government expenditure. We should, therefore, recommend an enabling and friendly FDI environment instead of tax incentives. Existing literature does not show that, once taxes are removed, FDI inflows will reduce or cease. Large multinationals can afford to invest where they perceive a potential market that can boost their profitability. This partly explains FDI inflow into Organisation for economic Cooperation and Development (OECD)²²⁶ even when these countries have high corporate taxes. Each developing country needs an empirical research to understand and rank key FDI determinants in order to prepare and implement policies to attract FDI. Unfortunately, when a developing country offers attractive tax incentives, its neighbours, and indeed other countries in the region, usually retaliate by offering even better benefits in order to compete more favourably. This is wasteful.

Some uneasiness with FDI inflow to South Sahara Africa (SSA) by local investors and citizens

- i) There is a feeling among the citizens of most least developed economies (and even by the domestic investors most of whom are small) that these FDIs are not FDIs in themselves (at times they are not wrong) but 'dirty money' including money laundered by local leaders.
- ii) The local leaders steal the money and bank it abroad and hire a foreigner (in most cases it is an Indian) who comes to a Sub-Saharan Africa country and claims that they are investing.
- iii)Genuine local investors also feel that FDIs are treated better than local investments. They are given generous FDI tax incentives such as tax exemptions and tax holidays.
- iv) After the expiry of the tax exemption period, the FDIs close the company, establish a new one and begin enjoying another set of tax exemptions.
- v) Because of the (iii and iv), the government loses taxes revenue that would be used for social development.
- vi) The FDIs also bring in their own people as staff instead of hiring the locals. Therefore, not many jobs are actually created through FDIs because these investors come with almost every worker for every trade, including cleaning and sweeping.

How to overcome the uneasiness by the local investors and the citizens

- i) The cause of this unease is due to government's failure to be impartial and also implement the investment codes or laws that offers a clear guide on how tax incentives are given. It is, however, important for government to ensure that state interventions are temporary and that the regulatory framework does not hinder the private sector.
- ii) There is need for the role of government to support the private sector by providing information to the public.

Privatisation

Several economic liberals tend to believe that private ownership is key to economic growth. They assert that privatisation of state-run enterprises or industries inevitably improve economic performance. This is an argument beyond a book like this one which will concentrate on the basics of economics. Privatisation can be defined as the divestiture of government from doing business or economic activity. It is the restoration of ownership of means of production into private hands with its attendant benefits and, of course, shortcomings. Globally, Margaret Thatcher set the pace of privatisation after she became Prime Minister of Britain (4 May 1979–28 November 1990). Several other countries set out their unique privatisation agendas depending on policy objectives.



The case for privatization: Socialist oriented thinkers support public ownership. Neo classical thinking views private ownership as the way to go for economic performance. The following arguments have been presented to justify privatisation.

- 1. Generating revenue from the sale of public enterprises (state owned assets) It provides government with a short term source of revenue (In Britain, during some years of privatization revenue from sold state enterprises reached to 3–4 billion pounds).
- 2. Reducing public expenditure If the state is successful at selling loss making enterprises, then they save taxpayers the waste and periodical financial support to such firms.
- 3. Abolition of monopolies and promotion of competition and efficiency Most state enterprises were monopolies with poor performance. They were inefficient because their incomes did not depend more on profits but on government support.
- 4. Popular capitalism.

The case against privatisation

- 1. Transferring public monopolies to private monopolies. Opponents of privatisation argue that the process increases monopoly abuse. It becomes a transfer of socially owned monopolies (that were accountable to the public) to less accountable private monopolies. In the UK, the examples have been given of privatising the British Telecom (BT) and British Gas. There has been consumer dissatisfaction with the services provided since their privatisation²²⁷.
- 2. "Selling the family silver" argument. How can you sell a family's silver or jewel? Imagine what would happen if managers of private sector businesses decided to sell their capital assets just to raise revenue to offset or pay current expenditure. The shareholders would be up in arms. The managers would suffer the wrath of the firm's shareholders. Government should not sell state owned assets, which are taxpayers assets owned by the state on their behalf, to simply raise revenue to finance current expenditure such as civil servants wages.
- 3. The "free meal" syndrome: Those who feel privatisation is unfair to the taxpayers claim that state enterprises have been sold too cheaply. Private buyers of these state enterprises are simply enjoying a free meal²²⁸. Other citizens say that privatisation was a transfer of ownership from the state to the state functionaries: that those who had power to sell sold to themselves.
- 4. Disappearance of certain goods formerly enjoyed by society.
- 5. Prices of services or products provided by privatised enterprises are too high.

The Washington Consensus: The Washington Consensus²²⁹ refers to the framework that had been suggested for Latin America which was later superimposed on Africa to address poverty reduction efforts. It was hoped that fiscal austerity, privatisation and market liberalisation²³⁰ which were the key three pillars of Washington Consensus Advice throughout the periods 1980's and 1990's were a key message for Latin America and Africa. The core message of the consensus was that government should concentrate on provision of essential public services. They said government should not be engaged in doing business. It is the private sector to do business. The basis by the World Bank and IMF was that governments had become inefficient and ineffective and this was part of the cause for poverty in the developing world. For example, in Latin America for which this model had been initially recommended, the governments, during the 1980s, had got their countries into problems such as by running huge deficits, operating inefficient public enterprises and crafting loose monetary policies. Governments in this region needed to divest the role of running enterprises which could be done better by private sector.

	Contents	
Washington Consensus	 Fiscal discipline A redirection of public expenditure priorities toward fields offering both high economic returns and the potential to improve income distribution, such as primary health care, primary education and infrastructure Tax reform (to lower marginal rates and broaden the tax base) Interest rate liberalisation A competitive exchange rate Trade liberalisation Liberalisation of inflows of foreign direct investment Privatization Deregulation (to abolish barriers to entry and exit) Secure property rights 	
'Augmented' Washington Consensus ²³¹	 Corporate governance Anti-corruption Flexible labour markets WTO agreements Financial codes and standards "Prudent" capital-account opening 	

Table 37: The Washington Consensus

 $Source: \underline{http://www.cid.harvard.edu/cidtrade/issues/washingtonlink.html \#_2} \ (accessed \ on \ 12/12/2013)^{231} \ (ac$

The performance of the countries in Africa and Latin America has shown that this model was not a global solution and a panacea for development for developing countries.

14 MONEY, BANKING AND THE FINANCIAL SYSTEM

The five parts of a financial system in an economy

- 1. *Money:* A commodity which is used as a means of payment for exchanging goods or services. In Britain, the pound sterling is legal tender (as fiat money) as a means of exchange. In the US they use the US dollars as legal tender.
- 2. *Financial instruments:* As covered under the section on investment in securities, financial instruments include stocks, bonds and insurance policies. These are written legal obligations between two parties where one party is obligated to transfer something of value to another party at some future date under certain conditions. These obligations usually transfer resources from savers to investors.
- 3. Financial markets: Markets where financial assets are traded. Examples include New York Stock Exchange (NYSE), London Stock Exchange (LSE), and Chicago Board of Trade, etc.

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- 4. Financial institutions: Financial institutions bring together investors and sellers of financial assets as well as borrowers and lenders. In economics, these institutions bring together the deficit spending units and surplus spending units together. The deficit spending units are the borrowers while the surplus spending units are the lenders. In some countries, financial institutions include commercial banks, Microfinance Deposit taking institutions (MDIs) and insurance companies. In other developed countries with fully operational financial markets, financial institutions include securities firms.
- 5. *Central bank:* This is the government agency that monitors the state of the economy and implements the monitory policies on behalf of the government. In the US it is called the Federal Reserve Bank (or the Fed).

Money and Banking

Money: Money can be defined as an asset that is generally accepted as means of payment for goods and services or repayment of debt. It can be in the form of paper, beads or gold. It is claimed that during World War II American soldiers did not have ample paper currency when at war overseas, so they often used chocolate, cigarettes, and even silk stockings as mediums of exchange. On the shores of the Indian Ocean bordering eastern regions of Africa, cowrie shells were used as money before the introduction of modern forms of money. In the South Pacific island of Yap, they used rocks of various sizes as money during that same period²³². According to *A History of Money (2002)* by Glyn Davies²³³ several items have been used as money: Amber, beads, cowries, drums, eggs, feathers, gongs, hoes, ivory, jade, kettles, leather, mats, nails, oxen, pigs, quartz, rice, salt, thimbles, umiacs, vodka, wampum, yarns, and zappozats (decorated axes).

Money developed because of the need for people to have a medium of exchange. In historical times, and currently in some societies, money in form of items was used for as bride-price, compensation for killing a person, at ceremonies and feasts, in religious activities as sacrifices for the gods, priests and priestesses, and paying tributes to kings²³⁴. Items of gold and silver were used to pay tribute to the kings in Babylon and Pharaohs in Egypt²³⁵.

Functions of money

Money has four main functions.

It is a means of payment (a medium of exchange): This is the primary characteristic of money. It is used as a means of payment or a medium of exchange. Most buyers and sellers will use and accept money as a form of payment in their transactions. Without money, the use of barter would be relied upon. Barter (exchange of goods or services for goods or services)²³⁶, as form of countertrade²³⁷, suffers from double coincidence of wants. You have to get the one who wants what you have and has what you want. This may make people to move distances and waste time to get the one who has what they want and wants what they have.

A unit of account: As a unit of account, money is simply used to measure prices and debts. It allows prices for all goods and services to be compared. So we use money to effect business calculations and accounting procedures. In modern economics, money as a unit of account is almost always the medium of exchange. There are few circumstances where, for example, the prices of antiques or racehorses that are offered for sale at an auction are expressed in guineas²³⁸ (even when the guinea has long ceased to be monetary unit).

A store of value: Money can be used as a store of value. For example, an employee who sells his labour and in turn receives money in exchange may decide to keep that money (their income) without using it to make purchases. We can say that this person has kept his income as idle money. For money to be valuable and serve as a store of value, it needs to be able to retain value overtime instead of depreciating. There are other assets such as bonds, stocks and savings account that also serve as a store of value. Money is the most unique store of value when compared to the assets mentioned here because it is highly liquid. Liquidity can be described as the ease with which an asset is turned into consumption. Because money serves as a means of payment, it has a high liquidity.

A standard of deferred payment: Money is used to facilitate payment of debts and other transactions to sometime in the future (at a specified day and date). For example, an employee who sells labour is only paid at the end of the month.

Desirable characteristics for a commodity to function as money

Here we are looking at the qualities of good money. For a commodity to act as money, it has to be relatively scarce, portable, durable, divisible and uniform. A commodity that is easily accessible and not scarce will not serve as money. That commodity should not be heavy but portable for carrying purposes. Durability means that it can be kept for long. Money should be divided into smaller units or denominations to make it possible to purchase smaller units of commodities. Uniformity (homogeneity) means all transactions will be made using the same commodity as a medium of exchange. This will make it acceptable by all people using it as exchanges.

Theory of money supply: Historically money supply depended on the discoveries of gold mines and the activities of miners. With the growth of demand deposit exchange and the development of central banks with the power to regulate the money supply which the banking system creates, the need for the theory of money supply is important. Modern theory of money supply maintains that money supply is jointly determined by the central banks, the commercial banks and the public. Therefore, money supply (M) is the product of the monetary base (B) and the money multiplier (m). We can have M = mB.

Determinants of money supply: There are two key determinants of the supply of money and these are the monetary base and the money multiplier. However, these two broad determinants of money supply are influenced by other factors. These factors are presented here.

• Monetary base: monetary base refers to the supply of money available for use either as cash or reserves of the central bank. The magnitude of the monetary base (B) is the significant determinant of the size of money supply. Money supply varies directly in relation to the changes in the monetary base.

Monetary base = notes and coins and reserve deposits at the central bank (Federal Reserve in the case of USA)



- Money multiplier: Money multiplier is the second important (the first is the monetary base²³⁹) determinant of money supply. The money multiplier means that only a relatively small part of the money supply is under the direct control of the monetary authorities (the central bank and the minister of finance). Any increase in the size of the money multiplier will increase the money supply and vice versa.
- Reserve ratio: the reserve ratio is legally fixed by the central bank. This ratio has two component parts. i) Excess reserve ratio which is the ratio of excess reserves to the total deposits of the bank; and ii) The required reserve ratio which is the ratio of required reserves to the total deposits of the bank.
- Currency ratio: the ratio of currency demand to demand deposits.
- Value of money: the value of money in terms of other goods and services has a positive influence on the monetary base and ultimately the stock of money.
- Interest rate: has a positive influence on the money multiplier effect and hence money supply. A rise in the interest rate will reduce the reserve ratio and this will raise the money multiplier and vice versa.
- Monetary policy: has either positive or negative influence on the money multiplier
 and ultimately money supply. This will depend on whether reserve requirements
 are raised or lowered. If the reserve requirements are raised, the value of reserve
 ratio will rise, thereby reducing the money multiplier and thus the money supply.
 And vice versa.
- Seasonal factors: for example during the holidays (x-mas, Easter, Idd, Thanks giving, St. Francis Day, etc.), the currency ratio will tend to rise, thereby reducing the money multiplier and hence the money supply.

The demand for money: The willingness by an individual to hold money in cash is what can be referred to as individual demand for money. Total demand for money refers to the amount of wealth that all individuals in the economy wish to hold in form of cash.

The Quantity Theory of money: According to Irwin Fisher (1911)²⁴⁰, a classical economist, demand for money primarily depends on the level of transactions – that is, that money is used as a medium of exchange. Whenever a transaction has been made, there is an exchange of money for the good, service or securities. The value of money will then be equal to the value of the goods, services or security for which it was exchanged. This can be illustrated by Fisher's equation of exchange. We explain it below.

MV = PT

Where: M = the nominal quantity of money in circulation

V = the transactions velocity of money (number of times money changes hands)

P = the average price level of the transactions

T = the number of transactions in time period T.

Assume that V and P are constant; if T increases M would also increase. This would mean that the number of transactions is high and people would demand for money to settle such transactions.

Fiat money: Money issued on the directive of Government irrespective of the level of economic activity which is not backed by the current reserves at the central bank (in foreign exchange) or government gold. It is a fiduciary issue – money printed by the central bank, on the orders of government, which is not backed by gold.

Motives for demand for money

These motives were advanced by Keynes when considering demand for money. We, therefore, refer to them under *Keynesian theory of demand for money*. There are *three main motives* for demand for money presented here.

Transaction motive: Money (cash) is required to undertake day-to-day purchase of goods and services. The transaction demand for money depends on the following:

- Real income: people with higher levels of income are more likely to require large cash balances to finance their purchases. They are assumed to spend more than the poor.
- The general price level: a rise in the price level is most likely to increase the transaction demand for money. More money will be needed to finance the same real expenditure
- Institutional factors such as how long it takes organisations to pay their employees.
 If the person is employed by an organisation that delays paying salaries and wages, such a person will keep more cash (or in their bank deposit) in order to finance day-to-day transactions.

With the introduction of 'plastic money', it is now possible to visit an automated teller machine (ATM) any time of the day or night and access cash. That is why we are now talking about money in the bank deposits.

Precautionary motive: Individuals may hold money to meet unforeseen emergencies. Some money is kept in cash reserves to avoid unexpected demands for cash in the short term. Such people just take precaution. It is usual these days to hold money for precautionary motives in near money cash items – that is the form of easily realised short term investments.

Speculative motive: This is sometimes called *demand to hold passive or idle money balances*. This is the motive for holding money so that you can take advantage of any changes in the interest rate, or attractive investment opportunities that may arise.

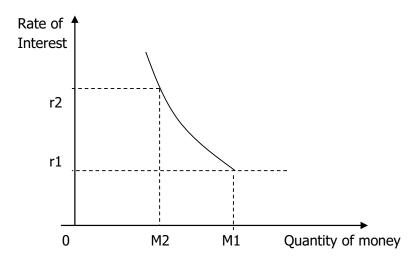
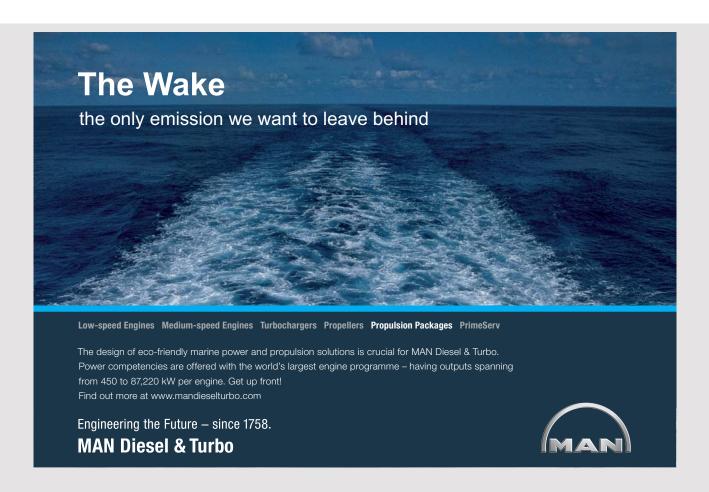


Figure 23: Speculative demand and interest rate



As Figure 23 shows, demand for money (cash) increases as the rate of interest falls. When the rate of interest is expected to fall, speculators convert bonds to cash to avoid capital losses and thereby increasing demand for money. When the rate of interest is expected to increase, speculators purchase bonds, hence demanding less money. They will sell their bonds at a higher price and make capital gains when the demand for them increases. The liquidity trap (r1, M1) is a point below which interest would be too low to encourage speculators to invest in bonds.

Name	Definition	
M1 =	Currency in circulation (notes and coins) + checkable deposits + traveler's checks + demand deposits	
M2 =	M1 + deposits with an agreed maturity of up to two years + deposits redeemable at notice of up to three months	
M3 =	M2 + repurchase agreements + money market fund shares + debt securities with a maturity of up to two years	

Table 38: Definitions of Money

Five core principles of money and banking

- i) *Time has value:* People prefer to have something now than another day. The time value of money means, therefore, that money is more useful to a person today than in future. So if you have to borrow some person's money, it is necessary that the value of time be calculated. In future, the money borrowed will be returned with interest. In future a lender will receive both the principal sum lent with interested that has accrued overtime. The interest rate compensates the lender for delayed consumption.
- ii) *Risk requires compensation:* Risks lead to charging interest on financial transactions. When a lender gives money to a borrower, they take a risk. Risk must be compensated. The riskier the transaction, the higher the interest rate charged.
- iii) *Information is the basis for decision making:* Information is required as a basis to take informed decisions. Information has to be gathered before a financial decision is made. The larger the decision the more data has to be collected and analysed before the information is presented. One needs information before investing in stocks or bonds, or taking up a health insurance premium.
- iv) The market sets prices and allocates resources: The financial markets, obeying the laws of demand and supply, will dictate the prices of financial assets and decide who will get these financial goods. The prices of insurance policies, stocks, bonds, or commercial borrowing interest rates will be determined by market forces.

v) Stability improves welfare: The stability in a financial system is preferred by the borrowers and lenders, investors and even sellers of financial assets (issuers of securities). A slump is not good for both the investors and the issuers of securities. It is the desirability of stability which is the main reason there are such things as unemployment insurance and progressive taxes in some countries.

COMMERCIAL BANKS

Functions of Commercial Banks

- 1) *Financial intermediation:* Commercial banks receive money from savers (the depositors) and lend it to borrowers (mainly investors) at an interest rate. The interest charges and other costs charged on the borrowers is what the banks use to run business and pay interest to the depositors.
- 2) *Maturity transformation:* They keep different accounts which help to ensure that the bank has money to meet daily financial requirements of their depositors and at the same time continue to lend out to borrowers.
- 3) Delegated monitoring: The banks play another function delegated monitoring. Individual savers would have found it expensive to individually monitor the investors' (borrowers of their money). This role is done by the commercial banks. According to Leland and Pyle (1977), markets are characterised by informational differences between buyers and sellers and that in financial markets, informational asymmetries are particularly pronounced. Borrowers typically know their collateral, industriousness and moral rectitude better than do lenders. Entrepreneurs possess "inside" information about their own projects for which they seek financing. Lenders would benefit from knowing the true characteristics of borrowers. But moral hazard hampers the direct transfer of information between market participants. Borrowers cannot be expected to be entirely straightforward about their characteristics, nor entrepreneurs about their projects, since there may be substantial rewards for exaggerating positive qualities. And verification of true characteristics by outside parties may be costly or impossible. Yet without information transfer, the markets may perform poorly. (Leland, H.E. and Pyle, D.H., 1997: 371) 241. Diamond (1984) model explains the issue of delegated monitoring:

A financial intermediary raises funds from depositors who do not monitor, lends these funds to entrepreneurs and can offer improved risk sharing with an entrepreneur because the intermediary's monitoring reduces or eliminates the incentive problem (Diamond 1984:404). In his model, Diamond (1984)²⁴², banks act as intermediaries and have such net cost advantage relative to financial markets – and the basis for such advantage is portfolio diversification. Diversification within an intermediary serves to reduce these costs, even in a risk neutral economy (Diamond 1984:393).

A financial intermediary, a bank, is introduced into the relationship between lenders and borrowers which takes on the job of delegated monitoring. In equilibrium, Diamond (1984) finds that the cost of delegation which arises by collaboration between the financial intermediary and the investors can be reduced tremendously. He adds that if an intermediary can diversify their loan portfolio, the delegation costs approach zero once the number of the loans given to entrepreneurs grows.

- 4) An efficient payment system: the key reason for most people holding a bank account is because banks operate a payment system. When money is in the bank, on your bank account, you can use different technologies such as cheques, withdraw slips, payment cards (e.g. ATM), etc. to spend that money. For most transactions, banking transfers are far more convenient than cash.
- 5) Offer financial advice to clients (depositors and borrowers): They advise borrowers on the potential success or failure of the project for which money is being borrowed by undertaking project risk analysis, among others. They advise depositors on the various savings account options including fixed deposit account.
- 6) Provide reference on their clients' creditworthiness: They assure their clients and business partners about their creditworthiness. They give guarantees to their clients in form of bid security, performance guarantees and letters of credit.



- 7) Custodial functions: Commercial banks keep their clients' valuable articles and documents in safe custody (land titles, wills, academic certificates, etc.).
- 8) Safe keeping of depositors' money: They keep their depositors' money. Money is safer in a bank than at home where it may be stolen by family members and other thieves, be burnt in fire that may destroy the house where it is kept or be eaten by termites in poor African shelters.

Limitations on commercial banks power to create credit

- a) Amount of cash that the bank possesses;
- b) Minimum legal reserve ratio;
- c) The effect of the central bank's credit control policy;
- d) Banking habits of people;
- e) Leakages in the credit creation process of the banking system;
- f) Cheque clearances;
- g) Excessive reserves;
- h) Behaviour of other banks; and
- i) Economic conditions during certain periods;

Central Bank

A central bank is the financial institution which is mandated, by law, to implement the country's monetary policy including controlling the quantity and use of money and manage inflation. It is supposed to advise government on the monetary policies – that is, whether to undertake expansionary or restrictive monetary policies. It controls commercial banks, credit institutions, microfinance deposit institutions and other non-bank financial institutions.

Functions of a central bank

- 1) Bank to the government: keeping government funds; paying interest on public debt; selling government securities (treasury bills, bonds);
- 2) Lender of last resort to commercial bank and as clearing house for all commercial banks. Commercial banks settle their indebtedness through the central bank.
- 3) Supervises the commercial banks, credit institutions, microfinance deposit institutions and other non-bank financial institutions.
- 4) Influences level of economic activity and boosts economic growth through use of monetary policy tools.
- 5) Issues and renewing national currency (coins and notes).
- 6) Custodian of foreign currencies and during a managed foreign exchange regime, it allocated foreign exchange.
- 7) Keeper of the funds of international institutions working in the country (such as IMF, The World Bank, etc.)

Monetary Policy

The monetary policy has either positive or negative influence on the money multiplier and ultimately money supply. This will depend on whether reserve requirements are raised or lowered. If the reserve requirements are raised, the value of the reserve ratio will rise, thereby reducing the money multiplier and thus the money supply and vice versa.

Tools of monetary policy used by central bank:

The bank rate; open market operations; variable reserve ratio of commercial banks; selective credit control; selective credit control; special deposits; and moral suasion

1) The bank rate (Central Bank lending rate): This is the rate at which commercial banks can borrow from the central bank against eligible collateral usually for up to 3 months. It will be the rate of interest charged by the central bank on commercial banks that have borrowed from it. This will ensure or discourage borrowers because commercial banks will increase their lending rates. When this rate is increased, commercial banks increase the rate of interest charged on loans. This will discourage demand for loans and this in turn reduces money in circulation – and checks on inflation. When credit is restricted, there will be little money in circulation. As the Central Bank tries to control inflation, it has to be careful not to discourage production. On the other hand, when this rate is reduced, commercial banks reduce the rate of interest charged on loans. This will encourage demand for loans and this in turn increase money in circulation.

Treasury bills are usually the main eligible collateral for borrowing from the central bank.

Does the bank rate always influence commercial banks' lending rates?

The bank rate as an instrument of controlling lending by commercial banks is limited by some factors which we briefly discuss here.

- i) Some commercial banks have large amounts of liquid assets and therefore do not go to the central bank to obtain finances. It is only when commercial banks approach the central bank for rediscounting facilities that the bank rate policy can be used.
- ii) When the central bank announces the bank rate but other market rates of interest in the money market do not change, the bank rate will not be effective.

- iii)It can be effective when eligible bills of exchange are used for financing commerce and trade. These days the business people and banks prefer to use cash credit and overdrafts instead of bills of exchange. This make the bank rate an ineffective tool for credit control.
- iv) Business people's expectation of future good business makes them continue to borrow at high interest rates. It is less likely that businesses will borrow during the periods of low and falling prices because of reduced bank rate.
 - 2) Central Bank sells securities ('open market operations'): Another monetary tool is when the Central Bank sells securities to the public through commercial banks. The Central Bank can also sell government treasury bills and bonds which will mature after 90 days to the public. This is called open market operations. The central bank will buy these securities later when the amount of money in circulation has been reduced and inflationary pressures stemmed.
 - 3) Variable reserve ratio of commercial banks: Also the Central Bank may increase the variable reserve requirements (the cash ratio and reserve requirements at the central bank) of commercial banks (as a legal requirement) during a period of inflation. This takes away money from the commercial banks which would otherwise have been given out to borrowers as loans.



- 4) Selective credit control: The central bank, usually following advice from government, can require commercial banks to give credit to specific sectors (e.g. commercial agriculture, aquaculture, value addition firms, mining, etc.). This reduces the number of enterprises obtaining loans and hence reduces the amount of money in circulation.
- 5) Special deposits: The central bank can require commercial banks to make certain deposits above the minimum legal requirement as way of curbing inflationary pressures in the economy. This has the effect of reducing the pool of money available in commercial bank for lending and thus reduces money in circulation.
- 6) Moral Suasion (a form of persuasion): Here the central bank does not give directives but, instead, gives informal advice and appeals to commercial banks not to hike interest rates and affect the economy. Again, the central bank can appeal to and persuade commercial banks to restrict credit during an inflationary period. Commercial banks may follow the advice given by their supervisor and lender of last resort to avoid falling into disfavour.

Inflation

Inflation refers to the continuous rise in the general price level in the economy. It is not just a persistent rise in the price level of one commodity. Inflation is a sustained increase in the average price level of a country. The rate of inflation is measured by the annual percentage change in the level of prices as measured by the Consumer Price Index (CPI).

Headline Inflation Rate: The measure of inflation based on relative changes in prices of all items in CPI basket.

Underlying Inflation Rate (also called Core inflation): A measure of inflation based on relative changes in prices for all goods and services (excluding volatile elements (such as food crops, utilities, fuel and electricity for the case of some countries).

Creeping Inflation Rate: inflation at moderate rates but persisting over a long period of time. It is regarded as a normal state of affair in many countries. Inflation is a macroeconomic concept. It is about aggregates. It is not a microeconomic concept, that is, about one commodity or service. According to JM Keynes, inflation is an aspect of full employment. He says that inflation is the result of excess of aggregate demand over available aggregate supply. According to him, true inflation begins only after full employment.

Deflation: While an upward movement in the general price level in an economy is referred to as inflation, the downward movement in the general price level (i.e. a persistent fall in the general price) is referred to as a deflation. During a deflation, the rate of inflation becomes negative.

Stagflation: there is simultaneous existence of high rates of inflation and also increasing levels of unemployment.

Inflation is statistically measured using percentages. It is the percentage increase in the price index per unit time (a month quarter or year).

Inflation rate =
$$\frac{P1-P0}{P0} \times 100$$

Where:

P0 = previous years price index

P1 = current year's price level

Features of inflation

In this section we look at the main features of inflation.

- 1. Inflation is observed over a period because it is a rise in the general price level over a period;
- 2. Inflation is a monetary phenomenon and is generally due to excessive money supply;
- 3. Inflation is an economic phenomenon as it is a result of interactions of economic forces (i.e. supply and demand for goods and services);
- 4. Excess demand amidst inadequate supply is the essence of inflation; and
- 5. Pure inflation starts after full employment (This is based on Keynesian theory).

Types of inflation: Inflation types can be classified on the basis of speed and according to its causes, among others.

Inflation types according to the degree of intensity (speed): When classified and viewed according to the degree of intensity (speed), we explain two types:

- 1) Creeping inflation: This is the mildest type of inflation which is generally regarded as conducive to economic growth. It is the slow increase in the general price level. This was the inflation rate that was experienced by most industrialised countries in the 1950s and early 1960s. The inflation rate was fairly stable from year to year: at an average of less than 5 percent.
- 2) Hyper inflation (galloping inflation): This refers to a situation where there is a rapid rise in the general price level. During such a period, people prefer to keep real assets instead of money. Money loses total value. Money ceases to be a store of value. We can quote two examples in history of such galloping inflationary rate. There was the famous German inflation in 1923 after the First World War (WW1). Germany learnt a bad lesson and has since managed their economy well. It is currently one of the best managed economies in the world. The other example is China. China also experienced hyper-inflation after the Second World War (WW2).

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Inflation types according to its causes

Demand pull inflation: This is a situation which occurs when aggregate demand has exceeded aggregate supply under conditions of full employment. It occurs where available supply at existing prices is exceeded by the aggregate demand and this causes general price level to rise. This situation was first presented by Keynes, who considered it to be the major cause of inflation. There are several factors that can lead to excess demand. These include increased population in numbers, rising levels of income (as an economy grows), rising wages and salaries because of trade union pressures on employers, increased public spending in social sector, defense etc. and availability of cheap credit that makes households and firms spend on both consumer and capital goods.

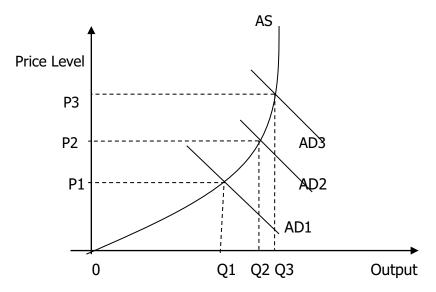


Figure 24: Demand Pull Inflation

Beyond 0Q3 at (0P3 and 0Q3) AD3 there are no increases in output but increases only in price. There is more aggregate demand chasing "too few goods".

Policies for addressing demand pull inflation: There are two main policies for demand pull inflation: *monetary policy* tools and *fiscal policies tools*.

Restrictive monetary policies to reduce money in circulation are applied to control inflation. Such tools include the following:

1) Increasing the bank rate (known as Central Bank lending rate (CBR): This will discourage borrowers because commercial banks will increase their lending rates. When credit is restricted, there will be little money in circulation. The Central Bank, as it tries to control inflation has to be careful not to discourage production.

- 2) Central Bank sells securities: Another monetary tool is when the Central Bank sells securities to the public through commercial banks. The Central Bank can also sell government treasury bills to the public which will mature after 90 days. This is called open market operations.
- 3) Variable reserve requirements of commercial banks: Also the Central Bank may increase the variable reserve requirements of commercial banks (as a legal requirement) during a period of inflation. This takes away money from the commercial banks which would otherwise have been given out to borrowers as loans.

The Central Bank can also undertake moral suasion to influence commercial bank's lending behaviour. This is where the Central Bank can, for example, appeal to and persuade commercial banks to restrict credit during an inflationary period.

Moral suasion: A persuasion tactic used by an authority, and in banking by the Central Bank, to put pressure and influence, without using force, on banks to adhere to a policy. The methods or tactics used include closed-door meetings with bank executives and directors, increased severity of inspections by the central bank, appeals to banks to support government efforts to national development, and vague threats of some sort.

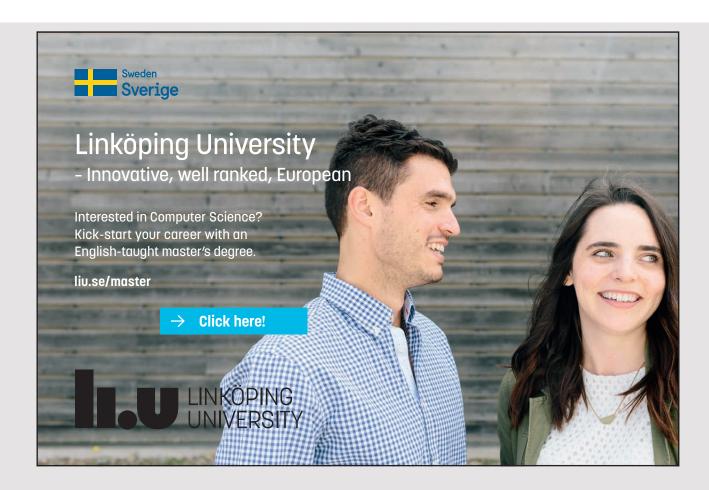
Restrictive fiscal policies: The government, through the budget, can reduce government expenditure. This has often got negative effects on the rate of unemployment, social services provision but it reduces levels of income and expenditure. In most cases, consumption spending decreases and this helps the government to manage inflation. Alternatively, the government can increase taxes (especially indirect taxes) on certain commodities. The more a person is taxed the less disposable incomes remain at his disposal. Related to the taxes is increasing import taxes to discourage imported inflation. Most LDCs that depend on imports have been affected during 2010–2011 because of imported inflation from China, India and others.

Cost push inflation: This form of inflation occurs when prices are forced to rise due to increases in the costs of production. The increased costs of production are then shifted to consumers in form of higher prices.

Causes of cost push inflation: One of the causes of this type of inflation is wage increases because of the power and bargaining strengths of trade unions. Government increasing taxes on key components or materials used in production may force producers to transfer these costs (including taxes) to the consumers. Producers then reflect the costs in the prices of goods and services. Exchange rate depreciation by a country will increase import prices which will later be reflected in the prices of the goods produced using imported inputs.

Policies to address cost push inflation: As cost push inflation originates from the supply side (not aggregate side), we need policies to increase domestic product output levels – such as cheap local credit facilities and other incentives like tax holidays for investors producing for local market. The government can encourage imports of those commodities highly on demand by reducing taxes on them.

Imported inflation: This is the type of inflation associated with importing goods from countries already facing inflation. There will be an increase in the prices of imported goods because they are bought at higher prices. Secondly, there will be an increase in the price of imported units for production. Once these inputs have been used to produce goods locally, these goods will have higher prices reflecting the high of buying inputs (raw materials). There is no country in the world that is self-sufficient in production of all its domestic consumption. Most LDC's in Africa are not importers of foods, consumer goods and capital equipment. So they cannot avoid imported inflation.



Policies for imported inflation: There is not much you can do about imported inflation with regard to control policy measures. Most of the policies for it are unpopular under the current liberalised regime.

- 1. Import substitution strategy. The government can support the setting up of industries and produce goods that were formerly imported. This is a long- run strategy
- 2. Subsidisation of imports so that importers do not pay all the costs of the imported product. A subsidy can be in form of a tax waiver or government pays part of the actual price.
- 3. Import restrictions: these include total ban of some imports; denying high taxes on some products.

Bottleneck inflation: It is due to the supply rigidities as a result of the break down in some sectors. Failure in agricultural production because of bad weather, pests or bad time; fall in a certain region; and decline in import supplies can cause scarcity. This scarcity can create excessive aggregate demand for certain goods.

Structural inflation: This is the type of inflation which is caused by non-correspondence of what is produced and what is demanded. When producers produce what is not demanded, buyers begin to pay higher prices whenever they can get the scarce goods. The continued demand and payment of high prices for scarce goods will likely lead to an increase in the general price level. The increase in the price of scarce goods will cause spiral inflation to other related commodities. For example, if the buyers of coffee cannot find it, they will demand more of its substitute – tea. This will give rise in the price of tea.

15 PUBLIC FINANCE AND FISCAL POLICY

Public Revenue: This is one of the branches of public finance. It deals with the various sources from which the state might derive its income. These sources include incomes from taxation, commercial revenues in the form of prices of goods and services supplied by public enterprises, administrative revenues in the form of fees, fines, gifts and grants.

Funds for central Government budget	Funds for Local Government budget
 Taxes and/or levies Business/investments Loans Fines Grants Gifts Deficit financing (borrowing from the central bank – issuing new money) 	 Local government taxes and/or levies Central government allocations Money from local government business/investments Donors

Table 39: Sources of public revenue

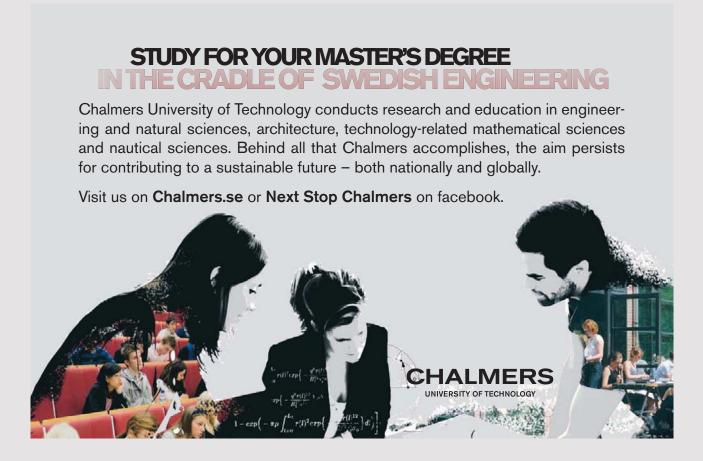
Public Receipts (all the income of the government) = Public revenue + Public borrowing + issue of new currency.

Public revenue (public revenue is a part of public receipts) includes that income which is not subject to repayment by the government.

Public money: This is the money received by a vote or collected for the purpose of Government expenditure and includes revenue from taxes and government charges, proceeds of loans raised on behalf of government, grants received by government, recoveries of loan principals, redemption and maturity of investments, sale or conversion of securities, sale proceeds on Government property, other recoveries, or other funds for the purposes of Government and any other money that the Minister of Finance or Secretary to the Treasury may direct into a public or official bank account.

Government Expenditure Policy and the National Budget

Every financial year, the Government has to undertake planning and prepare a budget. In most countries, the ministry responsible for planning writes a call circular letter to all government Ministries, Departments and Agencies (MDAs) that are self–accounting to begin the process of preparing the budget. The process involves meetings within the MDAs where each department prepares their next year's expenditure (and revenue where an MDA makes income) and discuss it with the top management²⁴³.



The process of budgeting involves sector stakeholder consultations where the technical staff of the MDAs discuss the plans and budgets with other relevant MDAs, private sector, donors and civil society. In most organised countries, the Government has a 3-year Medium Term Expenditure Framework (MTEF) that is the basis for budgeting for those three years. The MTEF shows priority sector and budget estimates for the three years. Each MDA will prepare the Policy Statement - Ministerial Policy Statement (MPS) in case of a ministry which is incorporated in the National Budget Framework Paper (NBFP). The NBFP is the document that contains all MDAs plans and budgets that is supposed to be discussed by the legislature (the parliament) before the Budget Speech is red by the minister responsible for planning or finance, on behalf of the President of the country. The budget is the President's budget, following the party in power's manifesto and other policy documents. After the Budget Speech has been read, the budget estimates contained therein are again presented to the legislature (the parliament) for discussion. In some countries, the legislature (the parliament) organises a retreat and discusses the budget. In some cases, they may re-allocate some money from one vote to another depending on their consideration of national priorities and economic and social conditions prevailing in the sector.

The legislature (the parliament) has got various roles: *legislating; approving the budget;* oversight roles on government expenditure; and generally represent the views of their constituencies to the parliament. In most countries, the legislature (the parliament) is the representative or delegates of the people who elected them. They should, therefore, always consult them before supporting certain bills and positions in legislature meetings (the Parliament).

The National Budget

A national budget is both an economic and political tool used by the president or head of state in a democratic country to achieve what they promised in the leaders and party's manifesto. A national budget is a government statement showing expected revenue and planned expenditure for one financial year. It is based on the MTEF. Annually, the Budget Speech is read by the minister responsible for finance or planning on behalf of the president or head of state to the legislature (the parliament) and the entire country.

Public debt:	Includes the principal loan, interest on that debt, sinking fund payments in respect of that debt and the cost, charges and expenses incidental to the management of that debt.
Budget:	The Government plan for revenue and expenditure for a financial year
Budgeting:	This is the process by which Government sets levels to efficiently collect revenue and allocate the spending of resources among all sectors to meet national objectives.
Capital expenditure:	Any expenditure for the creation or acquisition of a fixed asset, inventory, other valuable physical stock.
Classified expenditure:	The expenses and commitments incurred by an authorised agency for the collection and dissemination of information related to national security interests and include the cost of procurement and maintenance of related assets.

Table 40: Budgeting and public debt

Types of the budget

There are mainly three types of a budget as presented here.

- 1. **Balanced budget:** This is where expected revenue is equal to the planned expenditure for one financial year.
- 2. **Surplus budget:** This is where expected revenue exceeds planned expenditure for one financial year.
- 3. **Deficit budget:** This is where planned expenditure exceeds expected revenue for one financial year. This is very common in most Sub-Saharan African countries. The gap between available revenue and the deficit is usually funded by ODA (aid) in form of grants and borrowing concessional loans from multilateral agencies (World Bank and IMF) and friendly countries. Sometimes, the country can undertake both internal and external borrowing. Internal borrowing is where the government borrows from within the country from individuals, companies, financial institutions (banks, pension funds, etc.). External borrowing is where the government borrows from outside the country from individuals, companies, financial institutions (banks, pension funds, etc.), and other governments, multilateral lenders (The World Bank, IMF, etc.). The former is called internal borrowing and the latter is called external borrowing. The government may borrow through issuing of bonds or treasury bills.

Taxation

Taxation is the most important source of revenue for the government. Taxation is simply the act of levying taxes. A tax is a compulsory charge or payment imposed by government on individuals or corporations/businesses. The individuals or entities which are taxed have to pay the taxes irrespective of any corresponding return through the goods or services by the government. The taxes may be imposed on the income and wealth of persons or corporations/businesses and the rate of taxes may vary.

Tax is defined as the monetary charge imposed by the government on persons, entities, transactions, or property to raise public revenue.

Purpose of taxation: There are several objectives why government taxes. They include the following:

- 1) Raising revenue;
- 2) Regulation of consumption and production;
- 3) Encouraging domestic industries;
- 4) Stimulating investment;
- 5) Reducing income inequalities;



- 6) Promoting economic growth;
- 7) Development of backward regions; and
- 8) Ensuring price stability.

Principles (canons) of taxation:

Adam Smith formulated four canons of taxation, which we refer to as the principles of taxation. Later, other economists have added some more principles. Therefore, principles which a good tax system should follow are called canons of taxation.

- 1. Canon of Equity/fairness: The canon of equality states that persons should be taxed according to their ability to pay. That is why this principle is also known as the canon of ability. Equity does not mean equal amount of tax but equality in tax burden. The canon of equity implies a progressive tax system (that is vertical equity: the contribution in tax should increase as taxable income increases). Fairness refers to horizontal equity meaning that the same amount is paid by persons or entities that are equal in earnings or wealth.
- 2. Canon of Certainty: This canon states that the tax which each individual is required to pay should be certain and not arbitrary. The time of payment, the manner of payment and the amount to be paid should be clear to every tax payer.
- 3. Canon of Convenience: The mode and timings of tax payment should be convenient to the tax payer. It means that the taxes should be imposed in such a manner and at the time which is most convenient for the tax payer. For example, the Government of India and many other countries collect income tax at the time when employees receive their salaries, thus sometimes the reference to the tax as Pay-as-You-Earn (PAYE).
- 4. *Canon of Economy:* Every tax has a cost of collection. The canon of economy implies that the cost of tax collection should be kept at minimum.

Characteristics of taxes

A good tax system should adhere to the principles of taxation already looked at in these notes.

Taxes according to the degree of progression: We have progressive tax, regressive tax and proportional tax.

Progressive tax: The rate of taxation increases as the tax payer's income increases: the rate of tax increases with every increase in income. This is mostly applicable in income taxes. The higher the income, the higher the rate of tax. Most income taxes, for example PAYE (personal income tax – PIN) and CIT (company income tax), are progressive taxes. Progressive taxes are based on the principle of vertical equity (where, under the principle of equity/fairness it means that the strongest shoulders or carries the heaviest load or burden)

Illustration: People with higher incomes pay a higher percentage in taxes. It is a pay as you earn or simply "the more you make the more they take"

Income (U\$)	Amount paid as tax (U\$)	Amount paid in taxes as a percentage of income
10,000	1,000	10%
50,000	100,000	20%
100,000	30,000	30%

Table 41: Higher incomes pay a higher percentage in taxes

Regressive tax: A regressive tax is one in which the rate of taxation decreases as the taxpayer's income increases. Lower income is taxed at a higher rate, whereas higher income is taxed at a lower rate. However *absolute tax liability* (the actual amount paid to tax agency) may increase.

Illustration: The lower the income the higher the percentage paid in taxes. Sales tax can be used as an example of a regressive tax.

Income (US\$)	Amount paid as tax	Amount paid in taxes as a percentage of income
10,000	1,000	10%
40,000	1,000	4%

Table 42: The lower the income the higher the percentage paid in taxes

Proportional tax: A tax is called proportional tax when the rate of taxation remains constant as the income of the tax payer increases. In this system all incomes are taxed at a single uniform rate, irrespective of whether the tax payer's income is high or low. Note that as a person's income increases, the percentage of total income paid in taxes remains the same. The *tax liability* increases in absolute terms, but the proportion of income taxed remains the same. Regardless of income, the same tax rate is imposed upon everyone. Another term for a proportional tax is a *flat tax* – because it is a tax whose rate remains fixed regardless of the amount of the tax base.

Classification of taxes

Taxes can be classified into various types on the basis of *form, nature, aim and method of taxation*. The most common and traditional classification is to classify taxes into direct and indirect taxes. We will look at these classifications in the following pages.

Direct taxes: These are taxes whose final burden of taxation is borne by the same person or entity on which it is levied. They are imposed on incomes arising from business, property and employment. Individual income tax (e.g. PAYE, property tax, capital gains tax and rental tax) and corporation tax (CIT) are examples of direct taxes.

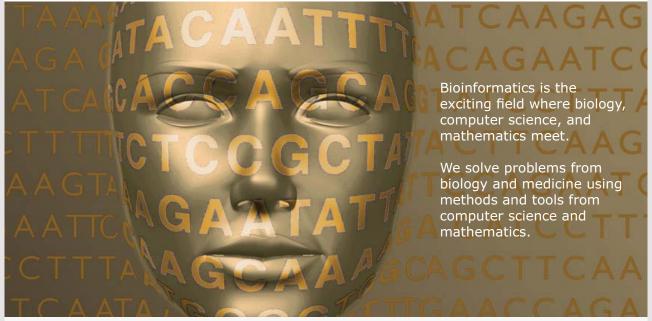
Indirect taxes: These are taxes which are initially paid by one individual, but the burden of which is passed over to some other individual who ultimately bears it. This tax is charged or levied on consumption (the expenditure) of goods and services usually collected by an agent (the taxpayer – e.g. you pay such a tax when you buy fuel from a fuel station). Examples of such taxes include sales tax (e.g. a tax on purchasing airtime), VAT, excise duty and import duty.

Tax avoidance and tax evasion

Tax evasion is different from tax avoidance though there is always a tendency to think that the two terms are used interchangeably.



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Tax evasion is an illegal act where a legal entity or person intentionally avoids paying their true tax liability. Tax evasion can be described as an illegal manipulation of one's affairs in order to reduce the tax that they were supposed to pay. It is, therefore, a manipulation one's affairs to pay less tax than was due. Those caught evading taxes are generally subject to criminal charges and substantial penalties.

Tax avoidance

Tax avoidance refers to the use of legal methods to modify an individual's financial situation in order to lower the amount of income tax owed. This is achieved by claiming the permissible deductions and credits. This is usually done by big corporations which have experts in tax law and financial management. Such companies may present costs incurred and are allowed to offset certain costs by not paying taxes. In developed countries, tax statistics show that the rich profit more from tax discounts and deductions than the poor. For an individual or corporation to legally pay lower taxes, it needs to have either knowledge or advice — and both are costly to acquire. If you are poor, then you do not have enough income to use the legal ways of paying less tax.

Over and over again courts have said that there is nothing sinister in so arranging one's affairs as to keep taxes as low as possible. Everybody does so, rich and poor, and all do right, for no body owes any public duty to pay more than the law demands: taxes are enforced extractions, not voluntary contributions. To demand more in the name of morals is mere cant.

- Judge Learned hand in Commissioner v. Newman, 159 F.2d 848 (2 d Cir, 1947)

The causes of tax avoidance and tax evasion

- High tax rates: The higher the rates, the higher the reward from not paying taxes. The complexity of the rules and difficulty with compliance makes it easier to deal with by the rich but not the poor.
- The imprecise laws and arbitrary tax rules. There is always the argument that oftentimes the tax rules are one step behind the economy.
- Where there is a lack of control by the revenue body and where there are problems with penalties (how to penalise i.e. how to punish tax evasion).
- There is the issue of social penalties for evasion with regard to how society reacts to the information that someone was evading taxes.
- In situations where there is inequality or perceived inequality of the tax system, both tax evasion and avoidance become socially acceptable.

How to reduce tax evasion and tax avoidance:

One of the ways is to lower the marginal rate of tax. The government, and in particular the revenue body, needs to change the people's perception of tax payment, the tax system and about tax evasion and avoidance. This can be done by, among others, educating society and creating tax awareness campaigns. There is need to simplify the tax payment procedures. In some rare cases, tax abolitions could be necessary.

Non-Tax Revenue

Government raises revenue mainly through taxes but also collects non-tax revenue. Non-tax revenue (NTR) refers to duties, fees and levies that are charged by Government for the provision of specific services and penalties for specified offences. NTR are imposed by specific Acts of Parliament (legislature) and administered by Government MDAs. Examples of NTR include motor vehicle licenses; passport fees; work permit fees; visa fees; traffic offence express penalties; business registration fees; royalties; and land transfer fees.

Challenges facing tax administration in developing countries

- 1. Relatively limited tax administration capabilities: Lack of skilled staff to manage all aspects of tax collection (including calculating actual amounts to be paid by individuals and entities, enforcement of tax laws and advising Government on formulating tax legislation).
- 2. High dependence on foreign trade taxes: Most developing countries mainly depend on import trade taxes and imports take away the little foreign exchange earned from exports and other sources.
- 3. Temptation to widen tax incentives in the hope to attract more investors: Studies carried have found that what matters more for attracting FDI is not tax incentive but a conducive business environment, peace and security (*see section on FDI*). Therefore, countries are losing revenue in tax incentives.
- 4. Narrow tax base due largely to a big informal economy: In most African countries, there is a large amount of economic activity that is done in the informal sector, or perhaps it is illegal activities involved with tax evasion, or simply not declared to government statisticians. Talking about informal sector, more than 35 African countries have an informal sector constituting above 30 percent of the total economy²⁴⁴. There are a few formal business entities and individuals who work in them that pay direct taxes especially personal income tax and corporate income tax. Most people work in the subsistence sector and their incomes are not usually reported to government for tax purposes. There is a big informal sector whose employees or business owners do not pay taxes. Some of the workers in the subsistence or informal sector do not have bank accounts. They keep their incomes at home, with all the risks such as money being stolen or their residence could be burnt by fire.

- 5. Lack of modern technology and systems to administer taxes (thanks to international partners, Uganda, in East Africa uses *Asycuda World* to manage customs taxes): Sound use of such IT approaches as withholding, information reporting, webbased client focused interfaces with the private sector and value chain analysis and monitoring all activities going on all the world in both private and, increasingly public sectors can be enormously effective in reducing corruption, curbing evasion and improving revenue yields²⁴⁵.
- 6. Lack of political will to administer taxes: If the political will exists, the techniques needed for effective tax administration are not secret have a clear strategy; keep it simple, treat taxpayers as clients, chase down defaulters and keep a tight check on corruption²⁴⁶.
- 7. Corruption affects the amount of tax revenue collected.
- 8. Transfer pricing leads to less tax collected mainly from multinationals.
- 9. Tax evasion and avoidance affects total taxes collected.



16 FOREIGN AID

Foreign aid has been defined broadly as a government transfers from developed countries to poor countries aimed at the latter's development (Tarp 2006). The standard definition that is commonly used for foreign aid is that one of the OECD's Development Assistance Committee (DAC). Its definition refers only to official development assistance. DAC defines foreign aid as the financial flows, technical assistance and commodities that are (i) designed to promote economic development and welfare as their main objective (it thus excludes aid for military or other non-development purposes); (ii) provided as either grants (at least 25 percent of total granted) or subsidized loans. We will refer to aid as the total sum of both concessional loans and grants²⁴⁷.

Some view concessional finance as aid – which is not true. Grants and subsidised loans are what are referred to as concessional finance. There is no unique definition of concessionality²⁴⁸. The IMF BOP Expert Group have defined concessional debt as lending extended by creditors on terms that are below market terms, with the aim of achieving a certain goal. They say that the governments, for example, may access loans at low or zero interest rates, either to provide a benefit to the recipient or to encourage some action by the recipient (such as purchasing goods from the lender's country)²⁴⁹.

Why countries need aid

Why do donor countries give it and why do recipient countries seek and accept it?

1. Countries may need aid to use it for covering the budgetary deficit. They have a short fall in their budget. The government cannot meet all its current year's budgetary requirements – under the national priorities. They need to finance a budget deficit. A fiscal or budget deficit can be defined as the difference between recurrent expenditure *plus* capital expenditure and current receipts. In other words, planned expenditure exceeds expected revenue. There are two major ways of covering the deficit: borrowing or receiving aid. Borrowing can be done internally (domestic borrowing) or externally (foreign borrowing). The government may borrow or receive aid for three reasons: *public investment; avoid increases in tax that maybe distortionary; and the stabilisation of macroeconomics generally*.

- 2. The government may obtain aid to finance the procurement of capital assets such as roads, schools, health facilities, etc. These are massive investments that require large expenditures. Given that the level of tax/GDP ratios for most SSA is less than 15 per cent, such investments need funds from outside of government. They have long term paybacks and, therefore, may not be attractive to the private sector domestically and sometimes internationally (FDI). Aid may help the government avoid the temptation of financing the deficit by printing money called *seigniorage*. Printing money not backed by production causes inflation if the economy is near or at its potential level of output.
- 3. The government may need funds from donors for revenue smoothing purposes. Most of the less developed countries suffer from weak domestic tax bases. They have narrow tax bases because most of their economies of small businesses is informal; agriculture is on subsistence level; and the raw or primary export commodities from mainly agricultural sector face international price volatility. Even those oil exporting and other resource rich African countries will have significant commodity (oil) related revenues (e.g. licenses and royalties, taxes and others sources) but still generally suffer from weak domestic tax bases. Trying to introduce new taxes on the same bases or the same small formal sector may be distortionary. The alternative is to undertake short term borrowing or get aid as grants.
- 4. Lastly, aid may be needed to help ensure stabilisation of macroeconomics in the country. Stabilisation function covers the use of fiscal and monetary policy to try and maintain a more stable level of economic activity and output and reduce to a reasonable minimum the fluctuations in unemployment. The fiscal policy refers to the decisions relating to government expenditure, taxation and borrowing aimed at smoothing the booms and slumps in business within an economy. In most cases, developing countries borrow to stabilise the value of their currency and stop it from depreciating against the foreign currencies. The approach of stabilizing economies by smoothing out the cyclical fluctuations in the economy has been common in developed countries since the 1940s following the writings and advice of Keynes. Keynes (the Keynesian theory and Keynesian economics) argued that if an economy was left to itself, it might self-stabilise following a recession but do so in the long run. As Keynes said "In the long-run we are all dead".
- 5. It has been generally agreed that the key reason for receiving aid is political and it is more important to the regime in power when aid is given. Getting more aid is viewed by both the local and international publics as positive image for the regime in power.

Why developed countries give aid?

There are various reasons for giving aid and most of these reasons are not economic.

i) There are political and strategic considerations. Some studies²⁵⁰ have found out that aid does not usually go to the 'neediest' countries. Countries like Egypt, Greece, Turkey, Israel, Kenya and Uganda have received more US aid for different activities and projects because of their geopolitical significance. The political motives were and have been to obtain strategic advantages and instill the aspirations of the US such as ending communism, cultivating democracy, political stability, good governance, human rights and national and regional security – including fighting terrorism. Historically, USA used aid during the cold war to stop the spread of communism and to reward friendly countries. It was opined then that if the rich countries in the western bloc did not help developing countries in in Asia, Latin America, and Africa, they would be won over by Russia²⁵¹. The friendly countries were usually those that would help USA protect against the spread of communism. Soviet Union also poured money into developing countries to expand the communist ideology²⁵².



- ii) Aid is granted for commercial purposes markets and jobs for the donor countries. For past 65 years, the US foreign assistance has focused on either promoting US exports by creating new customers for US products or by improving the global economic environment in which U.S. companies compete. Foreign aid programmes bring significant indirect financial benefits to the United States. To begin with, provision of military equipment through the military assistance programme and food commodities helps to develop future, strictly commercial markets for those products. Secondly, as countries develop economically, they are in a position to purchase more goods from abroad and the United States benefits as a trade partner.
- iii) Historical ties with former colonies. Countries assert that they need aid to address historical injustices inflicted on them by rich countries due to slavery and colonial exploitation. Colonial exploitation is associated with the cheap labour that was provided in Africa on cash crop farms (like coffee, cocoa, cotton, etc.) and in mines (for gold, cobalt, diamonds, etc.). Ethiopia is likely to get a large amount of aid from Italy because of Italy's brief invasion of Ethiopia. Cote d'Ivoire is likely to get substantial amount of aid from France, its former colonial master (Abidjan used to be known as Africa's Paris)²⁵³.
- iv) Some countries give aid for what has been referred to as 'corrective justice' 254: Aid is viewed as helping to reduce the effect of global public 'bads' or global negative public externalities²⁵⁵. Third world countries are said to continue lagging behind the rest because the rich countries which dominate the global balance of power and trade continue to commit injustices against poor countries and poor people. The claims are that there is commercial and trade exploitation, toxic wastes dumping and modern day slavery.
- v) Humanitarian concerns drive both short-term assistance in response to crisis and disaster and long-term development assistance aimed at reducing poverty, hunger and other forms of human suffering brought on by more systemic problems.

Is foreign aid to developing countries working?

Let us critique foreign aid to Africa because the continent has received aid for a long period of time.

1) Aid alone is unlikely to be able to address the problems of the poor countries and it has become so highly politicised that its design is often pretty dysfunctional²⁵⁶. Most aid has been used as direct support for consumption – not production. ODA flows to Africa, for example, often finance domestic consumption rather than investment which is an engine of growth and is necessary to generate revenue²⁵⁷. According to analysis, most aid to Africa has not been directed at production and infrastructure development. It has not been development aid necessary to improving their transport (roads, railways) links to the coast, or power to factories.

- 2) Aid is for creating jobs and creating markets for the donor's products.
- 3) There in another argument that the amount of aid money reaching poor people is relatively modest²⁵⁸. A lot is promised but little actually reaches the recipient country. A lot of money is in the MoU between the donor and the recipient but never reaches African countries. It remains in the donor's country paying for maize flour and beans (these can be produced locally with the support) or cooking oil or vehicles that have to be procured from the home country (except in rare situations and with several approvals, you cannot buy a vehicles for a US project unless that vehicle is made in the US). *Money remains in the donors countries to pay salaries and 'hardship allowances' of those 'following the money'*.
- 4) They state that a considerable fraction of ODA is in the form of studies, administrative overheads, debt relief and other efforts and country partner administration of the aid projects or programes plus corruption and makes the official funding actually available for development projects and programmes in poor countries as little as \$40 per poor person per year²⁵⁹.
- 5) Research has revealed that most of those who 'follow the money' in African countries to work on their country's donor funded projects are at times paid more than 30 times the salary of their local (and very qualified) deputies.
- 6) Most donors have concentrated of ODA (official aid) in social sectors as opposed to the productive sectors of agriculture and industry²⁶⁰. This has been identified by the United Nations Commission for Africa (UNECA) based at the AU headquarters in Addis Ababa.
- 7) Donors decide projects and where to put the aid money and the technical people from the governments of the recipient countries are never consulted. Experience has shown that some projects which the donors funded were not considered as priorities by the technical people in the beneficiary country. So it is possible to find a country with a lot of aid money yet 'crying' for underfunding for priorities. When the technical people try to resist such projects that do not fall under their priorities, they will be reported to higher authorities and may lose jobs.
- 8) There is competition for giving aid and, because of this, aid ends up doing nothing. Countries compete to give aid to some countries. Donors often trip over each other and fail to coordinate²⁶¹. In the end you find that donors are funding the same projects and other important activities are ignored.
- 9) Aid may have negative effects on governance in public institutions. Corruption, for instance, has been blamed on the failure of aid effectiveness. Aid has been used by technical officers in most African countries to enrich themselves instead of the target beneficiaries. Aid does not always help to build and strengthen effective local public institutions. Rather, studies²⁶² have found out that countries with good local institutions are the most able to use aid effectively.

- 10) Domestic and export subsidies for countries such the EU, USA and Japan make aid ineffective in the recipient countries. The donors give subsidies to their exporters of agriculture which compete with products from African countries (which are already facing higher production costs in both the domestic (African markets) and other markets where exports go.
- 11) More often, it has been argued that too much aid makes governments 'less listeners' to their citizens. They are more accountable to the donors than the citizens. A government that is more dependent on its citizens for most of its revenues faces strong incentive to pay attention to the needs of its citizens.
- 12)Diminishing returns of foreign aid: Riddell (2007)²⁶³ raises the issue of absorptive capacity, indicating that studies have shown that the more aid a country receives, the more likely it is that additional amounts of aid will be used less and less efficiently. Collier (2007)²⁶⁴ quoting studies from the *Centre for Global Development* which suggest that diminishing returns sets in when aid reaches about 11per cent of a country's GDP. Moss et al (2008)²⁶⁵ quote studies which, in one case, suggest the limit of 5 per cent of GDP.



ENDNOTES

- 1. Pugh, D., (1990). Organisational Theory: Selected Readings. 3/E; Penguin
- 2. Peter Drucker (1955). The Practice of Management. London: Heinemann
- 3. Megginson, L.C., Mosley, D.C., and Pietri, P.H., Jr (1992). Management Concepts and Application. 3/E. New York: Harper and How; and Griffin, R.W., (1996). Management. 5/E. Boston: Houghton Mifflin.
- 4. Pheysey, G., Payne, R.L., and Pugh, D.S., (1971), "Influence of structure at organisational group levels", Administrative Science Quarterly. 16, 61–73.
- 5. Pheysey, G., Payne, R.L., and Pugh, D.S., (1971), "Influence of structure at organisational group levels", Administrative Science Quarterly. 16, 61–73.
- 6. Fiedler, F.E., 1967. A Theory of Leadership Effectiveness. New York: McGraw-Hill.
- 7. Tannenbaum, R., and Schmidt, W.H., (1973), "How to Choose a Leadership Pattern", Harvard Business Review, May–June
- 8. Douglas McGregor, 1960: The Human Side of Enterprise (McGraw-Hill)
- 9. McGregor's Theory Y maintains that human beings are active rather than passive shapers of themselves and of their environment. (Douglas McGregor,1960, The Human Side of Enterprise (McGraw-Hill) cited by Mathew Steward, "Theories X and Y, Revisited", Oxford Leadership Journal "Shifting the trajectory of civilisation", June 2010, Volume 1, Issue 3
- 10. Henri Fayol's work was first published in book form Shop Management in 1903. In 1908, he published in French the paper that was later (9n 1916) to be developed into his greet work Adminstration, industrielle et generate.
- 11. Peters T., and Waterman R., (1982). In Search of Excellence: Lessons from America's Best-Run Companies. London: HarperCollins Publishers
- 12. Stannack, P., (2003). "Perspective on Employee Performance", Management Research News,119, 4/5, 38–40
- 13. Stannack, P., (2003). "Perspective on Employee Performance", Management Research News,119, 4/5, 38–40
- 14. Johnson, G., & Scholes, K., (1999). Exploring Corporate Strategy. Hemel Hempstead: Prentice Hall Europe
- 15. See French, J., and Raven, B., (1959). The Bases of Social Power. In Cartwright, D., (Ed.), Studies in Social Power (150–167). Ann Arbor, MI: Institute for Social Research.
- 16. Finlay, P., (2000). Strategic Management: An Introduction to Business and Corporate Strategy. Prentice-Hall
- 17. Staff at the same level paid different amounts (without any geniune justifaiction)
- 18. In 1959, Herzberg, Mausner and Synderman presented their research findings that showed that man has two sets of needs: his need as an animal to avoid pain; and his need as a human to grow psychologically. (Herzberg, F., Mausner, B., and Synderman, B., (1959). The Motivation to Work. New York: John Wiley & Sons.
- 19. Mullins, L.J., (2005). Management and Organisational Behaviour. 7/E. Pearson Education Limited

- 20. Townsend (1985) cited in Mullins (2005)
- 21. Mullins, L.J., (2005). Management and Organisational Behaviour. 7/E. Pearson Education Limited
- 22. For USAID contractors, consulting firms who execute USAID development projects in different parts of the world, under the claim of salary history, offer two senior specialists different salaries. One was earning around U\$ 7 800 and his fellow senior, his roommate, was at U\$ 4 100!
- 23. USAID contractors, under the claim of salary history, a specialist was earning less than his supervisee; and this of course was bound to create conflict between the two employees!
- 24. Read Carlson, R. 1997. Don't Sweat the Small Stuff
- 25. "Procrastination is the thief of time" Edward Young; Night Thoughts, 1742
- 26. Planning can be referred to as the process of analysing the current position, preparing a strategy for the future, implementing the activities in your strategy and measuring results. Results can be measured by monitoring and/or evaluation. Control is part of the plan. It looks at M&E; and the contingency plan ('just in case' or a risk plan).
- 27. This is according to an efficiency expert, Michael Fortino.
- 28. Financial risk for example borrowing; Business risk for example the asset you have acquired
- 29. Investors may also invest in physical assets. However, investing in physical assets may pose some challenges. While financial assets are divisible (an investor can buy or sell a small portion of it), physical assets are not. Marketability (or liquidity) is usual for financial assets. Physical assets have low liquidity. In investment management, marketability (or liquidity) means that it easy to convert the financial asset into cash quickly without affecting the price significantly.
- 30. The financial intermediaries obtain funds from the general public by allowing depositors for example to maintain savings accounts.
- 31. See Fabozzi, F.J., (1999). Investment Management. 2/E; Prentice Hall Inc.
- 32. The main types of brokers are the discount brokers; full service brokers; and online brokers. An Online broker is a brokerage firm that allows investors to buy or sell electronically via the internet. A discount broker only represents players in the secondary market. They execute only trades in the secondary market not in the primary market. A full service broker firm provides a wide array of additional services to their clients such as advice to or not to buy or sell at a given period of time.
- 33. It is not easily sold after it has been bought because the Issues are relatively smaller than those of the T-bills.
- 34. Tax status of the investor: for example if the investor has got tax exemption status; or tax holidays, this will influence them to invest more in the market.
- 35. Markowitz, Harry (1952). Portfolio Selection. Journal of Finance, 7(1), p. 77–91
- 36. The Capital Asset Pricing Model (CAPM) of William Sharpe (1964) and John Lintner (1965) resulted in the birth of Asset Pricing Theory. It won William Sharpe a Nobel Prize in 1990
- 37. Roll, R., and Ross, S.S., (1984). "On the Cross-Sectional Relation Between Expected Returns and Betas", Journal of Finance, 101–121
- 38. Fama, E., (1965), "Random Walks in Stock Prices", Financial Analyst Journal; September–October 1965
- 39. Fama, E., (1965), "Random Walks in Stock Prices", Financial Analyst Journal; September–October 1965
- 40. In economics, human beings are assumed to always take rational decisions (not emotional ones). That human beings make their choices based on rational factors.

- 41. The more an investor registers successes, the more it will attribute it to their own ability even where much has been involved. This explains why overconfident behaviour is more common in *bull market* than in the *bear markets* (see Gervais, S., and Odean, T., (2001), "*Learning to be overconfident*", The Review of Financial Studies, 14, No. 3, July, 411–435.
- 42. Shefrin, H.M., and Statman, M., (1984), "The Disposition to Sell Winners Too Early and Ride Losers Too Long: Theory and Evidence", Journal of Financial Economics, Vol. XL, No. 3 253-82
- 43. Regret can be defined as the emotional pain that occurs to people after realizing that their previous decision turned to be a bad one.
- 44. Pride can be defined as the emotional joy that occurs to people after realizing that their previous decision turned well.
- 45. 'House-money' effect: After getting a big sum of money in gambling, people do not usually see it as their own money. Therefore, they are willing to take additional risk and acting as if they are gambling with the opponent's (other people's) money.
- 46. Robbins Lionel: An essay on the nature and significance of Economic Science, p. 16
- 47. Sometimes they are emotional.
- 48. Sommers, M.S., Barnes, J.G., and Stanton, W.J., (1998). Fundamentals of Marketing. 8/ Canadian Ed. Toronto: McGraw-Hill.
- 49. Jim Manis (2005). An Inquiry into the Nature and Causes of the Wealth of Nations by Adam Smith, An Electronic Classics Series Publication, Pennsylvania State University
- 50. Adam Smith, The Wealth of Nations, 1937, Modern Library Edition, p. 625.



- 51. According to Bentham and followers, Utility was the tendency of an object or action to increase or decrease overall happiness (*Read, D., 2004. "Utility theory from Jeremy Bentham to Daniel Kahneman" Working Paper No: LSEOR 04-64, The London School of Economics and Political Science: London).*
- 52. The hedonimeter (as proposed by Edgeworth) would measure the level of pleasure or pain for an individual.
- 53. Those dimensions of experience related to pleasure, enjoyment, and fun; collectively referred to as Hedonic Experience (HE). According to the Greek definition, 'hedone' means pleasure akin to sweet. (Stelmaszewska, H., Fields, B. & Blandford, A. (2004) Conceptualising user hedonic experience. In D.J. Reed, G. Baxter & M. Blythe (Eds.), Proceedings of ECCE-12, the 12th European Conference on Cognitive Ergonomics 2004, Living and Working with Technology, 12–15 September 2004, York. York: European Association of Cognitive Ergonomics. 83-89.)
- 54. Kahneman, D., Wakker, P.P., and Sarin, R. 1997. "Back to Bentham? Explorations of experienced utility". Quarterly Journal of Ecomics, 112, 375–405
- 55. Kahneman, D., 2000. Experienced utility and the objective happiness: A moment-based approach. In Kahneman, D., and Tversky, A., Eds. Choices, Values, and Frames pp. 673–692. New York: Cambridge University Press.
- 56. Kahneman, D., and Sugden, R., 2005. "Experienced Utility as a Standard of Policy Evaluation". Environmental & Resource Economics (2005) 32: 161–181
- 57. Kahneman, D., and Thaler, H.R., 2006. "Anomalies: Utility Maximisation and Experienced Utility". The Journal of Economic Perspectives, Vol. 20, No. 1 (Winter, 2006), pp. 221–234
- 58. Decision utility has also been called 'wantability'; it is inferred from choices and used to explain choices. (Kahneman and Thaler 2006, p. 221).
- 59. Experienced utility refers to the hedonic experience associated with an outcome. (Kahneman and Thaler 2006, p. 221).
- 60. Remembered utilities also have an adaptive function: they determine whether a situation experienced in the past should now be approached or avoided. Unlike pain and pleasure, which control behavior in the current situation, learned attractions and aversions adjust current behavior to the remembered evaluations of events in the past. (Kahneman et al., 1997 p. 380)
- 61. Kahneman, D., and Sugden, R., 2005. "Experienced Utility as a Standard of Policy Evaluation". Environmental & Resource Economics (2005) 32: 161–181
- 62. Kahneman, D., (2000:2). Experienced utility and the objective happiness: A moment-based approach. In Kahneman, D., and Tversky, A., Eds. Choices, Values and Frames pp. 673–692. New York: Cambridge University Press.
- 63. Schkade and Kahneman (1998 cited in Kahneman, D., and Thaler, H.R., (2006:22). "Anomalies: Utility Maximisation and Experienced Utility". The Journal of Economic Perspectives, Vol. 20, No. 1 (Winter, 2006), pp. 221–234)
- 64. Dolan, P., and Kahneman, D., (2008:215), "Interpretations of utility and their implications for the valuation of health", Economic Journal, Issue 525, Vol. 118:215–234
- 65. Kahneman, D., and Thaler, H.R., 2006. "Anomalies: Utility Maximisation and Experienced Utility". The Journal of Economic Perspectives, Vol. 20, No. 1 (Winter, 2006), pp. 221–234

- 66. Even in the era of internet with search engines and sites such as Google and Google scholar, the sellers do not always disclose all the relevant information about products or services.
- 67. Thorstein Veblen, an economist, refers to consumers who spend not to gain utility from their purchases but to create invidious comparison with others such as neighbours and display status through conspicuous consumption.
- 68. Framing effects concern the context or frame through a person perceives a decision... For example, the options between which choose are not as clear-cut or objective as economic theory implies (Aldred (2010, p.14)
- 69. The peak-end hypothesis: "the remembered utility of pleasant or unpleasant episodes is accurately predicted by averaging the Peak (most intense value) of instant utility (or disutility) recorded during an episode and the instant utility recorded near the end of the experience" (Kahneman *et al.*, 1997, p. 381).
- 70. Kahneman, D., and Thaler, H.R., (2006:227). "Anomalies: Utility Maximisation and Experienced Utility". The Journal of Economic Perspectives, Vol. 20, No. 1 (Winter, 2006), pp. 221–234
- 71. Kahneman, D., and Thaler, H.R., (2006:222). "Anomalies: Utility Maximisation and Experienced Utility". The Journal of Economic Perspectives, Vol. 20, No. 1 (Winter, 2006), pp. 221–234
- 72. Kahneman, D., and Sugden, R., 2005 (161). "Experienced Utility as a Standard of Policy Evaluation". Environmental & Resource Economics (2005) 32: 161–181
- 73. Natural resources are part of land and are non-renewable. They get depleted.
- 74. Schumpeter, Joseph A. 1934. *The Theory of Economic Development*. Cambridge: Harvard University Press. (New York: Oxford University Press, 1961.) First published in German, 1912.
- 75. Carton, R.B., Hofer, C.W., & Meeks, M.D. (1998). The entrepreneur and entrepreneurship: Operational definitions of their role in society. Paper presented at the annual International Council for Small Business conference, Singapore.
- 76. Simply put, total cost is the sum of the fixed and variable costs.
- 77. The total cost curve is the curve that shows the total cost associated with producing various levels of output.
- 78. The short-run average cost curve (SAC) is the curve relating to average cost of production to output when the level of capital fixed.
- 79. Anderson, W.L., and Ross, R.L., 2005. "The Methodology of Profit Maximisation: An Austrian Alternative", The Quarterly Journal of Austrian Economics VOL. 8, NO. 4 (Winter 2005): 31–44
- 80. Anderson, W.L., and Ross, R.L., (2005:31). "The Methodology of Profit Maximisation: An Austrian Alternative", The Quarterly Journal of Austrian Economics VOL. 8, NO. 4 (Winter 2005): 31–44
- 81. Pindyck, S.R., and Rubinfeld, L.D., (2013:282). Microeconomics. 8/E, International Edition. Pearson Education.
- 82. Marginal revenue is that revenue from the last unit of item sold.
- 83. Godwin, N., Nelson, J.A., Ackerman, F., and Weisskopf, T., 2009. Microeconomics in Context. 2/E, M.E. Sharpe: London.
- 84. Anderson, W.L., and Ross, R.L., 2005. "The Methodology of Profit Maximisation: An Austrian Alternative", The Quarterly Journal of Austrian Economics Vol. 8, No. 4 (Winter 2005): 31–44

- 85. Pindyck, S.R., and Rubinfeld, L.D., (2013). Microeconomics. 8/E, International Edition. Pearson Education.
- 86. Pindyck, S.R., and Rubinfeld, L.D., (2013:282). Microeconomics. 8/E, International Edition. Pearson Education.
- 87. Milton Friedman (1970) has discussed the theory of stockholders (or shareholders as it commonly known). A business manager is obliged to maximally serve the interests of the shareholders of the business, so long as she does not break the law or coerce, deceive, cheat or kill while doing so.
- 88. Friedman, M., 1970. "The Social Responsibility of Business is to Increase its Profits", The New York Times Magazine
- 89. Freeman, R.E., 1998. "Stakeholder Theory of the Modern Corporation" in Pincus, L.B, (Ed.), Perspectives in Business Ethics, McGraw Hill, Singapore, p. 171–181.
- 90. Shareholder theory: corporations have stakeholders groups and individuals who benefit or are harmed by and whose rights are respected or violated by corporate actions.
- 91. Godwin, N., Nelson, J.A., Ackerman, F., and Weisskopf, T., 2009. Microeconomics in Context. 2/E, M.E. Sharpe: London.
- 92. Freeman, R.E., and Read, D.L., 1983. "Stockholders and Stakeholders: A new Perspective on Corporate Governance", California Management Review, 25 (Spring).
- Freeman, R.E., 1998. "Stakeholder Theory of the Modern Corporation" in Pincus, L.B, (Ed.), Perspectives in Business Ethics, McGraw Hill, Singapore, p. 171–181.
- 93. Godwin, N., Nelson, J.A., Ackerman, F., and Weisskopf, T., 2009. Microeconomics in Context. 2/E, M.E. Sharpe: London.



- 94. The more the company is good at marketing and especially branding, the more it gets more sells and ultimately becomes visible and profitable, more especially in the new era aided by the internet.
- 95. Levine (1992) and Wadhwani and Wall (1992) cited in Best, J.R., (2009), "Employee Satisfaction, Firm Value and Firm Productivity", University of Central Missouri, Department of Economics and Finance, Spring 2008
- 96. Booth, P., 20102., and the Pursuit of Happiness Wellbeing and the Role of Government, The Institute of Economic Affairs, London.
- 97. http://highered.mcgraw-hill.com/sites/dl/free/0078029368/946481/Sample_Chapter.pdf
- 98. Godwin, N., Nelson, J.A., Ackerman, F., and Weisskopf, T., (2009:306). Microeconomics in Context. 2/E, M.E. Sharpe: London.
- 99. Godwin, N., Nelson, J.A., Ackerman, F., and Weisskopf, T., (2009:206). Microeconomics in Context. 2/E, M.E. Sharpe: London.
- 100. Godwin, N., Nelson, J.A., Ackerman, F., and Weisskopf, T., (2009:306). Microeconomics in Context. 2/E, M.E. Sharpe: London.
- 101. In US, patent protection allows a firm exclusive use of an invention for period usually covering 17 to 20 years that is when the patent expires.
- 102. In the traditional theory of economics, the firm's key objective is profit maximisation.
- 103. For more details about Asymmetric Information, read Pindyck, S.R., and Rubinfeld, L.D., (2013:631). Microeconomics. 8/E, International Edition. Pearson Education.
- 104. Akerlof, G., (1970), "The Market for the 'Lemons': Quality Uncertainty and the Market Mechanism", Qaurterly Journal of Economics. Vol. 84, No. 3: 488–500
- 105. Akerlof, G., (1970), "The Market for the 'Lemons': Quality Uncertainty and the Market Mechanism", Qaurterly Journal of Economics. Vol. 84, No. 3: 488–500
- 106. Akerlof, G., (1970), "The Market for the 'Lemons': Quality Uncertainty and the Market Mechanism", Qaurterly Journal of Economics. Vol. 84, No. 3: 488–500
- 107. Pindyck, S.R., and Rubinfeld, L.D., (2013:635). Microeconomics. 8/E, International Edition. Pearson Education.
- 108. Spence, M., (1974). Market Signaling. Cambridge, MA: Harvard University Press
- 109. Pindyck, S.R., and Rubinfeld, L.D., (2013:639). Microeconomics. 8/E, International Edition. Pearson Education.
- 110. Pindyck, S.R., and Rubinfeld, L.D., (2013:639). Microeconomics. 8/E, International Edition. Pearson Education.
- 111. Bator, Francis. 1958. "The Anatomy of Market Failure." Quarterly Journal of Economics: 72: 351-79.
- 112. If people cannot be excluded from the benefits of such goods as national defense, they have an incentive to have a free ride that is, consume it without paying for it. The quantity of a good that a person is able to consume is not influenced by the amount the person pays for that good. So no one has an incentive to pay for the good.
- 113. Adam Smith, The Wealth of Nations (1776; New York: P.F. Collier, 1902), p. 207
- 114. George, P., Paschalis, A., and Sotiris, P., (2007), "Determinants of economic growth: the experts' view", DYNREG Dynamic Regions in a Knowledge Driven Global Economy Lessons and Policy Implications for the EU

- 115. George, P., Paschalis, A., and Sotiris, P., (2007), "Determinants of economic growth: the experts' view", DYNREG Dynamic Regions in a Knowledge Driven Global Economy Lessons and Policy Implications for the EU
- 116. According to Douglas North (1990) the term 'institutions' refers to the formal rules, informal constraints and their enforcement characteristics that together shape human interaction.
- 117. Lewis, A., (1955): The Theory of Economic Growth. London: Allen and Unwin
- 118. Ayres, C.E., (1962): The Theory of Economic Progress. New York: Shocken Books
- 119. Rodrik, D., (2000), "Institutions For High-Quality Growth: What They Are And How To Acquire Them", NBER Working Paper No. 7540
- 120. See Knack, S., and Keefer, P., (1997), "Does Social Capital Have an Economic Payoff? A Cross-Country Investigation", The Quarterly journal of Economics, Vol. 112, No.4, 1251–1288.
- 121. Easterly, W., and Levine, R., 1997, "Africa's Growth Tragedy: Policies and Ethnic Divisions". The Quarterly journal of Economics 112 (4): 1203-50
- 122. Dr. Donald Kaberuka, The president of the Africa Development Bank (AfDB), "From Economic Growth To Economic Transformation", African Development Bank Group Speech's President at Victoria Hall, Kampala Serena Hotel Kampala, Uganda, 6 November 2012
- 123. Kaberuka, D., (2012), "From Economic Growth To Economic Transformation", African Development Bank Group Speech's President at Victoria Hall, Kampala Serena Hotel Kampala, Uganda, 6 November 2012
- 124. Schultz, T.W., 1978. Distortions of Agricultural Incentives. Bloomington: Indiana University Press.
- 125. Rostow, W.W., (1960). The Stages of Economic Growth: A Non-Communist Manifesto. Cambridge University Press.
- 126. Education, for some at least, broadens and changes to suit the needs of modern economic activity (Rostow 1960 Chap.2).
- 127. Education, for some at least, broadens and changes to suit the needs of modern economic activity (Rostow 1960 Chap.2).
- 128. Education, for some at least, broadens and changes to suit the needs of modern economic activity (Rostow 1960 Chap.2).
- 129. Education, for some at least, broadens and changes to suit the needs of modern economic activity (Rostow 1960 Chap.2).
- 130. "Some sixty years after take-off begins (say, forty years after the end of take-off) what may be called maturity is generally attained" (Rostow 1960 Chap.2).
- 131. Kharas, H., and Gertz (2010), "The New Global Middle Class: A Cross-Over from West to East", Draft version of Chapter 2 in "China's Emerging Middle Class: Beyond Economic Transformation", (Cheng Li, editor), Washington, DC: Brookings Institution Press, 2010 (forthcoming)
- 132. Kharas, H., and Gertz (2010), "The New Global Middle Class: A Cross-Over from West to East", Draft version of Chapter 2 in "China's Emerging Middle Class: Beyond Economic Transformation", (Cheng Li, editor), Washington, DC: Brookings Institution Press, 2010 (forthcoming)

- 133. According to Kharas and Gertz (2010), 94 percent of Korea's population is middle class. (See Kharas, H., and Gertz (2010), "The New Global Middle Class: A Cross-Over from West to East", Draft version of Chapter 2 in "China's Emerging Middle Class: Beyond Economic Transformation", (Cheng Li, editor), Washington, DC: Brookings Institution Press, 2010 (forthcoming)).
- 134. Charles Homans (2016), The End of the American Daydream, Portfolio The business of life & living, Emirates, Issue 126, June 2016, exclusive to Emirates First Class and Business Class.
- 135. Helliwell, J., Layard, R., and Sachs, J., (2013). World Happiness Index 2013
- 136. Legatum Institute (2014). The Legatum 2014 Prosperity Index
- 137. See http://www.newagepublishers.com/samplechapter/000186.pdf (accessed on 15/12/2012)
- 138. Helliwell, J., Layard, R., and Sachs, J., (2013). World Happiness Index 2013
- 139. Todaro, M.P., and Smith, S.C., (2003:47). Economic Development. 8/E. Pearson Education.
- 140. Todaro, M.P., and Smith, S.C., (2003:65). Economic Development. 8/E. Pearson Education.
- 141. Todaro, M.P., and Smith, S.C., (2003:65). Economic Development. 8/E. Pearson Education.
- 142. Todaro, M.P., and Smith, S.C., (2003:65). Economic Development. 8/E. Pearson Education.
- 143. Todaro, M.P., and Smith, S.C., (2003:67). Economic Development. 8/E. Pearson Education.
- 144. Data for the period 1946-2012 coup d'état is from Good Governance Africa (2013). "Africa Survey 2013: Africa in Figures", Johannesburg South Africa.
- 145. Chambers, R., (1983). Rural Development: Putting the Last first. Hong Kong: Longman Group Ltd; Chambers, R., (1994), "Poverty and Livelihoods: Whose Reality Counts?", An Overview paper prepared for the Stockholm Roundtable on Global Change, 22–24 July 1994; Chambers, R., (1995), "Poverty and Livelihoods: Whose Reality Counts?", Environment and Urbanization, Vol. 7, No. 1.



- 146. Uganda Chronic Poverty Report, 2005
- 147. The history of the World Trade Organisation (WTO) debates to as early as 1940s when developed countries wanted to influence markets and prices. It was started by the rich countries and they have continued to use it, to influence (negatively) developing countries trade. According to the Agreement establishing WTO, WTO aims at fair trade, not free trade; see. However, trade liberalisation is not a panacea for development for poor economies.
- 148. Note that under WTO Agreement on Agriculture, Uganda can also subsidize her agricultural sector, and, therefore, the problem may not be the rules, but rather their application.
- 149. Export subsidies will be removed in 2013 according to WTO Ministerial declaration in 2006 in Hong Kong (and this commitment was upheld under the WTO Bali Accord).
- 150. This is contained in the Human Development Report 2005 (HDR 2005).
- 151. Source: http://www.internetworldstats.com/stats8.htm (accessed on 2/12/2015)
- 152. Todaro, M.P., and Smith, S.C., (2003:267). Economic Development. 8/E. Pearson Education.
- 153. Todaro, M.P., and Smith, S.C., (2003:265). Economic Development. 8/E. Pearson Education.
- 154. Todaro, M.P., and Smith, S.C., (2003:272). Economic Development. 8/E. Pearson Education.
- 155. Todaro, M.P., and Smith, S.C., (2003:272). Economic Development. 8/E. Pearson Education.
- 156. Todaro, M.P., and Smith, S.C., (2003:272). Economic Development. 8/E. Pearson Education.
- 157. Todaro, M.P., and Smith, S.C., (2003:272). Economic Development. 8/E. Pearson Education.
- 158. Bloom, E, D, and Canning, D., (2000), "The Health and Wealth of Nations", Science Vol2 87 18 February 2000
- 159. Bloom, E, D, and Canning, D., (2000), "The Health and Wealth of Nations", Science Vol2 87 18 February 2000
- 160. Bloom, E,D., and Canning, D., (2005), "Health and Economic Growth: Reconciling the Micro and Macro Evidence", CDDRL Working Papers, Number 42, Center on Democracy, Development, and The Rule of Law Stanford Institute on International Studies
- 161. Bloom, E, D, and Canning, D., (2000), "The Health and Wealth of Nations", Science Vol.2 87 18 February 2000
- 162. Bloom, E,D., and Canning, D., (2005), "Health and Economic Growth: Reconciling the Micro and Macro Evidence", CDDRL Working Papers, Number 42, Center on Democracy, Development, and The Rule of Law Stanford Institute on International Studies
- 163. Todaro, M.P., and Smith, S.C., (2003:275). Economic Development. 8/E. Pearson Education.
- 164. Todaro, M.P., and Smith, S.C., (2003:278). Economic Development. 8/E. Pearson Education.
- 165. Non-tradable services include such services as where the demander and producer must be in the same location and commodities which have low value relative to either their weight or volume.
- 166. Krugman, P., and Obstfeld, M., (2003:12). International Economics. 6/E. Addison Wesley
- 167. Krugman, P., and Obstfeld, M., (2003:12). International Economics. 6/E. Addison Wesley
- 168. Krugman, P., and Obstfeld, M., (2003:12). International Economics. 6/E. Addison Wesley
- 169. Krugman, P., and Obstfeld, M., (2003:24). International Economics. 6/E. Addison Wesley
- 170. Krugman, P., and Obstfeld, M., (2003:24). International Economics. 6/E. Addison Wesley
- 171. Krugman, P., and Obstfeld, M., (2003:20). International Economics. 6/E. Addison Wesley
- 172. Krugman, P., and Obstfeld, M., (2003:10-11). International Economics. 6/E. Addison Wesley

- 173. Krugman, P., and Obstfeld, M., (2003:11). International Economics. 6/E. Addison Wesley
- 174. Krugman, P., and Obstfeld, M., 2003. International Economics. 6/E. Addison Wesley.
- 175. Krugman, P., and Obstfeld, M., 2003. International Economics. 6/E. Addison Wesley.
- 176. During the 1980s, some countries in developing countries had two (2) windows of allocating foreign exchange. Window I was for the priority sectors and Window II was for the other sectors.
- 177. See Krugman, P., and Obstfeld, M., 2003. International Economics. 6/E. Addison Wesley.
- 178. Krugman, P., and Obstfeld, M., 2003. International Economics. 6/E. Addison Wesley.
- 179. EAC (1999), "Protocol on the Establishment of the East African Customs Union", 30th day of November, 1999;
- 180. For details see http://www.eac.int/commonmarket/index.php?option=com_content&view=article&id=80&Itemid=117 (accessed on 2/20/2015)
- 181. Economic Community of West African States.
- 182. Krugman, P., and Obstfeld, M., (2003: 248). International Economics. 6/E. Addison Wesley
- 183. Krugman, P., and Obstfeld, M., (2003: 248). International Economics. 6/E. Addison Wesley
- 184. Global Counsel (2016), "BREXIT: the impact on the UK and the EU" June 2016.
- 185. Centre for European Reform (2014). The Economic Consequences of leaving the EU: The Final Report of CER Commission on the UK and the EU Single Market; June 2014; pp. 10
- 186. Centre for European Reform (2014). The Economic Consequences of leaving the EU: The Final Report of CER Commission on the UK and the EU Single Market; June 2014; pp. 11
- 187. Centre for European Reform (2014). The Economic Consequences of leaving the EU: The Final Report of CER Commission on the UK and the EU Single Market; June 2014; pp. 13
- 188. Krugman, P., (1994), "Competitiveness: A dangerous obsession", Foreign Affairs, 73(2)
- 189. Salvatore, D., (2002). International Economics. 3/E. New York: Macmillan.
- 190. Porter, M.E., (1990). The competitive Advantage of Nations. New York: The Free Press; and Competitive Advantage (1985), New York: The Free Press.
- 191. Porter, M.E., 1990. The competitive Advantage of Nations (1990), New York: The Free Press.
- 192. D'Cruz, J., and Rugman, A., (1992:14), "New Concepts for Canadian Competitiveness", A Working Paper, Kodak, Canada
- 193. Porter, M.E., 1985. Competitive Advantage. New York: Free Press,
- 194. Aaby, N.E.; and Slater, S.F., (1989), "Management Influences on Export Performance: A review of the empirical literature 1978–88", International Marketing Review, Vol. 6 No. 4, pp. 7–26.
- 195. Porter, M.E. 1985. Competitive Advantage. New York: Free Press.
- 196. Adapted from Porter, M.E. (1985). Competitive Advantage. New York: Free Press
- 197. Prahalad, C.K., and Hamel, G., (1990), "The Core Competences of the Corporation", Harvard Business Review, 68(3), 79–93
- 198. Collis, D.J., and Montgomery, C.A. (1995), "Competing on Resources: Strategy in the 1990s", Harvard Business Review, Vol. 73 No. 4, 118–128.
- 199. Porter, M.E., (1990). The competitive Advantage of Nations. New York: The Free Press.
- 200. Porter's five forces elements by industry structure (Porter, M.E., (1985:6). Competitive Advantage. New York: Free Press)

- 201. WCY World Competitiveness Yearbook 2009 by International Institute of Management Development at (http://www.imd.org/news/IMD-WCY-2009.cfm (accessed on 2/13/2015)
- 202. Porter, M.E., 1990. The competitive Advantage of Nations (1990), New York: The Free Press.
- 203. Hirschman, A.O., (1958). The Strategy of Economic Development. New Haven, CT: Yale University Press.
- 204. The theories of firm internationalisation explain how and why a firm engages in foreign activities and how the dynamics of the nature of this behaviour can be conceptualised. (Dima, S.C., (2010), "From International Trade to Firm Internationalisation", *European Journal of Interdisciplinary Studies, Vol. 2, Issue 2*)
- 205. Porter, M.E., 1990. The competitive Advantage of Nations (1990), New York: The Free Press.
- 206. Porter, M.E., 1990. The competitive Advantage of Nations (1990), New York: The Free Press.
- 207. WCY World Competitiveness Yearbook 2009 by International Institute of Management Development at (http://www.imd.org/news/IMD-WCY-2009.cfm (accessed on 2/13/2015)
- 208. WCY World Competitiveness Yearbook 2009 by International Institute of Management Development at (http://www.imd.org/news/IMD-WCY-2009.cfm (accessed on 2/13/2015)
- 209. Paul Krugman in his article refers to competition as a 'dangerous obsession' (Krugman, P., (1994), "Competitiveness: A dangerous Obsession", *Foreign Affairs 73* (2))
- 210. Krugman, P. (1994), "Competitiveness: A dangerous Obsession", Foreign Affairs 73 (2)
- 211. Rana, K.S., (2000). Inside Diplomacy. New Delhi: Manas.
- 212. Berridge, G.R., James, A., (2001:18). A Dictionary of Diplomacy. Hampshire: Palgrave.

Trust and responsibility

NNE and Pharmaplan have joined forces to create NNE Pharmaplan, the world's leading engineering and consultancy company focused entirely on the pharma and biotech industries.

Inés Aréizaga Esteva (Spain), 25 years old Education: Chemical Engineer

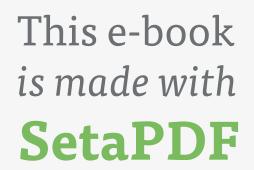
– You have to be proactive and open-minded as a newcomer and make it clear to your colleagues what you are able to cope. The pharmaceutical field is new to me. But busy as they are, most of my colleagues find the time to teach me, and they also trust me. Even though it was a bit hard at first, I can feel over time that I am beginning to be taken seriously and that my contribution is appreciated.



- 213. Kostecki, M., and Naray, O., (2007:1), "Commercial Diplomacy and International Business", Netherlands Institute of International Relations, Clingendael, The Hague.
- 214. Kostecki, M., and Naray, O., (2007:12), "Commercial Diplomacy and International Business", Netherlands Institute of International Relations, Clingendael, The Hague.
- 215. Kostecki, M., and Naray, O., (2007:12), "Commercial Diplomacy and International Business", Netherlands Institute of International Relations, Clingendael, The Hague.
- 216. Read articles on export promotion agencies by Lederman, D., Olarreaga, M., and Payton, L., (2010); Olarreaga, M., Sperlich, S., Trachsel, V., (2015); Hayakawa, Lee, H., Park, D., (2011).
- 217. Read articles on export promotion agencies by Lederman, D., Olarreaga, M., and Payton, L., (2010); and Olarreaga, M., Sperlich, S., Trachsel, V., (2015);
- 218. Shoham, A., (1996). Marketing Mix Standardization: Determinants of Export Performance. Journal of Global Marketing, 10(2), 53–73.
- 219. Most contributors to the export performance literature include Cavusgil and Zou, 1994, Mallika Das, 1994; Sclegemilch and Ross, 1987, Walters and Camiee, 1990. The author did an academic study on 'Government and Export Performance' in Uganda in 2009.
- 220. Miles, D., Scott, A., and Breedon, F., (2012:211). Macroeconomics. 3/E. John Wiley & Sons Ltd.
- 221. Miles, D., Scott, A., and Breedon, F., (2012:211). Macroeconomics. 3/E. John Wiley & Sons Ltd.
- 222. Keynes, J.M., (1939:96). The General Theory of Employment, Interest and money. New York: MacMillan.
- 223. IMF (2004): "Definition of Foreign Direct Investment (FDI) Terms" IMF Committee on Balance of Payments Statistics and OECD Workshop on International Investment Statistics, Direct Investment Technical Expert Group (DITEG), Issues Paper (DITEG) #20, Prepared by Art Ridgeway, Statistics Canada, November 2004
- 224. Feldstein, M.S., (1995), "The Effects of Outbound Foreign Direct Investment on the Domestic Capital Stock". In: Feldstein, M., Hines Jr, J.R., and Hubbard, R, G., Eds., 1995: The Effects of Taxation on Multinational Corporations. Chicago: University of Chicago Press, 43–66.
- 225. Ajayi, S.I., (2006): "The Determinants of Foreign Direct Investment in Africa: A Survey of the Evidence". In: Ajayi, S, I., Eds, 2006 Foreign Direct Investment in Sub-Saharan Africa: Origins, Targets, Impact and Potential; African Economic Research Consortium. Kenya: Nairobi; Chai, R., and Goyal, J., (2006), "Tax Concessions and Foreign Direct Investment in Eastern Caribbean Currency Union", in Shay, R., Robinson, D.O., and Chasin, P, (eds) The Caribbean: From Vulnerability to Sustained Growth (Washington D.C: International Monetary Fund) pp. 258–84; and Chai, R., and Goyal, J., (2008), "Tax Concessions and Foreign Direct Investment in Eastern Caribbean Currency Union", IMF Working Paper, WP/08/257; and Ajayi, S, I., (2012). "Foreign Direct Investment in Africa: What Do We Know?" In: Aryeetey, E., Devarajan, S., Kanbur, R., and Kasekende, L., (eds), 2012 The Oxford Companion to the Economics of Africa. New York: Oxford University Press 321–328.
- 226. OECD was originally established on 14 December 1960 by 20 countries, and since then 15 countries have become members of the organization. For a list of the members, please visit http://www.oecd.org/about/membersandpartners/list-oecd-member-countries.htm (accessed on 07/30/2016).

- 227. In Uganda, for example, UPTC privatisation to Uganda Telecom seems not to have necessarily offered better services. Instead, the green field investments such as Celtel (now Airtel) and MTN, among others, offer better services.
- 228. Some critics of government in Uganda questioned the transfer of Uganda's Dairy Corporation to a private investor. "How can you sell Uganda Diary Corporation at USD1?" they asked.
- 229. Williamson originally came up with the phrase in 1990 to refer to the lowest common denominator of policy advice being addressed by the Washington-based institutions to Latin American countries as of 1989. It is currently taken to be synonymous with neoliberalism and globalisation. (World Bank Research Observer. Washington, DC: The International Bank for Reconstruction and Development, Vol. 15, No. 2 (August 2000), pp. 251–264)
- 230. Liberalisation the removal of government interference in financial markets, capital markets and barriers to trade has many dimensions (Stiglitz, 2002)
- 231. Rodrik, Dani (2001), "The Global Governance of Trade as if Development Really Mattered," New York: UNDP.
- 232. Federal Reserve Bank of Dallas, (2007). Money, Banking & Monetary Policy, Revised 5/07.
- 233. http://projects.exeter.ac.uk/RDavies/arian/origins.html (accessed on 11/08/2016)
- 234. "Une Histoire de l'Argent: des origines à nos jours" Autrement in Paris in November 2007
- 235. "Une Histoire de l'Argent: des origines à nos jours" Autrement in Paris in November 2007
- 236. Barter:Direct exchange of goods or services having equivalent values without a cash transaction.
- 237. Countertrade or reciprocal buying is defined as a transaction involving (at least) a two-way transfer of goods, rather than a singular transfer of goods for money. The main objective of this paper is to explain the extensive use of countertrade both between countries and between firms within one country (Ellingsen, T., (1991), "A Model of Countertrade", London School of Economics and Political Science, Discussion Paper, No. EI/3)
- 238. Guinea has long ceased to be monetary unit.
- 239. Monetary base refers to the supply of money available for use either as cash or reserves of the central bank.
- 240. Irwin Fisher. 1911. The Purchasing Power of Money. Publication of the American Statistical Association.
- 241. Leland, H.E., and Pyle, D.H., (1997: 371), "Information Asymmetries, Financial Structure and Financial Intermediation", The Journal of Finance, Vol. 32, No. 2; Papers and Proceedings of the Thirty-Fifth Annual Meeting of the American Finance Association, Atlantic City, New Jersey, September 16-18, 1976 (May, 1977), pp. 371–387.)
- 242. Diamond, D.W., (1984), "Financial Intermediation and Delegated Monitoring", Review of Economic Studies LI, 393-414
- 243. In most countries, the top management team in a government ministry is headed by the Permanent Secretary or Principal Secretary and includes directors, and commissioners as heads of departments. In a government agency (e.g. an investment or export promotion authority), top management is headed by an Executive Director or Director General (as the CEO) and comprises directors and managers.

- 244. Schneider, F., (2007). Shadow economies and corruption all over the world: new estimates for 145 countries. Open Access, Open Assessment E-Journal 2009(9), 24 July; Scheider, F., Buehn, A., Montenegro, C.E., (2010), Shadow Economies All over the World: New Estimates for 162 Countries from 1999 to 2007, World Bank Policy Research Paper No. 5356, The World Bank.
- 245. Bird, R.M., (2008:15), "Tax Challenges Facing Developing Countries", Inaugural Lecture of the Annual Public Lecture Series of the National Institute of Public Finance and Policy, New Delhi, India, March 12, 2008
- 246. Bird, R.M., (2008:15), "Tax Challenges Facing Developing Countries", Inaugural Lecture of the Annual Public Lecture Series of the National Institute of Public Finance and Policy, New Delhi, India, March 12, 2008
- 247. Twineyo-Kamugisha (2012:105). Why Africa Fails. Cape Town: Tafelberg
- 248. The DAC2 definition of concessional lending which is based on loan "grant element" computes concessionality as "the difference between the face value of the loan and the sum of the discounted future debt service payments to be made by the borrower expressed as a percentage of the face value of the loan". DAC uses a discount rate of 10 percent as the market rate of interest which raises the question as to whether the same discount rate should be applied in all cases irrespective of varying opportunity cost of capital in different economic environments. (IMF (2004), "Concessional Debt", Committee On Balance Of Payments Statistics Balance Of Payments Technical Expert Group (BOPTEG), Issues Paper (BOPTEG) # 29, p. 4).
- 249. IMF (2004), "Concessional Debt", Committee On Balance Of Payments Statistics Balance Of Payments Technical Expert Group (BOPTEG), Issues Paper (BOPTEG) # 29, p. 3







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- 250. Alesina, A., and Dollar, D., (2000), "Who gives foreign aid to whom and why?" Journal of Economic Growth, 5: 33–63.
- 251. Friedman, M., 1958: "Foreign Economic Aid: Means and Objectives", Yale Review, Vol. 47.
- 252. Ghatak, S., (1986:129). An Introduction to Development Economics. Allen and Unwin Ltd., London.
- 253. Collier, P., (2008:113), The Bottom Billion, New York: Oxford University Press
- 254. Burnell, P., (1997): Foreign Aid in a Changing World. Milton Keynes: Open University.
- 255. Jayaraman, R., and Kanbur, R., 1999, International public goods and the case for foreign aid, in: I. Kaul, I. Grunberg and M. A. Stern, eds., Global public goods: International cooperation in the twenty-first century (Oxford University Press, New York), pp. 418–435.
- 256. Collier, P., (2008:99), The Bottom Billion, New York: Oxford University Press
- 257. UNECA (2013), "Making Aid Work for Africa", ECA Policy Brief No.007, 2013
- 258. Kharas, H., and Rogerson, A., (2012:10), "Horison 2025: creative destruction in the aid industry", Overseas Development Institute, July 2012
- 259. Kharas, H., and Rogerson, A., (2012:10), "Horizon 2025: creative destruction in the aid industry", Overseas Development Institute, July 2012
- 260. UNECA (2013:4), "Economic Transformation for Africa's Development", C-10 Meeting April, 2013 Washington D.C.
- 261. See Collier (2008:101). The Bottom Billion. New York: Oxford University Press
- 262. Moss, T., Petterson, G., and van de Welle (2008). "An Aid-Institutions Paradox? A Review Essay on Aid dependency and State building in Sub-Saharan Africa" in, Easterly, W., (Ed) Reinventing Foreign Aid, Cambridge Mass: MIT Press.
- 263. Riddell R.C., (2007). Does Foreign Aid Really Work? Oxford: Oxford University Press.
- 264. Collier, P., (2007) cited in Joseph, R., and Gillies, A., (2009), "Smart Aid: The Search for Transformative Strategies" in (eds.), Joseph, R., and Gillies, A., Smart Aid for African Development, Boulder: Lynne Reinner Publishers.
- 265. Moss, T., Pettersson, G., and van de Walle, N., (2008). An Aid-Institutions Paradox? A Review Essay on Aid Dependency and State building in Sub-Saharan Africa. In Reinventing Foreign Aid (Eds) Easterly, W., Cambridge MA: MIT Press.

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