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Inflation and the Macro Economic Problems in Nigeria: An Islamic Perspective

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Abstract

One of the most crucial macroeconomic problems for most countries of the world is inflation. Although many countries particularly the developed countries experience rise in prices, the extent of the rise is so small that may go unnoticed by their people. However, this is not the case in Nigeria where it is double digit and with no signs of slowing down. In this paper, inflation in the conventional economy is discussed in the light of Islamic economy. It also examines if Sharī'ah allows protection against inflation for the lender in a financial transaction. The effects of inflation rates on interest rates in Nigeria and how they can be controlled using Islamic finance are also examined. Islam supports zero rate of interest. However, it is indifferent to zero inflation inasmuch as it is not caused by human factors. If full employment prevails, the rate of inflation will be zero. The paper shows that inflation is allowed to some extent while indexation is not allowed because of injustice. An Islamic economy is not prone to a high rate of inflation due to some built-in stabilizers. We note some characteristics of Islamic finance that can prevent inflation from occurring or at the least can reduce the negative effects of inflation in an Islamic economy.

Introduction

Inflation is not a new phenomenon because from the earliest days of the recorded history, man has been faced by the rising prices. It distorts many areas of economic activities and influences virtually all decisions of economic agents. The effect of inflation on the value of any currency can be likened to the effect of hot water poured on ice block. The resultant effect is that the ice block becomes melted. As it melts, so also is the value of money eroded because of inflation. This paper examines its permissibility or otherwise in an Islamic economy. To put it simply, inflation in the conventional economy is discussed in the light of Islamic economy. It also examines if *Sharī'ah* allows protection against inflation for the lender in a financial transaction. The effects of inflation rates on interest rates in Nigeria and how they can be controlled using Islamic finance are also examined. The benefits of price stability are immense and permanent while the costs of disinflation are small in comparison and temporary. Islam supports zero rate of interest. However, it is indifferent to zero inflation in as much as it is not caused by human factors. If full employment prevails, the rate of inflation will be zero. Money is the yardstick with which economic transactions are measured. Although inflation undermines all three roles of money: as a unit of account, as a means of transactions, and as a store of value, Islam does not condemn it particularly if it is not man-made. The tone with which interest is condemned is not the same with that of inflation. Using indexation as a substitute for interest rate as suggested by proponents will be a mismatch and an unrealistic alternative because the inflation rate is not static. It is an act of injustice to use indexation to compensate the lender at the expense of the debtor because the latter does not cause inflation, which reduces the value of the money lent out.

The paper consists of five sections. Section one deals with some definitions of inflation and inflationary trend in Nigeria and Saudi Arabia. The effects of inflation on different economic agents and interest rate in Nigeria are also covered in this section. Causes of inflation are discussed in the light of the Islamic economy in section two. Money and its roles are covered in section three. Indexing inflation from the conventional economy and Islamic economy is the target of section four. The fifth section discusses Islamic ways of controlling inflation while section six concludes the paper.

Definition of Inflation in the light of conventional economy and Islamic economy.

Inflation which is one of the components of interest can be defined as a persistent and appreciable rise in the general level of prices[1]. Inflation is not a new phenomenon because from the earliest days of the recorded history, and even during the time of Prophet Muhammad, man has been faced by the rising prices. Even, during the ancient period, the Mediterranean civilization also experienced higher prices in terms of the metallic currency due to the discoveries of murices and the improved methods of mining gold. Various writers define inflations in various ways but many of the definitions clearly make inflation process: rising prices, not high prices and give the underlying causes of inflation such as cost-push and demand-push.

Inflation, according to Henry, is basically a fall in the value or purchasing power of money[2]. As regards Thompson's definition, inflation occurs when the general price level or the average price of all goods is rising.[3]. Geoffrey defines inflation as a state in which the value of money is falling i.e. prices are rising[4]. Smith has said that inflation is perhaps defined as a tendency toward a continuing rise in the general level of prices.[5] In Edwin Walter Kemmerer's opinion, inflation is a situation in which too much currency exists in relation to the physical volume of business[6].

It should be pointed out that the definitions cited above and other not mentioned have a common characteristic of emphasising the point that inflation is a process of high prices and not a state of disequilibrium between the aggregate supply and the aggregate demand at the existing or current prices necessitating a rise in the general price level in the economy. Inflation risk can be demonstrated thus; if somebody borrows money or lends money to another person and the agreement means payment of interest, the borrower pays interest as and when due. For instance, if he lends money over a period of time say, ₦100 for one month, and if it is agreed that at the end of one month, that person will pay ₦100 plus ₦10, the ₦10 (i.e 10%) is the interest payment. However, if the 10% was actually a premium for inflation risk, it may not be regarded as interest. In addition, inflation risk is something like this, if I hold ₦100 today and that can buy a pair of socks today, and I lend that ₦100 to somebody and that person is to pay in one month, I have deprived myself of the socks. If he pays me back in one month ₦100 but the price of one pair of socks has risen to up to ₦110, it means I can no longer buy a pair of socks again with my ₦100. I have to add ₦10 again to be able to buy the pair of socks. Therefore, the real value of my ₦100 has fallen. Now, I can arrange with the borrower. For example, both of us can agree that the inflation rate at the time I am lending the money to him and the time he is to pay back will be 10%. Then, we can agree that I am lending the equivalent pair of socks today and he will pay me back an amount of money, which will be equivalent of one pair of socks. Now if that is the principle of the lending of the financial arrangement then, what I am getting back in real term is not different from what I gave away for the extra ₦10 he pays me is part of the interest in the modern sense or economic sense but whether this is interest or not in the Islamic economic system is an issue that is not discussed in this paper. Does the *Sharī'ah* allow protection against inflation for the lender in a financial transaction? This is a question to be answered in the course of this work.

Inflationary trend in Nigeria and Saudi Arabia

Nigeria and Saudi Arabia are oil producing countries. The latter upholds the tenet of Islam that prohibits interest while in the former, interest is used in her monetary policy to determine the sustainability of her macroeconomic stability. A comparison of inflation rates in both countries indicate that Saudi Arabia's inflation rates are far lower than the rates of inflation in Nigeria over the years considered in this article. To put it in another form, it can be deduced from the table and diagrams below that inflation rate in Nigeria is higher over the years than the one in Saudi Arabia. Empirically, the Nigerian economy never experienced double-digit inflation during the 1960s. However, by 1981, the inflation rate stood at 20.55 per cent. It decreased to 11.77 per cent in 1987 and jumped to 57.14 percent and 72.72 per cent in 1993 and 1995, respectively. By 2010, the inflation rate had, however, reduced to 11.9 per cent from 17.8 per cent in 2005[7]. In fact, in some years, the inflation rates were volatile and at very high level in Nigeria particularly between 1981 and 1997. One of the reasons that could account for this high level of inflation is deficit finance. The government is always overspending. In Nigeria, the expenditure of government is more than its resources whereas there is a less deficit finance in Saudi Arabia. Another reason that could account for high level of inflation rate is the high rate of interest. If it is compared with that of Saudi Arabia where interest-based loan is not prominent. Majority of their financial institutions are Islamic in nature.

Figure 1.1: Inflation rate in Nigeria and Saudi Arabia 1980-2010

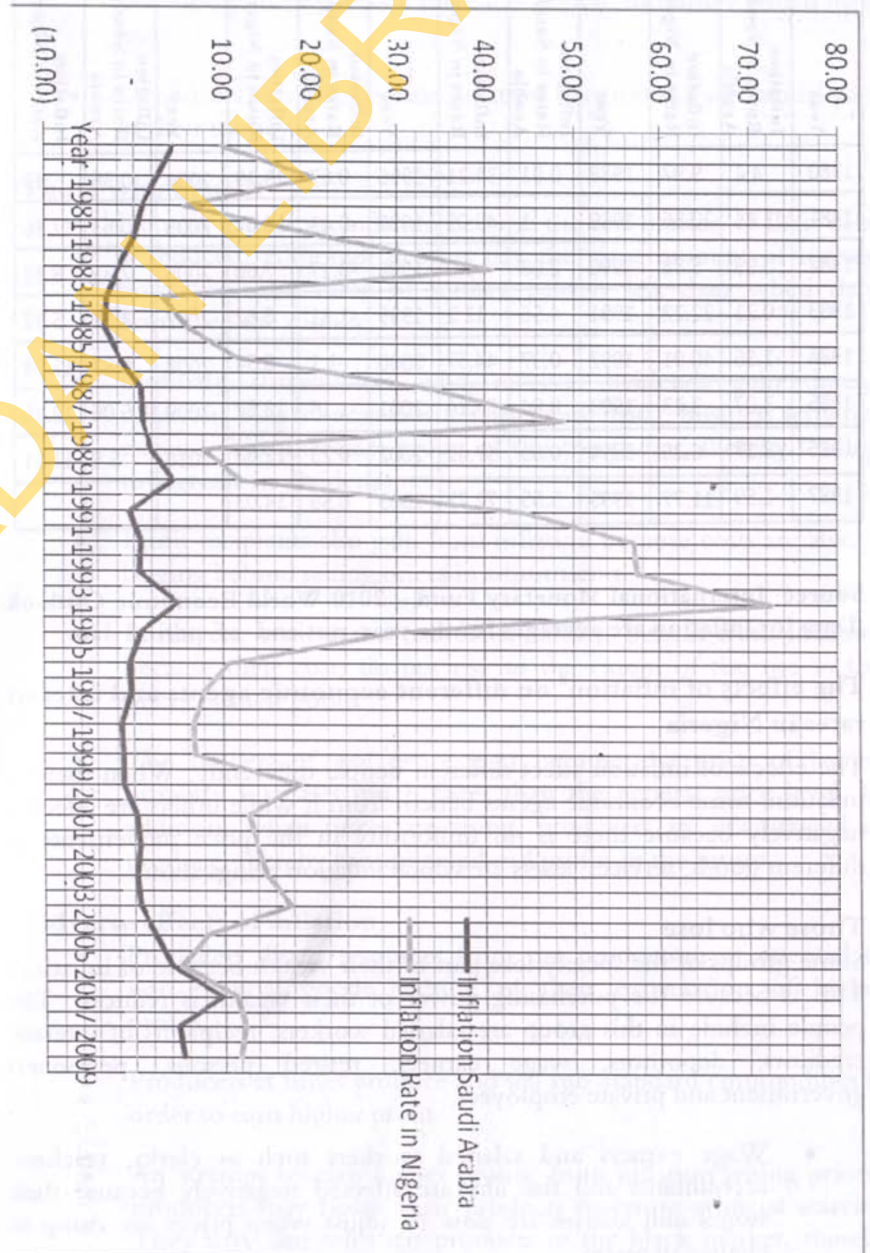


Table 1.0: Inflation rate in Nigeria and Saudi Arabia 1980-2010

Year	Inflation Rates in Saudi Arabia	Inflation Rates in Nigeria	Year	Inflation Rates in Saudi Arabia	Inflation Rates in Nigeria	Year	Inflation Rates in Saudi Arabia	Inflation Rates in Nigeria	Year	Inflation Rates in Saudi Arabia	Inflation Rates in Nigeria
1980	4.4	9.97	1988	0.91	34.21	1996	0.87	29.29	2004	0.36	15
1981	2.81	20.56	1989	1	49.02	1997	-0.43	10.67	2005	0.63	17.86
1982	0.95	5.88	1990	2.08	7.9	1998	-0.17	7.86	2006	2.31	8.23
1983	0.21	22.22	1991	4.56	12.2	1999	-1.31	6.62	2007	4.11	5.39
1984	-1.56	40.91	1992	-0.37	44.57	2000	-1.1	6.94	2008	9.87	11.58
1985	-3.07	3.23	1993	0.84	57.14	2001	-1.14	18.87	2009	5.06	12.36
1986	-3.17	6.25	1994	0.65	57.42	2002	0.23	12.88	2010	5.5	11.91
1987	-1.59	11.77	1995	5.05	72.73	2003	0.59	14.03			

Source: International Monetary Fund – 2010 World Economic Outlook (Data for inflation are averages for the year, not end-of-period data)

The effects of inflation[8] on different economic agents and interest rates in Nigeria

The effects of inflation affect different people differently. When there is inflation, some economic agents benefit from it while others are affected negatively because there is no uniformity in the price movements of different goods, services, assets etc which inflation brings about

Those who lose

Some groups of the society lose part of their wealth because of inflation. This is because the purchasing power of their wealth is reduced. The people include in this group are salaried workers, recipients of interest, creditors, depositors, wage earners, retired persons, pensioners government and private employees.

- Wage earners and salaried workers such as clerks, teachers, accountants and the like are affected negatively because their wages and salaries are slow to adjust when prices are rising to change in prices.

- Interest recipients, rent receivers and pensioners lose during inflation because they received fixed incomes while the value of money continues to fall with rising prices.

- Creditors lose during inflation because the value of money lent falls though they get back the same amount of money which they lent.

- Depositors also lose because inflation has eroded a substantial part of their money.

Those who benefit

- Debtors gain from inflation because the real burden of their debt is reduced. Although debtors pay the same amount of money borrowed, the value of money paid is less than when they borrowed the money.

- Ordinary shareholders who receive dividends gain during inflation. This is because when prices are rising, business activities expand. This increases profits of the companies, thereby leading to increase in dividends.

- Profit recipients also gain from inflation because costs are always lagging behind selling prices in adjustments.

- Producers, traders and real estate holders benefit from inflation because their costs do not rise to the extent of the rise in the prices of their goods.

- The holders of real estate gain because the price of landed property increases much faster than the general price level. In addition, when prices are rising, producers are encouraged to produce, thereby earning wind-fall profits in the future.

Adverse effects of inflation

- Producers divert resources from the production of essential to non-essential goods because of their expectation of higher profits.

- Producers at times produce and sell sub-standard commodities in order to earn higher profit.

- An attempt to earn higher profits, from inflation (rising prices), producers may hoard their products to create artificial scarcity. They may also sell their products in the black market, thereby leading to inflationary pressures.

- The propensity to save reduces during inflation because of the fear that the value of money saved may be drastically reduced.[1]

People prefer buying assets to saving their money because the former would appreciate in value while the latter reduced in value. The resultant effect is that speculation is encouraged during inflation because producers speculate a lot to make quick profits.

- Social effect of inflation. It widens the gap between the rich and the poor. It creates discontentment among the masses because of the high cost of living.
- Hoarding, black-marketing, sub-standard commodities, speculation and the like characterise the society that is bedevilled with inflation.
- Politically, inflation may bring down fall of the government as a result of agitations and protests by political parties opposed to the government.
- Inflation can affect a nation's balance of payments adversely if prices rise more rapidly than abroad, her products become more expensive compared to those of other countries. The resultant effect is that imports would increase while exports would decrease, thereby leading to the balance-of-payments problem.
- The propensity to save is weakened in an inflationary society, thereby reducing capital accumulation. The resultant effect is reduction in the long-run economic growth and living standards of people.
- When the growth rate of the nominal money supply is high, the rate of inflation will be high. Both are directly proportionate. To put it differently, increase in money supply without corresponding increase in the production of goods and services lead to the high rates of inflation. If the disposable income of people increases, they demand for more goods and services which are limited in supply. The effect is the high rate of inflation.

The effect of inflation brings about the dichotomy between the nominal rate of interest and the market rate of interest[9]. This is because as the inflation increases, the return required by an investor will also increase to make up for the loss in the purchasing power of his money. The money measures the return in terms of the naira which is of course, falling in value. The actual money paid on the various future dates is the nominal rate. However, if it is expressed in terms of the value of the naira at year

0, then the real rate is used. The money rate of interest which is the market rate of interest takes care of the compensation that should accrue to an investor for the erosion in the real value of his capital as a result of price-rising i.e. inflation while real rate of interest is the rate of return which an investor would expect if inflation is not considered.

For instance, if in the absence of inflation, an investor expects a return of 10% from a firm, the required returns will be higher if inflation is considered. For example, if the inflation is 5%, it means the nominal rate of interest required will be 15%. That 10% is the real rate of returns. For instance, if an investor invests ₦100, inflation is not considered, and the investment at the end of the year is worth ₦110, then the real rate of return is 10%. However, ₦100 this year cannot be the same the following year due to erosion in the real value of his capital because of inflation. In reality, there is likely to be an element of inflation in the structure of interest due to the change in the purchasing power of money over the period because the market will adjust to incorporate the inflationary expectations. Therefore, from the example given the nominal rate should be 15% of ₦100, which is ₦15+₦100 (original investment). From this, ₦10 is for the real rate of interest while ₦5 is due to the inflation.

The real rate of return can be calculated thus:

$$1+\text{real rate} = \frac{1+\text{money rate}}{1+\text{rate of inflation}}$$

The money rate can be expressed as follows from the above-mentioned formula

$$1+\text{money rate} = (1+\text{real rate}) \times (1+\text{rate of inflation})$$

At times, the money rate of interest may be lower than the inflation rate. This means that the real rate of return will be negative. The investor may still invest his money if he cannot find a better investment that can earn him higher rate of income and/or he does not want to hold cash. This is because the cash cannot earn him anything whereas the interest will earn him something though it may not be sufficient. In this case, all what is considered as interest rate is inflation rate[10]

In an interest-based system, money cannot function as a store of value, medium of exchange and units of account effectively and efficiently because it is being used as a commodity that can be sold and bought. Therefore, interest (*ribā*) deflects money from its basic functions. Many developing countries like Nigeria were and are still debt trap as a result of the geometric multiplication of the amounts payable as a result of accumulated interest and service charge. The Nigeria's external debt in 1960 was nothing to write home about if it is compared with what it was in 1990s and early 2000s. In 1960, it was N49.8m while in 1999 it was ₦2,577,374,400,000. It was ₦4,890,269,600,000 in 2004[11]. That is why the creditors are indirectly dictating the ways forward for the country. The channeled ways are always in their favour. This is because he who plays piper dictates the tune. Therefore, interest is seen as a mechanism to enslave a nation and its people. When the rate of inflation rises, the nominal interest rate is likely to increase. The consequence is that there will be a decrease in money demand for investment. This eventually leads to a decrease in the Gross Domestic Products (GDP) because no physical goods are produced. This is not the case in an Islamic economy where interest is prohibited.

If money is invested, it is not possible to know beforehand whether the investor can make profit or incur loss. The actual amount of the profit or the loss is not known. It is, therefore, unjust to charge a pre-determined rate of interest on a loan advanced. Justice demands that providers of capital should share the risk of profit and loss with entrepreneurs. The conventional economists believe that interest attracts savings, promotes investment and develops economy of a country. The opposite is the reality. Income, ability to save, stability of economy, rate of inflation and pattern of income distribution are some of the factors that really contribute to the economic developments and promote savings and investments. It is very possible to attain the optimal utilisation of resources which Allah has endowed freely to man for economic development under an interest-free system. This is because all financial contracts in that system are asset-backed. The financial contracts involve construction, manufacturing, trading etc; and all these are not possible without using physical and natural resources. Such contracts include *mudārabah, mushārakah, murābahah, istisnā', ijārah, salam* and *sukūk* of various forms. This is to mention but a view. If these products are used, there will be an equitable use of the resources given to us. In addition, wealth will also be distributed among people. The tendency for wealth to circulate and accumulate in the hands of a few people is very high in an interest-based system. Lack of concern for other fellow men is the resultant effect of the system. In Islam, it is regarded as selfishness and injustice to take interest. Therefore, emphasis is placed on accumulation of wealth through hard work and physical activities. Infrastructural developments determine economic growth and development as well as standard of living i.e. the latter is a function of the former. Therefore, concerted efforts should be made to develop them. If they are developed

and are functioning very well, an enabling environment would be created for people to earn their living and thus improve their standard of living. Poverty would be reduced to the minimum level if it is not eliminated. The multiplier effects of these are provision of good roads and water, efficient and effective power supply, reduction of illness among the citizens because they would feed well and a host of others.

Poor people in rural or urban areas cannot make use of new technologies because they don't have collateral securities to obtain loan with which they can buy new technologies. In addition, they fear the consequence of failing to repay capital with interest if their business fails and they lose part or all the capital. Therefore, their status quo remains the same. The two issues: payment of loan with interest and collateral security which serve as barriers for them are removed in an Islamic economy. In the first instance, in Islamic finance, provision of collateral security is not required before funds are provided for finance users. In *mudārabah*, finance provider provides capital for finance user without requesting for collateral security. They agreed on the sharing formula. If profit is made, they share it based on an agreed ratio. If loss is incurred, the finance provider bears the loss while the finance user does not share in the loss[12]. He only loses his labour, time, and energy. He is not also entitled to any remuneration. So, the fear of how to repay the funds in the event of failure if the finance user is not negligent is not there in an Islamic economy. So, it is easy to empower the poor in an Islamic economy, through the use of the financial products, Zakat (alms) and *qard hasan* (good loan).

The general conclusion is that if interest is eliminated from the Nigerian financial system, based on the word *yamhaq* i.e. to eliminate as used in Q2:275-279, the institutions can still be viable, profitable, efficient and effective. An interest-free system can generate better results in relation to growth, development, efficiency, reduction in income disparity, elimination of poverty, fulfillment of needs of all members of the society and stability. This is because creation of jobs for both skilled and unskilled workers in the country is possible and sure. There will also be many construction works if Islamic financial products like *istisnā', salam* etc are used. Poor people irrespective of religion, ethnic background and location will get jobs to do. The Islamic finance can make all economic agents better off as well as bringing improved social welfare at an economy-wide level. The resultant effects of using Islamic financial products are production of goods and services in large quantities, thereby leading to reduction in prices.

Causes of inflation and the Islamic economy

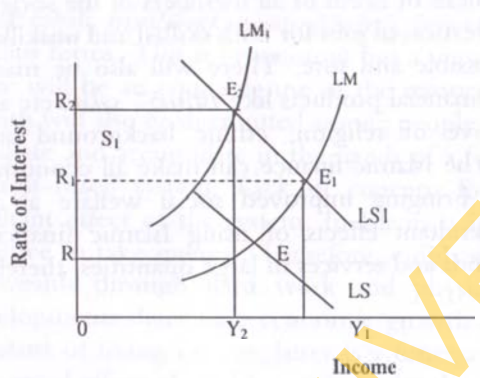
We need to know the causes of inflation so as to know its permissibility or otherwise. Without proper understanding of its causes, it will be difficult to know whether there is an allowance for it in the Islamic economic system or not and whether there is a provision for it or not. The following are among the various causes of inflation:

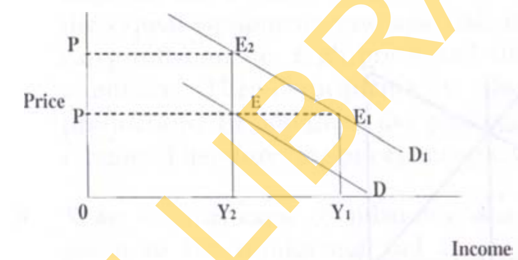
- **Demand-pull inflation or excess demand inflation**: This occurs when the demand for goods and services is greater than (or exceeds) the supply at the full employment level[13]. The full employment level means that there can be no increase in the aggregate output i.e. the production of goods and services have reached its optimum. If at the full employment level, the investments demand increases, the aggregate demand for goods and services will exceed their aggregate supply. It means there is a disequilibrium, which can be corrected only by one of the following ways:

    1. an increase in the prices to reduce the demand or
    2. an increase in the outputs to match the demand or both.

The latter is not possible because we have assumed that we have the full employment level[14]. Therefore, the former takes place to bring about equilibrium between the aggregate demand and the supply. This leads inevitably to inflation. This is allowed in Islam inasmuch it is not caused by hoarding. What should be done is to find a way of increasing the goods whose scarcity has caused the price to rise

Figure 2.1 Demand-pull inflation

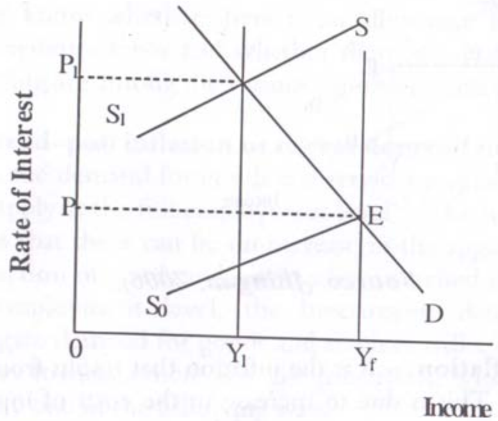


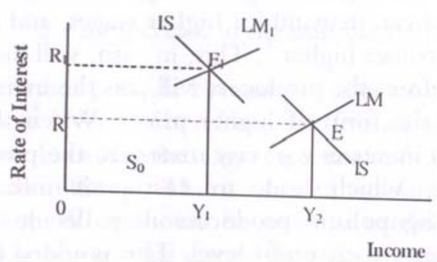


Source: (Jhingan, 2006).

- **Cost-push inflation**: – It is the inflation that results from high cost of production. This is due to increase in the costs of inputs. Inputs include rising wages unaccompanied by corresponding increase in labour productivity, raw materials, attempts by entrepreneurs to increase profits etc. As regards higher wages through collective bargaining, the labour can demand for higher wages, and if granted, the cost of labour becomes higher[15]. This, in turn, will increase cost of production. Therefore, the producers will pass the increased costs to the consumer in the form of higher prices. When the cost of factors of production increases e.g. raw materials, the producer also increases the prices, which leads to cost-push inflation. The monopolistic and oligopolistic producers may decide to charge higher prices to increase their profit level. This is added to the cost and pass to the consumer in the form of higher prices. This leads to profit-push inflation. It is to be mentioned that both demand-pull inflation and the cost-push inflation are closely related. If the rise in price is not due to manipulation of only the entrepreneur and the increase in wages is due to maintain a reasonable standard of living of the employees, such an increase is allowed in an Islamic economy.

Figure 2.2 Cost-push inflation





Source: Jhingan, 2006.936

- **The act of God (crop failure)**: –Due to drought, changes in weather and other climatic conditions or natural phenomena, the agricultural production may be affected negatively which may result into shortage of farm produce. Therefore, the little output will have to be sold at high prices. This is because the demand is far greater than the supply of agricultural products. This may lead to the increase in the cost of living, the consequence of which may warrant the demand for higher wages, which, in turn, leads to higher cost of production. Ultimately, the burden will be passed to the consumers in the form of higher prices. The interest charged on loans, the depreciation of the naira etc. may lead to the high cost of production which, in turn, leads to under capacity utilization. If there is under capacity utilization, the production may not meet the demand.

- **Internationally generated inflation**: – It arises when goods imported from other countries are already experiencing inflation[16]. If the capital equipment, raw materials and consumer goods imported carry inflation i.e. high prices and this is passed to the importing countries. The consequence is that it increases the cost of production. In addition, the producers will also add their profit margin. Therefore, the prices become very high.

- **War**: - Other cause of inflation is war. During wartime, attention is given to the production and acquisition of war weapons at the expense of essential items like consumer goods, foods, etc the shortage of which leads to higher price level. When the actual expenditure of government is more than its revenue, there will be too much money in circulation chasing a few goods. The resultant effect is that there will be an increase in the price level of goods i.e. inflation.

All the above mentioned causes could be accommodated in an Islamic economy.

- **Speculation**: – refers to a mental activity in which a person formulates his judgement about future course of the market. He buys at cheap rates and sells the same in future at higher rates. He also sells now if the future price is expected to be lower than the present price of commodity and vice versa. He withholds the essential commodities with a view to raising their prices, thereby leading to inflation. Speculative business is the act of forming opinions about what has happened or what might happen without knowing all the facts[17]. It also refers to buying something at cheap rates and selling the same in future at higher rates.

- **Hoarding**: - Hoarding, according to Oxford Advanced Learners' Dictionary, means keeping money, food, valuable objects etc in a secret place so that other people will not find or steal it[18]. Hoarding money or any other valuable objects do not benefit people at all. Money hoarding means taking money or valuable objects from the market to create scarcity so as to increase the price, thereby leading to inflation. Hoarding wealth can lead to the fall in the standard of income and cause unemployment. The aftermath of these is that people are pushed into poverty .When money which is supposed to be medium of exchange is hoarded in a safe or a bank, it becomes scarce. People or investees are unable to obtain it. This will reduce economic activities in the society or bring them to a halt. However, if money changes hands, the economic activities proceed.

- **Causes of inflation in the early days of Islam**: – During the early Islamic history, the rise in price was at times sharp but short lived. At other times, it was gradual at a low rate. The rise was due at times to influx of gold and silver. At other time, transportation problem and climatic conditions caused reduction in supply, thereby leading to increase in prices (i.e. inflation). After the Abbasid era, devaluation of currency, famine, excessive issue of copper coins (fulus) etc were the major causes of inflation.
- **Credit**: – When credit expands, it raises the money income of the borrowers which, in turn, raises aggregate demand relative to supply, thereby leading to inflation
- **Deficit financing**[19]: – This is one of the causes of inflation in Nigeria because she needs to pay interest on both the domestic and external loans to service her debts. The unfortunate thing is that the government borrowed huge sums of money with a view to developing the economy. The money borrowed in the name of development is not used in a productive way. It is unable to generate enough resources to repay the principal and interest thereon. The resultant effect is deficit financing. This increases the level of inflation. The cause of this inflation is interest[20]. The government prints money to carry out its function. The resultant effect is that more money is chasing a few goods. This causes the price of goods and services to rise. Interest is included in the cost of production; thereby leading to the increased price of the output. This is shifted on to the customers in the form of high price. This cause is a man-made one.
- **Money supply**: – When the growth rate of the nominal money supply is high, the rate of inflation will be high. Both are directly proportionate .To put it differently, increase in money supply without corresponding increase in the production of goods and services leads to the rates of inflation. If the disposable income of people increases, they demand for more goods and services which are limited in supply. The effect is high rate of inflation.

Money and its roles in an Islamic economy and interest-based system

Many people considered money to be the root of all evils and a source of peril instead of a source of blessings for it gives rise to inequality in the distribution of wealth, overcapitalization and overproduction, instability in its value, greed, theft, exploitation, the decline in spiritualism, murder and a host of other evils. However, it should be mentioned that it is the way money is used, and one of the ways by which it can cause all havocs mentioned is to consider it as an article of trade that will attract interest. Therefore, money may not be the root of all evils but interest.

Money in the view of western economists is a commodity that can be bought and sold. They also regard money as something that performs the following four functions: a standard of deferred payments, a store of value, a unit of account and a medium of exchange [21]. Money as a unit of account facilitates communication of economic information between people in the sense that both sellers and buyers would be able to decide on what they should specialise as sellers and buyers, and in what proportions they should combine different goods for sales and purchases respectively. To put it differently, money as a unit of account is an agreed measure for stating the prices of goods and services. Money as a medium of exchange is any object generally accepted in exchange for goods and services. Many objects had been used as money for exchange before coins, papers, dollar, bills, debit/credit cards etc were introduced. For instance, for a long time, North American Indians, Fijians and American colonists used wampum (i.e beads made from shells), whale's teeth and tobacco as money respectively. In Ethiopia and Tibet, cake of salt served as money. This is to say that the use of money has been around like fire for a long time[22]. What all those objects mentioned have in common is that they have served as means of payment. Money can take many forms inasmuch as it can serve the four functions. It has removed the inconveniences, inefficiency and clumsiness created by barter system. Future payments are effected through the use of money, and it acts as a store of value at least by virtue of its use as the medium of exchange. Money used as a store of value means that it can be held and exchanged later for goods and services. It is, therefore, important for government and its monetary authority to make it stable because the more stable the value of a particular commodity or token is, the better it can act as a store of value and the more useful it is as money. The optimal rate of inflation should be zero as expressed by LeBlanc[23] if money is to be recognised as the yardstick with which economic transactions can be measured. The roles of money, as a unit of account, as a means of transactions, and as a store of value would also be maintained.

> If there is anything in the world which ought to be stable it is money, the measure of everything which enters the channels of trade. What confusion would there not be in a state where weights and measures frequently changed? On what basis and with what assurance would one person deal with another, and which nations

would come to deal with people who lived in such disorder?" [24]

Therefore, the government and its monetary agents should control inflation and deflation to avoid the need for indexation. The inflation, most of the time is artificially created. This should be avoided in order to make money more useful as a store of value.

On the other hand, interest as discussed earlier is regarded as the charge made for borrowing a sum of money. This in essence means that interest is the exchange for the money lent out instead of money being a medium of exchange. It is a commodity that can be bought and sold. For instance, if somebody gives out a commodity, he receives in return money as an exchange for the commodity. In the same vein, if money is lent out like a commodity sold, the exchange for that is interest, which means money is regarded as a commodity that brings in dividend i.e. interest. However, the interest paid is continuous as long as the capital remains unpaid but when a commodity is exchanged for money, it is once and for all. In Islam, money is regarded as medium of exchange and not an article of trade for it can be likened to a barren hen, which cannot beget itself.

Indexing inflation from the conventional economy and Islamic economy

Indexation is to make a debtor pay an additional amount equal to the increase in the rate of inflation during the period of borrowing[25]. As regards Thompson's definition[26], inflation occurs when the general price level or the average price of all goods is rising. Inflation, therefore, causes the value of money to fall. This puts a lender at a loss while a borrower is at an advantage because he pays less than the value of what he got. If a person gets a loan of ₦100, 000 and he is to pay back the loan in 2 years' time, what that ₦100, 000 can buy in two years' time will be less than what it could be used to buy two years ago because there is an erosion of capital due to inflation. If the ₦100, 000 that can be used to buy a piece of land in an area in Ibadan now, is lent to another person who is to pay back in 5 years time, the inflation may occur. The lender may not be able to buy the piece of land because his money has been transferred for the use of another person. If after 5 years, the borrower returns the same ₦100, 000 to him and the price of land has risen to ₦200, 000, it means he will not be able to purchase it because the purchasing power of the money lent has reduced. The proponents of *ribā* are saying the debtor should compensate the lender for the loss he has suffered to the extent of the amount that will make him buy the same piece of land he would have bought with his money 5 years ago by way of indexation. If he is paid ₦600 000 instead of the original loan of ₦100 000 and that ₦600 000

can buy what his ₦100 000 would buy 5 years ago, what he gets is not different from what he gave though the nominal value increases but the purchasing power remains the same.

Therefore, the proponents of indexation suggest that the lender should be compensated through indexation. Indexation is determined through the basket of consumers' goods, which consists of about forty items. The basket is adopted as a standard to determine the purchasing power of money. A point that needs to be noted here is that many people do not consume the items in the basket with which the purchasing power of money is measured. This is one of the fallacies of the proponents of indexation. The injustice of indexation using what is not applicable to everybody to judge everybody is unfair.

Other points raised by the proponents are justice and fairness as the reason for using indexation to restore lenders to their original position. Quoting Quranic verses (Q2:279, Q16; 90, Q5:8 etc) to support indexation, they believe one should not be unjust to lenders by paying him less than the amount lent out. He should be given what could perform the same function i.e what his original money could do. It is also emphasised that full measure with justice should be given back to lenders by paying them what will make them buy the same quantity of goods they were capable of buying with their money before lending it out. Therefore, they believe one way of doing this is through indexation.

However, if indexation is accepted, it means the lender will be entitled to an assured positive return on loans, which is *ribā*, a prohibited act in Islam. In addition, indexation is not known until the maturity date. Therefore, it cannot be fixed at the beginning of the contract and this makes it null and void.

Debtors do not cause the issue of inflation, which reduces the value of the money lent out. The forces of demand and supply cause it. If lenders keep their money without lending it, the same erosion of value would happen to it. So, debtors should not be asked to bear the loss not caused by them. That is another injustice because, in Islam the person that has committed an offence should bear the brunt. For instance, the story of prophet Yusuf and his brothers is an evidence of not taking an innocent person for the fault of another person. In that story, the king's cup was found in prophet Yusuf's full brother. His half brothers were afraid of their fathers' reaction. Therefore, they wanted Yusuf to take another person in place of his brother to protect themselves against the biased mind of their father. However, Yusuf refused to take another person in place of his brother (Q12: 71-79).

The *ribā* supporters also argue that interest is paid to compensate the loss the finance provider has suffered through inflation. Although the rate of interest is a major cause of inflation, it is not based on the rate of inflation. If it is based on the rate of inflation, the rate of interest should be equal to the rate of inflation. It was said that demand and supply determine the rate of interest. It, is, therefore, clear that the interest cannot be regarded as a compensation for the loss of purchasing power.

Using indexation as a substitute for interest rate as suggested by proponents will be a mismatch and an unrealistic alternative because the inflation rate is not static. It changes from time to time. In addition, if money is deposited in a bank and such money is given out as a loan, it can reduce or increase in value. The borrower is made to augment the reduction in value of money borrowed so that the depositor can claim the real value of the money at the time of returning the money. By way of an example, If ₦10,000 is given as a loan to a person and the value can buy, say a fridge, the value of money that can buy the fridge in two years' time say, is ₦15,000.It means the borrower should pay back 15,000 instead of 10,000. The depositor receives 15,000 instead of 10,000. How is the indexation of the amount determined? Because it is unknown, it is difficult to know precisely the reduction value. In addition, what then is the gain of the bank? This is to show the unrealistic nature of the suggestion. On the other hand, if what it can buy now is less than the value of what it could buy 2 years ago, the borrower pays less than the value of what it could buy 2 years ago. The borrower pays less than the nominal value because the value has appreciated. If the same fridge which cost ₦10,000 2 years ago, is ₦8,000 now, the borrower returns ₦8,000.If indexation is used, he pays ₦8,000 instead of ₦10,000 he got because ₦8,000 has the same value with ₦10,000 he got 2years ago.What would happen to the difference of ₦2,000? This is another flaw of using indexation as an alternative to interest.

The modern economists argue for charging a fixed interest on loans for the mere act of abstention from consumption. It is also believed that it is a reward for savings. They also hold the belief that interest is considered the price of, or returns on the capital lent. However, money is not regarded as capital .It is only the potential capital, which requires the service of an entrepreneur to transform it into actual productive use. This seems not be the concern of a lender. Whatever it is saved, say in a wardrobe remains like that forever unless it is used in a productive way. The productivity of funds should be considered. Funds that contribute to creation of wealth are entitled to share a portion of this incremental wealth. The portion should not be a fixed return. If loss is incurred, the financier also should bear the loss while the entrepreneur loses his effort. As regards funds that

do not increase wealth, it should not be given anything. If a finance user incurs loss without his negligence, the loss may be due to macro-economic factors, which are beyond his control according to Siddique[27]. Therefore, it is wrong to penalise him by asking him to make up for the loss and to pay interest. His penalties are three: make up of the diminished capital, interest and loss of his labour. Inflation is the handiwork of man. Look at the Saudi Arabia; a bottle of coke which was one riyal 10 years ago is still one riyal today. Why has it not risen up? The problem of inflation is due to the problem of lack of good leadership. It is unjust to the borrower because it is not due to his creation.

Islamic ways of controlling inflation

In this section, we are concerned with Islamic ways of controlling inflation. Islam which is a complete way of life takes care of all the fields of human existence. It gives guidance for all walks of life-individual and social, economic and political, legal and religious etc. Islam as a panacea to the problem of inflation can liberate the whole world particularly Nigeria in the grip of inflation if its financial products are used.

Need, Demand and Wants

Human wants are unlimited. In fact, most of the wants are not necessarily needed for his survival and growth. Necessaries of life such as good food, good clothes and good shelter are allowed in an Islamic economy (Q7:31-32 etc). However, excessive expenditure on unnecessary and superfluous wants is forbidden based on the Quranic injunctions (Q7:31-32; Q5:91; Q2:168 etc). If the injunctions are adhered to strictly, aggregate demand would be reduced, thereby reducing inflation.

Moderation

There are injunctions that exhort people to be moderate in their consumption .It also urges people to shun wasteful life styles and conspicuous consumption. The positive effect of all these is that the aggregate demand will be reduced drastically.

One of the ways by which inflation can be removed or at the least be reduced is moderation in consumption and expenditure. The key element of the Qur'an from the economic point of view is its stress on moderation. Inflation needs to be controlled otherwise; its consequences can spell doom for the society. Control of inflation should involve moderation in consumption since one of the main factors accounting for the emergence of inflation is the excess aggregate demand in relation to the aggregate output at full employment from the Islamic perspective.

This means people should avoid excesses in their consumption. The principle of moderation is applicable to eating, drinking and spending. One should eat and drink moderately as instructed in the Qur'an 7:31. As regards expenditure, the Qur'an says we should neither be prodigal nor miserly but we should be moderate (Q25: 67). If all these principles are adhered to strictly, definitely, the aggregate demand will be reduced. The implication of this reduction is the reduction in demand. Appeals can be made to public to curtail conspicuous consumption so as to reduce aggregate demand, thereby leading to reduction in prices of goods and services.

Monetary policies and some prohibitive measures for the prevention of inflation

One of the objectives of the monetary policy is to make price stable with the aim of keeping inflation low and stable. However, increasing the rate of interest and direct and indirect taxes to reduce consumption and investment as a way of controlling inflation is not allowed in an Islamic economy. Instead, the measures that can be taken to control it is to increase production of goods and services by eliminating interest and adopting Islamic financial products. The latter will create jobs in abundance.

Bulk sale of government securities and banking community as a way of reducing the total amount of cash balance in public asset portfolio and cash reserve with the commercial banks is not prohibited in an Islamic economy. However, using treasury bills and treasury certificates for such reduction is prohibited because it contains interest which is prohibited in Islam. Two wrongs cannot make a right. In Islam, inflation is allowed if it is natural. That is, if it is not man-made. To correct what is not allowed with what is prohibited, it is like one using urine to clean faeces.

Raising the bank rate as one of the monetary policy instruments used by the CBN to control inflation is unacceptable in an Islamic economy because it involves prohibited macroeconomic variable (i.e interest) based on Q2:275-279. Instead, *mudārabah* and other Islamic financial products can be used.

Raising the minimum legal cash reserves rate to be kept by the commercial banks with the CBN may not be totally allowed. Instead, the CBN may direct the banks in the country to direct their funds towards production of goods and services through any of the Islamic financial products. This will boost output and in turn the prices will be reduced

Fiscal policies and the prevention of inflation

Fiscal policy refers to government expenditure and revenue. Government expenditures include salaries, allowances etc. The allowances given to some government employees and elected politicians in Nigeria are two much. If compared with those people in some advanced and developed countries. One of the ways by which fiscal policy can be used to control inflation is to reduce the allowance of the highly paid officials, borrowing and printing money. This would reduce their spending spree which in turn would reduce the upward pressure on prices as a result of demand. The funds can be directed towards public sector projects that would improve the standard of living of people.

The cost-push inflation is caused by the rising cost. This can be controlled by preventing the wage increases that are not related to the increase in labour's productivity. A sufficiently high percentage of unemployment is needed for non-inflationary price stability. The extent of unemployment that is necessary to avoid wage-push inflation may be higher than what is economically stable and socially desirable. Therefore, according to Phillip's curve[28], the wage-push price inflation can be eliminated if the community can accommodate a high rate of unemployment. However, in an Islamic economy, the case of unemployment can never arise because virtually all the Islamic financial products creat jobs in abundance

Prohibition of hoarding

Hoarding money or any other valuable objects do not benefit people at all. When money which is supposed to be medium of exchange is hoarded in a safe or a bank, it becomes scarce. People or investees are unable to obtain it. This will reduce economic activities in the society or bring them to a halt. Therefore, Islam forbids it. On the other hand, savings means accumulating money for a purpose, such as investment and building a house. This type of money accumulation guarantees the circulation of wealth again once it is invested. The employment cycle is maintained and the market is not affected negatively. The multiplier effect is that people will get jobs to do, thereby earning income. This in turn improves their standard of living.

If money is hoarded, it would reduce people's expenditures. The income of person who would have had dealings with them had it not hoarded is reduced. This would lead to inflation. People hoard wealth that people really need to obtain abundant earning. It should be noted that hoarders are referred to as evil-doers, the same description Allah gives those who hoard wealth and those who transgressed the limit such as Pharaoh and

Hamman. This is an indication that hoarding is regarded as heinous sin in Islam. However, food or any valuable objects hoarded for the purpose of preservation till the time they will be needed are allowed in Islam in as much the intention is not to make them scarce so as to raise their prices.

Hoarding is condemned in the Quran and Hadith of the Prophet. Allah threatens the hoarders of wealth with hell in the hereafter. The implication of this threat is to allow wealth to circulate among people to ensure the flow of wealth into investment channels, thereby helping its natural distribution.

> And those who hoard up gold and silver (Al-kanz i.e the money, the zakat of which has not been paid), and spend it not on the way of Allah, announce unto them a painful torment. On the Day when that (Al-kanz i.e the money, the zakat of which has not been paid) will be heated in the Fire of Hell and with it will be branded their foreheads, their flanks, and their backs;(and it will be said unto them): "This is the treasure which you hoarded for yourselves. Now taste of what you used to hoard." Q9:34-35
>
> By no means! Verily, it will be the fire of Hell. Taking away (burning completely) the head skin! Calling: all such as turn their backs and turn their faces. And collect (wealth) and hide it (from spending it in the Cause of Allah) Q 70:15-18
>
> Woe to every slanderer and backbiter. Who has gathered wealth counted it? He thinks that his wealth will make him last forever. Nay! Verily, he will be thrown into the crushing fire Q104:1-4

Ma'mar bin Abdullah reported that the Messenger of Allah said: "*Lā yahtakiru illa khātiun*"[29] meaning "None keeps goods till the price rises but a sinner" (Muslim). Therefore, Islam prohibits hoarding so that money can change hands. The resultant effect is that the economic activities proceed.

Prohibition of monopoly

Monopoly which is the sole control of the supply of any commodity or service by one person or one firm is not allowed in an Islamic economy. This is because he can fix the prices at his discretion to the detriment of the interest of the consumers or the public. If many people or firms are producing the same goods, such goods would be produced in abundance. The implication is that the price is reduced. Monopolists can also hoard their goods with a viewing to increasing the prices. All these acts are forbidden in Islam based on the Quranic injunctions (Q9:34-35; Q 70:15-18). The Hadith also supports the prohibition. Ma'mar reported that the Messenger of Allah said that he who monopolies is a sinner (Muslim)

Price Control

Price control is fixing an upper limit for the prices of essential consumer goods. If anybody should charge more than the fixed maximum prices such a person would be punished by law.

It must be mentioned that the suggestion that aggregate demand can be controlled by introducing price control and compulsory rationing of the essential goods in short supply is not allowed in an Islamic economy. In fact, when Prophet Muhammad was asked to fix prices, he did not agree. He said; "Allah grants plenty or shortage, He is the Sustainer and real price Maker (*musa'in*). I wish to go to Him having done no injustice to anyone in blood or in property[30]. This means that inflation cannot be controlled if it is not caused by market imperfection such as hoarding. It means inflation is recognized in Islam if it is through market forces or shortage through decrease in production caused by natural phenomena. It is noted from the above-mentioned Hadith that he did not fix the price or control price. However, he took steps to eliminate malpractices such as hoarding, speculation and monopoly that can cause inflation.

Political and social adjustment

Most of the time the causes of inflation are political and sociological rather than economic in nature. Therefore, the answer to the problem is found in the political and social adjustments. The government needs to expand the productive capacity of the economy

Elimination of corrupt practices, bribes and kick backs

People in government must know that they are accountable to Allah as regards the way they use public funds. In an Islamic economy, public funds regarded as a trust from God. The resultant effect of treating public funds as a trust is that borrowing on interest, deficit financing and printing new money anyhow will be eliminated because public expenditure would be kept within the resources. This will reduce the cost of contract, the cost of expanding trade and investment. This step will boost production, thereby leading to reduction in the price of goods and services. With a view to preventing inflation, Islam has adopted certain prohibitive measures against all the unfair and illegal means of earning such as theft and robbery, income from adultery, blue films, pornography, prostitution and usurpation of the wealth of orphans. The Prophet is reported to have cursed the one who bribes and the one who takes bribes[31].

Production of scarce goods and services

The government should find a way of increasing production of the scarce goods and services, thereby leading to increase in supply which in turn reduces the price. Measures should be taken to increase production. One of the measures is to increase the production of essential consumer goods like food, clothes, kerosene, oil, sugar, vegetable oils, etc. This can be done by importing raw materials for such products. Industrial peace could also be maintained so as to avoid strikes that could lead to the closing down of firms. Latest technology, subsidies, financial help, etc could also be used to boost production of goods and service, thereby leading to increase in production of goods and services. Spending money in a way that increases the supply of goods and services can also help governments check the rising trend in prices. All these steps would reduce inflation. Tax reduction or scrapping capital gains taxes may boost production by increasing the incentive to work and the incentive to save. Another possible measure is to restructure the subsidies, in such a way that favors intermediate industries whose products are used for the production of consumer goods. Building the infrastructure such as roads, bridges, irrigation systems, electricity and telecommunication at public cost and making them available to the private sector at affordable prices will go a long way in the production of goods and services. The cumulative impact over time of these policies if they are implemented would be significant. The surest way to check the rising trend in prices is to find a way of increasing the supply of the goods whose prices are rising. This is more durable than anti-inflationary monetary policy whose effects are temporary.

Speculative business: a prohibitive measure for the prevention of inflation

Speculative business which is a mental activity in which a person formulates his judgement about future course of the market is not disallowed in Islam. Virtually, everybody speculates about different economics events. However, the intent of a speculator determines whether speculation is lawful or not. It is prohibited and condemned if he withholds goods with a view to raising their prices. The Prophet is reported to have said: whoever withholds stocks of grain to make them scarce and dear is a sinner (Muslim)[32]. Speculative business is made possible most of the time by interest-based funds. This cause is blocked in Islam. This facility is prohibited in Islam based on the Qur'ānic injunction against riba Q 2:275-279 etc. In addition, the liability of a borrower is unlimited in Islamic economy. This prevents speculators from borrowing for speculative businesses because they would not want to expose all their assets to the risk of forfeiting them in the event of defaulting. Interest is prohibited in an Islamic economy because of its evil effects on allocation of resources, production, distribution, expansion of artificial money and inflation. Islamic financial products can be used to reduce the rocketing inflation through less artificial money creation and less funding of speculative businesses. Therefore, professional speculators cannot strive in an Islamic economy. Unforeseen fluctuation caused by the manipulations of speculators can be reduced by government and cooperative society. The government and the cooperatives should hold buffer stocks at crop time and release them when the market is dwindling. This would stabilise prices.

Conclusion

Of the four types of inflation: creeping; walking; running and hyper-inflation, Nigeria is experiencing the third. The double digit rate of inflation needs to be reduced by increasing production of goods and services. She also needs to embark on strong monetary and fiscal methods suggested in this paper before she moves to hyper-inflation. It must be mentioned that it is only in the midst of price stability that sustainable growth can be achieved. Concerted efforts should be made to control inflation to the extent that economic agents do not worry about it. If inflation is not controlled long term planning will be discouraged. In addition, savings and investment would be reduced, thereby leading to slow or no growth in the economy. Inflation distorts many areas of economic activities and influences virtually all decisions of economic agents since it creates uncertainty in the economy.

Islam supports zero rate of interest as contained in Quran chapter 2 verses 275-279. The paper concludes by saying that a zero rate of interest is a property of an Islamic economic system and not of capitalism. However, it is indifferent to zero inflation inasmuch as it is not caused by human factors. If full employment prevails, the rate of inflation will be zero. The paper shows that inflation is allowed to some extent while indexation is not allowed because of injustice. An Islamic economy is not prone to a high rate of inflation due to some built-in stabilizers because virtually all Islamic financial products are asset-backed. Some characteristics of Islamic finance can prevent inflation from occurring or at the least can reduce the negative effects of inflation in an Islamic economy. The financial contracts in that system are asset-backed. They involve construction, manufacturing, trading etc; and all these are not possible without using physical and natural resources. Such contracts include *mudārabah*, *mushārakah*, *murābahah*, *istisnā'*, *ijārah*, *salam* and *sukūk* of various forms.

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