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**Inflation: Islamic and Conventional  
Economic Systems**

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# Inflation: Islamic and Conventional Economic Systems

## **Abstract**

In the Islamic framework, when there is no imported inflation and/or a sudden shock to demand or supply, inflation rate should be zero. Similar to the conventional economic system there is a higher inflation rate in an Islamic economic system if there is deterioration in the domestic currency. It has been shown that debt financing and economic waste plus other known factors can cause inflation in the conventional economic system, but since debt financing is replaced by equity financing and wasteful consumption is extremely discouraged in the Islamic system, everything else being the same, the inflation rate should be lower in this system. Islamic laws guarantee the flow of labour, productive land and capital. Therefore, in this system the possibility of cost-push inflation is nil or very low. A zero predetermined interest rate in the Islamic system, contrary to a positive interest rate in the conventional system, helps to keep inflation rate lower over the long run.

# **Inflation: Islamic and Conventional Economic Systems**

Inflation is defined as a sustained rise in the level of prices. It results in the reduction of the real value of savings and wealth. It also causes distribution of income from lenders to borrowers and from salary/wage makers to employers if wages and salaries are not adjusted for inflation. An expected inflation creates uncertainty about current and future consumption and investment. In general, theories of inflation can be divided into two categories: demand-pull and supply-push. When an economy has a high level of employment, an increase in aggregate demand will usually produce inflationary pressures. Inflation generated by the shifting of the aggregate demand curve is called demand-pull inflation. Such inflation can originate in the real sector (e.g., an increase in government expenditure) or in the monetary sector (e.g., an increase in the money supply) or through some combination of both.

The cost-push inflation is produced as a result of a shift in aggregate supply. The movements of aggregate supply can be due to the imperfect competition in the labour market, product market or both.

In general, as Kia (2006) described, inflation can be influenced by both internal and external factors. Internal factors include, among others, government deficits, debt financing, monetary policy, institutional economics (shirking, opportunism, economic freedom, risk, etc.) and structural regime changes (revolution, political regime changes, policy constraints, etc.). External factors include terms of trade and foreign interest rate as well as the attitude of the rest of the world (sanctions, risk generating activities, wars, etc.) toward the country.

The channels through which government deficit and debt financing influence inflation include the formation of capital (crowding out effect), the monetization of debt and the wealth effect of debt. By reducing information costs, institutional economics can also reduce the inflation rate in a country. Furthermore, the change on terms of trade and foreign interest rates can influence the inflation rate in a country for which the economy is heavily dependent on imports and foreign financing of its debt. This is particularly important for developing/emerging countries. The purpose of this paper is to describe, compare and contrast the inflation from a conventional and an Islamic economic system. The next section is devoted to the causes of

inflation which is followed with a section on controlling inflation. The final section provides concluding remarks.

## Causes of Inflation

In both the conventional and the Islamic economic system, the role of both demand and supply is emphasised in the determination of prices. In fact, Islamic scholars realized many centuries ago the importance of demand and supply in causing inflation. Al-Jahiz (d.869), Taymiyyah (d. 1328) and Ibn Khaldun (d. 1406) explained one way or another how the movements of demand and supply cause the price level to go up and down, see Chapra (2008) for a more detailed explanation.

Both fiscal and monetary policies affect aggregate demand and supply. Consequently, they can cause a sustained rise in prices. A higher government expenditure results in an upward shift in the aggregate demand causing the price level to go up. When the government expenditure is financed with issuing debt a further shift in aggregated demand is possible if the outstanding debt is considered by the debt holders a net wealth. The monetization of the debt will further cause a rise in the price level as it creates another shift in the aggregate demand.

According to monetarists led by Milton Friedman, inflation is only a monetary phenomenon. When money supply increases people have more money than they desire. They, consequently, spend the extra money. Since goods and services are constant the prices will go up. It is also possible for the consumers to be responsible for monetary expansion and inflation. This may happen if foreign remittances increase demand for goods and services without a corresponding increase in their supply.

In an Islamic framework, when there is no imported inflation, inflation should be zero. However, it should be mentioned that a very low inflation rate was experienced in early Islamic history. The main reason for such a rise in price levels was the influx of gold and silver. Furthermore, there were brief periods of rising prices due to an interruption in the supply in the third and fourth decades of Islamic history. Another inflationary period in Islamic history was due to an excessive issue of currency (copper coins) known as *fulus*. For more on these historical periods see Siddigi (1996) and references within.

It should be mentioned that even in an Islamic economic system a sudden rise in the aggregate demand, say as a result of a rise in population (immigration) or urbanization, can cause inflation. Prices can also go up as a result of deterioration in the value of the domestic currency.

Inflation can also be imported as the value of imported goods or imported factors of production goes up.

According to Siddigi (1996), there are four 'built in stabilizers' in the Islamic economic system which guarantee zero inflation or at least minimize its incidence. They include:

- (a) One of the main determinants of inflation is the debt financing which is replaced by equity and share based financing.
- (b) The existence of *Zakat* and the inheritance laws affect the distribution of income in favour of a less fortunate population. Consequently, they influence the composition of aggregate demand in such a way it reduces the fluctuations in aggregate demand.
- (c) Islam discourages waste and encourages moderation in consumption. This will result in a decrease in aggregate demand.
- (d) Islamic governments consider public money as trust. Consequently, they must keep public expenditure within the bounds set by the available means. Public financing of government debt is very rare as predetermined interest rates do not exist and in case of financing debt/deficits the rate should be attached to the growth of the economy. Monetization of debt/deficits in an Islamic economic system is almost non-existent.

As mentioned above, one cause of inflation is the reduction in the aggregate supply in the economy. Given the technology, such a reduction can occur because of the reduction in the labour supply, the unavailability of productive land and the reduction in the supply of capital. Under Islamic laws, it is possible to have a sustained labour and capital supply as well as productive land. These laws can be divided into two groups: (i) laws that are encouraged through the teaching of Islamic principles and (ii) laws which are enforced by the government.

(i) Islam strongly encourages people to work. Working is equivalent to worshipping God. It is quoted that the Prophet of Islam kissed a hand of a tired worker and said it is compulsory for any Moslem, man or woman, to work and earn *halal* (lawful) income. For such people the doors of paradise are open and God looks at them with mercy and never punish them. When the Prophet used to hear about someone who decided not to work and to stay at home the value of that person would fall in his eyes and he used to say a believer who does not have any profession sells his religion to live. For more sayings on the importance of working, see, e.g., Sader (1349).

(ii) The second group of Islamic laws includes the following:

- If a landlord leaves his lot unusable and lets the land deteriorate in its quality the Islamic government can take the land away from him. The reason behind this law is that land is an important and limited factor of production.
- A person cannot own an unutilized land without developing it.
- Those who discover natural resources (e.g., mines) are not allowed to leave these resources unused.
- The government cannot give more resources for utilization to a person than what that person can handle.
- It is prohibited in Islam for a person to rent a lot and then lease it to another person at a higher rental price. In this way the middle man who is causing inflation is virtually eliminated.
- A predetermined interest rate is prohibited in Islam. Owners of cash should use their funds in productive activities under profit-loss agreements. It has been shown by Kia and Darrat (2007) that demand for profit-sharing money is more stable than any other demand for money. Furthermore, a predetermined interest rate will push cost schedule up and so it has a negative supply effect. However, under a profit-loss agreement, this supply effect does not exist because profit or loss is the residual of total income and cost. Consequently, it cannot affect output decision.
- Islam considers gambling, speculative activities and witchcraft activities a waste of resources as they do not add to any production. The *Holy Qur-an*, Chapter 2, Verse 188, “And eat not up your property among yourselves in vanity ...”, explicitly discourages wasteful use of resources. Therefore, these activities are prohibited in an Islamic system.

For more explanation on both groups of laws, see Sader (1349). We can see Islamic laws clearly guarantee the flow of labour, productive land and capital. Therefore, the possibility of cost-push inflation is nil or very low.

We discussed above that one of the main causes of inflation is the predetermined interest rate. Furthermore, the government debt/deficit financing through interest payment is also another source of inflation. If, alternatively, government finances its debt the Islamic way, i.e., the payment on the debt is based on the return of the fund in a productive activity or the growth rate of the economy,

then such a debt results in a reduction in inflation rate. To prove these facts we report the estimated model of price level developed by Kia (2006). In this paper, Kia estimated his model on Iranian data. Iran operates under the Islamic economic system. In a later article, Kia (2007), the model was modified for a country which is operating under the conventional economic system, i.e., Turkey.

The modified model was estimated on Turkish data. The estimated results of these two long-run cointegrating relationships are equations (1) and (2), where  $lp$  is the log of the price level,  $lms$  is the log of nominal money supply,  $i$  and  $i^*$  are the  $\log[R/(1+R)]$  and  $\log[R^*/(1+R^*)]$ , respectively, where  $R$  and  $R^*$  are domestic and foreign interest rates in decimal points, respectively,  $ly$  is the log of the real GDP,  $ie$  is the log of the nominal exchange rate,  $lq$  is the log of the real exchange rate,  $lp$  is the log of domestic CPI,  $lg$  is the log of the real government expenditures on goods and services,  $defgdp$  and  $debtgdp$  are deficits and outstanding debt per GDP, respectively, and  $fdgdp$  is the amount of the foreign-financed debt per GDP. The figures in the brackets are t-statistics.

Iran: The sample period is 1970Q1-2002Q4.

$$\begin{aligned} lp_t = & 0.5 (0.29) lms_t - 0.88 (-2.51) ly_t + 1.19 (7.93) ie_t - 0.42 (-3.82) i^*_t \\ & + 0.17 (0.53) lp^*_t + 1.38 (4.93) lg_t + 6.70 (7.13) defgdp_t - 0.66 (-6.6) debtgdp_t \\ & - 0.25 (-0.10) fdgdp_t. \end{aligned} \quad (1)$$

Turkey: The sample period is 1970Q1-2003Q3.

$$\begin{aligned} lp_t = & (\text{restricted}=1) lms_t + 1.19 (6.89) i_t + 0.33 (1.37) ly_t - 3.32 (-7.76) lq_t \\ & + 0.04 (0.37) i^*_t - 1.55 (-8.25) lg_t + 0.13 (0.09) defgdp_t + 1.44 (2.83) debtgdp_t \\ & - 66.00 (-9.55) fdgdp_t + 47.14 (7.81). \end{aligned} \quad (2)$$

Note that Equation (2) which is for a conventional economic system is slightly different than Equation (1). The important variable for us is  $debtgdp$  (government debt per GDP) in two countries. While the variable is statistically significant for both countries, it has a negative effect on the price level in Iran (operating under the Islamic economic system) and a positive effect on the price level in Turkey (operating under the conventional economic system). The domestic interest rate in Turkey has a positive effect on the price level in Turkey. Consequently, we can see the existence of the interest rate results in a higher price level (inflation rate). Furthermore, government debt financing according to Islamic laws is counter inflationary. For the interpretation of other variables, please see the appropriate article.

## Controlling Inflation

As mentioned by Zaman (1993), the Islamic economic system completely disapproves of sharp fluctuations in prices. As he indicates (pp. 27-28), “Some scholars interpret such Qur’ānic verses as: ‘But observe the measure strictly; and do not fall short thereof,’ (55:9) and ‘... weigh with true balance’ (26:182) to mean that government should strive to stabilise consumer prices since inflation as such is undesirable in Islam.” According to the Islamic law (*Shariah*) and as the Prophet of Islam has said, people should neither suffer nor cause any harm and damage should be redressed. Consequently, it is the responsibility of the government to control inflation.

Fiscal policy can be effectively used to control inflation. A reduction in the government expenditure leads to a left and downward shift in the aggregate demand. For a given aggregate supply this results in a reduction in price level. Therefore, a government downsizing reduces the inflation rate. Another way to reduce the inflation rate is to increase taxes. For example, an increase in sales tax effectively reduces the aggregate demand and so the price level. It should be mentioned that none of the above recommendations have any roots in the Islamic past.

Fiscal policy can also affect the aggregate supply. For example, a reduction in or the elimination of distorted taxes will result in an increase in the aggregate supply and a reduction in the price level. Furthermore, allocating the government expenditure to mostly infrastructural investment leads to a rightward shift in the aggregate supply and a reduction in the price level.

Monetary policy can effectively be used to reduce inflation in the conventional economic system. In this system the central bank lends interest-bearing funds to the banking system. The banking system in turn provides interest-bearing loans to the agents in the economy. In this way, the banking system increases the money supply. Note that only a small fraction of these loans is directed towards the production of goods and services. The rest is used mostly for consumer credits, speculative activities, etc. which only contribute to inflation, Shakespeare (2006).

In the Islamic economic system, money supply is purely endogenous and is generated by some interest-free loans of the central bank to the banking system. The banking system loans the fund to economic agents based on profit-risk sharing agreements. Consequently, the loans are directed towards the production of goods and services in such a way to ensure the investment can pay for itself. The loans eventually are paid to the central bank. In this way it is ensured that productive assets always back a society’s currency. There are two important characteristics for these loans. First, these loans can grow without any limitation, and second Islamic loans issuing

from the central bank are not only non-inflationary over time, but are counter-inflationary, Shakespeare (2006).

Income policy is another way to control inflation. This policy entails the intervention of government to control wage rates and prices as well as profits. This policy must be accompanied by sufficiently restrictive demand policies. Otherwise, it fails. Even a restrictive expenditure policy must be accompanied by an income policy in order to work. An income policy reduces the transition period of high expected inflation to low expected inflation.

What remedy in an Islamic system is possible if inflation cannot be avoided; say if it is imported inflation or if it is the result of continuous currency deterioration? One possible solution is the indexation of financial assets. However, there are Islamic scholars who support the indexation of financial assets and those who do not.

Scholars who favour the indexation refer to the Qur-anic verses “And give full measure and weigh with justice” (17:35) and “diminishing the goods of others” (7:85) to prove their point. Money loses its real value as a result of inflation and if loans are indexed to ex-post inflation rate the lenders get full measure and weigh and justice is served. Consequently, indexation conforms to the spirit of Islamic law. Furthermore, the advocates of indexation refer to the Qur-anic verse “O ye who believe! Fulfil your undertaking” (5:1). Since inflation results in a reduction of purchasing power of money the borrowers violate the letter and spirit of the contract by not paying the same quantum of purchasing power which they have borrowed. Indexation, however, safeguards both the letter and the spirit of the contract. With indexation the interests of both lenders and borrowers are protected and so the spirit of the Qur-anic law “Wrong not and be not wronged” (2:281) will be satisfied, Zaman (1993).

Zaman (1993) also provides a full and comprehensive summary of the arguments against indexation. We will briefly cover these arguments. The scholars who are against indexation, e.g., argue that the indexation may harm the public. For example, when government bonds are indexed there should be an increase in taxes in order to finance the cost of indexation. This will hurt the general public. One may not agree with this argument as the government loans may also have returns, which in an Islamic system are based on the returns on a productive activities or simply the growth of the economy. Government should resort to taxes to pay for these loans. An Islamic government does not borrow money to use in wasteful activities. It borrows for the infrastructural

investment or other welfare-increasing expenditures. Therefore, such a taxation to pay for the loans or their returns including indexation is justified.

Those scholars also argue that indexation can be complete if it also incorporates deflation, i.e., when the prices fall the lenders accept a lower amount at maturity since now the purchasing power of money is more than what it was at the time of the contract. They argue that the Consumer Price Index is not a perfect index and may cause a misleading indexation. Furthermore, they claim the Consumer Price Index or other price indices are based on periodical averages and can never be precisely factual and fair. The reason is that the activities of savings, lending, depositing and redemption are part of everyday life. The Consumer Price Index, which is based on the goods and services a typical individual consumes during a year, may not reflect items that were saved for. Therefore, the indexation based on the Consumer Price Index is unfair. Note that, during an inflationary period, prices of most goods and services go up, though not in the same proportion. The Consumer Price Index or other price indices are approximations for the changes in prices. In fact, the Consumer Price Index is a relatively good approximation for the overall price. There are also other weak arguments against the indexation which we do not cover, but we refer the interested readers to Zaman (1993, pp. 46-48).

In the conventional economic system one way to fight inflation is to increase unemployment, i.e., there is a trade-off between unemployment and inflation rates (the so-called Phillips curve). However, even the existence of such a trade-off is questionable as it is possible when we fight inflation we may cause the curve to move outward, i.e., a period of stagflation occurs. In the Islamic system both unemployment and inflation are undesirable. In such a system, the policy makers should fight both inflation and unemployment.

## **Conclusions**

This paper briefly reviews inflation from the conventional and Islamic economic systems point of view. The Islamic economic system, similar to the conventional economic system, completely disapproves of sharp fluctuations in prices. In fact, in the absence of imported or other exogenous inflation, the change in the price level should be zero. The system of zero predetermined interest rate where the debt is financed according to an equity-based system with many other Islamic laws covered in this paper guarantees an economy with a zero inflation rate.

Following the Islamic laws we showed in the paper that there should be a flow of labour supply, productive land and capital. Consequently, in the absence of a natural disaster, in an Islamic system there is no reason the aggregate supply be affected negatively by the shortages of the factors of production, and so there will be a possibility of inflation.

In cases of uncontrollable inflation we showed that the indexation of debt could be a solution for being just to both lenders and borrowers. However, we discussed the arguments in favour and against the indexation of financial assets. Finally, it should be mentioned that Islam is against both inflation and unemployment. So, in contrast with the conventional economic system, the idea of creating an environment of high unemployment in order to fight inflation goes completely against the spirit of Islam.

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