

# Interest-Free Treasury Bonds (IFTB): Islamic Finance and Legal Clarifications

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## Abstract

**Purpose:** Although the treasury bill is the essential monetary instrument in central banking operations, its application in Islamic banking is not legitimate because it involves usury. This implies that the system cannot apply monetary and fiscal policies. To remove this obstacle “Interest-Free Treasury Bond” (IFTB) is introduced as a substitute for conventional treasury bills.

**Design:** IFTB is a valuable paper which is issued by government treasury through a barter contract and is sold to central or commercial banks. The issuer is a debtor to the holder, and has to pay back the nominal value at maturity to the holder; in addition, the issuer is committed to lending a similar amount of money to the paper holder for an equal period. The *Shariah* and legal background of IFTB is explained through new contract types of “time-barter contract” and “time-loan contract”.

**Finding:** IFTB is a zero-coupon, asset-backed note with no interest and is designed upon “debt equal to future loan”, or “loan equal to future debt” with “time-withdrawal right”. The paper holder can supply and transact her bond in the secondary market at a competitive price.

**Practical Implication:** It can be used as a substitute for conventional treasury bills. All traditional and non-usury systems can implement IFTB.

**Keywords:** Treasury Bills, Foreign exchange, monetary policy, fiscal policy, usury-free banking, Islamic central banking, financial instrument

**JEL:** E43, E44, E52, E58, E62, E63

## 1. Introduction

Despite the needs of various debt-based papers, the transaction of these papers is not supported enough in traditional jurisprudence (Fiqh) and thereof, these instruments are less often used in Islamic finance<sup>1</sup>. Generally, the diversity of religious judgments about the transaction of valuable documents has prevented the development of debt-based financial instruments<sup>2</sup>. The subject has attracted the attention of Islamic economists, but there is no decisive consensus about debt-based papers yet.

Managing government fiscal policies in usury-free banking conditions are facing a fundamental difficulty of bonds' usury nature. Therefore, it is necessary to introduce non-usury treasury bills to manage government budget deficit/surplus for successive years<sup>3</sup>.

<sup>1</sup> - Muhammad Arham, Islamic perspectives on marketing, Journal of Islamic Marketing Volume: 1 Issue: 2, 2010

<sup>2</sup> - Azizi bin Che Seman, "Bay' al-Dayn, Bay' al-'Inah and IPDS in the Malaysian Islamic Capital Market", [http://myais.fsktm.um.edu.my/7491/1/Bay'\\_al-Dayn,\\_al-'Inah\\_and\\_IPDS\\_in\\_the\\_Malaysian\\_Islamic\\_Capital\\_Market.pdf](http://myais.fsktm.um.edu.my/7491/1/Bay'_al-Dayn,_al-'Inah_and_IPDS_in_the_Malaysian_Islamic_Capital_Market.pdf)

<sup>3</sup> Fouad H. Al-Salem, Islamic financial product innovation, International Journal of Islamic and Middle Eastern Finance and Management Volume: 2 Issue: 3, 2009.



Various bonds/notes/bills are basically debt securities that people buy them and lend their funds to the issuer, and the issuer is committed to paying the principal and the interest back at maturity. Usually, bonds are guaranteed by the issuer, government, or government-affiliated organizations, or they are asset-backed securities so that the assets such as credit cards or payable loans hedge the papers. Mortgage-Backed Securities, Collateralized Debt Obligation (CDO), and Collateralized Mortgage Obligations (CMO) are some kinds of these securities. These papers or valuable documents include government bonds, municipal securities, corporate securities, asset or mortgage-backed securities, government-affiliated organizations securities, foreign government securities, and supranational securities. Securities issued by the government are called treasury bills, treasury notes, treasury bonds, or perpetual bonds that are similar, and their differences are just in their interest rates. All of them might be sold before maturity by deducting the interest. Their maturities are from a few days to 30 years, and some of them are even perpetual or take several decades. Banker acceptance papers and commercial papers and deposit certificates are also various kinds of bonds used for short term financing. Bonds might be issued in fixed-rate, floating rate, reference-rate (usually LIBOR or EURIBOR) or zero-coupon. Interest Only (IO) and Principal Only (PO) might also be transacted in separate. In inflation-Linked (indexed) bonds, the nominal yield is adjusted by inflation rate (Treasury Inflation Protected Security "TIPS"). Some notes are linked to stocks, financial or GNP indices (Equity-Linked Notes). Bearer or anonym bonds are in opposition to registered bonds in which only the owner can claim the debt. Some bonds do not even have a written paper certificate (Book-Entry Bond). We can also mention Lottery Bonds, War Bonds, Serial Bonds, Revenue Bonds, and Climate Bonds as other kinds of bonds.

Callable Bonds allow the issuer to call the holders and buy back the bonds before maturity. Accordingly, in the case of decreasing interest rates, the issuer can prevent losses by buying back and obtain a cheaper loan. Opposing this kind of bond is Puttable Bonds (Put Bond or Retractable Bond) allow the holder to apply them to the issuer and sell them back before maturity. Some bonds are both puttable and callable. The prices of these bonds are calculated by deducting call option or put option price from the straight bond price.

Subordinated Bonds have the lowest right in liquidation when the issuer becomes bankrupt; at first, other bond's tranches (Senior Bonds) will be settled, and the remainder will be paid to Subordinated Bonds. Therefore, they have higher risk rate in comparison with other bonds.

Bond prices are set in the secondary market in comparison with other financial assets. If interest rate increases in the banking sector, the price of bonds will decrease, and if the associated risk of the other assets increase, the price of bonds will increase because bonds have collaterals and guarantees and they usually have less default risk. Variation of bank interest rates and rate of return and maturity of other assets and bonds will change the supply and demand of bonds. Inflation expectation will also decrease the real yields of bonds and their prices.

## 2. Government Fiscal Tune Policies

Fiscal policies are generally a collection of policies applied to fulfill macro-economic targets or to prevent losses causing from government fiscal performance. Government treasury in managing government income and expenditure flows uses different instruments to adjust government budget in such a way that the government not to be faced with deficit/surplus and provide necessary maneuvers for expansionary/contractionary fiscal policies. The essential instrument for fiscal policy is the treasury bill, which cannot be applied in usury-free systems because it involves usury.

The central bank can also affect liquidity through open market operations by buying or selling treasury bonds and changes the volume of high powered money and liquidity via monetary expansion mechanism. In conventional monetary systems, treasury bonds are based upon interest, and therefore, they involve usury which is forbidden in Islamic banking and cannot be applied.<sup>4</sup> The central bank can also oblige other banks to keep a portion of their assets in the form of treasury notes at the central bank to prevent monetary base expansion. The discount rate is also another quantitative measure through which commercial banks can finance their liquidity needs by discounting their treasury bills at the central bank. The central bank can affect free reserves of the banking system by changing the discount rate.

Regarding the above discussions, it should be noted that in the absence of treasury notes/bonds/bills, Islamic

<sup>4</sup> - Komijani, Akbar.; Bidabad, Bijan; Appropriate monetary policy for economic stabilization in Iran. Research project no. 111. Ministry of Finance and Economic Affairs, Deputy of Economic Affairs, Tehran, Iran, Phase I, 1992. <http://bidabad.com/doc/siyasathayepooli-vol1.pdf>

government fiscal instruments and monetary instruments cannot assist the government or central bank in applying fiscal and monetary policies. Therefore, in compliance with usury prohibition conditions, we have to innovate a new financial instrument to tune the economy.

### 3. Interest-Free Treasury Bonds (IFTB)

Islamic notes in some countries such as Malaysia are based upon debt transaction. Generally, debt is money or real commitment, and in other words, selling the debt to a third party is called “debt purchase”. Jurists have not a consensus on the authenticity of this transaction; some believe it is prohibited, some others (*Shafeies*) consider it acceptable, and some others (*Malekies*) accept it by observing some considerations<sup>5</sup>. Even though zero coupon notes do not compromise any interest before maturity, short selling them in primary and secondary markets through superficial methods cannot be used in usury-free systems because it involves usury. On the other hand, although Islamic zero-coupon satisfies essential transaction elements is *Shariah* problematic because it is applied using *Shariah* tricks. The usury analogy of mortgage notes makes them inapplicable too. Therefore, a new efficient financial tool in compliance with *Shariah* is defined here that can be used in both conventional and interest-free systems.

Four kinds of Interest-free bonds were introduced by Bidabad et al. (2011)<sup>6</sup> which are in addition to compliance with Islamic *Shariah* (without any *Shariah* trick), are asset-backed. One of them is IFTB that can be issued by government treasury. “Interest-Free Treasury Bonds” or simply IFTB that is introduced in this paper, is a kind of transactable note and is not linked to tangible assets but is an asset-backed zero coupon bond. These notes are issued by government treasury and have substantial difference with conventional treasury bills. The main difference of IFTB with treasury bills is that in the latter the interest rate is not pre-set and funds are exchanged just in the form of time-barter as “loan equal to future debt” or, “debt equal to future loan” with “time withdrawal right”. IFTB can be transacted by central and commercial banks, financial institutions. The price of IFTB is set at the secondary market according to supply and demand, and therefore, its yield rate will change proportional to the capital rate of return in the economy; and by considering its characteristics, it has no usury content. These notes are not in the realm of consumption loans, and therefore, do not carry the prohibition of usury of consumption loans<sup>7</sup>.

IFTBs are issued with defined nominal prices. Central, commercial, specialized and development banks and money and credit institutions and financial funds which have prudential and legal reserves at the central bank, can purchase these bonds and will become rightful to obtain interest-free loans equal to their purchase of these notes at maturity and pay back the loan to the issuer at the end.

Accordingly, by buying \$A bonds with a maturity of N months, the buyer will have the right to obtain \$A interest-free loan for a period of N months from the issuer of the bonds. The buyer and seller will agree on fixing combinations of \$A and N months so that the buyer can choose smaller, equal, or larger than one ratios from \$A in proportion with N months. That is, the amount of money multiplied by time will be equal to  $A \times N$ . In other words, for example, buyer instead of A Dollars can borrow  $A/2$  Dollars for  $2N$  months at the  $N^{\text{th}}$  month, or  $A/3$  for  $3N$  months at the  $N^{\text{th}}$  month. Where, in all cases, the result will be equal to  $A \times N$ . That is:  $(A/2) \times (2N) = (A/3) \times (3N) = A \times N$  or generally speaking, instead of \$A, we will receive  $A/k$  for  $k \times N$  months after the N months. The parameter k can be any agreed figure accepted mutually by the parties or offered by the buyer.

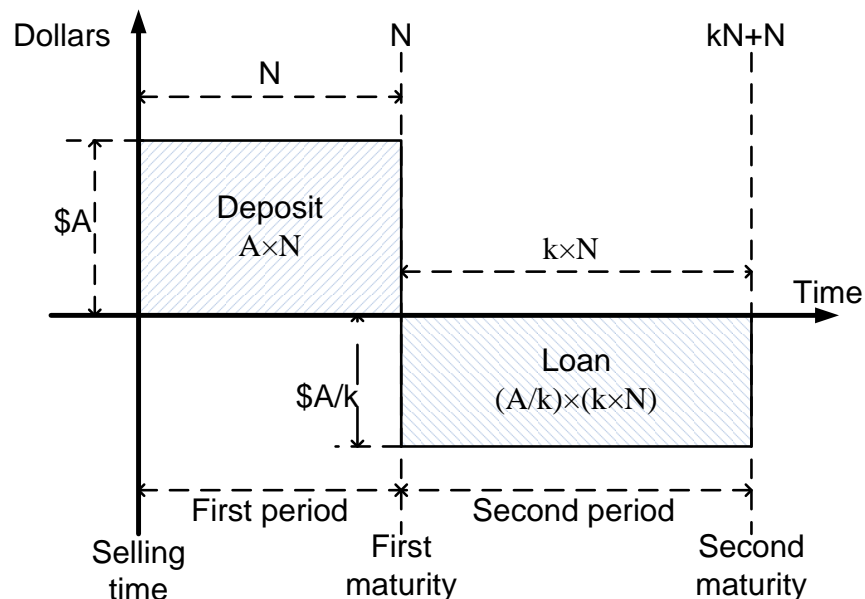
<sup>5</sup> - Al-Sadiq 'Abd al-Rahman al-Gharyani, *Al-Mu'amalat Ahkam wa Adillah*, 2<sup>nd</sup> ed., 1992, pp. 190.

Muhammad Tawfiq Ramadan al-Buti, *Al-Buyu' al-Sha 'i'ah wa Athar Dawabit al-Mabi ala Shar'iyatiha*, Beirut: Dar al-Fikr al-Mu'asir, 1998, pp.370-378.

<sup>6</sup> - Bidabad, Bijan, et. Al.; Interest-Free Bonds and Central Banking Monetary Instruments. *International Journal of Business and Management Science*. Vol. 3, no. 3, August 2011.

<sup>7</sup> - Bidabad, Bijan. Economic- Juristic Analysis of Usury in Consumption and Investment Loans and Contemporary Jurisprudence Shortages in Exploring Legislator Commandments. <http://www.bidabad.com/doc/reba-en.pdf>

Figure 1. Two-Phases of Interest-Free Bonds



Generally, these bonds have two time periods and two maturity dates, as shown in figure 1. The first period is equal to  $N$  months from the selling time to the first maturity, and the second time period is from the first maturity date ( $N$ ) until the payback date of funds ( $kN+N$ ) or second maturity date. The first maturity is when the seller of papers is obliged to provide the loan equal to  $A$  dollars for  $N$  months, or  $A/k$  dollars for  $kN$  months to the buyer. Therefore, the first maturity occurs at the end of  $N$  months. The second maturity is at the end of the contract when the seller will receive back his funds after  $kN+N$  months after selling time.

Since banks have prudential and legal reserves at the central bank, they will not face loan defaults. In this regard, they can transact these papers in the “Interest-Free Secondary Market”. The buyers and sellers at this market generally may be commercial, specialized and development banks and money and credit institutions and reputable funds that are supervised by the central bank and have prudential and legal reserves at the central bank. In addition, government and private sector can enter this market by considering certain conditions.

Accordingly, by buying these notes with defined maturity, the buyer will have the right to obtain an interest-free loan for the same period from the seller at maturity. The buyer and seller will agree to select a combination of the amount and maturity so that the buyer can select ratios less/more or equal to one of the amounts in proportion to maturity time by which the result of multiplications of the amount and time for both loans become equal. In practice, these two loans have two different maturity times. Actually, there are two periods and two maturities. The first period starts from the selling time of bonds until the first maturity in which the seller becomes a debtor and the buyer becomes creditor, and the second period starts from the first maturity date and ends after the payback of the interest-free loan. The receiver of the interest-free loan will become a debtor, and the one who has provided the loan becomes a creditor in the second period.

Essentially, IFTB is a document which defines two different rights pertaining between two transacting parties. The seller of the notes commits to provide the buyer a loan equal with the amount he has bought, and for the same period of time. The simple description of the subject is that two persons decide to render equal funds to each other for equal periods as a deposit. In this case, no extra privilege is considered for neither parties. On the other hand, since the holder of the bonds obtains the right to receive an interest-free loan at maturity, he can transfer his right to a third party. These bonds are transferable over the internet.

Since banks have obligatory and prudential deposits at the central bank, they will not be faced with defaults for the

loans and therefore, can transact these notes in the secondary IFTBs market. The buyers and sellers of these bonds are central, commercial, specialized and development banks and those money and financial institutions and funds that have obligatory and prudential deposits at the central bank.

#### 4. Shariah and Legal Permissions of Interest-Free Bonds

Essentially, usury occurs in loans, and loans have two different kinds of consumption and drawing loans. Drawing loans are known as investment loans, which result in profit/loss, and the loan itself is not for spending or consumption. Consumption loans are used for everyday life uses. *Shariah* prohibition reasoning mostly concern consumption loans<sup>8</sup>.

“Transaction usury” is defined as transacting a measurable commodity/money with a surplus amount of the same commodity/money. Because of the excessive amount paid to the other party, this transaction involves usury and is prohibited by *Shariah*. In “transaction usury”, transacting equal amount along a time period is not considered, but transacting with an extra amount is at the focus of attention. That is why Interest-Free Bonds in general and IFTBs, in particular, do not enter into the domain of “usury transaction”; because its financial activity is not based upon transaction of the extra amount and just equal amounts are bartered along two time periods and creditor obtains no surplus.

In “loan usury”, a person gives a loan (money or commodity) and receives it back with a surplus. In “loan usury”, the surplus has not necessarily the same type or quality of the original commodity and includes any kind of surplus. Interest-Free Bonds and IFTBs are not “loan usury” as well.

The spiritual reference of the verses 278-281 of Surah of *Baqarah*: “**Your capitals will be yours, you won’t suppress and will not be suppressed**” approves the correctness of Interest-Free Bonds<sup>9</sup>. This is because according to “**Your capitals will be yours**”, the principal loan will be returned to the lender, and in order to prevent doing any oppression, or being oppressed “**You won’t suppress and will not be suppressed**”, he will receive loan in an equal amount of what he had lend which is precisely in compliance with the meaning of this verse.

Many of monetary and banking activities are regarded as new subjects in Civil Law. Civil Law has not reckoned all transaction contracts and has just mentioned some evidence such as pure transaction contract, conditional transaction, forward deal, spot transaction, over the counter transaction, future (*Salaf*) and pre-paid (*Salam*) purchase, irrevocable transaction, optional transaction, valuable metals transaction, unauthorized transaction and etc. Therefore, we will not be wrong if we consider IFTB with its similarities to “transaction contract” in Civil Law, while the possessory right is suspended during the time period of contract.

Promissory contracts seem to be a solution for the legal framework of IFTB. New “counter-loaned contract” in which two parties decide to deposit a specific asset with the other party for the same-length period, and also “counter-trust contract” can be defined in this regard. But revocability of promissory contracts creates difficulty for application of “counter-loaned contract” and “counter-trust contract” and “donation against loan contract” with zero donations in applying Interest-Free Bonds<sup>10</sup>. In this connection, the application of “time-barter contract” is not meaningless. Accordingly, we define “time-barter contract” in which a party lends an asset to the other party, in order to receive the same asset from him in future without considering that one of them is assets and the other is its price. If we consider the loan contract without surplus “time-loan contract” might also be defined. We may set “time-loan contract” according to which each party loans the possession of his own specific asset to the other and the other party will loan back the similar asset with similar quality and amount to him at maturity date of the

<sup>8</sup> - God says in holy Quran that: consumption loans are opposing charity and God will vanish usury and increase charity; Surah: *Baqarah*, Verse 267. «يَمْحَقُ اللَّهُ الرِّبَا وَيُرْبِي الصَّدَقَاتِ».

<sup>9</sup> - «يَا أَيُّهَا الَّذِينَ آمَنُوا اتَّقُوا اللَّهَ وَذَرُوا مَا بَقِيَ مِنَ الرِّبَا إِن كُنْتُمْ مُؤْمِنِينَ. فَإِن لَّمْ تَفْعَلُوا فَأْذَنُوا بِحَرْبٍ مِّنَ اللَّهِ وَرَسُولِهِ وَإِن تُبْتُمْ فَلَكُمْ رُؤُوسُ أَمْوَالِكُمْ لَا تَظْلَمُونَ وَلَا تُظْلَمُونَ. وَإِن كَانَ ذُو عُسْرَةٍ فَنَظِرَةٌ إِلَىٰ مَيْسَرَةٍ وَأَن تَصَدَّقُوا خَيْرٌ لَّكُمْ إِن كُنْتُمْ تَعْلَمُونَ. وَاتَّقُوا يَوْمًا تُرْجَعُونَ فِيهِ إِلَى اللَّهِ ثُمَّ تُوَفَّى كُلُّ نَفْسٍ مَّا كَسَبَتْ وَهُمْ لَا يُظْلَمُونَ.»

Those who are believers should care about God; leave what is left through usury. But if you don’t, you should know that you are fighting against God and his messengers; and if you repent, your capitals will be yours’. You won’t suppress and will not be suppressed. If your debtors are poor, give them time until they obtain money; and if you bestow, it will be much better for you if you understand. Beware of the day you return to God, and then whatever obtained, will be returned to everybody; and they will not be suppressed.

<sup>10</sup> - Bidabad, Bijan, Legal analysis of Interest-Free Bonds <http://www.bidabad.com/doc/legal-analysis-of-non-usury-bonds.pdf>

contract, and if he cannot render the same asset, he should pay its spot price at the time of contracting. In all of these frames, one deposits some asset with the other person, and he will pay back the same amount at the maturity without any surpluses or privileges.

### 5. Economic Effects of IFTB

Issuance of IFTBs prepare necessary conditions for financing the government, and the government can adjust his budget policies by transacting these notes. If the central bank buys these papers, in the first period increases the supply of high powered money in the economy and creates a commitment for the government to deposit the same amount with the central bank at the latter period. After the second maturity, receiving back the deposited funds by the central bank, the issued bonds will get out of circulation. Since these activities affect high powered money, it will have an expansionary effect in the first period and a contractionary effect in the second period. On the other hand, in the first period, it will have an expansionary effect on the government budget and contractionary fiscal effect during the second period, because of the increase of government fiscal resources. These effects are shown in figure 2 through the IS and LM curves. At first, the equilibrium is at point  $E_1$  and moves to point  $E_2$  after the issuance of IFTB and then at the beginning of the second period moves back to point  $E_1$  again. Therefore, in the first period, the interest rate ( $r$ ) will decrease, and production ( $y$ ) will increase, but in the second period, the effects are reversed.

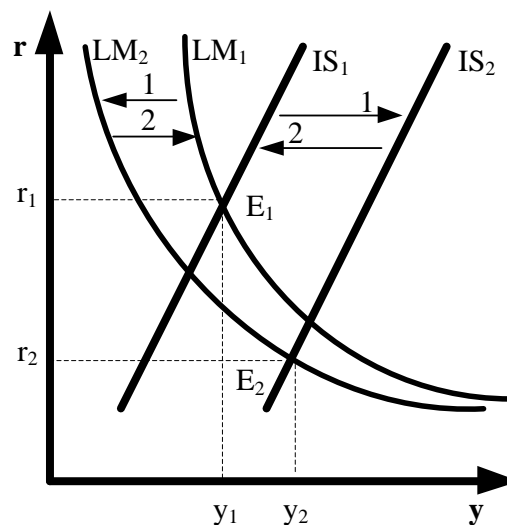


Figure 2

Considering the phases of recovery, prosperity, recession and crisis conditions in business cycles<sup>11</sup> and the duration of positing economy in each phase, the central bank can define A, N, or k parameters of IFTB in such a way to dampen fluctuations of the business cycle. This policy is similar to the monetary fine-tuning policy in conventional central banking.

Since these bonds can be transacted in secondary Interest-Free Bonds market, they can have adjusting effects through the relation between the IFTBs prices and interest rate. Whenever interest rate is high, the transacting price of IFTBs will decrease in the first period and will increase banks' incentives to deposit their funds with the government by buying IFTBs to obtain resources in the second period. Thereof, during economic prosperity phase of the cycle, when the interest rate is high, transacted IFTBs restricts banks' free reserves and prevents widening of cycle range. Inversely, whenever the interest rate is low, the price of IFTBs increases during the first period and decreases the incentive for banks to deposit their resources at the treasury for receiving future funds in the second period. This leads to expanding free reserves of banks during the economic crisis when the interest rate is low and

<sup>11</sup> -Bidabad, Bijan. Stabilizing Business Cycles by PLS Banking and Ethic Economics  
<http://bidabad.com/doc/pls-business-cycles-en.pdf>

prevent the widening of the cycle and exacerbation of the crisis. On the other hand, by adjusting the buy and sale of IFTBs, the central bank can affect liquidity by changing the supply of high powered money and thereof, interest rate. Accordingly, IFTBs can substitute the prevailing treasury bills in conventional banking.

When expected inflation and interest rate are different in the first and second time periods, the economic effects will be different. If the real expected natural interest rate for the second period is more or less than the first period, its impact on supply and demand of IFTBs will be different. The more is the expected natural rate of interest for the second period, the more will be the price of IFTBs during the first period and on the contrary, the less the natural expected rate of interest in the second period, the less will be the price of IFTBs during the first period. This phenomenon is significant for the central bank to adjust monetary policies to stabilize economic activities and on the other words; IFTBs cause the expectation to play a necessary role in controlling banks' credit behavior. That is to say, if banks expect an increase (or decrease) of the natural interest rate for the second period, then they will take increasing (or decreasing) IFTBs supply policy. Regarding the changes of natural interest rate during recovery, prosperity, recession, and crisis, from an economic point of view, this mechanism can be a factor in shortening business cycle range.

In continuous inflationary conditions, the effects of IFTBs do not change much. If expected inflation rates are similar in both periods, inflation will not affect the transaction of IFTBs; but if expected inflation rates are different in the two periods, we should expect different prices for IFTBs in the secondary market. Accordingly, by assuming a fixed interest rate, we may have the following cases for IFTBs prices, the average expected inflation rate in the first period is less than in the second period; the price of IFTBs in the first period will be higher than in the second period, and if the average expected inflation rate in the first period is higher than of the second period, the condition is reversed, and the price of IFTBs papers will be lower in the first period.

Deposit and credit interest rates have also significant effects on IFTBs prices. These effects can be considered for the first and second time periods of IFTBs regarding periods' length and position of the economy at different phases of business cycles to apply suitable monetary and fiscal policies to adjust the economy.

Issuing IFTBs (in domestic money) affects foreign exchange rate through monetary effects. Money supply change in relation to foreign currency supply affects the economy through monetary channels and interest rates parity<sup>12</sup>.

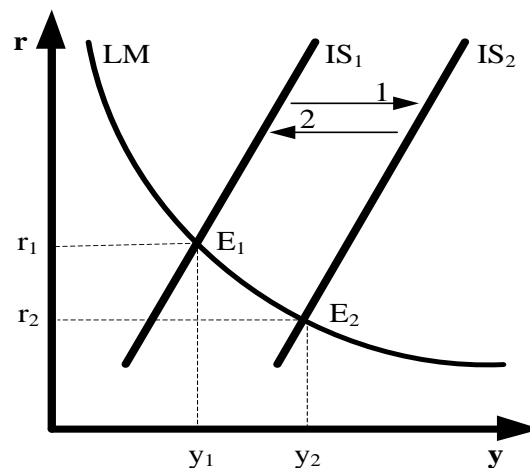


Figure 3

When commercial banks buy IFTBs, in addition, to increase the volume of IFTBs in the market in the first period, lead to increase government fiscal resources in the same period, but the quantity of liquidity is not affected. In the second period, the same amount of banks' free reserves, which had been reduced in the first period will increase and

<sup>12</sup> - Bidabad, Bijan (2014) General Monetary Equilibrium.

will have a fiscal contractionary effect on the government budget. The volume of liquidity in the economy will not change in either of periods. This effect is shown by the movement of the IS curve in figure 3. Equilibrium of the economy is at  $E_1$  at the beginning and after the issuance of IFTBs by government and its purchase by banks, will move the equilibrium to point  $E_2$ . The IS curve will return to  $E_1$  at the beginning of the second period. Therefore, it decreases interest rate ( $r$ ) and increases production ( $y$ ) in the first period, but in the second period, the reaction will be reversed.

## 6. Foreign Exchange Interest-Free Treasury Bonds

Foreign exchanges nominated bonds are used very much. Development of internet communication network in international bonds markets and the possibility of foreign exchange and interest rate swaps have created new opportunities to hedge future exchange rate changes. Foreign exchange bonds are exposed to exchange rate risk and sovereign risk as a result of laws and regulations changes in different countries. Foreign exchange nominated bonds can have coupons in other currencies. Some of these notes that are guaranteed by international organizations and unions<sup>13</sup> can be transacted at global markets. The interest rate of foreign exchange nominated bonds is usually LIBOR plus a margin which covers the changes of national currency and sovereignty risk of the country that has committed the payback of the principal of the bond.

Similar to Domestic Money IFTBs, foreign exchange nominated IFTBs can also be issued. The issuer of these notes is also the government, and their buyers are similar to the buyers of Domestic Money IFTBs. The only difference is that the nominal value of exchange bonds can be in one currency and in two different currencies for the first and second periods. In neither cases and especially in the second case with two different currencies for the two periods, the transaction is not facing usury doubt.

The monetary effect of issuing Foreign Exchange IFTB is similar to issuing IFTBs in domestic money and in addition, it has a stabilizing impact on supply and demand of foreign exchange. The central bank can use this issue to manage the exchange rate and by changing the supply of various foreign exchanges in the short term. This instrument has different effects when the foreign exchanges are similar or changed in the two time periods of IFTB. If the exchange rates are the same in both periods, it will hedge the buyer for future fluctuation of the exchange rate in the second period, and if different exchanges are used in the two periods, the hedging effect will be on the second-period exchange. Except for the central bank, other banks can obtain this hedging by buying these notes.

## 7. Secondary Market for Transaction of Interest-Free Treasury Bonds

IFTBs are issued over the Non-usury Scripless Security Settlement System (NSSSS) with certain nominal prices as a bid for auction with no base price. The issuer (government) puts a deadline for accepting bids. Then, notes are sold to the highest bidder after the deadline. Since the issuer has not defined any base price below the nominal price, competitive prices are formed through the buyer's and sellers' perceptions of the present and future interest rate and inflation rate expectations. All conditions and principles of the *Shariah* transaction are fulfilled, and there is no doubt of usury. The bought IFTBs can be transacted again in the secondary market website (NSSSS). The designed mechanism for the transaction of IFTBs increases market efficiency and convergence of their yields rates to real sector rate of return<sup>14</sup>.

## 8. Summary and Conclusion

Islamic financial instruments should have two main characteristics of being usury-free, and efficient in applying monetary and fiscal policies and liquidity and budget management of government and banks and non-banking money and financial institutions. One of the effective instruments is treasury notes which capable the government and central bank to apply monetary and fiscal policies. But because of the involvement of interest rate in conventional treasury bills, they have usury content and are not legitimate from *Shariah* point of view in Islamic banking, and practically the application of this instrument by monetary authorities and government is forbidden by Islamic law.

This paper introduced a substitute for treasury bills, which, in addition to being interest-free, can be used in monetary and fiscal policies efficiently. IFTBs can be issued and by the government for fiscal policies purposes, and central bank can buy these bonds to perform her monetary policies. Commercial banks can buy or sell these bonds to

<sup>13</sup> - Global bond, Eurobond, Yankee bond, Bulldog bond, Kangaroo bond, Maple bond, Bond Samurai.

<sup>14</sup> - Bidabad, Bijan; M. Allahyarifard. IT based usury free financial innovations

<http://www.bidabad.com/doc/non-usury-finance-it-en.pdf>





adjust their financial flows as well.

The secondary market of these notes is over the web and in the NSSSS system, without any base price. No lower price than its nominal price is considered by the issuer (government) and the competitive prices offered by buyers on the basis of interaction of expected interest rate and inflation, will form the price.

All governments and central banks of both groups of countries that are and are not willing to prohibit usury can apply IFTBs without any problem.

## References

- Al-Sadiq 'Abd al-Rahman al-Gharyani.(1992). Al-Mu'amalat Ahkam wa Adillah, 2nd ed..
- Azizi bin Che Seman, Bay' al-Dayn, Bay' al-'Inah and IPDS in the Malaysian Islamic Capital Market.
- Bidabad, Bijan. (2014). New Operational Islamic Banking System, Volume One, Theoretical Foundations, *LAP Lambert Academic Publishing*, Omni Scriptum GmbH & Co. KG, ISBN: 978-3-659-54463-7.
- Bidabad, Bijan. (2014). New Operational Islamic Banking System, Volume Two, Applicational Issues, *LAP Lambert Academic Publishing*, Omni Scriptum GmbH & Co. KG, ISBN: 978-3-659-55210-6.
- Bidabad, Bijan, Saeed Abdullahi, Mahshid Sherafati. (2016). Enforcement of the Purports of Binding Banking Documents in Rastin Banking – Part I. *International Journal of Law and Management*,59(1).
- Bidabad, Bijan, Saeed Abdullahi, Mahshid Sherafati. (2016) Enforcement of the Purports of Binding Banking Documents in Rastin Banking – Part II. *International Journal of Law and Management*,59(2).
- Bidabad, Bijan .(2018). General Regulatory Framework in Rastin Profit and Loss Sharing Banking (Part I-Operational Context). *Journal of Business and Finance in Emerging Markets*,1(1)11-26.
- Bidabad, Bijan .(2018). General Regulatory Framework in Rastin Profit and Loss Sharing Banking (Part II-Legal Groundwork). *Journal of Business and Finance in Emerging Markets*,1(2)109-126,
- Bidabad, Bijan .(2019). General Regulatory Framework in Rastin Profit and Loss Sharing Banking (Part III-Auxiliary Provisions). *Journal of Business and Finance in Emerging Markets*,2(1)51-65.
- Bidabad, Bijan; Siahpoush, A.; Mirzaee Ghazi, M.; Aljabouri, S.; Gholami, Z.; Sharifi, A.; Shams, A.; Akbarzadeh, Sh. (2010) "Interest-Free Deposit Certificate" detailed plan, Bank Qarzulhasanah Mehr Ran, Tehran.
- Bidabad, Bijan .(2001). *Economic- Juristic Analysis of Usury in Consumption and Investment Loans and Contemporary Jurisprudence Shortages in Exploring Legislator Commandments*.
- Bidabad, Bijan, Abul Hassan, Ben Ali Mohamed Sami, Mahmoud Allahyarifard (2011) Interest-Free Bonds and Central Banking Monetary Instruments. *International Journal of Business and Management Science*.3(3).
- Bidabad, Bijan, Mahmoud Allahyarifard (2009). *Interest-Free Bonds and Central Banking Monetary Instruments*.
- Bidabad, Bijan. (2010), Legal analysis of Interest-Free Bonds.
- Bidabad, Bijan .(2011). *Stabilizing Business Cycles by PLS Banking and Ethic Economics*
- Bidabad, Bijan .(2014). Bijan Bidabad, General monetary equilibrium. *Lap Lambert Academic Publishing*, Omni Scriptum GmbH & Co. KG, ISBN: 978-3-659-54045-5, Spring.
- Bidabad, Bijan; M. Allahyarifard .(2009). IT based usury free financial innovations
- Fouad H. Al-Salem .(2009). *Islamic financial product innovation, International Journal of Islamic and Middle Eastern Finance and Management*.2(3).
- Komijani, Akbar.; Bidabad, Bijan .(1992).Appropriate monetary policy for economic stabilization in Iran. Research project no. 111. Ministry of Finance and Economic Affairs, Deputy of Economic Affairs, Tehran, Iran, Phase I.
- Muhammad Arham.(2010).Islamic perspectives on marketing, *Journal of Islamic Marketing*.1(2).
- Muhammad Tawfiq Ramadan al-Buti. (1998). Al-Buyu' al-Sha'i'ah wa Athar Dawabit al-Mabi ala Shar'iyyatiha, Beirut: Daral-Fikr al-Mu'asir,370-378.

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