Islamic Monetary Policy and Rastin Swap Bonds

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Abstract

Islamic central banking is not different from conventional central banking as a whole, but the role of an Islamic central bank in conducting monetary policy is restricted to use interest-free Islamic monetary instruments and commercial banks are obliged to implement non-usury banking operations. Islamic financial instruments should be usury-free and efficient in applying monetary, fiscal and financial policies at different levels of central bank, government and commercial banks and non-banking money and financial institutions. Conventional interest-bearing bonds are not allowed in Islamic central banking. This restriction mostly distinguishes Islamic central banking from conventional one in implementing monetary policy.

In this paper, we examine monetary instruments in Islamic central banking framework. As a conclusion, to revive Islamic monetary policy, we should provide necessary replacement for conventional bonds and treasury bills to activate non-usury open market operations; that is some public equity-based instrument. In this regard, by looking at financial papers and notes, we emphasize on Rastin Swap Bonds (RSBs). RSB is a financial paper that observes the right for the lender to borrow an equal amount to his lending from the borrower. Four types of RSBs in domestic money and foreign currency are defined and their Sharia allowances and monetary, fiscal and financial effects are evaluated. Rastin Swap Bond will serve as an important instrument for resource mobilization and will be a primary vehicle for development of Islamic capital market and central banking operations.

Keywords: Islamic Central Banking; Monetary Instrument; Rastin Swap Bond; RSB; Monetary Policy; Fiscal Policy; Finance; Islamic Monetary Policy; Rastin Banking

Introduction

Monetary policy is the process by which monetary authority controls supply of money, usually through interest rate targeting to promote economic growth and stability. In early Islamic governments, this task was done through *Baytul-Mal* (treasury) operations and it was mixed with government fiscal policy. Since money at that period composed of gold coins (Dirham and Dinar)[2], and supply of gold had always been stable and fiat money and credit were not applicable, then monetary expansion mechanism[3] did not actually exist as it is in recent and current times.

As similar as conventional central banking, main functions of Islamic central bank are defined as maintaining price stability and fulfilling macroeconomic goals or reduction of damages of performance of monetary system and controlling liquidity and supervising banking operations. Although Islamic central banking is not different from conventional central banking as a whole, but the role of an Islamic central bank in conducting monetary policy is restricted to use interest-free Islamic monetary instruments and

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[2] - See: M.U. Chapra (1996), Monetary management in an Islamic economy, Islamic Economic Studies, Vol. 4, No. 1, December.

[3] - B. Bidabad (2014) General monetary equilibrium. Lap Lambert Academic Publishing, OmniScriptum GmbH & Co. KG, ISBN: 978-3-659-54045-5.

commercial banks are obliged to implement non-usury banking operations[4].

Islamic financial instruments should be usury-free and efficient in applying monetary, fiscal and financial policies at different levels of central bank, government and commercial banks and non-banking money and financial institutions. Conventional interest-bearing bonds are not allowed in Islamic central banking. This restriction mostly distinguishes Islamic central banking from conventional one in implementing monetary policy. Furthermore, monetary authorities are legally responsible to supervise commercial banks and money and credit funds and institutions. Islamic central bank as well as Islamic commercial banks is not allowed to use usury-based banking operations. This also brings some new different supervisory duties to monetary authority and implementation of monetary policy as well.

Objectives of central banking as well as monetary policy are also similar to conventional systems; but considering usury prohibition. The objectives such as prosperity of the whole humanity and economic stability, stabilizing domestic and external values of money[5], promotion of sustained and balanced economic growth, mobilizing resources for economic development, and improvement of income and wealth distribution and so on - though with different emphases- are considered in both Islamic and conventional central banking systems. Both systems do not bear inflation, deep and prolonged recessions and unemployment because of misery to the society and destroy of economic welfare.

Functions of Islamic central banking are also similar to conventional one such as regulating money supply, influencing bank-financing direction, providing measures of safeguarding and ensuring prudent banking and banking supervision.

Sharia Allowances of Monetary Policy

The aim of Islam is exaltation of humankind and full height of dignity in humanity. Exaltation means qualitative and quantitative improvement of human beings. Generally, reason and Sharia both are complements to each other and all Sharia rules are based upon reason and wisdom theosophically. Moreover, the best method of decision making in Islam is based upon consultation. By this concept, we can conclude that regarding consensus, Islam accepts solving social problems via consultation. The holy Quran orders: "**Conduct their affairs by mutual consultation**".[6] This is a general legislative rule that authorize decision making through consultation. The general rational rule and custom limitations are clear in this method. All new legal institutions and rules can be defined upon this command. Principally, theosophy of legislating some Sharia commandments and leaving many others by the Holy Prophet (PBUH) is due to this subject that the obligation and prohibition of many partial commands in different times and places are different. Thus, not all the subjects were legislated; and making decision about them were left to honest reason and wisdom that by considering different conditions and observing situation of people the best expedients be adopted. This was an introduction to institutionalization of monetary authority and policy but considering that legislation in prohibition of permissible (*Mobah*) activities is just allowed in realm of Islamic Sharia and not more. Quran states that:[7] "**If ye do it not, take notice of war from Allāh and his messenger: but if ye turn back, ye shall have your capital sums: deal not unjustly, and ye shall not be dealt with unjustly**". This verse is about usury (*Riba*) and we can infer that from personal money management level up to monetary policy (and even at level of international monetary and exchange management) the adopted policies should not supply money with more that its market price that means "unjustly"; and the other side is "unjustly".

Supervision policies in Islam are in prevention of swindle in transaction, but not economic interfere.

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[4] - Chapra, M. U. (1985). Toward Just a Monetary System. *Journal of King Abdul Aziz University: Islamic Economics,* Vol. 2, 109-115.
Mills, P. S and Presley, J. R. (1999). Islamic Finance: Theory and Practices. Palgrave McMillan, USA.

[5] - Chapra, M. U. (1985). Toward Just a Monetary System. *Journal of King Abdul Aziz University: Islamic Economics,* Vol. 2, 109-115.

[6]- Surah of Shura, Verse 38. وَ أَمْرُهُمْ شُورى بَيْنَهُمْ.

[7]- Surah of Baqarah, Verse 279. فَإِنْ لَمْ تَفْعَلُوا فَأْذَنُوا بِحَرْبٍ مِنَ اللَّهِ وَ رَسُولِهِ وَ إِنْ تُبْتُمْ فَلَكُمْ رُؤُسُ أَمْوالِكُمْ لا تَظْلِمُونَ وَ لا تُظْلَمُونَ.

This also determines supervision responsibility and neutrality of monetary authority. In present western economies, such as United States, the Federal Reserve System is a private corporation that its major stockholders are American bankers (often from three major banking families). However, the Federal Reserve Act[8] forces neutrality but actually absolute neutrality is a matter of debate in United States monetary system.

Money, Interest and Economic Fluctuation

Liquidity has two equivalent definitions as sum of money and quasi money (in sources side) or sum of net domestic and foreign assets (in uses side) of consolidated (debit-credit) account of banking system. Increase of government fiscal deficit and commercial banks credits leads to increase of net domestic assets of banking system; while balance of payment surplus increases net foreign assets. Both of these expand money and managing them is a task of monetary policy to ensure that money growth satisfies economic needs. Government fiscal deficit increases liquidity in economy, and could lead to increase in prices and continue to lower the purchasing power of government budget in next period and new fiscal deficits and increases of money supply again and thus contributes to inflationary process. Treasury bill is an effective instrument, which makes the government capable to borrow from the economy. Central bank conducts monetary policy by transaction of T-bills, and facilitates government fiscal policy and manages the circulating money. Because of existence of interest rate in treasury bills, they are not legitimate from Sharia point of view in Islamic banking, and practically, application of this instrument is forbidden by Islamic law. Thus, in absence of interest rate, government borrowing is not simply done especially from private sector. Moreover, not all public projects are financeable through regular financing procedures. This is the main trouble of Islamic monetary policy in action. It is argued that then how will government budget deficits be financed? The raw answer to this question lies in minimizing wasteful public and private spending to reduce demand for credit, and restructuring the entire financial system to meet the genuine funding needs of public sector in light of Islamic teachings.[9] The notions though seem interesting but are not actually operational.

Balance of payments surplus as a source of money expansion depends to many domestic and international economic behaviors such as current and capital accounts balances and exchange rates that its monetized value has its own effects on net foreign assets of banking system.

Money market bifurcates bank's behavior into two markets namely saving-deposit and investment-credit markets in line of the studies of Bidabad[10] (2004, 2010). In one hand, demand of bank for deposits intersects supply of deposits (saving schedule) and fixes deposit interest rate. On the other side, bank creates another market by supplying credit funds that intersects demand for credit (investment schedule) and fixes loan interest rate. In view of this, bank stands between two markets of supply and demand of money funds in money market.

In case that consumption increases, supply of bank deposits (saving) will fall. As a result, there will be an increase in deposit interest rate. The increase in deposit interest rate cannot instantly increase loans interest rates, because loan contracts have been fixed for a longer period, and bank has to wait until contracted maturity to increase the loan interest rate. Therefore, bank will face loss during this period and thereafter in the next period; it will be compensated by increasing loan interest rate by a time lag. This lag, from economic point of view creates a special dynamic relationship between supply and demand for

[8] Federal Reserve Act, December 23, 1913. http://www.llsdc.org/attachments/files/105/FRA-LH-PL63-43.pdf

[9] Chapra, M. U. (1983). Monetary Policy In An Islamic Economy. In Ziauddin Ahmad, et al (eds.), *Money and Banking in Islam*, Islamabad: Institute of Policy Studies, pp. 27-68.

[10]- Bidabad, Bijan, Economic-juristic analysis of usury in consumption and investment loans and contemporary jurisprudence shortages in exploring legislator commandments. Proceeding of the 2nd International Islamic Banking Conference. Monash University of Malaysia. 9-10 September 2004. Reprinted in: National Interest, Journal of the Center for Strategic Research, Vol. 2, No. 1, winter 2006, pp. 72-90. Tehran, Iran.
http://www.bidabad.ir/doc/reba-en.pdf
Bidabad, Bijan (2010) Stabilizing Business Cycles by Profit and Loss Sharing Banking System and Ethic Economics.
http://bidabad.ir/doc/pls-business-cycles.pdf

money. Bidabad (2004, 2010) mathematically show that because of this lag, the relationship between these two variables (supply and demand for money) is a second order difference equation that is able to create economic cycles. In other words, fluctuation of real economy is induced by fluctuations in money market. The most important effect of elimination of interest rate (as it is raised by Islamic banking) is to bridge investment and saving through rate of return in real economy.

This subject is double important to Islamic monetary policy in both subjects of stabilization policy and open market operations on non-usury valuable papers and bonds.

Monetary Instruments and Islamic Considerations

Monetary authorities use different instruments, which can be generally classified into three groups of quantitative, qualitative and prudential instruments. Usually, quantitative monetary instruments change money supply through monetary expansion mechanism. This mechanism practically creates money through depositing money in banks and banks' loans. Qualitative instruments are directive monetary arrangements in distribution and allocation of loans and credits within different economic sectors. Interest rate locates at central core of all these instruments. Prudential instruments are those measures that are used to ensure well-functioning of commercial banks.

Open market operation is one of the most important quantitative instruments. In this way, monetary authority buys or sells bonds and valuable papers and change the amount of high powered money in economy. In a capitalist monetary system, transaction of these papers is based upon variable interest rates and involves usury, and cannot be used in the interest-free or Islamic banking systems. The problem remains as a matter of debate if central bank buys and sells private securities and corporations' equities.[11] In this case, open market operations actually distort relative values of private sector's assets. If central bank purchases and sells stocks of public sector corporations, just distorts relative prices and advantageous of public enterprises; but purchase and sell of private sector equities are highly questionable and affects private shareholders benefits of transacted and non-transacted entities and may also involve corruption.[12]

Discount window is an instrument in which commercial banks can sell some of their financial papers at discounted rates to central bank to solve their liquidity needs. By changing this rate, central bank can affect the banks' volume of free resources and their credit capabilities accordingly. This instrument is very helpful when banks need loan to get enough liquidity. This method uses interest rate, hence cannot be used in Islamic banking system.

Monetary authorities sometimes force the banks to keep a certain percentage of their assets in form of bonds. The purpose of this *reserve requirement* policy is to prevent money expansion through reduction of free reserves of banks.

Legal reserve rate is known as credit brake, is another quantitative monetary instrument. It has many capabilities in harnessing banking credits. This rate has a vast range of effects on controlling bank's credits through controlling monetary expansion mechanism. With this rate, a non-interest-bearing obligation is applied to banks. Slight increase of this rate is costly for banks, since, it blocks some of their resources in central bank.

Obligations to *keep shares of assets in bonds*, is another quantitative instrument that central bank forces commercial banks to keep a certain percentage of their asset in form of bonds. The purpose of this policy is to prevent monetary expansion through reduction of free reserves of commercial banks.

Credit rationing and *credit ceiling* are more popular monetary instruments in developing countries; because of their undeveloped financial infrastructures. Credit ceiling is allotted to each sector and to each bank. This instrument is inefficient economically and from resources allocation viewpoint. It can be used

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[11] Khan, M. Akram (1982) Inflation and the Islamic Economy: A Closed Economy Model, in M. Ariff (ed.), *Monetary and Fiscal Economics of Islam*. Jeddah: International Centre for Research in Islamic Economics.
Siddiqi, M. Nejatullah (1982) Islamic Approaches to Money, Banking and Monetary Policy: A Review, in M. Ariff (ed.), *Monetary and Fiscal Economics of Islam*. Jeddah: International Centre for Research in Islamic Economics.
[12] Chapra, M.U. (1996), Monetary management in an Islamic economy, Islamic Economic Studies, Vol. 4, No. 1, December.

in Islamic monetary policy. However, issue of penalty of nonconforming bank remains unsolved.

Qualitative instruments practically direct banks' credits and restrict or divert the banks' financing through limiting or encouraging credits to desired sectors. Banks *credit provision limits*, *credit ceilings*, defining the *method of allocation of deposit funds*, *value-oriented allocation of credit*, *selective credit control*, *margin requirements*, *maximum and minimum interest rates* are considered as qualitative instruments. *Lender of last resort* refers to the loans provided to face liquidity crises through interest-free loans with or without service charge. Generally, qualitative instruments do not have necessary capabilities to help monetary authorities reaching goals efficiently.

Prudential instruments as stated before are the measures for secure banking. *Minimum capital requirements*, *maximum exposure restrictions*, *mandatory appropriation of profits* and *moral suasion* are of prudential measures.

Specific interest-free instruments are also considered for Islamic monetary policy. In this context, *profit sharing ratio* is used as a signaling device as interest rate, but it is not desirable and even Sharia-compliant that central bank interferes in private contracts of trader partners. Profit sharing ratio can influence demand and supply of money. *Refinance ratio* and *lending ratio* are in opposite direction of *cash reserve ratio*. Contractionary monetary policy requires lower refinance ratio and changes in lending ratios would increase policy effectiveness. *Public share of demand deposits* instrument is used to divert some part of demand deposits to public treasury enabling to finance socially beneficial projects. *Value oriented allocation of credit*, *interest-free loan (qarzul hasanah) ratio*, *maximum and minimum markup ratios* are other instrument in this class.

In view of the above discussions, it should be mentioned here that the monetary instruments of conventional banking system could not help a central bank for controlling liquidity in an Islamic economy; because the most important monetary instrument, which is open market operations, is not applicable. Therefore, there is a need to innovate appropriate monetary instruments suitable for usury-free conditions. As a conclusion, to revive Islamic monetary policy, we should provide necessary replacement for conventional bonds and treasury bills to activate non-usury open market operations; that is some public equity-based instrument.

Financial Papers

Islamic financial activities based on Islamic faith must stay within the limits of Islamic law in all actions and deeds. To conduct Islamic monetary policy, innovative Sharia complied financial instruments are necessary. This shortage exists in countries such as Sudan and Iran that eliminated the conventional banking system and substituted it with a non-usury one, and others countries, such as Bangladesh, Brunei, Indonesia, Jordan, Kuwait, Malaysia and the United Arab Emirates that partially use non-usury operations. In this regard, Brunei, Indonesia, Malaysia, Sudan and UAE have already launched some Islamic monetary instruments such as sukuk as a first step in this direction. However, these instruments are controversial among Islamic scholars and majority of them believe that such contracts are not Sharia compliant.[13]

The main Islamic constraint of prevailed bonds or papers in Islamic countries is due to necessity of having a real project or asset counterpart in real sector. From a conventional viewpoint, contractionary/expansionary monetary policies may not directly link to real projects or business activities.[14] For instance, contractionary monetary policy is done by selling government bonds by central bank as monetary instruments, which does not need to have a counterpart or asset backed in real sector. This contradiction is one of the main constraints of applying Islamic instruments in an interest-free central banking system. Another solution to this problem is based upon interest-free swaps of funds.

Various bonds, notes, bills etc. are debt securities that people buy them and lend their funds to issuer

[13] Mansoori, M. T. (2010), *Fiqh Regulations on Finance and Business Transaction*, Ulil Alba Institute, Pasca Sarjana Universitas Ibn Khaldun, Bogor, Indonesia.
[14] Rabin, A. A. (2004). *Monetary Theory*, Edward Elgar Publishing, Massachusetts, USA.

and issuer is committed to pay principal and interest back at maturity. Usually bonds are guaranteed by issuer, government or government affiliated organizations, or they are asset-backed securities so that some assets such as credit cards or payable loans cover the papers. Mortgage-Backed Securities, Collateralized Mortgage Obligations (CMO), and Collateralized Debt Obligation (CDO) are kinds of these securities. These papers 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 government are treasury bills, treasury notes, treasury bonds or perpetual bonds that are similar in financial structure but differ just in the interest rates. All of them might be sold before maturity by reduced prices. Their maturities are from few days to 30 years and some of them are even perpetual or take several decades. Banker acceptance papers, 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 EUBOR) 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 buyback the bonds before maturity. Accordingly, in case of decreasing interest rates, the issuer can prevent losses by buying back and obtain cheaper loan. Opposing to this kind of bond is Puttable Bond (Put Bond or Retractable Bond) allow the holder to apply them to 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 prices 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.

Financial papers are generally classified into Negotiable and Non-negotiable classes. Private debt securities (PDS) are those negotiable and non-negotiable papers that are issued by corporations and the issuer is bounded to pay the profit periodically and the principle at maturity to paper holder. On the other hand, private debt papers can be classified into two main groups of equity-linked debt securities and non-equity-linked securities. The first papers are transformable to issuer's company shares and their holders can be regarded as company shareholders, while the second group cannot be transformed into shares and the issuer can raise short, medium and long terms financing by these debt papers. These papers can also be transacted in secondary market.

Interest-free securities have become increasingly popular over the last decade, both as means of rising government finance through sovereign issues, and as a way for corporate entities to obtain fund through corporate *sukuk*. In 2000, there were only three *sukuk*-type bonds worth $0.3 billion. In 2004 there were 64 issues worth almost $7 billion, and in 2007 the figure exceeded $90 billion with more than 119 issues.[15] It is assessed that the advantage of *sukuk* is that it is compliant with Sharia[16] though many others do not agree.[17]

Debt purchase and substance purchase in non-usury transaction of debt-based financial papers are controversial to be based for innovating Islamic monetary instruments. Despite of jurisprudents' view that believe transaction of debt-based papers is reba, these transactions are conducted in forms of *Murabaha*, Partnership, and Ijarah (rent) contracts.

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[15] Moody's (2007). Focus on the Middle East. *Inside Moody's*, Winter, p. 4.
Moody's (2008). Focus on the Middle East. *Inside Moody's*, Winter, p. 4.

[16] Wilson, R. (2008). Innovative in the Structuring of Islamic sukuk securities. *Humanomics*, Vol. 24 (3), 170-181.

[17] Mansoori, M. T. (2010), *Fiqh Regulations on Finance and Business Transaction*, Ulil Alba Institute, Pasca Sarjana Universitas Ibn Khaldun, Bogor, Indonesia.

Purchase of substance is a contract[18] in which in first case, seller sells a good to buyer at a certain price on credit terms; and then the buyer sells the same good at lower price to the seller in cash. In second case, a third party enters into transaction. The primary seller sells the good at a certain price to buyer by credit. Then the buyer sells the good to the third person at a lower price but in cash. Then the third person sells the good to the original seller at the same price in cash and pays his debt to the first buyer. Hanafi and Shafei jurisprudents have different views about this type of transaction. Some of them approve it in the case of existing a third person and some approve it as detestable (*Makrouh*) in absent of a third person but agree that transaction pillars are fulfilled[19]. Hanbali and Maliki jurisprudents disapprove this kind of contracts and believe that they are not Sharia compliant[20]. As it is clear, in both cases, they only appear to be different and regarding the purpose[21] of this transaction, they are kinds of Sharia tricks. Moreover, debt is the obligation of paying money or peer, in other words, selling debt to the third person is called debt purchase.[22] Debt purchase may be in cash or credit. In credit case, the debt is again sold in credit, which is not right from Sharia scholars' viewpoints and is regarded as transaction of debt-by-debt[23]. In cash case, selling debt to third person in cash is not accepted by some Sharia scholars; Shafei scholars confirm it, while Maliki scholars conditionally accept[24]. Debt-based securities are divided into two groups of Coupon Bond[25] and Zero Coupon Bond[26] securities.

Because of Reba-based form of Islamic Zero Coupon Bonds, transaction of these debt-based papers at lower price than face value, regardless of not receiving any interest until maturity, has no application in usury-free central banking. On the other hand, although Islamic Zero Coupon Bonds observe transaction pillars and using debt and substance purchases contracts, their transactions are not Sharia-compliant, because of using tricks to pretend to comply with Sharia.

Mortgage Backed Securities (MBS) were used by selling mortgage loans for the first time in United States in 1938 and Islamic banks interested to apply it. American government appointed a governmental organization to buy housing loans and resale them to investors. In Iran, the prudential regulations of transforming mortgage claims into securities were passed by Credit Committee of Central Bank in 1998 and were confirmed by Higher Council of Stock Exchange in 1999[27]. In these securities, the principle and profit of papers should be guaranteed by legal entities. By considering the guaranteed profit (interest) of these papers, they have skepticism of Reba and are not usable in a true interest-free banking system.[28]

In order to use appropriate monetary instrument and policy that are mostly based upon transaction of

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[18] - Wahbah al-Zuhayli, Al-Fiqh al-Islami wa Adillatuh, 3rd ed., Vol. 4, Damascus: Daral-Fikr, P. 466; Muhammad Wafa, Abraz, suwar al-buyu al-fasidah, Egypt, 1984, P. 40.

[19] - Including transaction contract, good and enumeration (money) and two parties of transactions.

[20] - Wahbah al- Zuhayli, Vol. 4, P. 468; AI-Mausu'at al-fiqhiyyah, Vol. 9, P. 96.

[21] - All contracts are due to the intents.

[22] - The first Islamic Private Debt Security (IPDS) was issued in form of "advance purchase loan" (Salaf) contract in Malaysia in 1990 for a multinational company. A group of financers bought the securities in form of some assets and sold them at higher prices including cost and profit margins to the issuer of securities. This transaction is a debt purchase contract.

[23] - Wahbah al-Zuhayli, Bay' al-dayn.fi al-dhart'at al-Islamiyyah, P 23.

[24] - Al-Sadiq Abd al-Rahman al-Gharyani, Al-Muamalat Ahkam wa_Adillah, 2nd ed., 1992, PP. 190; M. Tawfiq Ramadan al-Buti, Al-Buyu al-Shaiah wa athar dawabit al-mabi ala shariyyatiha, Beirut: Dar al-Fikr al-Muasir, 1998, PP. 370-378.

[25] - Islamic Coupon Bond: Coupon defines the profit share of the debt-based paper issued based on Murabahah Notes Issuance Facilities (MuNif) and future (Al-Bai Bithaman Ajil: ABBA) contracts. The holders of these papers receive fixed profit every six months from the issuance time to maturity. At the first stage, the establisher sells the asset to the issuer SPV (Special Purpose Vehicle) of the papers based on substance purchase contract, and in the second stage, the issuer publishes the papers (primary and secondary including principle and profit) under trustee supervision. In the third stage, papers will be sold to investors according to debt purchase contract. These papers can be transacted in secondary market.
Muhammad Arham, Islamic perspectives on marketing, Journal of Islamic Marketing Vol.: 1 Issue: 2, 2010.

[26] - Islamic Zero Coupon Bond: Zero coupon papers with fixed yield were introduced in 1982. These papers had no profit coupons from issuance time to maturity. Instead, investors and buyers of the papers receive principle and interest at maturity. These papers are sold to buyers at lower price than their face value, and are bought back by issuer at face value. Interest rate is used in discounting the face value of the papers at purchase time, but no profit is paid until maturity. These papers are based upon debt purchase contract; and are not legitimate beside some jurisprudents, and are assimilated to use Sharia trick.

[27] - http://www.econews.ir/fa/NewsContent.aspx?id=108111

[28] - See: http://banki.ir/akhbar/205-gozaresh/1446-markazi3

bonds, we need true Islamic financial innovations, which in addition to comply with Sharia, could be efficient. Rastin Swap Bonds (RSBs) were defined to remove this shortage. RSBs can be used as Islamic monetary, fiscal and financial instruments in Islamic banking at different levels of central banking, commercial banking, treasury and commercial entities in conventional banking system as well as Islamic system.[29] Furthermore, these bonds may be issued in domestic money and foreign currency as well. This instrument is defined in Rastin Banking System[30] in Iran.

Rastin Swap Bonds (RSBs)

Rastin Swap Bond is a financial paper that observes the right for the lender to borrow an equal amount to his lending from the borrower. The lender can sell his paper in market at market price. In this bond, no interest rate is determined, but the market price of bond is determined at each transaction in the market and thus the return of bond is not fixed and not predetermined.

Four types of Rastin Swap Bonds are: (i) Central Bank RSB to be issued by central bank, (ii) Bank RSB to be issued by commercial banks, and money and credit institutions supervised by central bank, (iii) Treasury RSB to be issued by government treasury, and (iv) Commercial RSB to be issued by private or corporate entities through an agent bank. All these bonds are issued by the new exchange (*Mubadalah*) contract[31] defined in Rastin Banking.

Financial structure of Rastin Swap Bonds is substantially different from conventional bonds and bills. In RSBs, while there is no interest, the funds will be offered to other party in form of "debt equal to future loan", or "loan equal to future debt" with "time-drawing right". This also differentiates RSBs from conventional bonds, as the latter are interest-bearing securities, whereas RSBs are basically, non-interest-bearing financial investment certificates and with ownership claims. Similar to conventional debt securities, RSBs may be issued for a fixed period. The period variation is due to specific rules.

Each type of RSBs can be transacted in secondary market but the transactions are permitted for different groups of seller and buyers (central bank, commercial banks, treasury and public) for specific types of RSBs. RSBs pricing will be formed on a base of demand for and supply of money rather than fixed interest rate for fixed period. The interest rate of RSBs is zero but the return is not fixed due to market bonds' prices changes. Thus, interest rate rigidity is vanished and when the economy goes toward the recession, price (return) of RSBs become lower and reduces the cost of using money resources; and vice versa for the case of going toward prosperity. That is, RSBs has a built-in automatic adjustment mechanism, which stabilizes the economy. In other world, we can say that RSBs prices will be

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[29] - Bidabad, Bijan, Abul Hassan, Ben Ali Mohamed Sami, Mahmoud Allahyarifard. (2011). *Interest-Free Bonds and Central Banking Monetary Instruments*. International Journal of Economics and Finance. Vol. 3, no. 3, August, pp. 234-241. DOI: http://dx.doi.org/10.5539/ijef.v3n3p234
http://www.ccsenet.org/journal/index.php/ijef/article/download/11665/8300
Bidabad, Bijan, Abul Hassan, Ben Ali Mohamed Sami, Mahmoud Allahyarifard (2011). *Interest-Free Bonds Financial Innovation, A Monetary Instrument for Economy at Crisis*. Journal of Economic Cooperation and Development (JECD). 32, 1, 55-70. http://www.sesric.org/jecd/jecd_articles/ART10102201-2.pdf

[30] Rastin Banking has been compiled not to only eliminate *Riba*, but also to institutionalize various teachings of justice and Islamic ethics in banking activities. Good points of Rastin Banking in all fields of banking, financial, economic, ethical, social and international activities are so expanded that it can be regarded as a base to improve banking structure. This system has been partially installed in Bank Melli Iran; and is going to become a dominant prevalent banking system in Iran. Persian and English documents of Rastin Banking including detailed explanation of this banking method are accessible through http://www.bidabad.ir in full texts in Persian and English languages. "Draft of Rastin Banking Bill" and its "Operational Bylaw of Rastin Banking" are also accessible through the cited link. See also:
Bidabad, Bijan. (2014). New Operational Islamic Banking System, Volume One, Theoretical Foundations, LAP Lambert Academic Publishing, OmniScriptum GmbH & Co. KG, ISBN: 978-3-659-54463-7.
Bidabad, Bijan. (2014). *New Operational Islamic Banking System, Volume Two, Application Issues*, LAP Lambert Academic Publishing, OmniScriptum GmbH & Co. KG, ISBN: 978-3-659-55210-6.

[31] In exchange (*Mubadalah*) contract, one person (*Mobadil*) (exchanger) undertakes to give the ownership of a certain asset (*Badal*)/(exchanged asset) to the other party (*Motabadil*)/(one who receives the exchanged asset) for a defined period; and the other person also undertakes to give the ownership of same amount (*Mobaddal*) to the first person (*Mobadil*) for equal period.

commensurate to capital return of real economy.

Rastin Swap Bonds are issued under certain conditions with a face value. Accordingly, by buying \$A bonds with 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 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 in such a way that the result of the amount of money multiplied by time, be equal to $A\times N$. For example, buyer instead of A Dollars, can borrow A/2 Dollars for 2N months at the N^{th} month, or \$A/3 for 3N months at the N^{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 agreed mutually by the parties, or offered by the buyer. This procedure is depicted by figure 1.

Generally, RSBs have two periods and two maturity dates. The first period is equal to N months from the selling time to first maturity, and the second 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 the end of contract when the seller will receive back his funds after kN+N months after selling time.

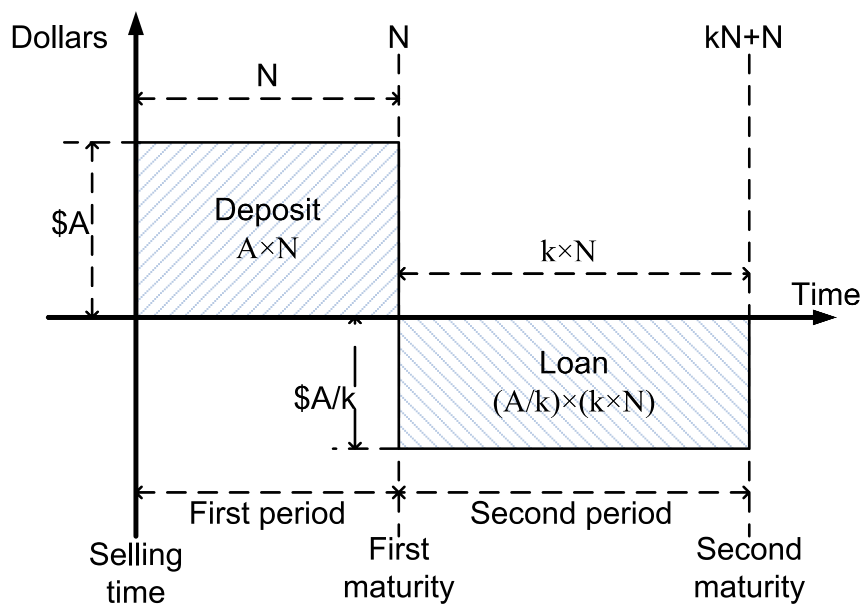

Figure 1. Two-Phases Maturity of Rastin Swap Bonds

The buyers are limited to buy specific types of RSBs. (i) If the issuer is treasury (Treasury RSB), then the buyer is central bank. (ii) If the issuer is central bank (Central Bank RSB), then the buyers are government, banks and those financial institutes who have prudential and legal reserves beside central bank. Since banks have prudential and legal reserves at central bank, they will not face loan defaults. (iii) If the issuers are commercial banks and financial institutes (Bank RSB), then the buyers are central bank, treasury, other banks and financial institutes. (iv) If an agent bank is issuer (Commercial RSB), then all people, banks, entities and government can buy the RSB. Accordingly, they can transact RSBs in secondary market.

For the first three types of RSBs there is no need for extra collaterals due to the existing legal arrangements; but Commercial Rastin Swap Bonds need appropriate mechanism to be arranged to decrease default probability to zero. For this reason, the seller provides a (first) guarantee equal to the face value of bonds at the time of issuance and surrenders it to buyers. At the end of the first period, the buyer will be obliged to surrender the same bank guarantee to seller of bonds. After returning the funds back from the seller to buyer – at the end of the first period – the first guarantee is canceled. Another (second) guarantee is to be issued again for the second part of borrowing. At the end of the second period –after returning the funds back from buyer to seller – the second guarantee will also be cancelled. All these operations are done through an agent bank.

Rastin Foreign Exchange Swap Bonds

Similar to RSBs in domestic money, foreign exchange nominated RSBs can also be issued. The only difference is that both loans of Rastin Foreign Exchange Swap Bonds should be in one unique currency; except for the Central Bank Rastin Foreign Exchange Swap Bonds that can be in two different currencies for the first and second periods. Similar to RSBs, the four kinds of Rastin Foreign Exchange Swap Bonds can be issued. The issuers, sellers and buyers of Rastin Foreign Exchange Swap Bonds are as cited before.

In neither cases especially when one foreign exchange is used for the first period, and another foreign exchange is used in the other period, no skepticism of usury exists.

The monetary effect of issuing Rastin Foreign Exchange Swap Bonds is similar to issuing RSBs in domestic money and in addition, it has stabilizing effect on supply and demand of foreign exchange. Central bank can use it to manage exchange rate and balance of payments by changing short-term supply of various foreign exchanges. When the bonds' face values for both periods would be the same foreign exchange, there will be possibility for risk coverage (hedging) arrangement for the second period. This instrument has different effects when the foreign exchanges are unique or different in the two periods of RSB. If the exchange rates are the same in both periods, it will hedge the buyer for future fluctuation of 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.

Sharia Allowances of Rastin Swap Bonds

Essentially, usury occurs in loans, and loans have two different kinds of consumption and investment loans. Investment loans result in profit/loss and the loan itself is not for spending or consumption. Consumption loans are used for everyday life uses.[32] Sharia prohibition reasoning mostly concern consumption loans[33].

"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 other party; this transaction involves usury, and is prohibited by Sharia. In "transaction usury", transacting equal amount along a period is not considered, but transacting with an extra amount is at the focus of attention. That is why Rastin Swap Bonds do not enter into the domain of "usury transaction"; because its financial activity is not based upon transaction of extra amount, just equal amounts are bartered along two 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. Rastin Swap Bonds 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 Rastin Swap Bonds[34]. This

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[32] - Bidabad, Bijan, Economic-juristic analysis of usury in consumption and investment loans and contemporary jurisprudence shortages in exploring legislator commandments. Proceeding of the 2nd International Islamic Banking Conference. Monash University of Malaysia. 9-10 September 2004. Reprinted in: National Interest, Journal of the Center for Strategic Research, Vol. 2, No. 1, winter 2006, pp. 72-90. Tehran, Iran. http://www.bidabad.ir/doc/reba-en.pdf

[33] - Surah: Baqarah, Verse 267. God will vanish usury and increase charity. .«يَمْحَقُ اللهُ الْرِّبَا وَيُرْبِي الصَّدَقَاتِ»

٣٤ – «يَا أَيُّهَا الَّذِينَ آمَنُواْ اتَّقُواْ اللهَ وَذَرُواْ مَا بَقِيَ مِنَ الرِّبَا إِن كُنتُم مُّؤْمِنِينَ. فَإِن لَّمْ تَفْعَلُواْ فَأْذَنُواْ بِحَرْبٍ مِّنَ اللهِ وَرَسُولِهِ وَإِن تُبْتُمْ فَلَكُمْ رُؤُوسُ أَمْوَالِكُمْ لاَ تَظْلِمُونَ وَلاَ تُظْلَمُونَ. وَإِن كَانَ ذُو عُسْرَةٍ فَنَظِرَةٌ إِلَى مَيْسَرَةٍ وَأَن تَصَدَّقُواْ خَيْرٌ لَّكُمْ إِن كُنتُمْ تَعْلَمُونَ. وَاتَّقُواْ يَوْمًا تُرْجَعُونَ فِيهِ إِلَى اللهِ ثُمَّ تُوَفَّى كُلُّ نَفْسٍ مَّا كَسَبَتْ وَهُمْ لاَ

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 exactly complies the meaning of this verse.

Many of monetary and banking activities are regarded as new subjects in civil laws of many countries. Civil laws have not reckoned all transaction contracts and has just mentioned some evidences such as pure transaction contract, conditional transaction, forward deal, spot transaction, over the counter transaction, future (*Salaf*) and prepaid (*Salam*) purchase, irrevocable transaction, optional transaction, valuable metals transaction, unauthorized transaction and etc. Therefore, we will not be wrong if we consider RSB with its similarities to "transaction contract", while possessory right is suspended during the period of contract.

Promissory contracts seem to be a solution for legal framework for RSB. New "counter-loaned contract" in which two parties decide to deposit a specific asset with the other party for a same 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 Rastin Swap Bonds[35]. In this connection, application of "time-barter contract" is not meaningless. Accordingly, we define "time-barter contract" in which a party lends an asset to 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 define "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, 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 surplus or privilege.

Monetary Effects of Rastin Swap Bonds

Rastin Swap Bond will serve as an important instrument for resource mobilization and will be a primary vehicle for development of Islamic capital market. Sole[36] argues that expanding range of financing opportunities by different institutions by developing *sukuk* is likely to deepen the financial sector as well as economy as a whole. Therefore, the effects of issuing RSBs by central bank, commercial banks, government treasury and private entities separately will enormously contribute in real sector economy.[37]

Central Bank Rastin Swap Bond practically decreases the free balances of banks and blocks them by central bank in the first period. It will also oblige the central bank to provide banks with the same amount in the second period. After the end of the second period, central bank will line out the issued papers. Since these operations will affect high-powered money, it may create the contractionary monetary effects in the first period and expansionary monetary effects in the second period. Central bank can define A, N, and k parameters according to the position of the economy in recovery, prosperity, recession and crisis during

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يُظْلَمُونَ.»

O! Believers, 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.

[35] - Bidabad, Bijan, Legal analysis of Interest-Free Bonds
http://www.bidabad.ir/doc/legal-analysis-of-non-usury-bonds.pdf

[36] - Sole, J. (2007). Introducing Islamic banks into conventional banking system. Working Paper No. 07/175, IMF, Washington, DC.

[37] Bidabad, Bijan, Mahmoud Allahyarifard. Usury-Free Bonds and Islamic Central Banking Monetary Instruments. 2010.
http://www.bidabad.ir/doc/Islamic-banking-bond-en.pdf

business cycles to decrease the severity of economic fluctuation. This policy is similar to fine tuning monetary policy in conventional central banking.

Since these bonds can be transacted in the secondary market, they will have automatic adjustment mechanism through relationship of bond price and interest rate. Whenever interest rate is high, the transaction price of the RSBs will fall in the first period, and will increase the incentive for banks to put their sources beside central bank. Hence, they can obtain more funds in the second period. During prosperity, when interest rate is high, it will limit the free balances of banks and will prevent the expansion of business cycle domain. On the contrary, when interest rates are low, the price of RSB will increase during the first period and decrease the incentive for banks to buy these papers from central bank to obtain more funds in the second period. This means that during economic crisis, when interest rates are low, it will expand the free bank balances and will not let business cycle expands and aggravate the crisis. Central bank can adjust supply of these bonds through their prices; and by changing volume of high-powered money affects liquidity and hence will affect interest rates. Accordingly, RSBs can substitute conventional bonds in Islamic central banking, because they have zero interest rate.

When expected inflation and expected interest rates are different in first and second periods, the result will be somehow different. If expected natural interest rate in the second period is more or less than the first period, it will have different effects on supply and demand of RSBs. The more is the expected natural interest rate in the second period, the more will be the price of RSBs in the first period and vice versa. Similarly, the less is the expected natural interest rate in the second period, the less will be the bond price in the first period. This issue is very important from monetary policy viewpoint in adjusting and stabilizing economic activities. In addition, it causes expectations to have essential role in credit behavior of banks. That is if banks expect increase (or decrease) in natural interest rate during the second period, they will adapt increasing (or decreasing) supply policy for RSBs. From economic point of view, this mechanism can be a factor that dampens business cycles oscillation.

The RSBs' effects are different in continuous stable inflation. If expected inflation rate is not different in both periods, inflation will not affect the RSBs' prices. Because, both the buyer and seller expect that the rate of returns of RSBs are the same in two successive periods with fixed expected inflation rate (*Ceteris Paribus*); and the price of RSB does not change due to inflation expectation. Otherwise, different RSB prices will be expected in secondary market. If the average expected inflation rate in the first period is less than average expected inflation rate in the second period, then the RSBs prices will be higher in the first period than the second period. On the other hand, if the average expected inflation rate in the first period is higher than average expected interest rate in the second period, we will have an opposite case and RSB prices in the first period will be less than the second period.

The interest rates of deposits and credits in other markets also have important effects on supply, demand and price of RSBs in secondary market in the first and second periods regarding the length of the periods and different positioning of business cycle.

Foreign Exchange RSBs affects exchange rates through the monetary and exchange effects. Changes in supply of domestic currency will affect the economy through monetary channels and will make differences in internal and external interest rates.

When central bank buys Treasury Rastin Swap Bonds, it will have expansionary monetary effects in the first period and contractionary monetary effects in the second period.

Fiscal Effects of Rastin Swap Bonds

Managing government fiscal policies in usury-free environment as well as implementing monetary policy is facing with basic trouble of usury nature of conventional bonds. Therefore, it is necessary to introduce non-usury treasury bills to manage government budget deficit/surplus for successive years[38]. Fiscal policies are generally a collection of policies applied to fulfill macroeconomic targets or to prevent

[38] Fouad H. Al-Salem, Islamic financial product innovation, International Journal of Islamic and Middle Eastern Finance and Management Volume: 2 Issue: 3, 2009.

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. Fiscal tune policy similar to monetary tune policy is done through government bonds managements. Bond prices are set in secondary market commensurate to other financial assets. If interest rate increases, the price of bonds will decrease, and if the involved 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. But the most important instrument for fiscal policy which is Treasury bill, cannot be applied in usury-free systems because it involves usury.

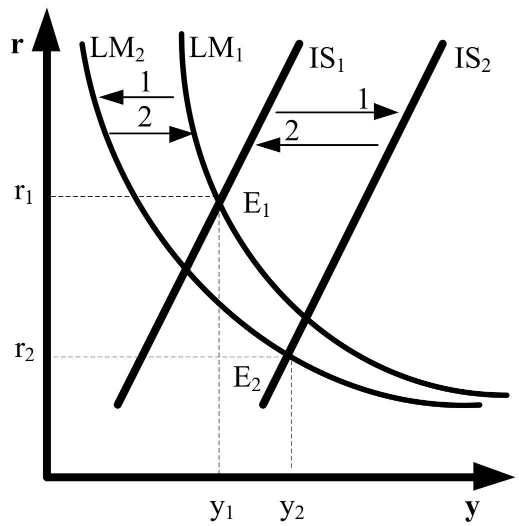

Figure 2. Financing government budget deficit effects by Treasury RSB

Treasury RSB provide necessary conditions for financing government deficit and the government can adjust her budget policies by transacting these papers. When central bank buys these papers, in 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 central bank at the second period. After the second maturity, receiving back the deposited funds by central bank, the issued Treasury RSB will get out of circulation. Since these activities affect monetary base, it will have monetary and fiscal expansionary effects at the first period and contractionary effects at the second period.[39]

These effects are shown by figure 2 through IS and LM curves. At first, the equilibrium is at point E_1 and moves to point E_2 after the purchasing Treasury RSB by central bank 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 at the second period, the effects are reversed.

When government buys Bank RSB, lead to increase government fiscal resources in the first period, but volume 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 will have fiscal contractionary effect on government budget. Volume of liquidity in the economy will not change in neither of periods. This effect is shown by the movement of IS curve in figure 3. Equilibrium is at E_1 at the beginning; after government purchase of Bank RSB it will move to equilibrium point of 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) at the

[39] - Bidabad, Bijan, Interest-Free Treasury Bonds (IFTB), Islamic Finance and Legal Clarifications, 2011. http://www.bidabad.ir/doc/interest-free-t-bond-feqhi-en.pdf

first period, but in the second period, the reaction will be reversed. Government purchase of Commercial RSB has similar effects.

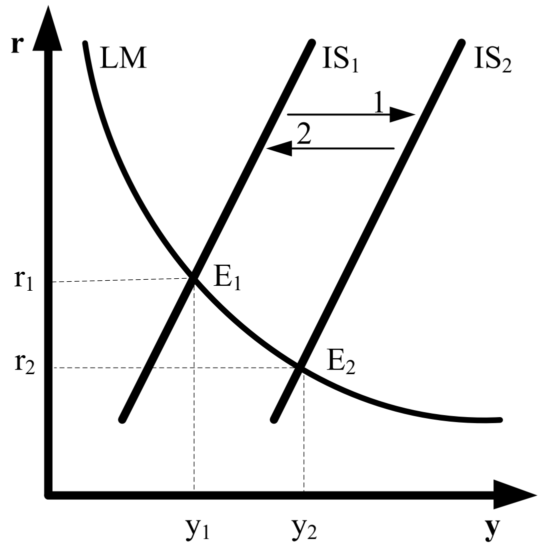

Figure 3. Financing government budget deficit effects by Bank RSB

Financial Effects of Rastin Swap Bonds

Bank Rastin Swap Bond will not increase the liquidity. This is because these operations will likely to be lagged borrowing of banks from each other. Hence, as much as free balances of one bank decreases, the free balances of other banks increase in the first time period, and vice versa will be in the second period. This will result no changes in liquidity of the economy and is neutral in sense of monetary policy effect. It will only finance the banks, which may not have enough liquidity and adjust banks' liquidity risk. If central bank buys Bank RSB, it will have expansionary monetary effects in the first period and contractionary monetary effects in the second period.

The monetary effect of Commercial Rastin Swap Bonds is neutral, but promotes money resources allocation.

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