Shariah Compliant Model of Currency Management – Expanding Landscape of Islamic Finance from Micro to Macro Level

S. M. I. H. Naqvi [1], B. Shafique [2], and A. A. Khan [3]

[1] Associate Professor/Senior Manager, Center of Islamic Finance (CIF)/HR Section, COMSATS University Islamabad, Lahore Campus.

[2] Joint Director, Islamic Banking Division, State Bank of Pakistan.

[3] Research Assistant, CIF, COMSATS University Islamabad, Lahore Campus.

Abstract— The current interest based economic system is predominantly governed by capitalistic approach. Repetitive crises in prevalent financial system indicated its structural flaws demanding a viable financial system. Serendipiciously Islamic Finance (IF) appeared as a viable alternate to capitalistic system. Though IF is one of the fastest growing sectors however currently it is focused on microeconomic contracts between Islamic Financial Institutions (IFIs) and their clients. To capitalise on the inherent strengths of IF it is needed to encompass the overall economic system in compliance with Shariah principles. Taking this into account, this qualitative and conceptual study – methodologically and substantively analysed the prevalent currency management in general and with particular focus on Pakistan for contriving its Shariah compliant mechanism. In light of Quran, Sunnah and opinions of Shariah experts we applied induction and deduction while analyzing how the prevalent currency management (CM) mechanism is deviant from Shariah principles. Expecting good accrual of IF, it figured out the possible Shariah compliant version of CM. Subsequently our study compared the perceived Shariah compliant version of latest CM with the actual Islamic currency management model that was adopted by Islamic caliphs in ancient times of Islamic reigns. It thus contributes how to expand the horizon of Islamic finance from microeconomic functions to the essential macroeconomic function of currency management in an Islamic state.

I – INTRODUCTION

Currency management (CM) is one of the most significant macroeconomic functions in every country [24], [26], [56]. In ancient times barter system was used to function as currency. Later coinage remained in practice that was finally replaced with promissory notes. Recently plastic and electronic/digital money started supplementing paper currency [19]. [69], [25], [26] and [27] had related economic performance with generation and flow of currency for its effective management and regardless of its physical shape.

In the prevalent and dominant capitalistic system generation of currency count on Riba (usury) based instruments which Islamic Finance (IF) does not allow following Islamic sources including Al – Quran as per [4], [5], [6], [7] and [8]; Sahih Al-Bukhari as per [61], [62], [63], [64] and [65], and Sahih Muslim as per [66]. Literature confirms that IF is gaining increasing popularity across the globe especially beyond the Muslim countries for its potential and strength that enable social enterprises generate both social and economic values for all stakeholders in the society [85], [86], [89]. World views IF as a key to attract investments

from Islamic investors into European, Western, and other non-Muslim countries despite various challenges to it [87], [88]. These facts invite pondering on questions such as: (i) How to generate money without Riba in an economy that intends to switch to IF completely? (ii) Can IF and conventional CM be integrated? If not, what alternate IF provides for CM? (iii) Will successful emergence of IF and its accrual in certain economies since half a century urge a paradigm shift in CM? Exploring a Riba free knowledge solutions of CM is thus imperative.

Capitalist CM is pro – usury and complex [31], [32], [43], [48]. To the best findings of our investigation, relevant literature on one hand does not comprehensively consolidate factors of CM as indicated by references [19], [28], [29], [30], [34] and [35]. On the other hand most literature of IF hovers around microeconomic issues [23], [36]. How IF will support in macroeconomic functions? This question yet needs to be answered [57]. In this background, our research focused on investigating the perspective of IF for macroeconomic issue of CM. The scope of our study was however restricted to find Shariah compliant solution for CM only. It was thus a qualitative, foundational and theoretical study that consolidated various factors of conventional CM in first section of the study. Second section analysed and discussed the available opinions of Islamic scholars on the mentioned factors of CM in light of Quran and Sunnah following induction and deduction methods as applicable. This is then followed by the section contributing the Shariah compliant version of the prevalent model of CM that may emerge as result of expanding IF in near future. The last section of our contribution finally compares the Shariah compliant version of prevalent CM model with the model of CM that has been derived on the basis of factors adopted by Islamic caliphs in ancient times in Islamic regimes of good governance as reported in history of Islam.

II - CONVENTIONAL CURRENCY MANAGEMENT

Currency itself does not have any element which is against Shariah. However, factors affecting the decision of issuance, maintenance and supply of currency need to be aligned with principles of Shariah in line with guidance in Al – Quran ranging [9] to [16], hadith vide [61] to [65], and Islamic jurisprudence as in [68] and [60]. Therefore this section explores the underlying factors for money supply in an economy in detail under conventional system so that Shariah opinion on each factor can be discussed in the following section [55], [77].

Economists link money supply with the overall monetary possessions that are available in a specific economy at a specific time [43], [53], [25], [79]. Based on economic conditions money in an economy can be classified into categories such as M0, M1, M2, and M3 that are summarized in Annexure A adopted and interpreted from [26], [27], [55], [59], and [69]. In order to engineer an Islamic solution for CM, M0 has been selected for this research as it is the most liquid form of money including currency notes and coins. It also covers demand deposits along with easily liquefy-able assets [73], [75], [77]. Another rationale for selection of M0 for our study is its relevance for developing economies like Pakistan. In order to understand the basis of M0 its following basic equation was taken from Wright and Quadrini as in reference [78]:

M0 = Currency in Circulation + Required Reserves (CRR & SLR) + Excess Reserves

EQ – 1a

Where

CRR = Cash Reserve Requirement, and

SLR = Statutory Liquidity Requirement

EQ – 1a can be expanded to further explain each component of the equation,

Where Currency in Circulation, = Advances by Banks and Others

And CRR, SLR and Excess Reserves = Cash in Vaults + Operational Deposits with Central Banks

By incorporating the above mentioned explanation of factors of Eq 1a, M0 can be expressed as follows;

M0 = [Advances by Banks + others] + [Cash in Vaults + Operational Deposits with Central Bank]   **EQ – 1b**

The literature on M0 alternately explains CM in the following shape [26], [27], [28], [29], [30], [31] and [32]:

M0 = Net Domestic Assets (NDA) + Net Foreign Assets (NFA)   **EQ – 2**

Where NDA = NCG + CNG + OIN

NCG = Net Claims on Government

CNG = Credit to Non-Government Sector

OIN = Other Items Net (Other Liabilities – Other Assets)

NFA = Foreign Assets- Foreign Liabilities (This implies Lending/borrowing from foreign financial institutions)

Table 2 in Annexure B explains each term in EQ – 2.

Theoretically CM follows the principles endorsed by economics which states that the money supply (MS) in a country should be equal to the real GNP and inflation [56]. The latter is termed as money demand (MD) [26]. CM in its nitty-gritty requires various sub functions like reprinting of soiled and defected notes, replacing the obsolete notes with new notes etc. [26], [78]. All such sub functions have to abide by the mentioned principle. This means that these sub functions do not demand generation of money exceeding real GNP. Hence, according to this basic principle

MS = MD   **EQ – 3 (78)**

Where

MD = Money Demand = Real GNP and Inflation as **EQ – 4 (78), and**

MS = Money Supply based on EQ – 1b and/or EQ – 2

Having explained conventional CM in mathematical equations, this is important to mention that in real practices of CM these equations and their foundational theory are not followed completely as variations in general practices are observed [30]. These variations give rise to many issues like inflation, depreciation of currency's value etc. [31], [48], [43], [53], [85]. However details of such issues are being declared out of the scope of our study as the primary objective is the Shariah analysis of perceived equation EQ – 2.

III – SHARIAH OPINIONS ON CM AS PER EQ – 2

To the best of our efforts, this study entertains all available opinions of Shariah scholars and/or Islamic institutions on the factors constituting EQ – 2. However, it is worth highlighting that so far in the exiting relevant literature that there was no opinion/analysis available for the overall equation of M0. Therefore certain interpretations on the factors constituting M0 had to be drawn directly from Al – Quran and Hadith/Sunnah and also from prevalent practices of IF in light of opinions (Fatwas) of Islamic scholars. Following section discusses Islamic perspective on each component of EQ – 2.

A - Net Claims on Government (NCG)

Most governments need to spend more than their earnings. For this purpose they use various options; one significant practice is issuance of monetary tools/instruments including prize/premium bonds, saving certificates, treasury bills etc. These overall constitute Net Claims on Government (NCG) in books of the central bank [26], [27]. In Pakistan treasury bills, Prize Bonds and National Saving Certificates are their relevant examples. These instruments are predominantly designed on Riba

seeking loans and may also involve Maysir, and/or Gharar [57], [20], [45] and [47].

Primary source of Shariah guidelines that is, Al-Quran vide references [4] to [8] strongly condemns and proscribes Riba. Further authentic sources of Hadith and Islamic jurisprudence mainly including Sahih Al-Bukhari as in [61] to [65]; Sahih Muslim as per [66]; Sunan Abi Dawud as in [71]; Sunan Ibn Majah as per [72]; Muwatta Malik 1293 as in [49], Jami'at-Tirmidhi as in [37]; Sadooq as in [68] and Al-Quran as per [81] all unanimously state Riba, Maysir/Qimar, and Gharar as Haram (strictly prohibited).

Our study found diversified opinions of Shariah scholars on National Saving Certificates. As per [18], [21] and [80] the profit earned on National Saving Certificates in Pakistan is Haram (proscribed) as it is expectedly generated through pro – Riba loans. Contrarily [22], [23] and [70] rendered these saving schemes Halal (allowed) expecting that government utilizes these to generate money through investments in developmental and/or welfare projects such dams construction, power plant installations, health care schemes, educational projects etc. Our study interprets that National Saving Certificates may be immune from Maysir, Gharar and Riba however, these still stand questionable. Reliance on such certificates for CM cannot be thus treated as pure Islamic.

Similarly with respect to t-bills/bonds [1] stated that as per the ruling of Fiqah Council of Jeddah No. 62/11/6 all sorts of T-bills and/or bonds under an agreement to return the principle amount with an excess or conditional usage were Haram rendering them pro – Riba, pro – Maysir and pro - Gharar. [83] also rendered prize bonds Haram. However, [84] declared prize bonds Halal stating that they do not lead to loss as Gharar, Qimar and Maysir. It can be concluded that all these opinions are though diversified but yet agree that all sort of t-bills/bonds do have element of Riba and Maysir and hence thus stand non-Shariah compliant. A pragmatic Islamic alternate to these can be instruments like Sukuk designed on various IF models for the governments to raise funds. Moreover, funds collected through Shariah compliant saving certificates/t-bills/bonds can be restricted only for development projects. In other words for Shariah compliant projects specific instruments can be issued which impose a binding on government expenses and further trigger aspired economic activity and growth instead of creating pro – Riba debt. For avoiding such confusion, [82] had also proposed a Riba free loan among master-servant as an alternate solution to Islamize NCGs.

Having analysed saving certificates, bonds, and other similar instruments from Shariah perspective our study does not substantiate the existing practices under NCGs as Islamic and thus highlights the need to engineer and adopt their Islamic alternates.

B – Claims on Non-Government Sector (CNGs)

This includes (i) Credit to Private Sector (ii) Credit to Public Sector Entities and (iii) Credit to Non-banking Financial Institutions (NBFIs). The first two components; Credit to Private Sector and Credit to Public Sector Entities; refer to loans extended by banks of varying nature and tenure, to private sector and to public sector entities. Similar to CNG, instruments/products used to extend credit are predominantly pro – Riba loans. [76] stated all these Haram as these seek Riba that cannot lead to welfare, development and poverty alleviation. He further stressed on adopting an alternate system truly based on Shariah principles. Our study finds the opinion of [76] in line with the teachings of Islam. We thus recommend conversion of conventional banking to Islamic banking because by virtue of its fundamentals, Islamic banking aims at broad based development. This study thus does not substantiate money generation practices in Pakistan under existing Credit to Private Sector and Credit to Public Sector entities as Islamic and Halal.

Credit to Non-Banking (NBFIs) refers to products and services of companies including insurance and leasing companies, mutual funds, Modaraba companies etc. Insurance, leasing, instalment plan credit sale of items etc. are common products of NBFIs. It is important to review the Shariah opinions on CPS.

[22] and [39] shared that leasing itself is not Haram and payments in instalments may also be right for reusable assets. However, an instalment plan that is founded on Riba is Haram. Contrary to this liberal view, [3] narrated that instalments plan in leasing is not immune from Riba. Our study found [3]'s opinion conservative without concrete justification. On the other hand [2] opinionated, delayed payments in instalments with the inclusion of additional amounts as charges for delayed payment, Halal. [2] founded such opinion imitating the Hanafi scholars as in Badaa'I' al- Sanaa'i': 5/187, the Maaliki scholars reported in Bidaayat al-Mujtahid, 2/108, the Shaafa'i scholars through al-Wajeez by al-Ghazaali: 1/85 and the Hanbali scholars through Fatawa Ibn Taymiyah: 29/499. It must be noticed that the four schools of thoughts in Islam though allow increase in price in credit sale but did not elaborate details. However, the conservative [3] on the other hand equated price increase of assets with Riba again without solid explanation.

Our study also investigated the view of Jaferi school of thought about increasing price in deferred payment plan in instalment under leasing or credit sale. [70], [58] and [68] explained that Jaferi School in Islam primarily prefers on spot exchange for consumable commodities but simultaneously allows their credit sale or leasing as mutually agreed among seller and buyer. Case of a deferred payment plan may become incumbent for any valid reason and in such cases price of consumable commodities/assets may be increased/reset with the mutual consents/bargain of both parties especially in long period of contract. Although Jaferia School encourages buyers to accept least possible price/increase, but under such scenario and expects seller not to exploit the need of buyer through deferred payment plan. Jaferia School thus allows credit sale or leasing for any reusable asset such as horse, car, laptop, house etc. It is not necessary to undertake a lease agreement for selling reusable asset only as most NBFIs practice these days. However if such contract is mutually desired by both parties, the seller of the reusable accessory or luxury item may increase price and offer a deferred payment plan in instalments. Seller must not increase deferred price following compound interest approach as that can turn price increase in Riba [7]. Jaferi School advises the buyer to primarily avoid such contracts. However in case it is necessary to enter into such deal for acquiring an expensive accessory or luxury item then buyer better accepts the least possible increase in price offered under deferred payment plan. Buyer and seller are thus encouraged to negotiate amicably intending win – win for each other and avoiding undue exploitation [68]. One possible solution of setting it based on actual changes has been proposed by [52]. So primarily for consumables and needs cash transaction must be preferred while for assets comprising accessories or luxuries under dire conditions deferred payment plans may be opted ensuring minimum increase in price.

Our study perceives that all fiqas in Islam allow credit sale, leasing and price increase in instalment settings, but anecdotal argument suggests that the conventional NBFIs in Pakistan do not let their clients negotiate price increase/bargain while designing and offering lease products. Such practice does not guarantee win – win deal among lessor and lessee. Further they employ compound interest approach for setting future price of an asset that Al – Quran forbids [7]. Such practices in conventional leasing by NBFIs and financing by investment banks in Pakistan are not adequately shielded from Riba, Maysir and Gharar. Based on such findings this study does not substantiate existing CPS as purely Shariah compliant factor for CM.

C - Other Items Net (OIN)

As mentioned above OIN implies to other liabilities less other assets. Other liabilities are composed of paid up capital and reserve accounts, interbank items etc., while other assets include fixed assets, balancing items and advance tax etc. It is difficult to segregate transactions being Halal or Haram. However, given the big size of conventional banking industry it is inferred that most transactions inherently incorporate the element of Riba and thus are not Shariah compliant. Current practices under OINs are indeed mix of both Halal and Haram and are thus recommended to be immunized and purified from being pro – Riba un-Islamic objectives such as capitalistic gains without primarily intending the benefits of masses in line with Shariah principles.

D – Shariah Views on Net Foreign Assets (NFA)

At present Net foreign assets are mostly composed of lending and borrowing of international/multinational institutions or of foreign countries inclusive of non-Muslim countries. In prevalent practices all international contracts for conventional loans promise Riba and thus not Shariah compliant.

Another element in case of foreign lending borrowing is dealing with non-Muslim countries or with banks operating in non-Muslim jurisdictions. Shariah allows dealing with non-Muslims for loans such that Riba from non – Muslims can be received but must never be paid to them [68], [70]. [36] added that there is no prohibition in carrying out transactions in bank of non – Muslims in their country provided it is for legitimate business. They cite Imam Abu Hanifa's ruling that any dealing between a Muslim and a non-Muslim in Darul Harb (in land of non – Muslims) which involves addition or reduction of the capital amount is not regarded as Riba. Analysing opinions of [68] and [36], our study inferred that the practices of Muslim government and individuals of placing money in foreign banks up to a legitimate threshold as defined in State's law, are Halal. On the other hand borrowing from foreign banks with a commitment to pay Riba is Haram. Hence, it can be inferred that NFA practices in Pakistan are thus partially Halal.

IV – CONCLUSION

Having analysed the opinions of Shariah scholars on various factors of CM constituting EQ – 2, we found that only practices under NFAs are conditionally/partially Halal while all other factors

of NDAs are not Shariah compliant. Hence it is concluded that overall the existing currency management (CM) adopted as per EQ – 2 worldwide and especially in Pakistan as per M0 is not Shariah compliant. Such inference reinforces the need to engineer a knowledge solution for CM that is in line with Quran and Sunnah. In this backdrop, we engineer Shariah compliant alternate of equation 2 for each factor of CM and equations 5 and 6 next.

V – DISCUSSION AND CONTRIBUTION

As a solution to avoid usury, [42] and [28] suggested that in order to cover the deficits the government must explore the possibilities of financing options for developmental projects. In this context [39] and [40] suggested that instruments founded on profit and loss sharing and Ijarah could be adopted for replacing debt based instruments. These suggested replacing bonds with Sukuks for covering deficits as these would be effective in attracting foreign direct investment. Our study identifies that Musharakah, Ijarah and Modaraba can be helpful in engineering alternate Islamic instruments for Islamizing NCGs and CSBs. The existing National Saving Certificates in Pakistan are recommended to be re-engineered under Modaraba contracts or Shariah compliant loan among master servant as suggested by [82]. The prize bonds are recommended to be replaced with Sukuks that may be designed using any appropriate Islamic modes. An encouragement is that these IF instruments are being tested in the emerging Islamic banking and reported reliable. A Shariah compliant solution for CM is thus predicted to be pragmatic and indeed mandatory as per Islamic directives.

The aforementioned literature and critical review helped in identifying Halal alternates for NCGs and also for CNGs Islamic. Our study acknowledges the need for furthering research and development in these for necessary optimization whose details are not in our scope. Based on the analysis we derive the following equation EQ – 5; a Shariah compliant alternate of prevailing CM Eq.

$M0_h$ = Net Domestic Assets (NDA_h) + Net Foreign Assets (NFA_h EQ – 5

Where

NDA_h = NCG_h + CNG_h + OIN_h

NCG_h = Net Claims on Government under Sukuk, and Other Shariah Compliant instruments

CNG_h = Claims on Banks under advances by IBs under Musharakah, Mudarabah, Murabaha and other Islamic financial products

OIN_h = Other Items Net in IBS

The EQ – 5 is indeed result of analyses of Shariah opinions, deductive reasoning and observing the ongoing trends in financial industries. We expect that this derived EQ – 5 will be a means to reach to Islamic economic system where inflation can occur because of natural and/or real market dynamics without any monopoly, speculations and/or manipulations [38]. This implies that change in prices will be linked with real economic activities instead of speculation, hypothecation and usury. We expect that our engineered and forecasted EQ – 5 will help Islamic states adopt a modern and Shariah Compliant CM. In conventional economic system, drivers of inflation are interest, taxes, speculative earnings and market imperfections whereas in EQ – 5 such elements will not be allowed. The EQ – 5 is indeed result of analyses of Shariah opinions, deductive reasoning and observing the ongoing trends in financial industries. However it is the limitation of this subject that EQ-5 is yet not applied and empirically tested anywhere in the Islamic countries in full swing. It is thus significant to compare this EQ – 5 with the ancient Islamic model of CM that enabled Muslims to run Riba free fiscal states for over 15 centuries.

[51] reported that the first Islamic coin was issued during the reign of the fourth Islamic caliph and Imam Ali bin Abu Talib (AS) in years of 39 or 40 Hijri. [44] re-affirmed this opinion that Ali was the first Muslim caliph who introduced the Islamic coinage. However, due to immediate assassination of Ali assassination immediately after issuance of the Islamic coin, it was not continued by the predecessors due to political schism. Earlier to the issuance of this Islamic coin and even after it the Roman and Persian coins were allowed within the Islamic state. [41] reported that four decades later terms with Rome disconcerted and then Imam Muhammad Baqir (AS) advised the caliph Abdul Malik bin Marwan to issue/restore the Islamic coin following the standards laid by the fourth Islamic caliph Ali. Islamic coins were thus minted first by Imam Ali bin Abu Talib (AS) in 40 Hijri and later restored by Abdul Malik bin Marwan between 75 to 80 Hijri. [41] further reported that then the coins of gold and silver were minted following specified weight, shape and outlay. From [33], [17], [54] and

[74] this study interpreted that prophet Muhammad PBUH and the four caliphs after him considered the following factors significant for distributing or allocating the currency from Baitulmal to provinces and/or state affairs.

Learning from these mentioned sources of Islamic studies we learnt that Imam Ali bin Abu Talib (AS), the forth Islamic caliph considered the following factors for the production and distribution of coins:

1. Net productivity in Islamic State (GNP) (in terms of gold and silver available with Baitulmal/Treasury as result of taxes and other resources).
2. Population of the country (P)
3. Cost of best services in a country (CoBS)
4. Cost of defence, maintenance of law & order and provision of justice in a country (NDJ)
5. Necessary aid for poor in a country (NAP)

Deriving from the above mentioned ancient Islamic model of coinage and its factors our study derived equation EQ – 6 as under:

M0 = GNP + P + CoBS + NDJ + NAP

EQ – 6

Comparing EQ – 5 with EQ – 6, we acknowledge that EQ – 5 yet does not comprise of all Islamic parameters especially of population care and aid for the poor. The primary orientation of an Islamic government towards broad based development by ensuring support and services across all income groups enabled ancient Islamic rulers to ensure running a welfare state. This can be substantiated by evidences like 1) award of stipend to Muslim mothers feeding their infants during the reign of second caliph Hazrat Umar bin Khatab (RA) [54], 2) lifelong stipend to a companion (sahabi) of prophet Muhammad PBUH who got blind due to aging during the reign of the fourth caliph Hazrat Ali bin Abu Talib (AS) [46] and overall a service oriented non-commercial Islamic treasury (Baitulmal) developing the poor and nation as required. One reason behind such successful welfare was indeed pro – population and pro – poor strategy in CM. Today even non-Muslim advocates of IF acknowledge its' orientation towards value creation in multi dimensions covering social, economic, moral and ethical values creation through Shariah compliant business contracts and instruments and render it not only adoptable rather

need of the age for attracting business and investment from Islamic investors in non-Muslim world encompassing SME to mega enterprises [85], [86], [25], [35], [87], [28], [89]. Extending scope of knowledge processing and optimization for IF from Islamization of bank-to-customer contracts and instruments to macroeconomic functions such as CM thus reinforces the stance of our study. Next we thus figured out the possible merger of EQ – 5 and EQ – 6 considering the requirement of modern era and the indicators that today's government may adopt for each factor of EQ – 6.

1. For GNP under EQ – 6, we cite [50] who contributed an Islamic Formula of GNP for this era. Existing conventional formulas of GNP entertain *Riba* as an important ingredient and thus not recommended.

2. For P under EQ – 6, we entertain the indicators set by United Nations (UN) as its millennium development goals. Further other sustainability factors that are global or specific to certain economy can also be used for calculating P for CM. For this study we recommend population size and required per capita income to be included for measuring P for EQ-6.

3. For CoBS, our study again refers to the global parameters set by UN for cost of essential modern services such as:

   a. Health,

   b. Education,

   c. Technology & Transport,

   d. Social Security,

   e. Infrastructure Development, and

   f. Islamic banking and Takaful services. This element will merge entire EQ – 5 in it. Our study means to recommend Islamic banking and takaful services as an essential factor under CoBS in any Islamic State.

4. For NDJ of EQ – 6, annual costs of country's defence and provision of justice and law and order within it are well calculated these days.

5. And last for NAP of EQ – 6, the average philanthropy and charity within the country during recent year can be an effective indicator.

Our study indicates few possible indicators under each category however this study can be used as baseline for future research to specify variables/indicators for each factor. Better forms of EQ – 6 with more pragmatic indicators can be helpful in developing adequate framework for modelling Shariah compliant currency management in an economy. Further research can be undertaken on modern and latest operations of treasury. In our observation Bait-ul-mal in current era comprises of various institutions such as Ministry of Finance, Central Bank and Federal Board of Revenue/Income Departments. We learnt that Ministry of Finance is dedicated to planning and allocation of budget related affairs, Central Banks regulates financial institutions while Federal Board of Revenue maintains and overlooks necessary taxation related affairs. This arrangement and distribution of Bait-ul-Maal/treasury related affairs seems rational, logical and Shariah Compliant. In Islamic currency management as taxation is identified to be a key factor, the study proposes that the modern taxation should be according to the guidelines provided by Quran and Sunnah. [50] contributed that Islam imposes well defined and structured taxation that is meant for 1) purifying the savings and profits of productive members of society promising reward in both the existing and eternal lives, 2) ensure poverty alleviation in society, and 3) enabling Islamic government to run fiscal and developmental affairs of the state. Our study substantiated that existing agile and complex taxation should be brought in line with Shariah standards. We deduced that money generation through increasing taxes may be Islamic provided such taxation conforms to Islamic objectives. A next version of this conceptual paper/study may be devised to investigate how these institutions can integrate and collaborate for adopting and exercising EQ – 6?

VI – WAY FORWARD

Our study incorporated all available and accessible views on M0 and further invested efforts to ensure best conformance of its inferences and recommendations in line with Quran and Sunnah. However, it still remained limited to theoretical analysis of M0 while other forms currencies like M1, M2 etc. yet may call for explicit analysis. It has though tried to further the knowledge in the relevant domain, but yet its recommendations especially EQ – 5 and EQ – 6 are not adopted anywhere in the world as a composite system. EQ – 5 is the probability while EQ – 6 was the history. How effectively their merged form can enable Islamic State needing M0 effective remains unanswered but yet an opportunity for further empirical research as possible by interested researchers.

REFERENCES

[1]   I. S. Agic, "Treasury bills," In eshaykh, Retrieved October 10, 2015, from http://eshaykh.com/halal_haram/treasury-bills/ as per December 10, 2010.

[2]   R. Y. Al-Masri, "Is it permissible to sell by instalments when the price of the product is increased?," In Fataawa Islamiyyah, 2/331 , 2nd ed., Vol. 331, 2014. Retrieved October 26, 2015, from http://islamqa.info/en/13973.

[3]   M. S., Al-Munajjid, Fataawa al-Lajnah al-Daa'imah li'l-Buhooth wa'l-Iftaa, al-Da'wah magazine, issue # 1756, p. 43, 2009, "In Islam Questions and Answers". Retrieved October 26, 2015, from http://islamqa.info/en/10958.

[4]   Al-Quran 2:275-276, 278-279, Chapter 2 Sura-e-Baqara, Verses 275, 276, 278 and 279.

[5]   Al-Quran 2:280 and 282, Chapter 2 Sura-e-Baqara, Verses 280 and 282.

[6]   Al-Quran 4:161, Chapter 4 Sura-e-Nisa, Verse 161.

[7]   Al-Quran 3:130, Chapter 3 Sura-e-Al-e-Imran, Verse 130.

[8]   Al-Quran 30:39, Chapter 30 Sura-e-Ar-Rum, Verse 39.

[9]   Al-Quran 8:41 and 8:69, Chapter 8 Sura-e-Al-Anfal, Verses 41 and 69.

[10]   Al-Quran 9:60, Chapter 9 Sura-e-At-Tawbah, Verse 60.

[11]   Al-Quran 4:101, Chapter 4 Sura-e-Nisa, Verse 101.

[12]   Al-Quran 62:10, Chapter 62 Sura-e-Al-Jumu'ah Verse 10.

[13]   Al-Quran 73:20, Chapter 73 Sura-e-Al-Muzzammil Verse 20.

[14]   Al-Quran 28:26-27, Chapter 28 Sura-e-Al-Qasas, Verses 26 and 27.

[15]   Al-Quran 2:237, Chapter 2 Sura-e-Baqara, Verse 237.

[16]   Al-Quran 18:19 and 18:26, Chapter 18 Sura-e-Kahf, Verses 19 and 26.

[17]   A. Al-Tabri, Tareekh e Tabri. Karachi: Nafees Academy, 2004.

[18] M. M. Ashraf, Saving Certificates. "In Sharai Masail," 2015. Retrieved from http://ya-mujeeb.com/index.php/sharai-masaeel/money-matters/is-it-allowed-to-take-any-profit-on-saving-certificates, on October 16, 2015.

[19] M. Asmatullah, "Money and its usage: An analysis in the light of Shariah," In E. Sarfaraz (Ed.), 12, August 2012.

[20] I. Azam, and I. Muhammad, I., "Is it religiously permissible to draw interest in Dar-ul-Harb? In Questions on Islam," 2009, Retrieved from http://www.questionsonislam.com/node/12012 on December 7, 2009.

[21] L. Ball, "Treasury Bonds. In on Islam," Retrieved on October 10, 2015, from http://www.onislam.net/english/ask-about-islam/islam-and-the-world/politics-and-economics/168883-treasury-bonds.html?Economics.

[22] Burhan, "Defence Saving Schemes Interest," In Islam Helpline. Retrieved from http://www.islamhelpline.net/node/2190 October 16, 2015.

[23] Centre of Research on Religion and Nature Suleymaniye Foundation. Islam and Quran. In. (Ed.). Retrieved October 10, 2015, from http://www.islamandquran.org/fatwas/is-the-interest-from-national-savings-certificates-haraam.html.

[24] S. Chagani, "External deficit financing – an inflationary balloon," 2008, Unpublished.

[25] B. J. Cohen, "Monetary union: the political dimension in the dollarization debate," Edited by Dominick Salvatore, James W. Dean, and Thomas D., 2003, Willet. Oxford University Press, New York, 221-337.

[26] Currency Management by State Bank of Pakistan, Retrieved from www.sbp.org.pk/sbp_bsc/apr/Perf-13-14/Chapters/Ch-2.pdf, 2015.

[27] Currency Management by State Bank of Pakistan, Retrieved from http://www.sbp.org.pk/sbp_bsc/apr/Perf-11-12/Ch-01.pdf, 2015.

[28] K. Edge, "Methods of financing the deficit and use of a surplus," In New HSC Online, 1999, Retrieved October 26, 2015, from http://hsc.csu.edu.au/economics/policies_mgt/2484/Topic4Tutorial3.html.

[29] A. M. Gulde, & C. G. Tsangarides, "The CFA France zone: common currency, uncommon challenges," p. 31, N.p.: International Monetary Fund, 2008.

[30] R. Hilferding, "Money in the circulation process," In Marxist, 2015, Retrieved from https://www.marxists.org/archive/hilferding/1910/finkap/ch02.htm.

[31] "How does the Federal Reserve Board determine how much currency to order each year?," (2015, June 6), In Federal Reserve, Retrieved from Google Search Engine.

[32] "How do changes in national interest rates affect a currency's value and exchange rate?," In Investopedia, 2015, Retrieved from http://www.investopedia.com/ask/answers/040315/how-do-changes-national-interest-rates-affect-currencys-value-and-exchange-rate.asp.

[33] J. Hussain, Seerat e Ameer ul Momineen (Vol. 2). Lahore: Imam Kutab Khana, 2012.

[34] "Is it important?,", In Federal Reserve., 2015, Retrieved from http://www.federalreserve.gov/faqs/money_12845.htm.

[35] A. Jan, M. Saleem, A. Ahmad, & A. Riaz, "Disaggregate Analysis of Broad Money and Outlook of Key Monetary Aggregates", 2013, SBP Working paper series, 58, 4-15.

[36] J. Nizamia, Riba and Darul Harb – Jamia Nizamia's historic Fatwa. In Aleem Khan Falaki, 2009, Retrieved October 26, 2015, from http://li.aleemkhanfalaki.com/chapters/riba-and-darul-harb-jamia-nizamias-historic-fatwa/.

[37] Jami'at-Tirmidhi (1229 & 1230), Vol. 3, Book 12, Hadith 1229 and 1230.

[38] M. Kababji, "Inflation Management in Islamic Economics," In Islamic Economics Project, 2012 Retrieved August 19, 2015, from https://islamiceconomicsproject.wordpress.com/2012/04/08/inflation-management-in-an-islamic-economy/.

[39] M. Kahf, "Leasing cars from Islamic perspective," In onislam, 2014, Retrieved October 26, 2015, from http://www.onislam.net/english/ask-the-scholar/financial-issues/transactions-and-contracts/170114.html?Contracts.

[40] M. Kahf, "How does Islam solve the problem of inflation?," In on Islam, 2012, Retrieved August 18, 2015, from http://www.onislam.net/english/ask-the-scholar/shariah-based-systems/economic-systems/174973-how-does-islam-solve-the-problem-of-inflation.html.

[41] S. N. H. Kararvi, Chuada Sitaray,1959, Imamia Kutab Khana, Lahore, Pakistan, Vol.: None, p. 80 – 120.

[42] A. Khan, "Islam and taxation," In The Khilafah, 2009, Retrieved November 2, 2015, from http://www.khilafah.com/islam-and-taxation/.

[43] M. A. Khan, & M. Z. Sajjid, "The exchange rates and monetary dynamics in Pakistan: An autoregressive distributed lag (ARDL)

approach," The Lahore Journal of Economics, 10(2), 87-99, 2005.

[44] M. Maurice-Lombard, "The Golden Age of Islam," Netherlands, p. 110.

[45] S. M. Leghaei, "Can I earn interest from a non-Islamic bank?," In Askthesheikh, 2012, Retrieved October 10, 2015, from http://www.askthesheikh.com/can-i-earn-interest-from-a-non-islamic-bank/.

[46] M. B. Majlisi, Hayat-ul-Qaloob, Volume 3, 1966, Translated by Molvi Syed Basharat Hussain Sahib Kamil, Imamia Kutub Khana, Lahore, Pakistan, pp. 10 –100.

[47] Mousumi, "Are prize bonds haram?," In Muslim Academy, 2014, Retrieved August 19, 2015, from http://muslim-academy.com/prize-bonds-haram/.

[48] S. K. Mugewara, "The African economy: policy, institutions and the future," pp. 86-87. Routledge, 2002.

[49] Muwatta Malik (1293), Book 31, Hadith 1293.

[50] I. H. Naqvi, & M. S. Hashmi, "Analyses of the GNP formula: the Islamic perspective," Journal of Islamic Economics, Banking and Finance, Vol: 9, Issue: 2, 2013, Standard: 2070-4658.

[51] S. M. Naqvi, "Practitioner of Islamic banking and finance", Skype Interview on December 16, 2017.

[52] I. H. Naqvi, Z. Naveed, & A. A. Khan, "Islamic formula of future value of asset: a scientific derivation", European Journal of Islamic Finance, 1(3), 2015 doi: http://dx.doi.org/10.13135/2421-2172/1075.

[53] V. Nehal, "How currency is generated and how it is distributed?," In Quora, 2014, Retrieved June 3, 2015 through Google Search Engine.

[54] S. Nomani, Al – Farooq, 1990, Ilmi Kutab Khana, Lahore, p 100 – 200.

[55] T. Pettinger, "The link between Money Supply and Inflation," In Economics Help, 2011, Retrieved June 14, 2015, from http://www.economicshelp.org/blog/111/inflation/money-supply-inflation/.

[56] L. Rittenberg, & T. Tregarthen, Macroeconomic Principles, Vol. 1, pp. 463-475, 2012.

[57] S. A. Rosly, "Islamic banking and financial markets," 2005, Retrieved December 19, 2015, from http://saifulazharrosly.blogspot.com/2005/08/islam-and-gambling-maisir.html.

[58] A. R. S. A. Khamenei, "Istifta on Islamic Jurisprudence & Religious Affairs," 2019, Retrievable from http://www.leader.ir/en/services/8/Jurisprudence-&-Religious-affairs.

[59] P. C. Rother, "Money demand and regional monetary policy in the West African economic and monetary union," (p. 5), N.p.: International Monetary Fund, 1998.

[60] "Ruling on Inflation and Change of Currency Value - Islamic Fiqh Academy," In the Message of Islam, 2015, Retrieved from http://islamicstudies.islammessage.com/Fatwa.aspx?fid=119.

[61] Sahih Al-Bukhari (2174), Vol. 3, Book 34, Hadith 382.

[62] Sahih Al-Bukhari (2312), Vol. 3, Book 38, Hadith 506.

[63] Sahi.h Al-Bukhari (3814), Vol. 5, Book 58, Hadith 159.

[64] Sahih Al-Bukhari (5347), Vo. 7, Book 63, Hadith 259.

[65] Sahih Al-Bukhari (5962), Vol. 7, Book 72, Hadith 845.

[66] Sahih Muslim (1540 c), Book 10, Hadith 3689.

[67] S. A. Saqr, "Dealing in Riba with non Muslims," In onislam, 2014, Retrieved October 10, 2015, from http://www.onislam.net/english/ask-the-scholar/financial-issues/usury/174688-dealing-in-riba-with-non-muslims.html.

[68] S. Sadooq, Mun La Yahzar Faqih, 1996, Translated by Syed Hassan Imdad Sahib Mumtaz Alfazil, Qureshi Art Press, Nazimabad, Karachi, pp. 58–200.

[69] S. Schadler, & H. Brendenkamp, "Economic adjustment and reform in low-income countries," pp. 117-121, N.p.: International Monetary Fund, 1999.

[70] A. S. Seestani, "A code of practice for Muslims in the west," 2015, Retrieved from http://www.sistani.org/english/book/46/2054/.

[71] Sunan Abi Dawud (3685), Book 26, Hadith 3677.

[72] Sunan Ibn Majah (2195), Vol. 3, Book 12, Hadith 2195.

[73] Suranovic, S. M., International Finance Theory and Policy, Chapter 40, 2005.

[74] Suyuti, J., Tarikh-ul-Khulafa. Islamabad: Millat Publications, 1997.

[75] A. Vasudevan, "Money and banking: select research papers by the economists of reserve bank of India," pp. 93-94, N.p.: Academic Foundation, 2003.

[76] U. I. Vadillo, "Fatwa on banking and the use of interest received on bank deposits (Master's thesis)," 2003, Retrieved October 10, 2015, from www.kantakji.com/media/2128/b024.pdf.

[77] A. J. Schwartz, "What is the money supply?," In Library of Economics and Liberty, 2015 Retrieved from http://www.econlib.org/library/Enc/MoneySupply.html.

[78] R. E. Wright, & V. Quadrini, Finance, Banking and Money, Vol. 1, pp. 303-316, 2012.

[79] D. Yaqub, "When printing notes is robbery," In The News, (2013, December 16), Retrieved June 3, 2015, from http://www.thenews.com.pk/Todays-News-9-220031-When-printing-notes-is-robbery.

[80] Q. Zaman, "Saving certificate," In Muftisays, 2012, Retrieved October 10, 2015, from http://www.muftisays.com/qa/question/2478/saving-certificate.html.

[81] Al-Quran 5:90, Chapter 5 Sura-e-Maida, Verse 90.

[82] I. H. Naqvi, "Islamic banking in Pakistan: fiqa-e-jaferia offers optimization," African Journal of Business Management, Vol. 6(5), Page 2071 – 2085, 8 February, 2012.

[83] N. Desai, Nishith Desai Associate for Legal and Tax Counselling Worldwide, 2018 Retrieved from http://www.nishithdesai.com/information/research-and-articles/research-articles.

[84] M. T. Qadri, "Interest-Free Banking and Islamic Economy," 1994, Lahore, Minhaj ul Quran. Retrieved from https://www.minhajbooks.com.

[85] P. P. Biancone & M. Radwan, "Social finance and financing social enterprises: an Islamic finance prospective", European Journal of Islamic Finance, 2019.

[86] P. P. Biancone & M. Radwan, "Social finance and unconventional financing alternatives: an overview". European Journal of Islamic Finance, (10), 2018.

[87] P. P. Biancone & M. Radwan, "European companies: evaluation for Sharia compliance opportunities and challenges", European Journal of Islamic Finance, (5), 2016.

[88] P. P. Biancone & M. Radwan, Sharia Compliant, "Possibility for Italian SMEs", European Journal of Islamic Finance, (1), 2015.

[89] P. P. Biancone & S. Secinaro, "The equity crowd funding Italy: a model Sharia compliant", European Journal of Islamic Finance, 5, 1-10, 2016.

Annexure A

Types of Money – Table 1

Sources: Extracted from multiple sources as in [26], [27], [55], [59], and [69]

Types of Money	M0	MB	M1	M2	M3	MZM
Notes and Coins (Currency) in Circulation i.e. other than central banks and vaults of depository institutions	Y	Y	Y	Y	Y	Y
Notes and Coins (Currency) in bank vaults		Y				
Central Bank Credit (Minimum reserves and excess reserves)		Y				
Traveler's Checks of Non-bank issuers			Y	Y	Y	Y
Demand Deposits			Y	Y	Y	Y
Other checkable deposits (OCDs), which consist primarily of negotiable order of withdrawal (NOW) accounts at depository institutions and credit union share draft accounts			Y	Y	Y	Y
Saving deposits				Y	Y	Y
Time Deposits and money market deposits accounts for individuals				Y	Y	
Large Times Deposits, institutional money market funds, short-term repurchace and other larger liquid assets					Y	
All money market funds						Y
M0 is narrow money						
MB is monetary base						
MZM is money zero maturity						

Annexure B

Components of Currency Management and Their

Islamic Alternatives – Table 2

Source: [78]

Factor	Common Instruments/ Methodologies/ Activities Involved	Shariah alternatives
NCG	1. Treasury Bills 2. Bonds & Other Security Instruments	1 & 2. Sukuks (Asset or Project based financing with profit/loss sharing)
CNG	1. Loans 2. Bank Accounts 3. Export finance / refinance 4. Agricultural Loans	1. Qarz-e-Hasna 2. Islamic Banking 3. Islamic Export Refinance 4. Agricultural loans based on Islamic principles
Claims on NPFIs and Private Sector	1. Leasing 2. Insurance 3. Investment	1. Ijarah 2. Takaful, Murabaha 3. Mudarabah, Murabaha, Musharaka
OIN	1. Nonfinancial assets 2. Claims on foreign currency swaps 3. Short-term claims because of purchase of services from the central banks 4. Intermediate accounts 5. Currency Swaps 6. Short-term loans	All should be based on Islamic principles of Mudarabah, Murabaha, Musharaka and Shariah compliant loans etc.
Net Foreign Assets	Foreign Investments (Lending & Borrowing)	1. Receiving Interest allowed 2. Payment of Interest prohibited.
Real GNP	Overall real income	Halal GNP
Inflation	Time value, speculation and market imperfections	Only because of natural changes such as: a. rise in cost or b. Rise in quality.