Part I

Seigniorage of Fiat Money and the Maqāsid al-Shari’ah:
The Unattainableness of the Maqāsid

by

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Abstract

This theoretical paper reasons with simple deductions, that the maqāsid al-Shari‘ah are impossible to be attained in an interest-based fiat monetary system. The issue at hand is the seigniorage of fiat money and the question of what constitutes money. Using the quantity theory of money and the socio-economic implications of the current monetary system, the paper argues that, indeed, on the contrary, the interest-based fiat monetary system works opposite to the maqāsid. This strong yet important contention has serious implications which even means that the process of Islamization of knowledge/disciplines is futile without addressing this issue first. Accordingly, the establishment of Islamic economics, banking and finance, therefore, warrants a serious look into the current definition of money and monetary systems. The paper argues that the seigniorage of fiat money is indeed a profound riba and that commodity monies like gold and silver as Shari‘ah compliant money, and being compatible with the maqāsid.

1. Introduction and Objectives of Paper

The 1970’s saw the beginning of Islamic resurgence with works on Islamic economics, banking and finance mushrooming. Yet till today, these merely exist only in writings and academic works. In the real world, a truly working model of an Islamic economic system is yet to be seen. Islamic banking first seemed the best practical aspect of Islamic economics, but nonetheless, evidences show even that is now converging back to its conventional counterpart. Contrary to its glorious times, the present Muslim world is characterized by economic backwardness, with increasing disparity in income distribution, poverty etc.

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The history of money in Islam started with the use of the Roman Byzantine gold coins, i.e. *denarius* or known as the *dinar* among the Arabs and the Persian silver coins, i.e *drachma* or known as the *dirham*. The Arabs did not mint their own coin during the times the Holy Prophet Muhammad (peace be upon him) preached the message of Islam. The Prophet (peace be upon him) brought about sweeping social transformations and changes that included business matters, but nonetheless, the Prophet (peace be upon him) accepted the Roman *denarius* and the Persian *drachma* as the monetary units for Muslims, i.e. as the *Sharī‘ah* money. Prominent Muslim scholars of the past, like al-Ghazzālī, Ibn Taymiyyah, Qudama Ibn Jaafar, Ibn Khaldūn and al-Maqrīzī have asserted that Allah SWT had created the two metals, gold and silver, as a medium of exchange and a measure for all things. Gold played the role of money throughout the Muslim history albeit some ‘hiccups’ with the copper *fulūs* and with fiat money towards the end era of the Ottoman caliphate. Nonetheless, gold continued to be part of the international monetary system in one way or another until the breakdown of Bretton Woods in 1971. Today all national currencies are fiat, whereby it is neither backed by nor redeemable for gold, i.e. without any intrinsic value.

Thirty years of global fiat monetary system has now brought the world to a unique position. Many countries have faced monetary crises concurrently in this short period and even a dollar crisis seems imminent. It has been highly inflationary, with ever widening disparity in the distribution of income and wealth; and has witnessed numerous global economic crises and social misery. This paper argues why fiat money is importantly at the root of all those problems. It also argues why the creation of fiat money is truly a profound and devastating *riba*, and importantly why it is impossible to achieve the objectives or *maqāsid al-Sharī‘ah* in an interest-based fiat monetary system.

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1 See Meera and Larbānī (2004).
2 Indeed, the words *dinar* and *dirham* are found in the Holy Qur’an in the verses Āli-‘Imrān (3):75 and Yūsuf (12):20 respectively.
3 See Sanūsī (2002).
5 A fiat money is money that has no intrinsic value of its own, e.g. paper money and electronic money. The worth of paper in paper money, for example, is negligible yet it may command value by the decree of the issuing body that makes it a ‘legal tender’, i.e. it is money by virtue of law and not because people value it for its own sake.
Part II of this paper contends that the use of real monies like the gold dinar and silver dirham and the elimination of *riba* are necessary conditions for the establishment of an Islamic economics and financial system, which otherwise would merely remain in the academic circle and discussions.

The global monetary system, undoubtedly, has gone through tremendous evolution - from the use of primitive monies like cowry shells, salt and leather, to precious metals like gold and silver, to fiat money like paper currencies and electronic money. After Bretton Woods, the world has been under a floating exchange rate system with none of the international currencies being backed by gold. History has shown that the kind and the characteristics of money define the nature and characteristics of relationships that exist in the economy that affect socio-economic factors. Today, peoples’ life has been reduced to a life of materialism, characterized by constant pursuit of wealth, competition, lack of compassion, poverty, falling traditional values, crime, less time for family and leisure etc.

Needless to say, *riba* is strongly condemned in Islam; and *riba* has a lot to do with the monetary system. Why Islam places so much emphasis on abstinence from *riba*? This paper intends to show the devastating effects of *riba* on socio-economic factors. Importantly, it argues why, the creation of fiat money itself, to be precise, its seigniorage, is profound *riba*, that indeed negates the attainment of *maqāsid al-Sharī‘ah*, which in turn prevents the real-life implementation of *Sharī‘ah*, including the establishment of Islamic economics, banking and finance.

Muslim scholars have defined *riba* well and hence we do not intend to repeat it here. Nonetheless, the nature of *riba* – its new shapes and dimensions in current times - is pertinent to our discussion. One feature of *riba* is where extra purchasing power is created without taking on any risk. So when A lends out, say $1,000 to B at 10 percent interest per annum, for example, the extra $100 that B has to pay as interest provides

7 Ibid, p.4.
8 The Prophet’s (s.a.w) condemnation of *riba* in his last sermon at Mount Arafat and the fact that the last verse to be revealed in the Qur’an is about *riba* (from Ibn Abbas as stated in Sahih Buhari) signify the grave importance of the *riba* issue.
9 A fact that is often neglected, unnoticed or even not understood.
additional purchasing power\textsuperscript{10} to A, obtained without assuming any risk\textsuperscript{11}. This additional ‘free’ purchasing power is \textit{riba}. Note that in this case the \textit{riba} is materialized only after one year when B pays back $1,100 to A. Nevertheless, a fact that often goes unnoticed is the fact that creation of fiat money indeed enthrones the creator with \textbf{immediate} purchasing power without assuming any risk! Today most money is nothing but electronic records that provide millions and billions of purchasing power to the first users of this electronic money\textsuperscript{12}. Wouldn’t this then constitute a greater \textit{riba}?

With this in background, the next section discusses the \textit{maqāsid al-Sharī’ah} and the socio-economic effects of fiat money, and thereafter reasons why it is impossible to attain the \textit{maqāsid al-Sharī’ah} in a fiat monetary environment.

\section*{2. The \textit{Maqāsid al-Sharī’ah}}

Al-Ghazzālī states that the very objective of \textit{Sharī’ah} is to promote the welfare of the people, which encompasses the safeguarding of faith, life, intellect, posterity and wealth. Anything that protects or promotes these is considered as serving the \textit{maslahah} and hence desirable\textsuperscript{13}. Similarly, Ibn al-Qayyim al-Jawziyyah states that the basis of the \textit{Sharī’ah} is wisdom and welfare of the people in this world and the hereafter; and welfare is said to lie in justice, mercy, well-being and wisdom\textsuperscript{14}. Abu Ishaq al-Shatibi too contends that the \textit{Sharī’ah} aims at the welfare of the people in this life and in the life hereafter by protecting its objectives or \textit{maqāsid} which can be classified as follows\textsuperscript{15}: 1. \textit{Daruriyyah} (Necessities), 2. \textit{Hajiyyah} (Requirements) and 3. \textit{Tahsiniyyah} (Beautification).

\textit{Daruriyyah} are objectives which are must and basic for the establishment of people’s welfare in this world and the hereafter; the ignoring of which can cause \textit{fasad} to prevail. \textit{Daruriyyah} basically relates to the protection of the following five crucial matters as stated by al-Ghazzālī: 1. Faith (\textit{Dīn}), 2. Life (\textit{Nafs}), 3. Posterity (\textit{Nasl}), 4.

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\textsuperscript{10} Positive real interest rate is assumed.

\textsuperscript{11} Because interest is demanded by decree of the loan contract, irrespective of whether the borrower makes profit or not.

\textsuperscript{12} Counterfeiting is illegal particularly due to this free purchasing power from the first use of the money. Subsequent circulation of the money would not provide any more benefit to the counterfeiter.


\textsuperscript{14} Ibid.
Property (Māl) and 5. Reason (‘Aql). These are necessary or daruriyyah for the establishment of welfare in this world, as well as in the hereafter. **In other words, these are daruriyyah for the establishment of Islam itself on earth.** The renowned Muslim economist, M. Umer Chapra states16:

*The maqāsid al- Sharī‘ah is everything that is needed to realize falah and hayat tayyibah; and faith is the most important ingredient for human well-being. It puts human relations on a proper foundation, enabling human beings to interact with each other in a balanced and mutually caring manner to help ensure the well-being of all. It also provides a moral filter for allocation and distribution of resources in accordance with the dictates of brotherhood and socio-economic justice, and a motivating system that brings biting power to the goals of need-fulfillment and equitable distribution of income and wealth. Without injecting the dimension of faith into all human decisions, ….it may not be possible to realize efficiency and equity in the allocation and distribution of resources, to minimize macroeconomic imbalances and economic instability, or to overcome crime, strife, tensions and the different symptoms of anomie.*

*Hajiyyah are Sharī‘ah provisions that remove hardship and thereby facilitate life while tahsiniyyah are provisions that bring comfort and beauty to life. Unlike these two, daruriyyah is essential; and Shātibi puts it that daruriyyah is fundamental to hajiyyah and tahsiniyyah. Deficiency in daruriyyah brings deficiency to hajiyyah and tahsiniyyah, but not vice versa17.*

The next section discusses the socio-economic effects of the seigniorage of fiat money, and how it negates the attainment of the daruriyyah category of the maqāsid al-Sharī‘ah.

**3. Seigniorage of Fiat Money and the Continuous Growth of Money Supply and Debt**

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15 See Khan and Ghifari (1992).
Seigniorage\textsuperscript{18} is the gain to the one who issues fiat money. It’s the benefit one derives from the first use of fiat money. In today’s interest-based fiat money system, the bankers create money through multiple credit creation and lend this out at interest. Money created through this fractional reserve banking system and the interest charges thereupon are basically also seigniorage. Most governments get the benefit of seigniorage from the issuance of their respective national currencies (paper notes and coins) but the seigniorage of credit money and interest charges go to the bank.

In this regard, three main features of the current monetary system, that have been much criticized by Muslim scholars, and pertinent to our discussion are: 1. Fiat money – which includes paper money and bank money (demand deposits including electronic money). 2. Interest. 3. Fractional reserve banking. These three features are fundamental to the process of money creation by the banking sector\textsuperscript{19}. The banking sector gives birth to most money, by means of the fractional reserve system, i.e. through multiple credit creation. Money is created for the first time by the bank when it extends loans. Hence money in most part takes the form of accounting entries or computer electronic records. This simple accounting entry that carries with it purchasing power created out of nothing is the seigniorage of fiat money. An important fact to note is that all this new money is introduced into the economy predominantly as loans\textsuperscript{20}. It is important to note here that the Islamic banks, operating within the fractional reserve banking system, also do create money in this form, but focuses on the use of this newly created money according to \textit{Sharī'ah} principles.

\textsuperscript{18} Seigniorage is the value given to fiat money (that practically costs nothing to produce and has negligible intrinsic value).

\textsuperscript{19} A process that is least understood by the masses, including even many who are trained in economics, banking and finance. For the interested reader Meera (2002a) illustrates the money creation process.

\textsuperscript{20} The formula for multiple credit creation can be written as follows:

\[ D = \frac{1}{r} \times R \]

Where \( D \) = change in total checkable deposits; \( r \) = required reserve ratio; \( R \) = change in reserves. Hence if the reserve requirement is 4 per cent, as is in Malaysia currently, an initial deposit of RM1,000,000 can bring about a total deposit of RM25,000,000, i.e. an additional RM24,000,000 being created in the form of loans.
In addition to fiat money created through the fractional reserve system, interest rates given and charged by banks also increase money supply, all through mere accounting\textsuperscript{21}. In time, therefore, the banking system would be forced to continually increase fiat money so that the reserve requirement can be met and, thereby, sustain the system\textsuperscript{22}. The implication of this is that the existence of interest rates would themselves, \textit{ceteris paribus}, force a continuous increase in money supply, both state money (currency notes) and bank money (loans).

On top of that, the credit card system also increases the money supply. This is because in every credit card transaction one account gets debited while another credited. The credit entry is, nevertheless, interpreted as a deposit and, thus, that makes possible further money creation through the fractional reserve system. Furthermore, if a card holder fails to settle his or her credit card balance, then an interest charge on the balance and a late payment fee are likely to be imposed\textsuperscript{23}.

Since most money is created through multiple credit creation, money and debt are, therefore, balance sheet counterparts. This debt would show up in the aggregate economy in the form of private sector and public sector debt. In most countries, bank money (loans) is the dominant money supply that comprises of simply accounting entries. A much smaller portion is paper money and coins issued by the government. Table 1 provides the monetary aggregate statistics for sixty-two countries. On average, state money (hard currency and coins) is only about 34 per cent of the broad money, M2. Sixty-six percent is money predominantly being created by banks as loans. The average annual growth rate of M1 (narrow money) and M2 (broad money) is a staggering 36.92 percent and 41.40 percent respectively. Credit money, nevertheless, has a number of serious economic implications. An important implication is that loans are \textbf{non-repayable in aggregate} and that makes loan defaults as a system default in the current monetary structure. A mathematical derivation of why loans are non-repayable in aggregate, i.e. why default on loan is a sure thing to take place follows in the next section.

\textsuperscript{21} See Meera (2002a).
\textsuperscript{22} Historically, in most countries the public and private sector debts have continuously grown to sustain the system.
\textsuperscript{23} Though the bank did not pay anything tangible in the first place.
### Table 1

**Country Monetary Aggregate Proportions and Growth Rates for the Period 1986 - 1996**

<table>
<thead>
<tr>
<th>Country</th>
<th>State Money (M0) as a Proportion of Broad Money (M2) in 1996</th>
<th>Average Annual Growth Rate 1986 - 1996</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Real GDP</td>
<td>Narrow Money (M1)</td>
</tr>
<tr>
<td>1     ARGENTINA</td>
<td>0.23</td>
<td>2.49</td>
</tr>
<tr>
<td>2     BAHRAIN</td>
<td>0.14</td>
<td>6.15</td>
</tr>
<tr>
<td>3     BANGLADESH</td>
<td>0.23</td>
<td>4.23</td>
</tr>
<tr>
<td>4     BELIZE</td>
<td>0.20</td>
<td>8.34</td>
</tr>
<tr>
<td>5     BOLIVIA</td>
<td>0.24</td>
<td>3.86</td>
</tr>
<tr>
<td>6     BOTSWANA</td>
<td>0.14</td>
<td>7.82</td>
</tr>
<tr>
<td>7     BRAZIL</td>
<td>0.23</td>
<td>2.57</td>
</tr>
<tr>
<td>8     BURKINA FASO</td>
<td>0.52</td>
<td>2.66</td>
</tr>
<tr>
<td>9     BURUNDI</td>
<td>0.43</td>
<td>-0.47</td>
</tr>
<tr>
<td>10    CAMEROON</td>
<td>0.31</td>
<td>-2.36</td>
</tr>
<tr>
<td>11    CHILE</td>
<td>0.88</td>
<td>7.89</td>
</tr>
<tr>
<td>12    CHINA, P.R.: MAINLAND</td>
<td>0.35</td>
<td>9.99</td>
</tr>
<tr>
<td>13    COSTA RICA</td>
<td>0.47</td>
<td>3.98</td>
</tr>
<tr>
<td>14    ECUADOR</td>
<td>0.21</td>
<td>2.62</td>
</tr>
<tr>
<td>15    EGYPT</td>
<td>0.30</td>
<td>4.20</td>
</tr>
<tr>
<td>16    EL SALVADOR</td>
<td>0.36</td>
<td>4.11</td>
</tr>
<tr>
<td>17    ETHIOPIA</td>
<td>0.42</td>
<td>3.90</td>
</tr>
<tr>
<td>18    FIJI</td>
<td>0.17</td>
<td>2.78</td>
</tr>
<tr>
<td>19    GHANA</td>
<td>0.50</td>
<td>4.64</td>
</tr>
<tr>
<td>20    GUATEMALA</td>
<td>0.27</td>
<td>3.88</td>
</tr>
<tr>
<td>21    HONDURAS</td>
<td>0.32</td>
<td>3.63</td>
</tr>
<tr>
<td>22    INDIA</td>
<td>0.31</td>
<td>5.94</td>
</tr>
<tr>
<td>23    INDONESIA</td>
<td>0.13</td>
<td>10.76</td>
</tr>
<tr>
<td>24    IRAN, I.R. OF</td>
<td>0.44</td>
<td>3.65</td>
</tr>
<tr>
<td>25    JAMAICA</td>
<td>0.35</td>
<td>2.66</td>
</tr>
<tr>
<td>26    JORDAN</td>
<td>0.46</td>
<td>2.36</td>
</tr>
<tr>
<td>27    KENYA</td>
<td>0.33</td>
<td>3.30</td>
</tr>
<tr>
<td>28    KUWAIT</td>
<td>0.06</td>
<td>2.95</td>
</tr>
<tr>
<td>29    LESOTHO</td>
<td>0.25</td>
<td>28.04</td>
</tr>
<tr>
<td>30    MADAGASCAR</td>
<td>0.57</td>
<td>1.22</td>
</tr>
<tr>
<td>Country</td>
<td>State Money (M0) as a Proportion of Broad Money (M2) in 1996</td>
<td>Average Annual Growth Rate 1986 - 1996</td>
</tr>
<tr>
<td>---------------</td>
<td>-------------------------------------------------------------</td>
<td>----------------------------------------</td>
</tr>
<tr>
<td></td>
<td>Real GDP</td>
<td>Narrow Money (M1)</td>
</tr>
<tr>
<td>31 MALAWI</td>
<td>0.56</td>
<td>2.94</td>
</tr>
<tr>
<td>32 MALAYSIA</td>
<td>0.30</td>
<td>8.50</td>
</tr>
<tr>
<td>33 MALDIVES</td>
<td>0.63</td>
<td>8.45</td>
</tr>
<tr>
<td>34 MALTA</td>
<td>0.26</td>
<td>5.83</td>
</tr>
<tr>
<td>35 MAURITIUS</td>
<td>0.20</td>
<td>5.84</td>
</tr>
<tr>
<td>36 MEXICO</td>
<td>0.15</td>
<td>2.50</td>
</tr>
<tr>
<td>37 MOZAMBIQUE</td>
<td>0.37</td>
<td>4.29</td>
</tr>
<tr>
<td>38 MYANMAR</td>
<td>0.66</td>
<td>2.52</td>
</tr>
<tr>
<td>39 NEPAL</td>
<td>0.36</td>
<td>4.52</td>
</tr>
<tr>
<td>40 NIGER</td>
<td>0.51</td>
<td>1.60</td>
</tr>
<tr>
<td>41 NIGERIA</td>
<td>0.52</td>
<td>4.23</td>
</tr>
<tr>
<td>42 OMAN</td>
<td>0.20</td>
<td>4.43</td>
</tr>
<tr>
<td>43 PAKISTAN</td>
<td>0.33</td>
<td>5.26</td>
</tr>
<tr>
<td>44 PARAGUAY</td>
<td>0.38</td>
<td>3.69</td>
</tr>
<tr>
<td>45 PERU</td>
<td>0.40</td>
<td>1.15</td>
</tr>
<tr>
<td>46 PHILIPPINES</td>
<td>0.22</td>
<td>3.68</td>
</tr>
<tr>
<td>47 POLAND</td>
<td>0.25</td>
<td>1.10</td>
</tr>
<tr>
<td>48 RWANDA</td>
<td>0.49</td>
<td>-2.39</td>
</tr>
<tr>
<td>49 SAUDI ARABIA</td>
<td>0.21</td>
<td>2.92</td>
</tr>
<tr>
<td>50 SIERRA LEONE</td>
<td>0.51</td>
<td>-2.90</td>
</tr>
<tr>
<td>51 SOUTH AFRICA</td>
<td>0.09</td>
<td>1.56</td>
</tr>
<tr>
<td>52 SRI LANKA</td>
<td>0.34</td>
<td>4.31</td>
</tr>
<tr>
<td>53 SYRIAN ARAB REPUBLIC</td>
<td>0.56</td>
<td>5.62</td>
</tr>
<tr>
<td>54 THAILAND</td>
<td>0.12</td>
<td>9.43</td>
</tr>
<tr>
<td>55 TRINIDAD AND TOBAGO</td>
<td>0.22</td>
<td>0.27</td>
</tr>
<tr>
<td>56 TUNISIA</td>
<td>0.26</td>
<td>4.34</td>
</tr>
<tr>
<td>57 TURKEY</td>
<td>0.18</td>
<td>4.38</td>
</tr>
<tr>
<td>58 UGANDA</td>
<td>0.50</td>
<td>7.04</td>
</tr>
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<td>59 URUGUAY</td>
<td>0.31</td>
<td>3.59</td>
</tr>
<tr>
<td>60 VENEZUELA, REP. BOL.</td>
<td>0.42</td>
<td>2.60</td>
</tr>
<tr>
<td>61 ZAMBIA</td>
<td>0.25</td>
<td>1.25</td>
</tr>
<tr>
<td>62 ZIMBABWE</td>
<td>0.28</td>
<td>3.13</td>
</tr>
</tbody>
</table>

**Average**: 0.34 4.25 36.92 41.40

4. Mathematical Model: Why Loans are Non-Repayable in Aggregate (i.e. Why defaults are sure to take place)

Let us introduce the following notations

1. \( X = \) the initial amount of money lent to the players.
2. \( I = \{1,2,\ldots,n\} \) is the set of players
3. \( \alpha_i = \) the initial debt of player \( i \), \( i = 1,2,\ldots,n \)
   \( W_i = \) the real asset of player \( i \) or his wealth or the maximum level of debt that he can bear.
4. \( \alpha = \) the rate of interest, \( \alpha \in ]0,1[ \)
5. \( \beta_i = \) the amount by which the debt increases at the end of the period (for example 1 year)
6. \( I_1 = \) the set of players who reimburse at the end of period
7. \( I_2 = \) the set of players who didn’t reimburse at the end of period
8. \( D = \) total debt of all players (or aggregate debt) generated by interest
9. \( G = \) the global (or aggregate) debt of all players
10. \( R = \) the global amount of money reimbursed at the end of period by all players.

Now let us give some relations between the defined above quantities.

**Remark 1.** From (1)-(10) we deduce

\[
X = \sum_{i=1}^{n} \alpha_i = \sum_{i \in I_1} \alpha_i + \sum_{i \in I_2} \alpha_i \quad \text{and} \quad I = I_1 \cup I_2, \\
D = \sum_{i \in I} \beta_i \\
G = X + D
\]

Generally banks do not lend more than the borrower’s wealth, that is \( \alpha_i \leq W_i \), for in case of bankruptcy, it can get back the money lent. It is to be noted that if the borrower \( i \) defaults for following number of periods \( n = \frac{\log \frac{W_i}{\alpha_i}}{\log(1+\alpha)} \) (if this number is not integer, take the integer part plus one) the debt will reach his wealth, then the bank can confiscate all his wealth if it wants. Since the interest rate \( \alpha \) (4) is strictly positive then the global
debt generated by interest $D$ is also positive according to (12). Taking into account the fact that only the amount of money $X$ is available for players and the money corresponding to the aggregate debt $D$ generated by interest doesn’t exist in economy, we conclude that

(14) \[ R \leq X < X + D = G \]

Thus

(15) \[ R < G \]

The relation (15) means that the amount of money reimbursed in aggregate is always less than the amount of money to be reimbursed in aggregate, that is, the players will surely default in aggregate.

Now let us assume that the bank doesn’t confiscate real wealth of players, then the second period starts with the following amount of money available in economy

(16) \[ X_2 = X - R \]

Assuming the bank does not spend the $R$ into the economy. And the aggregate debt

(17) \[ S_2 = G - R \]

Since interest will be charged on this debt, then the aggregate debt $D_1$ generated by interest in second period is strictly positive and the global debt in the second period will be

(18) \[ G_2 = S_2 + D_2 \]

Similarly, since $D_2 > 0$, the aggregate amount of money $R_1$ reimbursed by players at the end of the second period verifies the following relation

(19) \[ R_2 \leq X_2 < X_2 + D_2 = G_2 \]

Hence

\[ R_2 < G_2 \]
Thus, in the second period also the default in aggregate will surely take place. By the same reasoning we can prove that at any period the default will surely occur in aggregate.24

**Conclusion.** Having said that money is primarily introduced in the form of loan with interest charges attached, it is important to recognize that total debt (principal plus the interest) is, therefore, not repayable in aggregate. Accordingly, in the aggregate analysis, default is for sure by the mere design of the system. This is fundamentally due to the fact that the interest portion that needs to be repaid together with the principal, does not exist in the form of money. As mentioned earlier, this fact is very crucial as it has a number of serious consequences and implications. For example, assume that there is a total of RM10 billion money supply in the form of loan, given out at an interest rate of 10 percent. At the end of the period RM11 billion (i.e. 10 billion plus interest of 1 billion) need to be repaid. However, only RM10 billion actually exists in the form of money. The money needed for the interest portion does not exist. If additional money to the amount of RM1 billion is not created and introduced into the system, then some borrowers are bound to default on the loan. Therefore, in this system three things may take place in order to sustain it dynamically:25 1. Additional money in the form of loans be created and given out to the defaulting units (i.e. rescheduling loans). This, of course, would increase further the indebtedness of the borrower. 2. Additional paper money and coins be introduced by the government to the extent of the non-existent interest money. 3. The bank confiscates real wealth (e.g. collateral and others) from the defaulting borrower. The former two would cause money supply in the economy to grow further. The third option transfers real wealth from the borrower to the banker.

The first option causes money in the economy to grow in the form of debt – private sector debt and public sector debt, thereby causing these sectors to become increasingly indebted to the banking sector and in aggregate, actually deferring a higher default amount to a later date. The banking sector, having the power to give additional loans, effectively controls the ‘life-line’ of the private and public sectors since it can

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24 Nonetheless, such aggregate default is ‘camouflaged’ when players repay loans piecemeal in instalment basis and as bankers spend back the money into the system.

25 This section draws from the author’s book, Meera (2004).
decide which defaulting unit (for some units are sure to default by the design of the system) it would save (by giving additional loans) and which it would let fail.

While the present system can be sustained only dynamically by a continuous increase in money, it is bound to collapse ultimately because debt has financial implications on the capital structure of the economy.

While debt financing is attractive to firms because generally it is cheaper, interest payments are tax deductible and it, therefore, increases the return on equity (ROE), the problem with debt financing is the cashflow commitment one has to give to service the debt – the constant periodic repayment, but the cashflow from normal business operations is rather risky. How much debt a firm can go for, therefore, depends on its business risk, with businesses having good cashflows being able to go for higher debt levels. **Nevertheless, it is important to observe that, on average, businesses bear risks higher than the debt itself (that demands a riskless payback).**

Since money grows in the form of debt in the current monetary system, businesses and governments would, therefore, increasingly become indebted until a level is reached that it cannot be borne any longer. When firms in the economy cannot bear it any further, they would collapse. Hence, it is not a surprise, for example, that the number of AAA-rated companies in the US dropped from 58 companies in 1979 to only 8 in 2002. The effects of such collapse are that real wealth and sovereignty would gradually shift to those who create fiat money, i.e. those who directly benefit from its seigniorage. The stakes in the current interest-based fiat monetary system is summarized in Figure 1. It is not difficult to see that a serious ‘defect’ of the current monetary system is where fiat money is introduced primarily as debt into the economy with interest charges attached, that brings about further increases in debt until the whole system becomes unsustainable and, therefore, ultimately collapses.

26 We attribute the failure of large firms like Enron and Xerox to this, while ‘irregular’ accounting or ‘corporate fraud’ being the manifestation of it. In Japan lately, for example, while the government suggested the buy back of bad debts with M0 i.e. state money, the bankers opposed and proposed the monetization of shares instead (i.e. effectively confiscating real wealth). When governments get into such trouble, they too can collapse, i.e. likely to get replaced. There are many examples for this – Argentina is a recent example.
Indeed, we regret to state that the Islamic bank operating within the fractional reserve system is equally or more detrimental to the economy than the conventional system\textsuperscript{29}. Rather it is easy to see why this is so. Consider the following example. Assume that two similar houses priced at RM200,000 were financed using the Islamic and conventional methods respectively. Also assume that the APR in both cases is 10 percent per annum and the duration of financing is for 20 years. Now consider how the mechanisms work. Both the Islamic bank and the conventional bank would create the RM200,000 through the fractional reserve banking system. Indeed this is new money created for the first time, and not anybody’s deposit. It is through the seigniorage of this new RM200,000 that both the banks would finance the transaction. The conventional bank basically lends the money at interest while the Islamic bank purchases the house and sells it again to the customer at a profit.

The monthly payment for the above financing is RM1930.04\textsuperscript{30} in both cases, payable for 240 months (i.e. RM463,210.38 in total). The Islamic bank considers the RM463,210.38 as the selling price of the house. The difference between this figure and the original principal amount of RM200,000 which equals RM263,210.38 is the total interest paid in the conventional financing while it is the total profit under the Islamic financing. While both banks created the principal RM200,000 out of thin air, the difference is this: The profit of RM263,210.38 is capitalized upfront in the Islamic mode while in the conventional mode the total interest is not. To demonstrate this, let’s workout the balance of the financing that would remain in both cases after 10 years (120 payments). Under the conventional system it is the present value of the remaining 120 monthly payments, i.e. RM146,048.62 but in the Islamic mode the balance is the total of the remaining 120 payments, i.e. RM231,605.19! Therefore, the difference in the balance between the two modes is that the customer owes RM85,556.57 more under the Islamic

\textsuperscript{28} Reproduced from Meera (2004).

\textsuperscript{29} This statement is without prejudice towards our Shari’ah scholars who have contributed greatly towards the development and monitoring of Shari’ah compliant financial instruments.

\textsuperscript{30} Computed using the standard formula for present value of annuities, i.e. $PV = \frac{Pmt}{i} \left[ 1 - \frac{1}{(1+i)^n} \right]$. 

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mode\textsuperscript{31}. Note that even after ten years of repayment, the balance under the Islamic mode can even be more than the original financing of RM200,000 (See Figure 2). This never happens under the conventional financing where loan balances at any point in time never exceed the principal amount. Therefore, under fractional reserve banking system where both the conventional and Islamic banks create money out of nothing, the Islamic mode is indeed more attractive to the bankers. Hence, one should not be surprised at the enthusiasm and zeal of all bankers, Islamic and conventional alike in promoting Islamic financing. Nevertheless, considering all the socioeconomic effects of fiat money, we are helpless but to conclude regretfully that Islamic banking under fractional reserve system is indeed more damaging to the economy\textsuperscript{32}. Note that this conclusion is arrived by questioning the nature of money, i.e. what is money and not by questioning the \textit{Sharī’ah} compliance of the mode of financing. The problem lies with the initial creation of the RM200,000 out of nothing, i.e. the seigniorage of fiat money. We conclude following our arguments that the seigniorage of fiat money is, indeed, a profound riba, which the \textit{Sharī’ah} scholars need to seriously look into. Consider the following (See Figure 3): When one lends RM1,000 at 10 percent interest per annum, we say that the interest of RM100 is \textit{riba} because it constitutes free additional, riskless purchasing power (obtained after a period of one year). But what about the principal RM1,000 itself that is created out of nothing? This also constitutes purchasing power, free and riskless but then ten times more than the interest amount and also made available immediate! Wouldn’t this amount to a greater \textit{riba} than interest itself?

What constitutes money in \textit{Sharī’ah} is, therefore, equally important (for it is directly related to the concept of \textit{riba}) as the question of sources, uses and modes of Islamic financing (that have been widely addressed by \textit{Sharī’ah} scholars). The issue here is ownership. When money (i.e. purchasing power) is created for the first time through fractional reserve banking (or otherwise, through credit cards etc.), an ownership has to

\textsuperscript{31} The Islamic bank may give some rebate for the early repayment, but the amount of rebate is determined at the discretion of the bank.

\textsuperscript{32} While Meera & Larbani (2004) argued that both Islamic and conventional banking systems would ultimately converge due to arbitraging between both the banking systems, Islamic banking would continue to exist, or even further popularized by the finance industry at least for the above reason.
be attached to it – i.e. who would be its first owner? This has a lot of implications for
wealth distribution in the society, political power, sovereignty and the \textit{maqāsid al-Sharī’ah} as expounded later.

5. Seigniorage and Interest at the International Level

The previous argument showed how in the domestic scene real wealth and sovereignty
get transferred to those who create fiat money. Now with similar arguments on the global
platform with countries as players, on aggregate \textbf{default is for sure}. Therefore, the
mathematical model of Section 4 is also valid at the international level. This is because,
for example, say a country A takes a loan denominated in dollars from an international
financial institution. In aggregate then, the system must create additional dollars for
otherwise the loan is not repayable (note that other existing dollars have also been loaned
into existence, thus putting other debtor countries in a similar position). Since the
borrower countries have no power to create dollars\textsuperscript{33}, the borrower countries must
compete for the existing dollars circulating worldwide. Competition for dollars is,
therefore, tough since there are not many countries anyway\textsuperscript{34}. Hence such borrowing can
be “deadly” for developing nations since their global competitiveness is generally not that
good. In this way, developing nations tend to become heavily indebted and thereby lose
their wealth and sovereignty easily to these international financial institutions.

\textsuperscript{33} Unlike gold, for example, where no country enjoys the monopoly over its production.
\textsuperscript{34} Thereby increasing the probability of default.
Money = Debt
Private Sector Debt
Government Debt

Due to interest charges, total debt is not repayable in aggregate because interest payable does not exist in money form. Default/Financial Distress is therefore caused by the mere design of the system.

Micro-level: Competition for Money
- Business world becomes increasingly competitive
- Some are able to service debt
- Some are sure to default

Rescheduling of Loan?

YES
Additional Money = Debt is Created
Indebtedness of private sector and government grows

There is a maximum limit to debt level that can be borne by firms/government. Further rescheduling of debt not possible

Debt Default
Examples:
- Enron
- Xerox
- Brazil
- Russia
- Argentina

NO
Confiscation of Real Wealth
- Bankruptcies and foreclosures
- Banks take possession of land, buildings, businesses, collateral etc.
- e.g. Japanese banks want the monetization of company shares instead of government buyback of loans using M0
- Debt write-offs

Transfers Wealth

Transfers Sovereignty

Money Gets Destroyed
Banking Crisis
Economic Problems

Figure 1: Flowchart Showing Stakes in the Present Monetary System
Both the Islamic Bank and the Conventional Bank create the RM200,000 out of nothing through the fractional reserve banking system. The remaining balance after 10 years’ of monthly payments is RM231,605.19 in the Islamic mode while it is only RM146,048.62 in the conventional mode.

While both the Islamic bank and the conventional bank create the original principal amounts of ‘loans’ through fractional reserve banking system (i.e. loans given out do not really reduce the deposits of the depositors), a customer owes more money in the Islamic mode than the conventional mode at any time thereafter until the ‘loan’ is settled. This fact alone is very attractive for even conventional bankers to provide Islamic mode financing. But, nonetheless, considering the serious negative socio-economic implications of fiat money-based fractional reserve banking, we regretfully conclude that Islamic banking under fractional reserve system is likely to accelerate the said effects – the default rates, the transfer of wealth and sovereignty etc.
When RM1,000, for example, is lent out at 10 percent interest per annum, the interest of RM100 is said to be *riba* because it constitutes additional free, riskless purchasing power that is obtained after a period of one year. But the *Sharī‘ah* scholars are silent on the principal of RM1,000 itself, that is created out of nothing under the fractional reserve banking system. The principal here is ten times the interest amount and also made available immediate. This also constitutes free and riskless purchasing power. Wouldn’t this amount to a greater *riba* than the interest itself?
In the present global monetary system with some currencies playing the role of international reserve currencies, developing nations including almost all Muslim nations lose tremendously due to this seigniorage. Resources of the developing nations are being plundered through this system, i.e. through the magic of seigniorage. An international currency like the dollar, therefore, enjoys immense advantage through seigniorage. Since it has purchasing power outside the United States, additional money can be created for use outside the country without placing undue inflationary pressure domestically. In this era of globalization and neo-liberalization, therefore, interest-based fiat money systems no longer work to the advantage of developing nations. The entire process occurs subtly and gradually since interest is based on time. The system basically enslaves the masses\(^{35}\). The entire system is akin to “slavery” where ‘development’ would still be observed, but the ownership of assets and sovereignty gradually gets eroded and transferred away. Therefore, the seigniorage of fiat money has implications for ownership of assets in the economy.

Since the collapse of the Ottoman caliphate in 1924 and the triumphant entry of fiat money and interest, Muslim nations must have lost huge amounts of wealth through the seigniorage of fiat money, particularly to the colonial masters, and the bankers whom they had placed, before they left.

6. The Unattainableness of the \textit{Maqāsid al-Sharī‘ah}: Protection of Wealth (\textit{Māl}) - The First Element of \textit{al-Maqāsid} Undermined

Therefore, it is obvious that in the interest-based fiat money system, the protection of wealth, which is one of the \textit{maqāsid al-Sharī‘ah} is undermined. Individuals and sovereign governments are, therefore, likely to suffer particularly in this era of globalization and neo-liberalization. As wealth accumulates in the hands of fiat money creators, sovereignty would also be lost. Sovereignty is indeed linked to the other

\footnote{Slave-based economies would depict faster economic growth and development because slaves are generally overworked to produce goods and services. But the problem with slave-based economies is that the slaves are not the beneficiaries of the development, i.e. they are not the owners of what they produce. Ownership goes to their masters. Similarly, the enslavement of the masses by the \textit{riba}-based economies would also bring about faster development, but again it is a question of ownership and justice. Significant portion of the efforts and production of the people goes to the creators of fiat money.}
maqāsid, i.e. the protection of faith, life, intellect and progeny and these would also be affected. This is because when sovereignty is lost in a land, then the new ‘rulers’ may impose things that directly or indirectly affect the other maqāsid. History has a number of evidences for this. When sovereignty was lost in Muslim lands, the education system was changed, i.e. affecting the intellect (’aql). Today foreign forces are even asking Muslim nations to change their education curriculum, while some are even closing down religious schools. Muslim women and children are even prohibited to wear the hijab. Even the athan, the call to prayers using loudspeakers have been prohibited in some cases. Of course, affecting the education and interfering in the practice of the religion can in turn affect faith itself. Also the inability to protect wealth could also lead to the lack of faith. Such an important link between wealth and preservation of faith can also be deduced from the following sayings of the Prophet (peace be upon him):

Poverty, in all probability, leads to unbelief (kufr).

(Baihaqi and Tabarani)

There are also attempts to limiting the population growth of Muslims, citing the reason that per capita income would be better with smaller populations. In some countries, even birth contraceptives are being distributed free in order to curb Muslim population growth. This of course affects the maqāsid, i.e. the protection of life and progeny.

From these, it is obvious that in the interest-based fiat money system, firstly Muslims will not be able to protect their wealth. Thereafter, they are likely to lose sovereignty and thereby lose the other maqāsid of al- Shari‘ah (See Figure 4).
7. The ‘Hidden Tax’ and Other Socio-Economic Effects of Seigniorage

Since the initial effect of money creation is an increase of money supply relative to the real economy, it therefore, entails a ‘hidden tax’ on the entire economy, the rich and the poor alike (in the form of inflation). Nonetheless, the poor are likely to suffer more since they generally have low savings. Also the newly created money is likely to go to the rich
first\textsuperscript{36}. In Islam, wealth transfer is always from the rich to the poor in the form of zakat, charity etc. But seigniorage of fiat money taxes the poor and transfers wealth from the poor to the rich. Additionally, interest charges concentrates wealth in the hands of a small minority by taxing the majority\textsuperscript{37}. Such concentration and circulation of wealth among the rich is discouraged in Islam.

\textit{In order that it (wealth) may not (merely) make a circuit between the wealthy among you...}

\textit{Qur'an (Al-Hashr 59:7)}

This concentration of wealth, in turn, would cause less and less money to circulate in the economy thereby bringing about numerous socio-economic problems associated with low circulation of money that includes unemployment. The society would then tend to compete for money whose circulation keeps decreasing.

This effect, taken together with inflationary nature of fiat money, would cause a section of the economy to experience falling real income, thereby bringing about increased disparity in income distribution, creating relative and absolute poverty. This disparity in income distribution is something to be concerned about for it brings about with it a host of socio-economic problems. Using the \textit{equation of exchange}, Meera (2002a) argued that such problems include inflation, unemployment, widening income distribution gap, housing for the low income group, agriculture, poverty, crime etc.

Since the property sector is one of the sectors that absorb the increasing money supply, the price of homes can thus be expected to grow at a rate higher than the average income growth. This can pose some housing issue problems\textsuperscript{38}.

The struggle to survive in the economy, particularly by those at the lower strata may cause them to resort to corruption, crime etc. Therefore as the system creates poverty, it is also likely to bring about social evils including anomie (i.e. erosion of

\textsuperscript{36} The rich are more likely to get a loan from the bank since they are socially and economically closer to the bankers.

\textsuperscript{37} See Lietaer (2001) for arguments and evidence for this.

\textsuperscript{38} The housing issues include: a) Housing for low and middle income group. If the price of housing is not controlled, the money-creating system would place a burden on the low-income group. b) Size of homes shrinks gradually. Property developers build smaller and smaller sized homes so as to make them
traditional values). Hence crime is likely to become part and parcel of the interest-based fiat monetary system.

With all the negative effects of fiat money we truly assert that the creation of fiat money is a serious form of *riba*. It is, therefore, not surprising to note some of the observations made by prominent economists. Consider the following: Chapra states\(^{39}\):

> The Islamic economic system does not prevail in any part of the Muslim world. The Muslim countries have been trying to solve their economic problems through policies developed within the secularist perspective of the prevailing systems. Their problems have become aggravated and they have moved farther and farther from the realization of the *maqāsid*.\(^{40}\) Despite a rise in gross domestic product, poverty has not declined; rather it has risen. Inequalities of income and wealth have also worsened, and the basic needs of their people remain unsatisfied. The public sector budgetary deficits have risen, as have balance of payments deficits and external debt, and the threat of inflation persists.

While the World Bank was established more than half a century ago (in 1944), with the motto *Our dream is a world without poverty*, its former chief economist, Nobel Laureate, Joseph Stiglitz wrote the following\(^{41}\):

> A growing divide between the haves and the have-nots has left increasing numbers in the Third World in dire poverty, living on less than a dollar a day. Despite repeated promises of poverty reduction made over the last decade of the twentieth century, the **actual number of people living in poverty has actually increased by almost 100 million**. This occurred at the same time that total world income actually increased by an average of 2.5 percent annually.\(^{42}\)

\(^{40}\) Emphasis ours.
\(^{41}\) Stiglitz (2002), pg.5.
\(^{42}\) Emphasis ours.
All institutions that create fiat money are, therefore, responsible for the above observations. Such institutions include, governments via central banks, commercial banks including Islamic banks via multiple credit creation, the IMF and IDB with their overdraft facilities (SDRs and the Islamic Dinar respectively), the World Bank, indirectly, by issuing bonds to commercial banks and also currency counterfeiters.

8. Conclusion

In concluding, we assert that the protection of wealth, a daruriyyah component of the maqāsid al-Shari’ah cannot be preserved under the interest-based fiat monetary system. While Islam does not emphasize on the accumulation of wealth, yet nevertheless, the protection of wealth is considered daruriyyah. This is an important contention, because wealth has sovereignty attached to it. The losing of wealth can bring about a loss of sovereignty and with sovereignty lost, the other maqāsid will also suffer.

Therefore, we assert that fiat money creation is a profound riba and in a fiat monetary system, Muslims have a lot to lose. Muslim aspirations for the Islamization of knowledge/disciplines which includes Islamic economics, banking and finance can never be truly established in this environment. These aspirations would be reduced, therefore, to mere classroom discussions. It is, therefore, imperative for Muslims to address the seigniorage of fiat money and recognize it as a gigantic yet devastating riba, before truly Islamic systems can again be aspired for. As Muhammad Asad wisely puts it in his commentary to the Holy Qur’an⁴³:

...while the Qur’anic condemnation of the concept and practice of riba is unequivocal and final, every successive Muslim generation is faced with the challenge of giving new dimensions and a fresh economic meaning to this term ...

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⁴³ Asad (1980), commentary to the verse al-Rum (30:39). f.n. 35.
References


