

**Integrating al-Rahn with the Gold Dinar:
The initial building-blocks towards a gold-based economy**

by

Ahamed Kameel Mydin Meera

(Forthcoming in Review of Islamic Economics)

Department of Business Administration
Faculty of Economics and Management Sciences
International Islamic University Malaysia
P.O.Box 10
50728 KUALA LUMPUR
Selangor, Malaysia

akameel@iiu.edu.my

Ahamed Kameel Mydin Meera is Associate Professor at the Department of Business Administration, Faculty of Economics and Management Sciences, International Islamic University Malaysia.

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Abstract

Pursuant to arguments put forward by Meera and Larbani (2006) that the maqasid al-Shariah are unattainable within the present fiat monetary system and that real money systems based on commodities like gold and silver are indeed compatible with the maqasid, this paper presents a way to introduce a gold-based payment system within the fiat monetary environment. The most practical way is to introduce the gold-payment system as a dual system. In the initial phase, individuals and businesses should be made to own gold gradually and once the 'critical-mass' is there, thereafter to turn the gold ownership into a payment system. Integrating al-rahm, the Islamic pawn-broking, with the gold dinar is one initial building block that can be pursued. This paper attempts to provide the mechanisms for integrating al-rahm with the gold dinar payment system.

1. Introduction and Objectives of Paper

Meera and Larbani (2006) and others have argued that the present fiat monetary system is inherently unIslamic. Fiat monetary system together with the fractional reserve banking system was argued to redistribute ownership of assets in the economy unjustly and indiscriminately. The wealth-distributing mechanism was argued to be similar to theft while taxing the whole economy in the form of inflation. Indeed, the system was argued to be unjust, unstable and unsustainable in the long-run. The vulnerability of the fiat money system is increasingly becoming evident in the current situation of the global monetary system.

Nobel Laureate Robert Mundell and other supply-side economists opine that gold will again return as a monetary standard in the 21st century. Linking money to gold is seen as necessary to bring forth stability and justice into the current monetary system. Meera and Larbani (2006) argued that that the Shariah principles were based on gold and silver as

* Ahamed Kameel Mydin Meera is Associate Professor at the Department of Business Administration, Faculty of Economics and Management Sciences, International Islamic University Malaysia.

the monetary standard indeed contains in a deep wisdom and is related to the concept of riba. This wisdom has somewhat has been lost in the passage of Islamic history.

Attempts to revive the Islamic economic system including the establishment of Islamic banking and finance are seen as futile unless the system is based on real money concepts like gold and silver.

The objective of this paper is to outline a method or to provide the initial building blocks of introducing a gold-payment system in the current fiat money environment. A gold payment system is indeed a paradigm shift and must be implemented gradually and cautiously so as not to disrupt the present system. Contrary to expected positive results, sudden shocks to the system can bring about undesired effects.

This paper suggests a model of gold-payment system that integrates the Islamic pawn-broking system, al-rahn with it. The reasons are provided in the next section.

2. Al-Rahn and Current Issues

Al-rahn refers to the Islamic mode of pawn-broking. While pawning has long been practiced in Malaysia, particularly by the rural folks and the lower income group, its Islamic version is relatively new. It's a form of micro-credit where the borrower places a non-financial asset, mainly gold jewelry, as a collateral for the loan. In the conventional pawn-broking interest is charge on the loan and the collateral will be used to collect any unsettled balances in the event of default.

In the Islamic concept, the interest element is discarded, and the loan is given on qard-al-hasan which is a belevolent loan. Nonetheless, the borrower must pledge a valuable asset as a collateral on the loan, hence the terms pledgor (rahin), pledgee (murtahin, the lender) and the pledge (rahn). The maximum amount of the loan is around 60 to 75 percent of the value of the pledged item. The lender (mainly a bank) would accept the pledge on a wadiah concept where the lendor promises to safe-keep the valuable pledge until the loan

is settled. Nevertheless, the bank would impose a charge on the borrower for services rendered that includes but not limited to providing security and insurance for the pledged item. In the event the borrower defaults, the pledged item will be sold to a third party. The proceeds will be used for settling the outstanding balance while any excess be returned to the borrower.

The first al-rahn operations in Malaysia were introduced by the Mu'assasah Gadaian Islam Terengganu and Kedai al-Rahn, a subsidiary of Permodalan Kelantan Berhad in early 1992. In 1993 Skim al-Rahn was introduced through the collaboration between Bank Negara Malaysia, Yayasan Pembangunan Ekonomi Islam Malaysia (YPEIM) and Bank Kerjasama Rakyat Malaysia Berhad. Al-Rahn financing has grown considerably in recent years. The total al-Rahn financing by YPEIM, for example, was RM80.97 million in 1998 and RM1,309.36 in 2004; depicting a tremendous average annual growth rate of about 59 percent.

This paper does not intend to dwell in detail into the al-Rahn product but rather to highlight an issue of concern. Meera (2004) argued that the present interest-based fiat monetary system is designed for default. That is to say that the total loan in the economy is not repayable in aggregate because the interest portion that needs to be paid does not exist in the form of money. On top of this, it is the lower income group, that has an inherently higher probability of default, that this likely to patronize the al-Rahn. All these means that a lot of the pledged items in the al-Rahn transactions would go unredeemed due to high number of defaults. Our preliminary survey shows that about 40 to 50 percent of al-Rahn transactions end in default.

The high default rate in al-Rahn would cause the al-Rahn operators to note an increasing stock of unredeemed gold items. This was indeed a concern for most if not all al-Rahn operators. Some operators were known to dispose the gold at 20 percent below market price, to the delight of jewelers and collectors. This could be very unfair to the al-Rahn borrower where he is forced to default due to the monetary system itself and having his jewelry auctioned off considerably below market price.

Kelantan's Kedai al-Rahn and Mu'assasah Gadaian Islam Terengganu were not spared of this either. They were not sure what to do with the increasing amount of gold that was accumulating in the vaults.

This paper suggests a solution for this, i.e. to convert the unredeemed gold items into gold dinars and pushed back into the economy. While in this way the gold can be sold for market price, it can be made into a mode of investment for the people and if circulated as a complementary currency, it can further encourage economic activity, production and employment in the economy.

3. A Model of al-Rahnu - Gold Dinar Payment System

In this section we provide a model of al-Rahnu-gold dinar system that can be readily implemented as a complementary money. We take Kedai al-Rahn Kelantan (KRR) as the al-Rahn operator who integrates the gold dinar operation with it.

The model starts from assuming a well-functioning al-Rahn operation. We don't intend to discuss the operations of the al-Rahn but would start from defaults in al-Rahn. When a al-Rahn borrower defaults, first the person would be given a chance to redeem the pledged gold item at a price at least the amount owed to the bank. Failing of which, priority should be given to the borrower to bring a family or friend to purchase the item at a price at least the amount still owed to the bank. Failing of which the bank can then sell or auction off the asset to third party. Any excess from the sale over and above the amount still owed to the bank must be returned to the borrower.

The real-life experience has been that due to high rate of defaults, substantial amount of pledged items go unredeemed and these have been known to be disposed at even 20 percent below market price. But in our model we suggest that unredeemed gold be melted into gold dinars (4.25 gm of 22K gold) and sold back to the public at the

prevailing gold price. Firstly, in this way the unredeemed gold can be disposed at market price rather than substantially below market value. Then bank can then take whatever balance outstanding and return the rest to the borrower. The borrower will not then very much disadvantaged as in the present set up. Secondly, if the gold dinars can be made to circulate as a complementary money, complementing the scarce national currency, this would further encourage trade, production and employment in the economy.

In order to introduce confidence into the system, a national or state institution should stand behind the gold dinar and gold payments system. This role can be played by the central bank or bait al-mal. Say the role is played by the bait al-mal then it should be the body behind the whole gold dinar system. The bait al-mal, for example, should absorb the cost of minting the gold dinars and sell the gold dinar through al-Rahn outlets. The bait al-mal should liase itself with some international gold dealers, like the World Gold Council, in case it needs to buy or sell gold. In the model, the international gold dealer's prices are assumed to be a and b for the bid and ask prices respectively. Hence its spread is $b - a$. This price can change daily or even more frequently according to international gold price changes.

The bait al-mal also stands ready to buy back gold dinars from the public at any time at the current retail gold price. The minting cost can indeed be recovered in the long run through the repeated buying and selling of the gold dinars, i.e. repeated spreads. The bait al-mal also provides the facilities and security for safekeeping of gold dinars and gold bullions. These functions and guarantees from the bait al-mal should win the confidence of the public on the whole gold dinar system.

On behalf or liasing with the bait al-mal, the Kedai al-Rahn outlets, in order to operate a complete gold payment system, should provide a number of complementary services.

These include:

1. Providing gold-accounts. Here individuals and businesses can buy gold and let the bait al-mal keep the gold for safekeeping. This would provide

individuals and businesses a means to invest in gold while avoiding the worry of the gold's security¹.

2. Allow the transfer of gold between individual and business accounts. These transfers could be for some payments among them for mere transfers like gift, zakat etc.
3. Operate a payment system. This means an account holder can purchase things, for example from a supermarket (the supermarket itself having a gold account), and pay for the goods in gold dinars based on the current gold price. The price at which the gold dinar will be circulated in the economy is the bait al-mal's bid price of x .

In order to take advantage of modern IT infrastructure and improve efficiency of the dinar system, the Kedai al Rahnu can also issue gold dinar debit cards, charge cards and cash cards. These are discussed further below:

Gold Dinar Debit Cards

Debit cards are issued to those having gold account with the Kedai al Rahnu. The card can be used for making payments in gold dinar in outlets that would accept gold dinar. These outlets are also gold account holders. Purchases are converted into gold dinar based on the prevailing bid price, x , at the time of payment. In a more advanced step, the outlets like supermarkets can price their products in both gold dinars and national currency like the ringgit, like during the euro's introduction period. In a complete dinar system, prices are quoted only in gold dinars. When payments are made, gold ownership changes hand in the respective accounts, held by the Kedai al Rahnu. An exact amount of gold will be transferred from one account to another. Using electronic payment system as this eliminates the need to carry gold around. If the account holder wants his gold, he just needs to go to the Kedai al Rahnu and withdraw as he wishes. The client cannot make payments more than the amount of gold he has in the account. The Kedai al Rahnu sends monthly gold dinar statement of account to the account holders.

¹ This function is similar to May Bank's gold savings passbook.

The gold dinar debit card is account-based and such if the card gets destroyed, lost or stolen the gold in the account is not lost.

Gold Dinar Charge Card

In the gold dinar charge card, the client need not have gold account. The gold dinar charge card is like the American Express card, where the client can use the card for gold payments and periodically receives statement for transactions made. The client is required to settle the amount in full. The difference here, from normal charge cards, is that the amount payable is in quantities of gold.

The charge card may pose some problems in the event the client fails to settle in full. This would transform the client into a debtor. Under conventional system, interest charges are imposed which cannot be done in the Islamic system.

If the charge card system is implemented among clients who also have gold accounts, the the gold dinar system can be made most efficient through netting the accounts. This means in a period an account may receive payments and make payments but only settles the difference at the end of the period. Such nettings would substantially reduce the need for hard money and increases the amount of economic transactions². This method should be most welcome in a cooperative setting where the payment system is implemented among the members. In the cooperative set-up defaults and frauds could be minimized since the members are all known, monitored and well regulated.

The gold dinar credit card is not encouraged here since credit cards normally involve the charge of interest on unsettled balances. The credit card also conveniently does not nett the accounts. The charge card in the cooperative setting not only nets the accounts, but does not impose interest on the balances.

Gold Dinar Cash Card

The gold dinar cash card is similar to Touch&Go cards. The cards would be loaded with

² This is like increasing the velocity of circulation of money.

a certain amount of gold. The dinar cash card can be used for investment in gold and for making payments in gold. The cash card is card-based, as opposed to account-based in the debit and charge cards. This means if the card is destroyed, lost or stolen the client could lose the amount of gold it carries. Nevertheless, with modern technologies the cards could also be personalized.

The Kedai al Rahnu would issued the gold dinar cash cards in different denominations – one dinar, two dinars etc.

The role of Kedai al Rahnu can also be duplicated by commercial banks, particularly the Islamic banks. The implementation of gold dinar payment system can be synergized through the existing ATM networks. Through the ATM the buying and transfer of gold dinars can be implemented even though withdrawals of gold from ATM may not be possible at this time. If the bid and ask gold price can be made available on the ATM even people in small towns that have ATM machines could easily buy, sell and transfer gold.

Marketing of the Gold Dinar

The success of gold dinar lies not just in making people hold gold in the form of investment or otherwise, but in using gold as money for payments. Gold must be made to circulate in the economy as payment for transactions. The ultimate success of the gold dinar system lies not in pricing in fiat national currencies and then converting and settling in gold but rather in PRICING in gold and settling also in gold. Pricing goods and services in gold is an utmost important characteristic of the ultimate gold dinar system. Such pricing in gold would virtually eliminate inflation from the economy.

Initially the gold dinar should be encouraged for investment. Individuals and businesses could invest in gold by purchasing gold dinars. Individuals should be allowed to invest a portion of their EPF savings in gold dinars.

Mahr. Marriage dowries should be encouraged to be paid in gold dinars.

Zakat. Account holders with the Kedai al-Rahnu can have zakat on their gold holdings deducted automatically on the minimum balance in the year exceed the nisab.

E-Commerce using Gold Dinar

One way of encouraging transactions using gold is to introduce a virtual gold dinar market electronically where clients can purchase goods through the internet and make payments on-line.

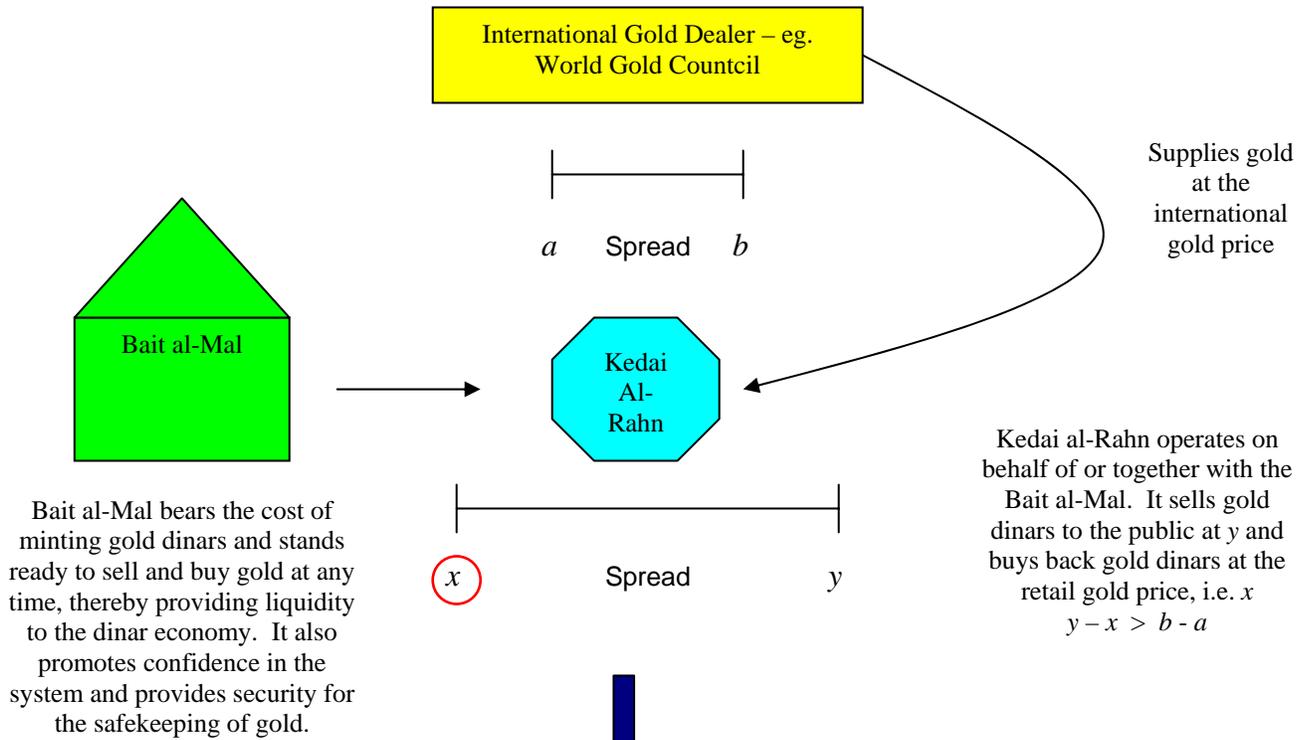
To start with, hajj and umrah can be priced in gold dinars. Implementing on a worldwide basis clients should be made able to withdraw or use their gold dinar cards internationally. For example those performing hajj in Mecca should be able use their gold accounts there to withdraw, exchange into riyals, transfer or make payments in gold. This could be further enhanced by linking with other gold payment systems in existence like the e-gold and e-dinar systems.

Real-time Auditing of the Gold Dinar System

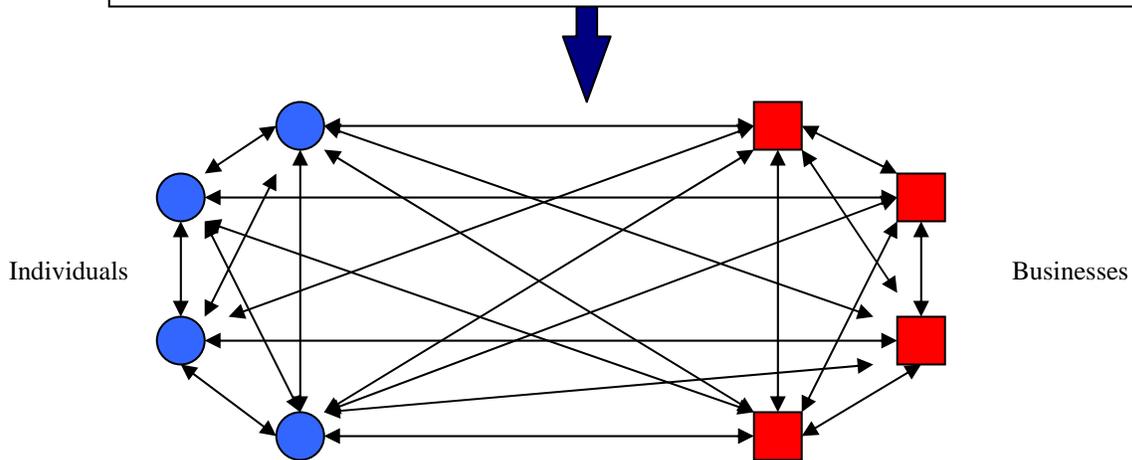
One valid concern of implementing the gold dinar payment system through electronic means is that it becomes vulnerable to fraud in the sense that the electronic gold dinars might not be truly represented or totally backed by gold. In other words, the electronic gold dinars could indeed be totally fiat. This could replicate the means of how the current fractional reserve banking system started.

Indeed, the gold dinar system must be made fool-prove so as to win the confidence of the people. One way the above problem could be solved is by having independent auditors who could audit the system real-time, anytime. With current technology it is possible to electronically audit the system to make sure that the amount of gold dinar circulating, i.e. the total of gold balances in client accounts, equals the amount of actual gold holdings by gold dinar system operator, i.e. the bait al mal or the banks.

Figure 1
The al-Rahn – Gold Dinar Model



The Bait al-Mal and the Kedai al-Rahn together would issue gold dinar coins, dinar bullions, gold dinar debit cards, charge cards and gold dinar cash cards. By issuing gold dinar debit cards and charge cards the dinar is circulated in the economy as a complementary currency. The gold dinars will be circulated in the economy at the price of x , i.e. the bid retail price of gold. The Kedai al-Rahn provides the services of gold accounts, safekeeping of gold, transfers of gold from one account to another, payment system including the payment of zakat and e-commerce.



Individuals and businesses transact and transfer gold among their accounts using gold dinar debit cards, charge cards and cash cards. All their transactions are monitored electronically and real-time accounts kept by Kedai al-Rahn. Statements are sent to account-holders periodically.

Formula for Gold Conversion

The formula below can be used for converting gold from one karat to another. The formula gives the amount of alloy metal, like silver or copper, to be added to obtain the new karat.

$$W_a = \frac{K_n - K_i}{K_a - K_n} \cdot W_i \quad (1)$$

Where,

K_i and W_i are the initial karat and weight of gold respectively.

K_n is the new karat to which the gold need to be converted to.

K_a and W_a are the karat and weight respectively of the gold or other metal being added.

The weight of the new alloy, W_n is

$$W_n = W_i + W_a \quad (2)$$

For example, say you have 120 gm of 24K gold (pure gold) that you wish to convert to 18K gold (75 percent gold). Then $K_i = 24$, $W_i = 120$ and $K_n = 18$. Say you intend to add silver for this conversion. Then $K_a = 0$ since there is no gold at all in the metal that is being added.

Therefore, the amount of silver that needs to be added to in order to convert 120 gm of 24K gold into 18K gold is

$$W_a = \frac{24 - 18}{18 - 0} \cdot 120 = 40 \text{ gm}$$

And the weight of the new alloy is $W_n = 120 + 40 = 160$ gm.

Therefore, by adding 40 gm of silver, a 120 gm 24K gold is converted into 160 gm of 18K gold.

Say instead of silver, you add 14K gold to convert the pure gold into 18K. Then the amount need to be added is

$$W_a = \frac{24-18}{18-14} \cdot 120 = 180 \text{ gm}$$

And the weight of the new alloy is $W_n = 120 + 180 = 300 \text{ gm}$.

Therefore, by adding 180 gm of 14K gold, a 120 gm 24K gold is converted into 300 gm of 18K gold.