

An Evaluation of Money: A New Perspective

BK6503- Islamic Banking

IB1006- Islamic Capital Market

Prof. Dr. Iraj Toutounchian

Commodity Money

- Go back to primitive societies.
- Different tribal peoples scattered seasonally on a plateau.
- Period of pure self-sufficiency in such tribal societies- there were no surplus commodities to trade. People began to exchange commodities- pure barter economy.
- The ratio of commodity A to B is said to be the exchange rate (price). This ratio be determined on the basis of labor hours embodied in each exchangeable commodity.

$$N(N-1)/2 = 5(5-1)/2 = 10$$

whose set is:

$$\{A/A = 1, A/B, A/C, A/D, A/E; B/C, B/D, B/E; C/D, C/E; D/E\}$$

Commodity Money

- It is reasonable to assume that there was a period in which one of the commodities was voluntarily chosen by a tribe as the unit of account, which can be called “commodity money”.

$$N(N - 1)/2 = 10 \text{ to } N - 1 = 5 - 1 = 4 \text{ as:}$$

$$A/A = 1, B/A, C/A, D/A, E/A$$

where $A/A = 1$ is called the exchange rate of the medium of exchange with itself.

$$(B/A)/E/A = B/E$$

Commodity Money

- As different tribes adopted different commodities as their own medium exchange, there must have been a point in time when one common commodity was selected, e.g. salted fish.
- Chief or the largest and most powerful tribe decides to brand the fish with his own seal.
- The processes:
 - The fish, in itself is a commodity
 - Some labor time has been spent on catching this fish
 - The choice is made voluntarily and based on oral social contract; conventional act
 - An authority is delegated to brand the medium on behalf of constituency he represents
 - The fish cannot be used for consumption
 - The fish chosen as the medium of exchange is voluntarily removed from the row of other goods
 - The fish cannot be “detained”, since it is agreed that it will have a velocity of circulation greater than unity (>1)

Commodity Money

- Imagine one or a few members of the tribes decide to “withhold” some of the chosen fish. The effect of this is to slow the pace of everyday transactions.
- This is a simple manifestation of how *Riba* (interest) develops in a society.
- Transaction before withhold take the form of Commodity-Money-Commodity (C-M-C); afterwards, become Money-Commodity-Money (M-C-M).

Metallic Money

- Gold and silver are durable metals and are recognizable by everyone.
- The exchange value of gold and silver was equated to their metal content.
- To issue coins whose metallic value was higher than their exchange values, which left the way open for the general public to melt the metal, albeit illegally, and benefit from the difference between the two values.
- To issue coins whose exchange values exceeded those of their metal content- “debasement”.
- Seven properties present and valid.

Metallic Money

- Fiat money (prevalent in monetary economies).
- Money does not depreciate physically, making its replacement cost zero.
- Analysis be extended to the Dinar and Dirham, without endangering the level of generality.
- Minority scholars maintain that fiat paper monies are fundamentally different from the Dinar and Dirham: they constitute a new “posterior reality” to which the rules and regulations that applied in early Islamic State are no longer applicable.
- These scholars resort to the use of “legitimate deception” to bypass the penalty and punishment provisions against committing *riba*.
- All religiously deceptive devices are anti Islamic, thus *Haram*.

Metallic Money

- No matter what kind of money- all seven properties are valid.
- Money in whatever form is a derived product, which owes its origin to the existence of goods and services.
- Societies essentially started with goods and arrived at money, with the transactions taking the form C-M-C.
- Western economists strive to demonstrate that to enhance production of goods and services, it is necessary to start by manipulating interest rates, serve as a stimulant to economy.
- Economy changes its nature from C-M-C to M-C-M, from which the money market and its derivative emerge.

Dinar and Dirham (D-D)

- These two coins, the first in gold from the Roman Empire and the second in silver from the Persian Empire, were used as the medium of exchange in the Early Islamic State. The exchange ratio of the Dinar to the Dirham was originally 1: 10 and then went up to 1: 35.
- What are the similarities, if any, between D-D and paper money that extend the verdict on D-D to cover paper money? Whatever the answer to this question, it raises new and operational questions as to whether paper monies are subject to *Riba* or *Zakah*.

Dinar and Dirham (D-D)

Religious verdicts on some controversial issues

No.	Subject	Purpose	Type of Action and Time Length	Verdict
1	Measurable & weighable	trade in excess	spot	<i>Haram</i>
2	Measurable & weighable	trade in excess	future	<i>Haram</i>
3	D-D	hoarding	less than a year	<i>Haram</i>
4	D-D	holding idle	more than a year	<i>Haram</i>
5	D-D	trade in excess	spot	<i>Haram</i>
6	D-D	melting	<i>Zakab evasion</i>	<i>O.K.</i>
7	D-D	trade in excess	loan	<i>Haram</i>
8	Paper money	trade in excess (as countable)	loan	<i>O.K.</i>
9	D-D	medium of exchange	being gold and silver	<i>Zakab</i>
10	Paper money	medium of exchange	convention	<i>Zakab exempted</i>
11	D-D	medium of exchange	convention	<i>Zakab</i>
12	Paper money	medium of exchange	convention	<i>Zakab</i>
13	Gold & silver items	asset items	holding as asset	<i>Zakab exempted</i>

Dinar and Dirham (D-D)

- The first extreme group sees no similarities between D-D and paper money, and does not take a new position on fiat money. From this, we may deduce that they hold the view that Islamic injunctions and rules are not capable of providing answers to newly developed socioeconomic phenomena.
- This view is attested to by their verdict that today's paper monies are exempt from *Zakah* and that *Riba*-taking is permissible.
- The important point here is whether *Zakah* is levied on D-D on account of it being the medium of exchange, or of it being gold and silver, or on both counts.

Dinar and Dirham (D-D)

- M. Bagher Sadre has made a very strong statement in taking the position that the sole purpose of *Halal* and *Haram* is to serve socioeconomic justice.
- Islamic rules and injunctions have both the validity and capability required to sustain a prosperous economic system, independent of any other rules and/or restrictions alien to that system.

What is Paper Money?

- In addition to both Friedman Rule (which says that zero nominal interest rates are necessary for efficient resource allocation) and Tullock's assertion that money is a public good, there are many other reasons to believe that money cannot be considered as "goods" like those that quite often appear in utility functions.
- Since money may be categorized as either a private or a public good, it seems reasonable to list the properties of the two and then decide which of these properties could be unambiguously attributed to money.
- Say's law-attributed to Jean-Baptiste Say (1767-1832)-which says: supply creates its own demand. This law implies a denial of the possibility of unemployment equilibrium. Say further pointed out that money was merely a medium of exchange and had no utility of its own.

What is Paper Money?

- The shortcomings of Say's law are two-fold. On the one hand, he should have recognized that in the presence of interest, people would hold money for speculative purposes.
- General equilibrium requires that all the $(n - 1)$ number of excess demand (ED) equations be equal to zero; then:

Demand for goods \equiv Supply of money

Symbolically

$$\sum_{i=1}^{n-1} P(i)D(i) \equiv S(n); i = 1, 2, \dots, n$$

What is Paper Money?

- In Walras's model, money plays the same role as any other goods. In his model, the total money value of all items supplied must equal the total money value of all items demanded. In algebraic notation, this is:

$$\sum_{i=1}^n P(i)D(i) \equiv \sum_{i=1}^n P(i)S(i)$$

- This identity is called Walras's Law. It is used to indicate that one of the general equilibrium equations is redundant. Thus, it permits us to drop any single equation of our choice.
- Say's identity requires that the goods market, taken as a whole, must always be in equilibrium, it follows from Walras's law that the remaining market, the money market, must always be in equilibrium.

What is Paper Money?

- The destructive significance of interest in an economy was not totally understood until Keynes introduced a new element to the literature of monetary theory: the so-called Liquidity Preference. Keynes is the economist who most thoroughly comprehended and analyzed the workings of capitalism.
- Einstein of Economic Science may take generations to fully appreciate what Keynes accomplished. Yet despite all his ingenuity, Keynes failed to realize that money could be something other than a private good.
- His main concern was the diagnosis of the Great Depression of 1929-32 but his treatment was short-lived. His words reveal that he knew what course of action had to be taken: "If I am right in supposing it to be comparatively easy to make capital-goods so abundant that the marginal efficiency of capital is zero, this may be the most sensible way of gradually getting rid of many of the objectionable features of capitalism" (Keynes 1936: 221). Had he lived longer, he might have been able to find a solution to "many of the objectionable features of capitalism. "

An Impure Public Good

- Though understanding money is central to monetary economics, there seem to be some characteristics of money which are quite often overlooked. This neglect has been the source of a great deal of confusion and misunderstanding. This is even more so where interest is totally prohibited in all transactions.

An Impure Public Good

Characteristics of private and impure public goods

Subject	Kind of good	
	Private good	Impure public good
1. price determination	market (supply and demand)	no market
2. utility (own)	direct and demand-reflected	no market reflection
3. value (marginal)	nearly equal to its price	not captured in the market
4. demand determination	horizontal sum	vertical sum
5. governed rule for beneficiaries	excludable	non-excludable
6. externality	zero	large
7. excess demand	removable by price	congestion leading to greater supply
8. production and management	private sector	public sector
9. incentive to produce	profit	social welfare
10. production cost paid by	private sector	public sector
11. production permit	law-free	law-binding
12. incentive to change output	profit	social welfare
13. optimum level of production	market-determined	social-welfare-determined
14. marginal cost	positive	zero
15. velocity of circulation	one	greater than one
16. owner of property	individual(s)	society
17. divisibility	possible	impossible
18. asset or liability	private ownership excludes other claims	private claim over government's responsibility

An Impure Public Good

Properties of money compared in capitalist and Islamic system

Economic System		Subject
Islamic	Capitalist	
no price due to prohibition of <i>Riba</i>	market, which is interest	1. price determined at
indirect and derived from goods	positive due to its being store of value and possible entrance to utility function	2. utility (own)
high, due to its being potential capital	artificially given to it as a result of speculation	3. value (marginal)
vertical sum arising from zero price	horizontal sum arising from its positive price	4. demand determination
excludability removed through labor engagement	excludability because of its positive price; independent of labor	5. governed rule for beneficiaries
large because of its capability of becoming actual capital	zero because of its being private good	6. externality
removable through greater supply and more Profit & Loss Sharing (PLS) contracts	removable by price hike; not necessarily more output but less	7. excess demand
public sector (central bank)	public sector (central bank)	8. production and management
social welfare	profit via seigniorage	9. incentive to produce

An Impure Public Good

Properties of money compared in capitalist and Islamic system

central bank	central bank	10. production cost paid by
legally binding	legally binding	11. production permit
social-welfare-induced	profit induced	12. change in production
strictly dependent on the availability of factors of production (endogenous variable endogenous)	less than optimal due to positive price (exogenous variable)	13. level of production in the market
zero	zero	14. marginal cost of production
greater than one	greater than one	15. velocity of circulation
society	society	16. owner of property
impossible due to its attachment to labor via Islamic contracts	possible due to positive price and independence from labor	17. divisibility
liability of government to general public	liability of government to general public	18. asset or liability (exchange value)