

Evaluation of the Present Value of Ancient Coins

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Abstract

Many of the pious bequest policies (Vaghf)² at present time are denominated by old or ancient coins, the present value of which is not well known. Therefore, fixing the annual custodian fee for Vaghf is quite difficult. Moreover, the difficulty of evaluation of the present value of the dowry the husband has to pay to the bride after the marriage (Mahr)³ has created lots of difficulties for Ministry of Justice. Regarding the methods of minting coins in the past which were not centralized and the coins were “hammer hardened”, they were of different value, different weight and even different names and place of issue. This variety makes the evaluation of the ancient coins very sophisticated. In addition, the evaluation of the present value of the ancient coins which were themselves mediums of measuring the value of other goods is rather a difficult task. For this reason, the correct method of evaluating the present value of these coins is to recognize first the characteristics of these coins, and then selecting the best method of evaluating its present value as considered in this research.

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²- Vaghf in Islam is the action of keeping a property and using it (or its income) for charity purposes.

³- In Islamic culture and jurisprudence, husband promises an amount of money or property (Mahr) to his bride after the marriage and this bestow is on demand; that is to say, whenever the wife asks for it, the husband should hand it out to her, but husband is obliged to hand it out to her in case of divorce.

1- Introduction

Although gold and silver coins are not used in economic transactions anymore, the evaluation of some ancient documents obliges us to know them well. The old pious bequest policies which are related to very ancient times are set according to old coins. Therefore, fixing the annual custodian fee for Vaghf is quite difficult. Moreover, the difficulty of evaluation of the present value of the dowry the husband has to pay to the bride after the marriage (Mahr)¹ has created lots of difficulties for Ministry of Justice.

The study of monetary conditions of the past shows the disturbed conditions of minting coins. The hand-made method of minting coins, together with frequent political changes was the source of many of these disturbances. After the change of hand-made method to a centralized mint factory, many of these disturbances and difficulties were vanished. That is why the characteristics of the ancient coins (quality, weight and value) which are used in evaluating their value, are different from year of made and the method of minting point of view.

Meanwhile, the evaluation of the present value of the ancient coins which were themselves mediums of measuring the value of other goods is rather a difficult task. The removal of these difficulties require the recognition of the monetary conditions of the past which is considered in this research. As it was mentioned before, the evaluation of the present value of the old coins is mostly used to evaluate the present value of custodian fee and also to solve legal disputes. Therefore, the selecting method for evaluation of the present value of the ancient coins should be

¹ - In Islamic culture, husband promises an amount of money or property (or Mahr) to his bride after the marriage and this bestow is on demand; that is to say, whenever the wife asks for it, the husband should hand it out to her, but husband is obliged to hand it out to her at the time of divorce.

in accordance with Islamic jurisprudence which the writer has done his best to do so.

This research is divided into three sections. It has been tried to study all sources of data related to the evaluation of the present value of the ancient coins in the first section. The monetary conditions during different dynasties have been studied in the second section. It should be mentioned that the time period of the study is from the beginning of Safavieh dynasty to the end of Pahlavi. The third section of the study deals with the evaluation method of the present value of the ancient coins. The results of this study are also available in a soft-ware which makes the evaluation very easy for the users.

2-Sources of the Study

One of the necessities of a thorough research is the study of all available sources and data related to the field of study. The prevailing method to study the sources in economic research is the recognition of the methodologies of the research and comparison of the results. But the characteristic of our research obliges us to study all the sources about ancient coins, including: name, quality, weight, value and the period of its issuance.

After a hard study, it was realized that no extensive study has been carried out in this field yet. There are massive historic studies partially pointing out to coins issued during the study period. Therefore, it has been decided to study every kind of sources partially related to this study. These sources include a wide range of historic and economic texts. In spite of this, it has been tried to classify the sources as follows:

- Historic books and travelogues
- Research books and specialized theses about ancient coins

- Articles
- Data available in museums

2-1- Historic Books and Travelogues

As it was mentioned before, it has been tried to study all available data regarding name, value, date of issue, quality and the weight of the coins which will be considered here.

Ms. Shirin Mahdavi describes the monetary conditions during Naser-Al-Din Shah in the biography of Haj Amin Company (known as Amin-Al Tojjar or trustworthy of merchants). This study presents lots of information about numerous mints, different current coins and their weights, and the disobediences of authorities of mint houses in minting coins.

George Nathaniel Curzon has presented his observations about Iran in a book. He entered the country in autumn 1889 as the reporter of "The Times" and mentioned about the multiplicity of mints and the forgery created because of this. In addition, he provides information about the fineness and standards of the coins.

His book also refers to sophisticated researches concerning the monetary conditions of Iran. Pachen was an Austrian researcher who was invited by Naser-Al-Din Shah to Iran to systemize the minting of coins. His study also represents the prevailing chaos caused by the multiplicity of mint factories.

Mohammad Ali Jamalzadeh in his ponderous book called "Ganj-e-Shayegan" presents a short history of mints during the Ghajar dynasty. This source also furnishes us with valuable information about the problem of multiplicity of mints during this period which are coin forgery, and data

about the coin standards during this dynasty and some hints about minting during the Safavieh dynasty.

Mr. Walser Schuster has probed travelogues of Europeans traveling to Iran during Safavieh dynasty in the field of monetary conditions. Adamiat Fereidoun, and Nategh Homa in studying the thoughts of the leaders during Ghajar dynasty refer to monetary condition. During this period, the transaction ratio of gold coins to silver coins which has been kept constant for a long period was changed due to the discovery of new silver mines and ended in monetary chaos.

Eesavi Charles presents a rather comprehensive picture of economic conditions of Iran during Ghajar dynasty. This author allots a separate chapter of his book to the study of financial conditions in this period. In addition to presenting the transaction ratio of Gharan¹ to Pound Sterling (as an important exchange at that time), provides us with valuable information about the standards of Gharan in that period.

Parizi Bastany Mohammad Abraham presents valuable information about the standards of coins during Safavieh dynasty. Katouzian Homayoun Mohammad Ali describes the economic conditions of the country very chaotic at the beginning of constitutional government in Iran. He emphasizes that the currency of the country was based on silver coins during that period. Nafisi Saied in studying the monetary conditions of Iran during Ghajar dynasty refers to numerous decrease of the weight of coins in this period which causes devaluation of money and creation of inflation.

Colonel Cozocofski who was the commander of Ghazagh brigade for 10 years during Naser-Al-Din Shah era, refers to monetary conditions of Iran in his diary book. He refers in his book to the minting of too much copper coins which decreases the value of this currency.

¹ - The Iranian currency at that time.

2-2- Research Books and Specialized Theses About Ancient Coins

The second part of our sources consists of specialized studies concerning coins. These studies have been carried out with different purposes, but most of them can be classified as historic and coinage studies. These studies have been good sources for extracting the characteristics and standards of ancient coins.

Tloury Saffari Mohammad Taghi has listed the coins of Malek museum in his master thesis. All coins of Islamic era of this museum have been studied by librarian method and an ID card with picture has been created for each piece of coin. Ghaeinee Farzaneh has tried to study the evolution of coins in the framework of historic and economic evolutions during Safavieh dynasty in her master thesis. Dianat Abu-al-Hassan has presented a valuable complex of units and quantity measures prevailing in Iran from the beginning of Achaemenian dynasty in his book called "The cultural history of measures and scales". The second edition of his book is allotted to cash, coins and valuable documents which provide valuable information about the ancient coins.

Moghaddam M. and Ansari Mostafa have carried out a vast study about Iranian coins which is published in English. The time period of this study covers Safavieh, Afghan, Afshari, Zandieh and Ghajar dynasty and is quite concrete, but has no information about the weight of coins. Farahani Shahbazi Daryush has studied coins during Ghajar dynasty. Coins issued by different kings of this dynasty have been detailed in this study.

Farah Bakhsh Farhang and Novin Houshang Farahbakhsh have studied minted coins during the last hundred years. They have studied

coins used as currency, as well as memorial coins issued for coronation of kings.

Tabatbaee Torabi Saied Jamal has carried out a detailed study on Islamic coins. One of the sections of this study is about the official coins issued in Iran from Safavieh dynasty to Naser-Al-Din Shah (the beginning of minting coins instead of hammer hardening it). Moshiri Mohammad has studied coins and medallions of Pahlavi era in a section of his vast research.

Farah Bakhsh Houshang has collected information about the coins issued during 1495-1879. This period covers dynasties of Safavieh, Afghans, Afsharieh, Zandieh and Ghajarieh (until Naser-Al-Din Shah, or the beginning of minting coins). Moshiri Mohammad has studied coins during the Agha Mohammad Khan-e-Ghajar and his father, Mohammad Hassan Khan.

2-3- Articles and Papers

The study shows that there are few research articles about ancient coins. Zara Nejad Mansour has estimated the value of Dinar and Derham according to their purchasing power parity and the amount of valuable metal of these coins. Although the research does not present any kind of information about the coins which we are looking for, is interesting because of using different methods of estimation. Moreover, the findings are mostly published in ordinary publications which necessitate being cautious about them. For brevity, we do not refer to these articles.

2-4-Museums Information

Museums are one of the main sources of information about ancient coins regarding the subject of the research. Moreover, because of the objectivity of museum information in comparison to other sources of

information, this source of information is regarded as the decisive source if information from different sources is controversial.

Visiting the museums showed that the information of some of the museums about ancient coins are much more convenient for the study. Tamashagah-e-Poul and Coins Museum (affiliated to Bank Sepah) are keeping the ancient coins more technically. But, in addition to the information of these two museums, the information of other museums with listed ancient coins has been used.

3-Monetary Conditions of Iran in the Past

Before studying the monetary conditions of Iran, the characteristics of *metal money system* which is the main subject of this study, will be briefed here.

As we know, the physical characteristics of gold and silver, together with their scarcity, have caused them to be useful in minting. The high cost of extracting these metals for a long period of time has caused the amount of extraction of these metals to be in-proportional with the production of other commodities; so that together with the growth of the production of other commodities and the relative increase of the price of these metals (in comparison to other commodities), the production of these metals increased.

Conversely, at the time of decrease of production of other goods, the relative price of these metals decreased and the extraction did not pay back. Therefore, there was a long-term stabilizer mechanism of inflation in the nature of *metal monetary system*.

But the disobedience of the rulers from this mechanism by minting more coins and increasing the supply of money, created the necessary background for inflation. In this regard, we can mention the reduction of the weight and fineness of coins and the increase of the face value of them. The increase of supply of money in any form functioned as final direct tax through devaluation and transferred the sources from people to governments.

Metal money (gold and silver) systems are applicable in three general forms. In the first form, no parity price between the two metals has been described in advance. Therefore, the transaction value of these metals and coins will be defined according to their scarcity. So the value of these metals will always fluctuate and the reaction of the people to this fluctuation will introduce repeated shocks to the economy.

In the second form, a parity price between the two metals has been defined and thus, gold and silver coins can be changed with each other according to this terms of trade. Although this system is not facing the fluctuations of the first form, but it created other new monetary crises for which Gresham Law was introduced.

The distortion of the pre-defined parity price from the actual parity price causes people to settle their payments with lower priced metal, and keep the more valuable metal. Therefore, a fraction of the money supply slips out of the economic transaction flow. In this situation, "bad money sends out the good money" and the procedure is called *Gresham Law*.

The third form of metal monetary system was developed to cope with this difficulty in which governments decided to adopt a single-metal monetary system in which the weight and fineness of the used metal was defined by government. So the transaction value of the coin was always equal with the real value of it and none of the previous problems would occur. Regarding the above explanations, we start the study of monetary system of Iran in the reference period.

3-1-Monetary Conditions During Safavieh Era

Safavieh was one of the most potent dynasties who ruled Iran about 300 years ago for more than 150 years. One of the most important points about Safavieh is the political unity and relative order of economic conditions during this era. The currency during this period was silver and copper coins and gold coins were not used in day to day transactions and were regarded as formality. Abbasi was the largest silver coin which was valued equal to 200 Dinars. This coin was first issued after the name of Shah Abbas, the founder of this dynasty. The second largest silver coin

was called Mohammadi, which was equal to 100 Dinars. This coin was first issued by Shah Mohammad Khodabandeh, who was the father of Shah Abbas the first. Shahi was the third silver coin which was equal to 50 Dinars. The smallest nickel was called Bisty which was equal to 20 Dinars. Of course during this time there was an accounting unit called "Touman"¹ which was equal to ten thousand Dinars, but there were no such a coin issued. Another kind of silver coin was prevalent across Persian Gulf with an un-ordinary shape (like a folded twisted wire) and equal to 1250 Dinars. There were smaller coins, made of copper called Folous and was equal with 5 Dinars. So, we can see that the coins during Safavieh dynasty were in decimal order and this order was followed in the next periods.

During this era, Ashrafi gold coins were also minted. It is worth mentioning that except for the era of Shah Abbas the first, during the era of other Safavieh kings, there was no pre-defined terms of trade between silver and gold coins.

The decreasing trend of the weights of silver coins during Safavieh dynasty is shown in the first attached table. As it is seen, the weight of silver content of Touman has a decrease of 87.5 percent². The highest decrease was during the governance of Shah Ishmael the first (57.8 percent), Shah Tahmaseb the first (40.8 percent) and Shah Hossain the first (37.8 percent).

3-2- Monetary Conditions During the Governance of Afghans

Mahmoud Afghan, coronated as the king of Iran after conquering Isphahan- the capital of the country. After two years, he was killed and Ashraf Afghan was his successor who ruled the country for five years. The currency used during Afghans governance was the same as the coins during Safavieh. During this period, there were no pre-defined terms of trade between gold and silver coins. The fluctuations of the change of

¹ - Touman is originally a Mongolian word meaning ten thousand.

² - Regarding the pre-defined terms of trade between various silver coins, this decrease was proportional with the decrease in other coins.

weight of coins are shown in the attached second table. As it is seen, the weight of silver coins increased 27.1 percent during the governance of Mahmoud Afghan. This increase was compensated the decrease during Ashraf Afghan.

3-3- Monetary Conditions During Afsharieh Era

Afsharieh governed the country about 150 years ago. The founder of this dynasty was Nader shah, whose vast country was divided after his death because of incapability of his successors and the merging of new claimers. The last kings of this dynasty were Shahrokh Mirza and Nader Mirza. During this period, in addition to coins of Safavieh, another silver coin called Naderi or Rupee (equal to 500 Dinars) was used. There were also two gold coins called Ashrafi Mehr and Dokai Hendi minted, but there were no pre-defined terms of trade between them.

The trend of the changes of the weight of coins during Afsharieh era is presented in the attached table tree. As it is seen, the weight of Touman has decreased during this period about 14.3 percent (38.3 grams) and this decrease has occurred only during the governance of Nader shsh.

3-4- Monetary Conditions During Zandieh

Karim Khan-e-Zand, known as Vakil-Al- Roaya, who was the viceroy of shah Ismaeil the third for a long time, became the ruler of the country and died after 20 years. After his death, the country was faced with upheaval of disorder until Agha Mohammad Ghajar came to power. The fluctuation trend of the coin weights during Zandieh is presented in the attached table four. The table shows that the decrease of the weight of silver coins occurred only during the governance of Sadegh Khan. Also, no pre-defined terms of trade between gold and silver coins was available during this period of time.

3-5-Monetary Conditions During Ghajarieh

Ghajarieh dynasty started with the coronation of Agha Mohammad Khan Ghajar and ended with the dismissal of Ahmad Shah in 1925. Naser-Al-Din Shah introduced centralized coin minting, while before him, coins were hammer-hardened in different places. Before that, governors of different provinces bought the license of making coins from the central government and issued coins and there was no supervision on their job. This procedure caused monetary disorder, so that the weight and the fineness of different provinces were different. Moreover, since the transaction price of copper was different from the face value of copper-coins, mints were not willing to mint copper-coins. This caused the copper-coins to devalue, so that the face value became equal to the value of its copper content. Therefore, the government replaced copper-coins with nickel-coins called Pashiz. Moreover, the Shahi coins which were previously made of silver, were minted with copper.

Silver-coins during Ghajar dynasty included Rial¹ (1250 Dinars), Gharan (1000 Dinar), Panah Abad or, Paneh Bad (500 Dinars), Panj Shahi (250 Dinars), and Se Shahi (150 Dinars). Copper-coins included Shahi (50 Dinars), Nim Shahi (25 Dinars), and Ghaz (5 Dinars).

Gold-Touman coin was minted in this period which was equal to 10 thousand Dinars and a defined ratio between gold and silver coins could be calculated. Therefore, the monetary system of Ghajarieh was bi-metal with a defined relation between gold and silver. The trend of changes in the weight of coins is presented in the attached table five. As it is seen, the decrease at the beginning of this dynasty is significant. This decrease was probably due to buying arms during Agha Mohammad Khan Ghajar (in order to strengthening his power) and the war with Russia and the

¹ - During Agha Mohammad Khan and Fathali Shah only.

payment of indemnity during Fath Ali shah. The decrease of the weight of silver-coins during Mohammad shah and Naser-Al-Din shah was perhaps intentionally to prevent silver flight, especially to India.

3-6- Monetary Conditions During Pahlavi Era

After the dismissal of Ahmad shah, Reza shah became the king of Iran in 1925, and he coronated next year, but kept the monetary system of Ahmad shah until 1929. In this year, the new monetary law of the country called "The law of defining units and money scale of Iran" was ratified in the National Consulting Assembly.

The money unit of the country is announced as gold-Rial in the first article of this law, which is equal to a hundred Dinars. Rial was defined equal to 0.3661191 grams of gold. Therefore, the 20 and 10 Rials coins (called Palavi and Nim Palavi respectively) were equal to 7.322382 and 3.661191 grams of pure gold. Each silver Rial had 4.5 grams of pure silver. Therefore, the terms of trade between gold and silver was easily estimated. The fineness of gold and silver was defined as 900 in 1000.

Meanwhile, English Shilling was equal to 4.5 grams of silver. Therefore, the monetary system of Iran in that time was close to the monetary system of England. But economic developments in Europe (including the great recession) forced England to abandon gold monetary system. For the same reasons, Iran also abandoned this monetary system and was only bound to the silver part of the Iranian monetary law.

The above fact necessitated a new monetary law. The new monetary law was ratified in 1931. The value of Pahlavi (20 Rials) and Nim Pahlavi (10 Rials) coins were increased to 100 and 50 Rials respectively according to the new law. Therefore, regarding the amount of gold of these coins, the value of one Rial was equal to 0.0732238 grams of gold, which is equal to 20 percent of the previous one. The net silver of one Rial was

also equal to 4.14 grams which had decreased from the previous one (4.5 grams). The fineness of the gold-coins was kept at the same level (900/1000), but the fineness of silver-coins were reduced to 828/1000.

In 1943 a new monetary law was ratified in which the government was allowed to reduce the amount of pure silver of Rial to 0.96 grams. The fineness of silver-coins was also reduced to 600/1000. This reduction was also applied to two, five and ten Rials coins. In 1958, another monetary law was ratified which allowed the government to mint 5 and 2.5 gold Pahlavies with 36.61191 and 18.305955 grams of gold. In 1973, the ‘Monetary and Banking Law’ of the country was ratified which defined the amount of gold of one Rial as 0.0108055 grams of pure gold. A new monetary law was ratified in 1976, which looked like as an amendment of 1958 law. In addition to the previous gold Pahlavi coins, the new law allowed the minting of 10 Pahlavi coins with 73.223820 grams of pure gold. The trend of the net content of gold in Rial is shown in the attached table six.

4- Evaluating the Value

4-1- Value in Economic Discussions

Before evaluating the value of ancient coins, we should first identify the meaning of “value”. Since “value” is a key concept of economics and has a high position in the construction of economic theories, it was a controversial subject for economists since long ago. Although Economics as a modern science was founded by Adam Smith, but the discussion about “value” goes back for many years before Adam Smith.

Canonists, who were very influenced by Catholic Church ideas, defined “value” in the framework of justice. They believed it is advisable to follow fairness and define the “value” equal to the cost of production.

Instead of describing the meaning of “value”, they were proposing a normative (directive) theory of “value”.

Later on, Mercantilists introduced the “usual prevailing price” to justify transaction profit. They believed that the willingness of the consumers to buy the commodity at the offered price by the merchant, which covers a profit margin in addition to the production costs, creates the “value” of the good. Therefore, the theorem of Canonists about the role of costs (supply side) in defining value was changed into defining the value according to the willingness of consumers (demand side) to buy.

After that, the ideas of Adam Smith and David Ricardo (classic economists) and Karl Marx in the interpretation of the position of “work” in defining “value”, created a collection of value-work theorems. According to Adam Smith, “work is the real transaction value of all goods ... the real price of everything ... is equal to the trouble and pain one can be excused by buying a commodity instead of producing it¹. But in capitalist societies, in addition to work (wage), land (rent), and capital (profit) are influential in defining the “value”. Smith differentiated the “market price” with the “natural price” or “value”, but he believed that market price tends to natural price.

In contrast, Ricardo believed that “the amount of work in a commodity adjusts the transaction value of them”. He believed “the value of a commodity depends on the work necessary for its production². In spite of Smith, with putting away the capital and land, Ricardo believed work is the only determining factor of “value”. He considered capital as the accumulated work of the past, and considered rent as the work done on infertile land to convert it to a fertile land.

¹ - Ronald Mike, classic economist.

² - Ronald Mike, classic economist.

Also Marx believed that “all commodities are the product of work and struggle of the human beings, and is considered as a common factor in determining the value of all goods”. Therefore, by increasing the amount of work in a production, its value goes up. Although he believed work creates “value”, the payment to the worker is less than the value of the production. This difference is obtained by the capitalist as the “excess value” which is manifested by Marx as the exploitation of workers by capitalists. In spite of believing the concept of “work-value”, Ricardo remained loyal to capitalism, but Marx rose against it.

A new group of economists appeared at the end of 19th century as “Marginalists” who, in spite of their predecessors, believed in the role of utility in defining the value. Marginalists who used mathematics in presenting economic concepts, answered the question of Classic economist about the theory of value-utility by introducing the concept of marginal utility. Their question was named the “puzzle of diamond-water” by Adam Smith.

Among Marginalists, the theorem of Alfred Marshal, who combined the Classic theory of value-work with the Marginalist theory of value-utility, has a special position. In Marshal’s view, “value” loses its position and decreases to market price. Marshal compares the role of production cost, or utility in defining the “value” with the two scissors blades in cutting paper in which cutting is not done by only one blade. Therefore, production cost (supply side) and the utility of the consumer (demand side) are both effective in defining the price. So, price is fixed when supply is equal to demand in a set of two mathematical equations.

4-2- The Feghi¹ Bases of the Value

¹ - Religion rules.

The subject of “vale” or “wealth”¹ is described in concepts such as trade, business and the terms and characteristics of exchanging goods in transaction. Wealth is described in three ways in feghi texts. The first group of the religion scholars, such as Allameh-e-Helli ^(May he rest in peace), Shikh-e-Tousi ^(May he rest in peace) and Moghaddas-e-Ardebily ^(May he rest in peace) in describing the concept of “wealth” have referred to “being wealth”. That is to say, wealth should be useful in order to be exchanged. So, the utility or the usefulness for the consumer is necessary for a good to be regarded as “wealth”. But there are no references in these texts about the role of utility or usefulness in evaluating the amount of “wealth”.

The second group of religion scholars emphasis on the role of work in defining the “value” or “being wealth”. Mohghghegh-e- Irvani has written in his introduction to the book of Makaseb, written by Sheikh-e-Ansari, that in identifying the amount of being wealthy of a good, the need of the people and the work done to utilize that wealth should be considered. Regarding this logic, water on the bank of a river is not considered as a wealth, but if that water is brought away from the river, it will be considered as wealth, the longer the distance to the river, the higher will be the value of that wealth (water).

The third group of religion scholars, such as Aiat-Allah Hakim ^(May he rest in peace), Imam Khomeiny ^(May he rest in peace), and Martyr Sadr, have made it clear about the simultaneous role of supply and demand in evaluating the “value”. Aiat-Allah Hakim writes about considering a good as “wealth”: “to be wealth is a rational credit which is the result of creating a need or willingness of people to obtain a good; so that people struggle and compete with each other to obtain it. Of course this competition is not just

¹ - Transaction value in economic literature is equal to the value of wealth in feghi texts.

for the goodies of that wealth, but also its scarcity affects this competition”¹.

As it is seen, in addition to utility, Aiat-Allah Hakim emphasizes on the production cost which represents the scarcity of the good. Imam Khomeiny clarifies the role of supply and demand in defining a good as being wealthy. He mentions that wealth and the rank and amount of wealth is a function of supply and demand². Also Martyr Sadr in defining the “wealth” has referred to supply and demand³. Therefore, the third group of religion scholars, like Marginalists, has the same idea about “value” through the concepts of supply and demand.

Considering the fact that the concept of “being wealth” comes from the relation of the human being with goods, in recognizing this concept we should refer to the opinions of scholars and learned people about goods. In defining the concept of “value” the same method has been used in the analysis of Aiat-Allah Hakim, Imam Khomeiny, and Martyr Sadr. Although there are some differences in their method of facing this concept, but this difference is not substantial. We should also follow the same procedure in dealing with the concept of “value”.

4-3- Selection of the Method of Evaluating the Present Value of Coins

The inherent and credential value of money has been considered more than everything in the course of the study of development of money. In the past, gold and silver-coins in addition to the functions of medium of keeping value, medium of exchange, and the medium of measuring value, had also intrinsic value. But money today has no intrinsic value and has

¹ - Aiat-Allah Hakim, Nahj-Al-faghahe, p. 325.

² - Imam Khomeini, Almakaseb, p. 164.

³ - Martyr Sadr, Eghtesadana, p. 198.

only credential value. This fact has complicated the evaluation of the present value of old coins. In general, the present value of these coins can be evaluated in two methods:

- Purchasing power parity of coins
- The intrinsic value (the value of precious metal in the coin) of the coin.

These methods will be discussed here:

- a. Purchasing power parity method: in this method, the transaction value of a reference basket of goods will be compared in old coin terms, and in today money term. From the equation of the value of this basket, the ratio or the terms of trade of the old coin with today's money can be obtained. The application of this method requires a lot of price information of the old times¹. Moreover, the selection of the reference basket has its own difficulties. The methods and cost of production of goods and services have been changed over a long period of time. Neither the quality of goods and services has been the same over time. Moreover, transportation methods which is an important component of production costs, has been changed dramatically.
- b. The intrinsic value (the value of precious metal in the coin) of the coin: in this method, the value of the precious metal of the coin is calculated. Regarding that in the old times, coins had intrinsic value which was proportional with the amount of precious metal in the coin; it seems that this method is more convenient.

¹ - Historians have only registered the highest, or the lowest current prices.

Table 1- The silver weight of one Touman during Safavieh governance

Name of the king / period	Coin weight at the beginning	Coin weight at the end	Difference	Percent change
Shah Ismael the first	1840	776	-1064	-57.8
Shah Tahmaseb the first	776	459.3	-316.7	-40.8
Shah ismael the second	459.3	459.3	0	0
Sultan Mohammad Khoda Bandeh	459.3	459.3	0	0
Shah Abbas the first	382.8	382.8	-76.5	-16.7
Shah Safi	382.8	382.8	0	0
Shah Abbas the second	382.8	368.4	-14.4	-3.8
Shah Soleiman the first	368.4	368.4	0	0
Shah sultan Hossain the first	368.4	229.7	-138.7	-37.7
From the beginning to the end of period	1840	229.7	-1610.3	-87.5

Note: weights are in grams.

Table 2- The silver weight of one Touman during Afagheneh governance

Name of the king / period	Coin weight at the beginning	Coin weight at the end	Difference	Percent change
Mahmoud-e-Afghan	229.7	291.8	62.1	27.1
Ashraf-e-Afghan	291.8	230	-61.8	-21.2
From the beginning to the end of period	229.7	230	0.3	0.2

Note: Weights are in grams.

Table 3- The silver weight of one Touman during Afsharieh governance

Name of the king / period	Coin weight at the beginning	Coin weight at the end	Difference	Percent change
Nader shah	267.9	229.7	-38.3	-14.3
Aadel shah	229.7	229.7	0	0
Shahrokh shah	229.7	229.7	0	0
From the beginning to the end of period	267.9	229.7	-38.3	-14.3

Note: Weights are in grams.

Table 4- The silver weight of one Touman during Zandieh governance

Name of the king / period	Coin weight at the beginning	Coin weight at the end	Difference	Percent change
Karim Khan	229.7	229.7	0.0	0.0
Sadegh Khan	229.7	229.7	0.0	0.0
Ali Morad Khan	229.7	191.4	-38.3	-16.7
Jafar Khan	191.4	191.4	0.0	0.0
Lotf Ali Khan	191.4	191.4	0.0	0.0
From the beginning to the end of period	229.7	191.4	-38.3	-16.7

Note: Weights are in grams.

Table 5- The silver weight of one Touman during Ghajarieh governance

Name of the king / period	Coin weight at the beginning	Coin weight at the end	Difference	Percent change
Agha Mohammad Khan	114.8	91.9	-23.0	-20.0
Fath Ali Khan	91.9	68.9	-23.0	-25.0
Mohammad shah	68.9	53.6	-15.3	-22.2
Naser-Al-Din shah	53.6	46.1	-7.5	-14.0
Mozaffar-Al- Din shah	46.1	46.1	0.0	0.0
Mohammad Ali shah	46.1	46.1	0.0	0.0
Ahmad shah	46.1	46.1	0.0	0.0
From the beginning to the end of period	114.8	46.1	-68.7	-59.9

Note: Weights are in grams.

Table 6- The silver weight of one Touman during Pahlavi governance

Name of the king / period	Coin weight at the beginning	Coin weight at the end	Difference	Percent change
Reza shah	0.366119	0.073224	-0.293	-80.0
Mohammad Reza shah	0.0732238	0.0108055	-0.062	-85.2
From the beginning to the end of period	0.3661191	0.0108055	-0.355	-97.0

Note: 1- Weights are in grams.

Note: 2- At the beginning of Reza shah governance, the monetary system of Ahmad shah was prevailing.

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