

Rice as an Early form of Money in the Economic Sense: Satisfying Store of Value, Unit of Account and Medium of Exchange Requirements

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Abstract

This article examines the special case of rice in different parts of the World, as it was used for an additional purpose, besides providing for nutritional needs of people. When confidence in a system of currency with coins is present, this more conventional form of money takes precedence. A respected economic form of currency which may include paper and coins or accounts thereof, has all three elements of money: a medium of exchange, a store of value and as a unit of account. In this article, the concept of value includes subjective value, what people have in terms of pleasure and displeasure in regard to owning and seeing a particular object. This article shows that rice satisfied the three requirements for serving as a form of money, at some time periods and in some areas of the World. It has been found that rice met the three criteria necessary for them to be a type of money, in history in different countries. Some examples include certain past time periods in parts of Indonesia, Greece, North America, Japan, and some other places. Although rice was later found to not work as well, compared to some other specific forms of money. Understanding how different forms of money appear and then are replaced by other forms of money is important in the quest to understand what exactly money is. Monetary theory concepts concerning Gresham's Law and the Quantity Theory of Money are discussed in regard to using rice as money.

Keywords: defining money, rice as money, requirements for money to exist, historic examples of money.

JEL Classification: N00, N10.

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1. Introduction

In this article, an answer is sought to determine if rice served well as a form of money in various countries and various time periods. As Mishkin (2006) points out, “money has been different things at different times; however, it has *always* been important to people and to the economy.”

Intriguingly, money can be referred to “as anything that is generally accepted in payment for goods or services or in the repayment of debts” (Mishkin, 2006). At times, money is currency with coins, and this is what lay people first think of when they hear the word money. Additionally, economists add in deposit accounts and financial instruments, such as bonds (Mishkin, 2006). Pearce (1986) states that sometimes, there has been the use of commodity money. With a commodity money system, the value of the commodity has value, determined by a society's consensus.

Pearce (1986) and Mishkin (2006) concur in the view that in order for something to be money, three requirements must be met. These three requirements are being a store of value, having a unit of account and being a medium of exchange. The next section will be a Literature Review, concerning what is necessary for something to be money, with some examples. This is followed by an Analysis section, especially about rice as money and then a section discussing the concept of value, in regard to money. Also the Quantity Theory of Money is reviewed. Finally, a summary and conclusion section complete this article.

2. Literature Review

There are unique situations when something less familiar takes on traits of money, most often in an environment and time when currency with coins are not present. For instance, cigarettes were used as a type of money in prisoner of war camps in Germany during World War II (Radford, 1945). Earlier, Native American wampum served as a means of recording treaties, histories, and sometimes messages within tribes and between tribes and other non-monetary uses, in what is now the Eastern part of North America. Yet, once European settlers came to Eastern North America, the wampum started also being used as valued money, becoming a medium of exchange, in that area. Black beads of wampum were more valuable than white beads and so we can see an example of money having a unit of account. In part of Eastern North America, once Western European settlers came to the area until sometime in the eighteenth century, wampum was recognized as a medium of exchange, had units of account (black beads and white beads) and some store of value (Gentle, 2016). Similarly, different quantities of warehouse receipts served as money during part of the colonial period in Virginia. Moreover, receipts for tobacco during part of the time era of colonial Virginia, did satisfy all three requirements for something being money (Gentle, 2018). The store of value requirement would be at least somewhat satisfied by cigarettes in prisoner of war camps in Germany (Radford, 1945). A cigarette can stay fresh for probably a shorter time than would tobacco aged in a warehouse or very large barrel. Thus, Tobacco stored in a warehouse or barrel, held value longer. At one time, beaver fur pelts served as money in parts North America (Gentle, 2020a).

An accepted currency with coin system would satisfy the three traits requirement well. Precious metals such as coins of gold and silver or notes, representing those precious metals, can also satisfy the necessary traits for something being money. The absence of such money causes some alternatives to be used and that was the case for different economies at one time. This article examines several cases, where rice was used as money, at different times in the areas known today as Philippines; Japan; South Carolina, USA; Burma; Greece.

3. Analysis of Cases

The long history of rice currency considers different geographical areas such as diverse as the Far East Asia, South Asia and the American colonies. There are topics such as the “history of money, including debasement, Gresham’s law, paper money, and religious associations” (Rice money, 2011). Commodities other than gold and silver have been used for money. Rice was one of those non-metallic commodities used for money in certain places and at particular time periods. At this point in this article, some examples are considered. How comprehensive these examples are of all the times and places in history where rice may have been used as money, remains unknown.

A. Japan

From the opening of “the 17th century, Japan added up its wealth, measured in kokus of rice, and found the country’s wealth equivalent in value to 28 million kokus” (Einzig, 1966; Rice money, 2011). According to Hayek et al., (2014), a koku is equivalent to 180 liters. “The wealth of feudal lords, which was based mainly on rice collected from the peasants, was estimated in terms of rice” and was used to pay artisans, for products (Einzig, 1966). After the 16th century, gold, silver, and copper circulated alongside rice, but values were expressed in rice. In addition, debts were contracted in rice, and taxes were collected partly in rice and partly in metallic money. Furthermore, workers received rice in payment for work, and the retainers and attendants of feudal lords received stipends in rice (Einzig, 1966; Rice money, 2011). Rice notes were issued by large landowners. Sizeable storehouses, as places to were to redeem those notes were also maintained by large landowners. At harvest time, notes were redeemed to make room for the new crop (Rice money, 2011). When it was discovered that some of the note bearers never claimed the rice, a situation began, in the manner of the goldsmith bankers, “to issue more notes than they could actually redeem in rice. After a rash of abuses, the Tokugawa banned this practice in 1760”

(Rice money, 2011). They were still accustomed to the use of rice for monetary purpose. This continued to some extent even in subsequent centuries (Einzig, 1966).

There is an inconvenience common to commodity money and that is sometimes too bulky for transportation, when there are large commercial transactions. Due to the growth in trade, Japan began to supplant rice currency with metallic money. However, simultaneously some Confucian philosophers, who echoed the need for social stability, saw metallic money as something bad since metallic currency could be a revolutionizing influence. Interestingly some other ancient societies, including Sparta of ancient Greece, saw metallic money as an immoral influence. Astonishingly, rice currency survived in some of the remote villages of Japan up to the eve of World War II (Rice money, 2011).

B. Burma and the Philippines

In the 1800s century, the Burmese local governments measured their revenues in baskets of rice. Furthermore, the Burmese ate “the good rice and circulated as money the inferior broken rice unsuitable for food or seed, giving history another example of currency debasement and Gresham’s law” (Rice money 2011). In the Philippines, rice was the most important primitive currency. “In 1775, the Sultans of Magindan collected taxes from the Philippines in unthreshed rice” (Rice currency, 2011). in some parts of the Philippines modern money has been current for centuries, it is impossible to ascertain the existence of any money in other parts (Einzi, 1966; Rice currency, 2011). In 1966, Einzig, stated, “rice is extensively used as a store of value, as it could be kept from 8 to 10 years. For a time, rice served as the medium of exchange in parts of the Philippines, that had no sufficient modern currency store of value because it can be kept for 8–10 years without deterioration. Rice was widely used also as a standard of value, not only when it is used in payment for goods and services, but also for the purposes of barter (Einzi, 1966). A prime unit called the palay was the prime monetary system unit. It was a handful of unthreshed rice. The scale of denominations of palay rose from 1 handful to 1,000 handfuls. A day’s wages of a mountain wood gatherer consisted of 5 handfuls. Interestingly, some of the Philippine tribes endowed rice with religious significance. No women could enter a rice storehouse, and men had to perform certain religious rituals before entering the rice storehouse (Rice money, 2011). Of course, this was a case of institutionalized male chauvinism.

C. South Carolina

On the other side of the World, in 1739, the colony of South Carolina enacted a law that made rice an acceptable means for paying taxes. In fact, the following year the colonial government collected 1.2 million pounds of rice. “The government issued ‘rice orders’ to public creditors, which were redeemable after taxes were collected in rice at a rate of 30 shillings per 100 pounds of rice” (Rice money, 2011). Interestingly, these rice orders circulated as money, and long term were struck in terms of rice. Rice was relatively light for transport compared to the situation with some other commodities. Also, it could be stored up to eight or nine years. “Rice could serve the monetary functions of a medium of exchange and store of value better than most monetary commodities, which accounts for its relatively rich history as a form of money” (Rice money, 2011).

D. India

Einzig (1966) writes of the use of grain as a medium of exchange in India. Writing in 1966, Einzig stated that at that time, the use of something other than rice grain was not done in remote villages in India. Grain was the standard of value, and it was used by the villagers in their exchanges with one another. Such a system endured longer in the most remote areas. Other objects were used in conjunction with rice as currency, including strings of broken shells, pieces of bamboo and animals (Einzig, 1966).

E. Further Thoughts on Commodity Money

The research on rice in this article shows that rice did fulfill the three requirements of necessary to be money, during certain time periods in different parts of the World. Yes, during part of colonial times, beaver fur pelts were important in colonial times in some parts of North America, possibly used to some degree as money. However, Canada beaver fur pelts were used on a formalized basis. The beaver pelts were a store of value. These pelts were used as a medium of exchange, especially in interactions between the colonists and aborigines in some parts of North America (Le Duc, 2000; Horizon, 2001; Gittings et al., 2006; Gentle, 2020a). As stated in Gentle (2020a), a prime male beaver pelt was the unit of account, that other items were compared to. Rothbard, (2002),

maintains that when other forms of money are not available or do not inspire enough confidence, then people may have confidence in certain commodities to serve as a type of money. For instance, during part of the history of colonial Virginia, warehouse receipts for tobacco were used between people as a form of money, since receipts were backed up by 100 percent tobacco (Brock, 1975; Rothbard, 2002, Gentle, 2018). A comparable example would be rice in colonial South Carolina (Rothbard, 2002). An examination of all commodity money may be intriguing. Commodities such as tobacco and beaver fur pelts fulfill a dual need. Beaver fur pelts were used and still are to some extent, as part of apparel. The tobacco is useful in tobacco products and as the basis for warehouse receipts, used as money in the Virginia colony for a time (Gentle, 2018). Gentle (2020b) explains how stone money was used at one time in the island of Yap.

4. Subjective Value and the Quantity Theory of Money

The subjective value would be determined by the degree of an individual's pleasure or displeasure in looking at and owning an item (Menger, 1871; Stigler, 1950; Mankiw, 2015). In Gentle (2018) it was shown that warehouse receipts for tobacco in colonial Virginia can be an example of money, fitting the Quantity Theory of Money. The Quantity Theory of Money's four factors can be as shown this way: M denotes the money supply; V denotes the Velocity of money; P denotes the price level and Q stands for Quantity of goods and services. M could be tobacco receipts. More of M would result in price increases for Q , if V and Q were constant. Different rice based monetary systems perhaps may have had some similar relationships. The exact unit measurements could vary for the different economies, built on a rice based monetary system.

As Mishkin (2006) has stated, one of the required traits for something to be considered money, is being a store of value. This paper has mentioned several items that served as money. One common trait for these type monies is being a store of value. Yet some types of money will hold their value longer than other types. Interestingly, a cigarette may decompose in as little time as a few months. A cigarette meets the store of value requirement for money. However, it may not last as long as tobacco in a warehouse or in a large barrel. So stored tobacco is a whole different product compared to cigarettes. Furthermore, stored tobacco holds its value longer than cigarettes do (Nettles, 1964; Gentle, 2018). Nonetheless, Wampum was made of shell beads and was thus more durable, than cigarettes or stored tobacco. Tobacco warehouse receipts held their value, served as a medium of exchange and met the unit of account trait necessary to be money (Gentle, 2018). Therefore, one would probably wonder about gold and silver. How well do they retain value? Compared to the other items considered in Gentle (2016, 2018); Gentle et al., (2017) and the Stone money of Yap, gold and silver have held their value quite well (Abdullah, 2013; Hart, 2013). Although very select paintings hold their value, as a general rule, art work is not a comparatively good investment, in monetary terms. It may have some intangible values, such as the utility, "psychic income" in owning a work of art (Ekelund et al., 2017). Over time, the type of money that may best hold its value, in many situations could be based upon gold and silver (Greenspan, 1966; Abdullah, 2013). Indeed, both gold and silver have been used for a time, as an important basis for money (Gold, 2018). A detailed explanation of this goes beyond the scope of this article. In order for rice to have functioned as nearly form of money, anytime, anywhere, it would have to have some perceived value.

5. Summary and Conclusion

Presently, "rice is the world's most important staple food and will continue to be so in the coming decades" (CGIAR, 2020). Approximately some 4 billion people have rice as a staple food. Rice provides 27% of the calories in low- and middle-income countries. Considering expected population growth, income growth, and factors such as global demand for rice will continue to increase from 479 million tons of milled rice in 2014 to 536-551 million tons in 2030 (CGIAR, 2020)¹.

¹ Examining the Rai described in (Gentle, 2020b) research work been done by economist and anthropologists. Herskovits (1965), views economists as primarily concerned with material welfare, while anthropologists care about relationships. The fact is economists care about material welfare and relationships. The service sector of an economy is very much about relationships. Also, economists sometimes use a non-pecuniary approach. Economics is a social science and as with some other social sciences, takes into consideration an unlimited number of factors in explaining human behavior, including how this relates to institutions, such as government, firms, and others. Both economics and anthropology can simultaneously add to many discussions of social science topics. (Gentle, 2016; Gentle and Giliberti, 2017; Gentle, 2018, Gentle, 2020b).

When conventional forms of money are not ubiquitous at all, people may turn to substitutes, such as wampum or tobacco in the form of cigarettes or with a receipt in a warehouse or beaver fur belts. In this article, there has been a focus on the use of rice as a form of money in certain historic times in some different parts of the World. In these cases, rice fulfilled the three requirements for something to be money. As the economic history of a place progresses, one can expect the forms of money to sometimes change².

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