Money, Credit, and Banking in Virginia, 1585-1645

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Abstract
The first English money in America was uncoined copper, excessively used to buy food from Indians in both Roanoke and Jamestown. Limited monetary role was later given to beads, hatchets, and corn, before tobacco completely took over. Attempts to replace tobacco's monetary role with imported or locally minted coin failed, as did attempts to clear private tobacco IOUs in a scheme of banks or clearinghouses modeled after leading European banking. The failures are attributed to political problems and inadequate physical and human capital. The focus of monetary ideas gradually changed during this period from Indian to colonial to European.

* The paper includes parts from Chapters 4-5 in my forthcoming book How Americans Invented Modern Money, 1585-1692 (advance contract with University of Chicago Press). I am grateful for comments on some of this material at the annual meetings of the British Group in Early American History and the American Society for Legal History.
1. Introduction

The money of the colonies which became the United States of America has long fascinated economic historians. The chronic absence of precious metal coin gave rise to numerous inventions and adaptations that have become an unparalleled experiment in monetary history, including the invention of the gold-free paper money we use today.¹ By far, most attention has been given to the colonial paper moneys of the eighteenth century, partly because their suppression by the British contributed to the Revolution, and partly because that's where the quantitative data are. Before 1700, colonial monetary practices seem to be obscured by the insufficiency of quantitative data. Before 1650 even qualitative data are often scarce, and the involvement of Indians² leads economic historians to give way to anthropologists who make an effort not to find money (more on that below).

Most monetary historians know that the first permanent colony – Virginia – used tobacco as money, and that's about it. This paper offers a new view of the earliest English colonial money in America. Settling among copper-loving Indians in both Roanoke (1585) and Jamestown (1607), the colonists used uncoined copper as money to buy essential food from Indians. Excessive use of copper as money led to inflation and war. In Jamestown, fur emerged as a seasonal money connecting Indians to sailors through colonists. Later, European glass beads and hatchets became money in the English-Indian trade. Corn began to acquire a limited monetary character within the colony, before tobacco came to dominate the money supply. Tobacco's problems and a determined royal governor led to a scheme of tobacco banks or clearinghouses which was based on the Bank of Amsterdam, as well as more conventional solutions.

¹ Classic accounts are Nettles (1934), Brock (1975), and Ernst (1973). Sylla (1982) first made a systematic analysis of monetary innovation in America. For the latest research on the eighteenth century see various works by Farley Grubb. For the invention of modern money see Goldberg (2009).
² I use the word “Indian” rather than “Native American” or any other modern alternative, following the leading colonial historian Bernard Bailyn of Harvard (Bailyn 2012).
such as manipulating the value of foreign coin and minting or importing debased coin. Political problems with England and inadequate physical and human capital stood in the way of the more ambitious solutions. The failed mint of 1645 marks the end of an experimental period, after which there was acquiescence to the rule of King Tobacco. Virginia, the first colony, would be the last colony to issue unbacked legal tender paper money (in 1755). The big picture of monetary evolution that emerges in this period is a shift in the dominant forces that influenced Virginia's monetary thought or practice, from the objects and ideas important in Indian society (copper, beads, hatchets), to those important in the colony (corn, tobacco), to those important in Europe (coin, banks).

After a methodological introduction, which includes a comparison with the existing literature, the paper proceeds chronologically: Roanoke, the projected role of money before renewed colonization, Indian money, early Jamestown, the suppression of trade by war and martial law, the emergence of tobacco, the monetary reform of the 1630s, and the coin laws of the 1640s. Conclusion is made by comparison with Massachusetts – a colony with a better track record of monetary innovation.3

2. Methodology
Monetary historians of early Virginia have tended to seek explicit references to money and coin in official documents – laws, court records, and official correspondence.4 They focused on money that actually circulated and not on failed plans to improve it, which makes sense if one cares about the economy and not on the evolution of money. Before the first Assembly of 1619 there are hardly any official documents to consult, and there was hardly any economy (i.e., tobacco) to speak of.

The many unofficial eyewitness narratives of early Jamestown, written for the fascinated English audience, have been relegated to anthropologists. These found no money among Virginia's Indians because they found no trade at all. Marcel Mauss, fueled by anti-capitalistic ideology, taught anthropologists that traditional societies all over the world exchanged only through ceremonial gift giving before the Europeans spoiled them, and this has been recently applied to early Virginia. The evidence provided below proves otherwise, I believe, but in any case this paper is focused on the evolution of money in an English colony rather than on Indian money per se. Even if the colonists saw Indian practices with distorted monetary eyes, their perception is still the main point here.

I find money in the early narratives by seeking not only the word "money" (which meant coin), but any objects which fulfilled relevant roles of money as recognized by economists. First, a general medium of exchange, where "general" indicates a regular rather than incidental usage, and "medium of exchange" implies that the party accepting it did so only in order to pass it on rather than for self-consumption. Second, a unit of account in which payments are denominated, regardless of the physical form of payment. Third, a medium of payment of unilateral payments such as taxes. There are other roles of money: "Store of value" is too general and included almost any durable good. "Standard of deferred payments" is merely a future unit of account, which matters only in sophisticated economies experiencing high inflation.

Attention is also given to monetary thought implied by colonists' use of the words "sell" and "buy." By default, in English we "sell" for money, and "buy" with money. It was no different then (see Shakespeare). In some cases it may be that the

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party "selling" actually consumed the object received and did not pass it on, so objectively it was not a medium of exchange. But the "buyer" – the party giving this object – couldn't care less what the "seller" did with that object. The "buyer", if he referred to himself as such, implicitly thought of it as money. Even if it was not part of monetary practice proper, it was part of nascent colonial monetary thought.

Payments related to Virginia are ignored if they were made in England. During the first 18 years, these were mostly payments to and from the Virginia Company, which funded the colony. Later it was mostly customs payments, and all these were typically made in English coin.

3. Roanoke: King Copper

In 1584 Sir Walter Raleigh received from Elizabeth a letters patent which allowed him to colonize any land not occupied by Christians. He sent an expedition to present-day North Carolina. The report he received indicated that for the local Indians, copper was the equivalent of Europe's gold. The elite differed from common people in that they "wear red pieces of copper on their heads", and copper was generally used in jewelry. It was too soft for practical use. The Indians eagerly wanted copper from the English and immediately traded to get it. Until then they got their copper from inland tribes and did not know how to melt and process it.

In 1585 Raleigh sent colonists to the land he had just named "Virginia" with neither sufficient supplies nor tools nor skilled men for survival. Raleigh counted on copper with which the all-male colonial population would buy all necessary things from Indians while looking for gold and silver. The colony's governor described the food-for-copper trade with the words "sell" from the Indians' point of view and "buy"

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7 Goldsmid (1904), vol. VIII, pp. 301-4.
8 De Bry (1590), p. 23.
from his point of view, indicating that he thought of copper as money. He initially reported that the Indians are "very desirous to have clothes ... but copper carries the price of all." They had one word for all metals, which by default referred to copper. Copper "they esteem more than gold and silver" described another report. One expedition was sent towards the inland copper mines. The colonists got food along the way by coercing Indians to trade for copper.

In 1586 the Roanoke tribe turned hostile and the chief fled to avoid being coerced to trade more food for copper. He plotted with other chiefs that for a "great quantity of copper" they would join him in an attack on the colony. This monetary use of copper within Indian society is indicated also by another story: One chief said he did "buy" pearls "for copper at a dear rate" from another chief.

In 1586 the colonists abandoned Roanoke as they ran out of resources. There were two important contributions of this failed colony. First, the colonists explored Chesapeake Bay 100 miles to the north, and noted it was a better place to colonize. Second, scientist Thomas Hariot reported back about the economic potential of a colony, and was especially excited about tobacco's presumed medicinal benefits. In 1587 Raleigh sent 150 men, women, and children to Chesapeake Bay. They ended up again at Roanoke, and were never heard from again. The Roanoke experiment demonstrated to Englishmen, who were then used to silver and gold coins, that uncoined copper could serve as money, at least with Indians who valued it.

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10 Goldsmid (1904), vol. VIII, p. 338, 340, respectively.
11 Goldsmid (1904), vol. VIII, p. 319-20, 328-9.
12 De Bry (1590), Picture XXI.
15 Goldsmid (1904), vol. VIII, p. 323.
16 Goldsmid (1904), vol. VIII, p. 345-6.
18 De Bry (1590), p. 16.
19 Goldsmid (1904), vol. VIII, p. 391, 386.
20 Goldsmid (1904), vol. VIII, p. 391-422.
4. England: King James, 1603-1606

Communications with Roanoke had been cut off because of the pressure of the Spanish Armada (1588). The war with Spain continued to halt further attempts at English colonization, until Elizabeth died. King James quickly made peace with Spain, and mercantile interests resumed their quest for America. In 1606 James granted a charter to two small groups of investors.\textsuperscript{21} One group centered in London and the other in the western port cities of England. A royal Council in England would supervise the two groups' colonies, aided by a local Council resident in each colony. The colony of the western ports was quickly aborted so it will be ignored here.

The grantees were allowed "to dig, mine, and search for all manner of mines of gold, silver, and copper," giving the king "the fifth part only of all the same gold and silver, and the fifteenth part of all the same copper".\textsuperscript{22} Copper had not been included in similar sections in previous charters,\textsuperscript{23} and surely emanated from Raleigh's "discovery" two decades earlier. The following section in the charter stated: "they shall, or lawfully may, establish and cause to be made a coin, to pass current there between the people of those several colonies, for the more easy part of traffic and bargaining between and amongst them and the natives there, of such metal, and in such manner and form, as the said several councils there shall limit and appoint."\textsuperscript{24}

Although the section did not explicitly state that the coins would be made in the colony, this was probably the intention. It follows the precious metals section, and the decision was to be made by the resident Council. The experience of the Spanish colonies, which was the inspiration for the entire venture, made it clear that coin was supposed to be produced in the colonies and shipped from them to the mother colonies.

\textsuperscript{21} Hening (1823), vol. I, pp. 57-66.
\textsuperscript{22} Hening (1823), vol. I, p. 61-2.
\textsuperscript{23} Thorpe (1909), vol. I, p. 50, 54.
\textsuperscript{24} Hening (1823), vol. I, p. 62.
country, rather than the other way around. Getting coin to England was the main point of colonization. Having a mint in the colony presumably would serve two goals. First, it would provide a convenient medium of exchange from local materials. Second, minting near the source would help supervise the quantities found and prevent embezzlement, which is exceedingly easy with precious metals.

The charter allowed exporting anything "necessary for the said plantations,"\(^\text{25}\) which was significant because export of anything, including coin, was generally supervised under English law. Coin could be considered "necessary", as it was a normal part of life in England and necessary for everyday trade there.

In further instructions, James ordered the colony to begin as a cooperative. For the first five years, colonists were to "trade together", bring "all the fruits of their labours" to storehouses out of which they "shall be furnished with all necessaries."\(^\text{26}\) In principle, there was not to be any initial need for money in such a venture, in the same way that employees of a modern company do not trade with each other in the company's goods and services. The only potential role for money that was apparent in the charter was that punishments in criminal cases could be "a convenient fine, awarding damages or other satisfaction, to the party grieved".\(^\text{27}\) A "market place" was ordered to be set up, as in any English town, but only as the place where all streets would end, so that a single cannon there could easily blow up any agitated rabble.\(^\text{28}\)

The colony was to be a cooperative but not a commune: Private property brought from England was recognized.\(^\text{29}\)

The colonists had to decide what private property to take with them. Should they spend all their money in England to buy necessary things for the voyage and

\(^{25}\) Hening (1823), vol. I, p. 62.
\(^{26}\) Hening (1823), vol. I, p. 71-2.
\(^{27}\) Hening (1823), vol. I, p. 71.
\(^{28}\) Neill (1869), p. 13.
\(^{29}\) Neill (1869), p. 13.
settlement, or should they bring some coin over to serve them in the new colonial life? But who would they buy from? None of them was supposed to open his own shop in the cooperative years. Would the Indians accept coin from them? They wouldn't know how to melt and reshape it. There were two exceptions: private property could lead to private trade, and the Council warned that visiting sailors might trade with Indians behind the colonists' backs (perhaps they would trade with colonists too?).

5. Indian Money

The hundred men sent by the London company arrived at Chesapeake Bay in 1607. They found it populated with various Indian tribes, most under the domination of a king known as Powhatan and sharing more or less a single culture. They were hunter-gatherers supplemented by growing corn. The colonists expected to be familiar with the Indians from the Roanoke reports. Regarding copper, the distance of twenty years and a hundred miles from Roanoke did not make much of a difference. Copper was the key form of wealth and status. It dominated in jewelry, and copper plates were components in the "crowns" of chiefs. The elite were buried with copper for the afterlife. Captain John Smith, the main trader with the Indians in the first two years, heard from King Powhatan a description of the good life: "eat good meat, lie well, and sleep quietly with my women and children, laugh and be merry with you, have copper, hatchets, or what I want". Smith's dictionary has one word for "copper", another word for "Iron, brass, silver, or any white metal", and none for "gold".

The more famous Indian money, at least for northern areas, was the seashell bead. Historians tell of the northern wampum, and briefly mention that its "roanoke"

31 Arber and Bradley (1910), vol. I, p. 135, 44, respectively.
version circulated in the south. Why was it called roanoke? Was it named after the Lost Colony or is it a coincidence? In world history, seashells have been esthetically appreciated by everyone, except for monetary economists. They served as jewelry wherever available, and Jamestown narratives are full of "white beads" or just "beads" decorating the elite in this life and the next, and their idols. A prospective husband customarily promised the wife's parents "to procure her beads, pearl, and copper".

The esthetic value of copper and seashells made them natural candidates to become money. Seashell money was perhaps the most common form of money in all of human history, because almost any society was sophisticated enough to drill in seashells and string them. Virginia was no exception. The only explicit English description of Indian money in Virginia is of seashell money. In 1614 the colony's governor wanted to follow up on Pocahontas's marriage to colonist John Rolfe by obtaining Pocahontas's younger sister as a hostage-wife for himself. The father, King Powhatan, said it was too late: "my daughter ... I sold within these few days to be wife to a great weroance [i.e., chief] for two bushels of roanoake." The messenger, Ralph Hamor, later explained to his readers in England that roanoake was "a small kind of beads made of oyster shells, which they use and pass one to another, as we do money (a cubite's length valuing six pence)." Smith later abridged Hamor's story, replacing "roanoake" with "rawrenoake", and also told of a place "where is made so much rawranoke or white beads that occasion as much dissension among the savages, as

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33 In Goldberg (2005) I refute the common false assumption that seashell money was token money of no esthetic value.
36 Einzig (1966), passim.
37 Harwell (1957), pp. 40-41.
gold and silver amongst Christians."  

It seems that Hamor, or other colonists, simply misheard the Indian name of the beads as "roanoke". The colonists and the investors in England were obsessed with Roanoke, trying to find its people, and fearing to share its fate. Rumors had it that inland tribes processed copper with the help of Roanoke survivors, and that Powhatan was to blame for killing the rest. So why couldn't Roanoke be the source of seashell beads? The truth is that Roanoke colonists reported no seashell beads at all, but only beads of copper, coral, and bone.

According to Hamor, Powhatan, who was not familiar with later anthropological theories, used monetary terminology: He "sold" his daughter. So Hamor replied that "he might, restoring the roanoake without the imputation of injustice, take home his daughter again" and then get a better "price of his daughter" from the governor. A report by hostage Henry Spelman, who lived with Powhatan for a while, is consistent with Hamor (I emphasize the monetary words): "The custom of the country is to have many wives and to buy them, so that he which have most copper and beads may have most wives, for if he takes liking of any woman he makes love to her, and seeks to her father or kinsfolk to set what price he must pay for her, ... and when the sum agreed on be paid she shall be delivered to him for his wife." The wedding ceremony included the man's family giving a "string of beads" to the woman's family after breaking it over the couple's joined hands.

Copper and beads appear together in other monetary contexts. They were the only objects with which to pay alimony to a chief's wife and child, and pay to the

38 Arber and Bradley (1910), vol. II, pp. 518, 418, respectively. Also see in Smith's 1612 dictionary: Arber and Bradley (1910), vol. I, p. 46.
39 Taxay (1970) thinks it was simply easier to pronounce.
40 Arber and Bradley (1910), vol. I, pp. 55, 121, 132, 158.
41 Major (1849), p. 26, Kingsbury (1933), vol. III, p. 17, respectively.
42 See Goldsmid (1904), vol. VIII, p. 302 for coral; De Bry (1590), Pictures III, VI-VIII, for bone, Pictures III, VI-VIII, XXI for copper.
Potomac's god for an adequate amount of rain. They were among the items "of value" which Indian men hid in the ground from neighbors and wives – "as the Romans hid their monies and treasure in certain cellars". They were among the items awarded to war heroes, and paid to angry gods while sailing by the temple.

Otherwise, copper was the high-value money, used for economically important payments, while beads were the low-value but symbolic money. Copper had the unique role of paying for war. On one tribe, under Powhatan's partial control, it was said that "for copper will be waged to serve and help him in his wars". Powhatan was blamed for keeping much copper "to levy men" for war. One chief hired other chiefs in attacking Jamestown, "for one copper plate promised to each." Beads, and to a lesser extent copper, dominate the accounts on tributes paid to Powhatan. An expression such as "tribute beads" was not given to any other object. Beads alone were used in welfare payments to the poor on special communal occasions – funerals and the planting of Powhatan's own corn. To summarize, copper and beads were often mentioned in the same monetary way as European gold and silver. The colonists paid attention.

6. King Copper II, 1607-1609

Situated on a peninsula and partially led by veteran pirates, early Jamestown looked like a docked pirate ship and behaved accordingly: Quarrelling, plots, conspiracies, accusations, embezzlement, mutinies, executions, and a terrifying amount of deaths from diseases, starvation, and hostile encounters with foreigners. The colonists, all of them adventurous men, tried to plant grain, but were more intoxicated by fantasies

44 Arber and Bradley (1910), vol. I, pp. cviii, cv-cvi, respectively.
45 Major (1849), pp. 113, 111, Arber and Bradley (1910), vol. I, p. 75-6, respectively.
46 Major (1849), pp. 61, 103, respectively.
47 Arber and Bradley (1910), vol. I, pp. 26, 71, 80, 81, Major (1849), pp. 55, 81.
49 Arber and Bradley (1910), vol. I, p. 84.
of gold. The resulting starvation prompted recurrent exchanges with Indians to obtain food (mostly corn, but also hunted meat). In return the colonists offered three main types of objects. First was copper. Following Roanoke, the colonists knew its unique importance. They gave copper gifts to Powhatan and even crowned him with a copper crown as a vassal king of James. Second was "toys" or "trash" – glass beads, and small metal objects such as bells. Third was iron tools and weapons – mostly hatchets – which dramatically improved Indian economic productivity and warfare.

There are descriptions of numerous Indian-English exchanges involving these objects. Most of them are described as either barter or gift exchange, and often involved a variety of objects presented by each side. No description of an exchange included the word "money", which is not surprising because "money" meant coin, and no coin was involved. The most frequent term used by the English to describe their activity was "trade for corn", which does not indicate the use of money.

Nevertheless, copper did function as money sometime. This is first disclosed by the unconscious rhetoric of the colonists who sometimes described the Indians' activity with "sell" and the English activity with "buy". The Indians never "buy" and the English never "sell" in these narratives. The implicit money was copper. Smith offered that Powhatan would "sell him" land "for a proportion of copper." An Indian was hired to guide colonists to a presumed mine in exchange for copper. When an Indian hostage almost died in English custody, he was compensated with "a
piece of copper".\textsuperscript{60} It was said on two Indians that they "would have betrayed both their king and kindred for a piece of copper".\textsuperscript{61} This line was published one year after King James Bible, which had – for the first time in English – the famous line about Jesus being betrayed "for thirty pieces of silver".\textsuperscript{62} The monetary allusion is obvious. In one hunger episode, many colonists "were dispersed in the savages' towns, living upon their alms for an ounce of copper a day".\textsuperscript{63} Henry Spelman, the hostage left with Powhatan, escaped to the Potomac king. The latter held him "in hope I should help him to some copper", meaning ransom, and this is indeed what happened.\textsuperscript{64} Objectively, copper was indeed money, because Powhatan passed it on to others: "Powhatan does again vent some small quantity thereof to his neighbor nations for one hundred time the value", reserving the rest for war payments to his soldiers.\textsuperscript{65}

Copper was also the unit of account. One expedition could have been launched "for the value of a pound of copper",\textsuperscript{66} referring to payments for Indian guides, food, and lodging along the way. Copper was used so often in purchases from Indians that inflation kicked in, and the complaints reveal copper's role as the unit of account: "that could not be had for a pound of copper, which before was sold for an ounce."\textsuperscript{67} The Council in England warned a prospective governor: "your copper is embased [i.e., debased] by your abundance and neglect of pricing it, and they will never feed you but for fear." This point about "copper value abated" was partly attributed by the Council to the fact that Powhatan "engrossed" the market.\textsuperscript{68} He was said to "monopolize all the copper brought into Virginia by the English. ... the English are

\begin{footnotesize}
\textsuperscript{60} Arber and Bradley (1910), vol. I, p. 153.
\textsuperscript{61} Arber and Bradley (1910), vol. I, p. 151.
\textsuperscript{62} Matthew 26:15.
\textsuperscript{63} Arber and Bradley (1910), vol. I, p. xcvi.
\textsuperscript{65} Major (1849), p. 103.
\textsuperscript{66} Arber and Bradley (1910), vol. II, p. 443.
\textsuperscript{67} Arber and Bradley (1910), vol. I, p. 101.
\textsuperscript{68} Kingsbury (1933), vol. III, p. 19.
\end{footnotesize}
now content to receive in exchange, a few measures of corn for a great deal of that metal (valuing it according to the extreme price it bears with them, not to the estimation it has with us)".\textsuperscript{69} Powhatan was "valuing a basket of corn more precious than a basket of copper, saying he could eat his corn, but not his copper."\textsuperscript{70} The prospective governor was therefore advised to trade with distant, independent tribes "where the copper is yet in his primary estimation".\textsuperscript{71}

Copper inflation contributed to the demise of voluntary trade, and Smith turned first to coerced trade.\textsuperscript{72} Regarding one tribe, the corn "they had we equally divided between the savages and us, but gave them copper in consideration." Another tribe with corn "would rather sell us some, than we should take all."\textsuperscript{73} Another threatened chief "sold" corn for copper and beads,\textsuperscript{74} and this is the only implicit account of (European) beads as money in this period. Smith eventually plundered some tribes\textsuperscript{75} and forced dozens of others to pay "contribution", meaning protection money, or, strictly speaking, protection corn.\textsuperscript{76} In another attempt to combat inflation, Smith wanted to fix the future price of corn by contract. When he proposed buying land from Powhatan he wanted "That every house as a custom should pay him a bushel of corn for an inch square of copper, and a proportion of pocones as a yearly tribute to King James".\textsuperscript{77} The first proposed tax in Virginia was a luxurious red dye.

Smith later summarized: The Indians are "Generally covetous of copper, beads, and such like trash." And again: "Their manner of trading is for copper, beads, and such like; for which they give such commodities as they have, as skins, fowl, fish,

\textsuperscript{69} Major (1849), p. 103.  
\textsuperscript{70} Arber and Bradley (1910), vol. I, p. 133.  
\textsuperscript{71} Kingsbury (1933), vol. III, p. 19.  
\textsuperscript{72} Arber and Bradley (1910), vol. I, pp. 35, 127-8, 130, 133, 153.  
\textsuperscript{73} Arber and Bradley (1910), vol. I, p. 130.  
\textsuperscript{74} Arber and Bradley (1910), vol. I, p. 140-2.  
\textsuperscript{75} Arber and Bradley (1910), vol. I, p. 152, Percy (1922), p. 263.  
\textsuperscript{76} Arber and Bradley (1910), vol. I, p. 84, 170, vol. II, p. 611.  
\textsuperscript{77} Arber and Bradley (1910), vol. I, p. 163.
flesh, and their country corn. But their victual is their chiefest riches." He recognized the difference between real wealth (victual) and the objects they coveted and traded for (their money). Thus from Smith on the wealth of Indian nations.

A different type of money was formed in trilateral, illegal private exchanges. Each time that English ships brought colonists and supplies, they stayed in Jamestown for a few weeks or months. From the ships that brought the first colonists in 1607, the colonists received food "which the sailors would pilfer to sell, give, or exchange with us, for money, sassafras, furs, or love." Here was a use for coin by those colonists smart enough to bring any with them. When the next fleet ("the First Supply") arrived in early 1608, the sailors sold food for "either money, spare clothes, credit to give bills of payment, gold rings, furs, or any such commodities". The use of IOUs was probably restricted to the nobles and gentlemen who seemed reputable enough to order relatives in England to pay for the goods bought. In the "Second Supply" of late 1608, the sailors at first sold food for "either money or ware as could be desired."

Next, colonists stole most of the colony's iron tools and weapons, which they "trade with the savages, for furs, baskets, mussaneekes [i.e., squirrels] young beasts, for such like commodities". Having the Indian goods at hand, the colonists "exchange them with the sailors" for food.

It is quite certain that the furs in the first two episodes were also obtained from Indians. Even Smith – the first American super-hero – humbly admitted that only they knew where to find the required furry animals and how to hunt them. Indian goods, therefore, served as media of exchange in these three episodes. The colonists accepted them only to buy with them food from the sailors. Money is a general medium of

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78 Arber and Bradley (1910), vol. I, p. 65, 74.
79 Tyler (1907), p. 158, fn. 2.
80 Arber and Bradley (1910), vol. I, p. 94-5, 103-4, 127-8, respectively, for the three episodes.
81 Arber and Bradley (1910), vol. II, p. 444.
exchange, so squirrels – mentioned in only one episode – were not money. Fur, however, was the only common item to all three episodes (other than coin) and the lead item in the last episode. It was singled out as the story continued: "And though Virginia afford no furs for the [common] store; yet one mariner in one voyage has got so many, as he had confessed to have sold in England for £30." Fur was so prized that colonial expeditions were launched to search for it. It can be thought of as seasonal money, when the flocks of sailors arrived.

As expected, there is no evidence for regular internal trade in the cooperative colony. While everyone was expected to work as required and get food and clothes from the storehouse as needed, a natural exception was formed with service in the colony's expeditions. Those who went on violent trade expeditions either got, or expected to get, a "reward", presumably for the higher risk and pain.

The internal fighting involved accusations of theft from the storehouse for private sale. The first President of the Council, Edward Maria Wingfield, was deposed and tried, partly on that charge. He complained that "they had forejudged me to pay fivefold for any thing that came to my hands, whereof I could not discharge myself by writing; and that I should lie in prison until I had paid it." He naively expected all the English rules of credit and debt collection to apply in Jamestown. He was fined the huge amounts of £100 and £200 for slander. He surely did not have so much coin there, and could have paid only from his assets in England – to which he was sent. Other crimes resulted in capital and corporal punishments.

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85 Arber and Bradley (1910), vol. I, p. 146-7, 166.
87 Tyler (1907), p. 22.
7. King Delaware, 1609-1618

By 1609 the investors wanted a major change in the losing, chaotic colony. They got a new charter, which established The Treasurer and Company of Adventurers and Planters of the City of London for the First Colony in Virginia.\textsuperscript{91} The hundreds of new members included many nobles, the Mayor of London, and most of London's guilds. Sir Thomas Smith, Governor of the other important trade companies of the day (East India and Muscovy), held the chief position of Treasurer. The local Council in Virginia was abolished, and a strong Governor was to rule instead. He had to obey the orders of the Council in London, but "in defect thereof, in case of necessity, according to the good discretions" of himself, and he was authorized to impose martial law only in case of mutiny or rebellion.

Export of coin from England to the colony was implicitly allowed in a section which made it illegal to "transport any monies, goods or merchandises" from England with the false claim that it was meant for Virginia.\textsuperscript{92} Ripley (1894, p. 110) and Bruce (1896, p. 498) argue that because the second charter did not explicitly include the coinage privilege it was therefore voided. Wrong. A section in the second charter clarified that those rights of the first charter which were not explicitly changed in the second charter were thus confirmed.\textsuperscript{93} This included the right to make local money. The second charter allowed the use of land as payment for services to the colony.\textsuperscript{94}

When the efficient trader-extortioner-robber Smith was forced to return to England, all-out war broke with Powhatan. Most colonists starved to death and the survivors left to England. They soon bumped into Thomas West, Lord Delaware, who arrived as a new Governor. His commission nominated him governor for life with

\textsuperscript{91} Hening (1923), vol. I, p. 80-98.
\textsuperscript{92} Ibid, pp. 96-7.
\textsuperscript{93} Ibid, p. 97.
\textsuperscript{94} Ibid, p. 89.
almost complete dictatorial powers. A tough war veteran, he practiced devastating brutality towards colonial trouble-makers and Indians alike. In Jamestown the civilian colonists found themselves practically under martial law, with most offenses punishable by death, and most opportunities for private trade ruled out. Death was the penalty for, among others, unlicensed private trade with Indians, and private trade of native goods to sailors. Soldiers faced execution if selling their arms, pillaging for private profit during an assault, or even speaking to Indians without license. Colonists were not allowed to exchange tools and clothes with sailors. Launderers, bakers, and cooks were not allowed to take private payments from the colonists they served. Soldiers were not allowed to sell their clothes.

Most non-capital punishments were corporal punishments, and since nobody could be expected to have coin, there were no fines. The mildest punishment was losing one's "allowance". The cooperative nature of the colony naturally strengthened. Storehouses were established in new forts. Embezzlement of, or unequal distribution from, storehouses was punishable by death. One who stole from a storehouse was in fact executed – by being starved to death. Diseases kept killing much more than Delaware could – half the population every year.

Delaware wasted most of the colony's energy on finding metals, trading only with neutral tribes such as the Potomac with the same types of goods exchanged...
as before.\textsuperscript{105} Like many others, he was hit with malaria, dysentery, scurvy, gout, and cramps. After only eight months in the colony, the state of Delaware was so bad, that the governor for life fled for his life.\textsuperscript{106}

His successors experimented with potential export products. In 1612 John Rolfe imported and successfully planted tobacco from Trinidad, because the native Virginia tobacco was disliked by the English.\textsuperscript{107} Another consequential event that year, even if not of immediate consequence, was a third Virginia charter. It transferred control from the Treasurer and Council to the generality of the company. The coinage privilege of the first charter survived in the same way as before.\textsuperscript{108}

In Virginia, trade of goods and labor services accelerated with individual Indians.\textsuperscript{109} Because of copper inflation,\textsuperscript{110} European beads and hatchets began to be mentioned in the same monetary way that copper was mentioned before.\textsuperscript{111} But copper was still king, thought by the colony's secretary as the only way to systematize Indian labor for the colony and to draw away tribes from Powhatan.\textsuperscript{112} Eventually copper bought peace, but in a different way. It was paid to an Indian who betrayed Pocahontas and delivered her to the English as hostage. Her marriage to Rolfe sealed the peace of 1614. One independent tribe then submitted to King James, and Smith's old price-fixing idea was adopted, though not with regard to copper. It was agreed that the tribe would pay annually "two bushels of corn a man, as tribute ... for which they should receive so many iron tomahawks or small hatchets."\textsuperscript{113}

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\textsuperscript{105} Arber and Bradley (1910), vol. II, p. 503, Tyler (1907), p. 212-3, Major (1849), p. 38. \\
\textsuperscript{106} Tyler (1907), pp. 210-1, Percy (1922), p. 275. \\
\textsuperscript{107} Harwell (1957), p. 24, Major (1849), p. 31, 121-2. The economy of Virginia as a tobacco plantation is described by Walsh (2010). \\
\textsuperscript{108} Hening (1823), vol. I, pp. 98-110. P. 109, Section XXI implicitly kept the coinage. \\
\textsuperscript{109} Major (1849), p. 54, 77, Harwell (1957), p. 27. \\
\textsuperscript{110} Major (1849), p. 105. \\
\textsuperscript{111} Major (1849), p. 19, 69, 113, 123-4. \\
\textsuperscript{112} Major (1849), p. 105. \\
\textsuperscript{113} Harwell (1957), p. 12-15, 56-7.
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It was then that Hamor was sent to Powhatan to buy Pocahontas's sister. He told Powhatan that "he should have treble the price of his daughter, in beads, copper, hatchets and many other things more useful for him". The basic trinity of English-Indian trade, not so intrinsically useful as it was, has finally become money.

During the next few years the cooperative was dismantled and the lands privatized. Every man designated as farmer, and each of his male servants, were granted three acres of private land, in exchange for a yearly rent in corn (to be spent for the support of new arrivals) and one month’s service for the colony. The initial step was decided by the Deputy-Governor on his own, using the wide dictatorial powers granted in the second charter. The high-risk game of dictator and economy yielded this time a positive outcome.

Except for the privatized farmers there were still servants working for the company, some of them artisans (who had one month a year off to grow food) and others were laborers. Some of the latter were allotted to plots of government officials in lieu of a salary. The produce of the servants' work went to these officials, and so there was no need to impose taxes. The officials were not all happy with the quantities and qualities of the servants they received and eventually began "buying and selling" them, or "set over from one to another for a yearly rent". What was the money used in these deals we do not know.

With peace, privatization, and families, the colony achieved some limited normalcy in 1614. It was just then that tobacco emerged as the leading export, and started turning that normalcy upside down. Farmers hoped to buy corn for their

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116 Political economists have concluded that dictators are very risky with respect to economic growth, and can either work miracles or perpetrate disasters. See a recent summary, and a 1680s colonial application, in Goldberg and Milchtaich (2013).
118 Harwell (1957), pp. 24, 34.
consumption and rent from other farmers or Indians, or by getting English aid, and so they neglected their corn. The Deputy-Governor ordered that two out of the three acres which each man received would be dedicated for corn, and only the third acre could be used to grow tobacco.\textsuperscript{119} Then there was so much corn that the colonists started selling it to the Indians, and for the first time even lent some chiefs large amounts "for payment whereof, this harvest they have mortgaged their whole countries".\textsuperscript{120}

In 1616 a new Deputy-Governor threw corn aside in favor of tobacco,\textsuperscript{121} only to be reversed again by a different Deputy-Governor a year later. Tobacco boom started, and English ships started bringing large amounts of manufactures and servants to sell in the colony. Tobacco became the medium of payment for all these,\textsuperscript{122} at the docked ships, but there is still no evidence of its use as money inside the colony.

The tribute corn promised by one tribe (see p. 20 above) became critical, and the tribe's default led to a military expedition. In the newly privatized economy, this raised the issue of how to compensate the volunteering soldiers who now would leave behind their own private fields. The obvious solution was to promise part of the plunder. None was achieved directly, but after captured Indians were ransomed for corn, the soldiers were supposed to get part of the corn. They didn't.\textsuperscript{123}

Another medium of payment emerged at that time. The company gave 50 acres to anyone who paid for the transport of anyone to the colony – himself, his family, servants, or strangers. It was clearly not a medium of exchange, because land titles were not convenient to use in further shopping.

\textsuperscript{119} Rolfe (1848), p. 108.
\textsuperscript{120} Rolfe (1848), p. 106.
\textsuperscript{121} Arber and Bradley (1910), vol. II, pp. 527, 535-6.
\textsuperscript{123} Arber and Bradley (1910), vol. II, pp. 527-8.
The year 1618 was an end of an era. The long-absent Governor Delaware dared returning, only to die on the way from a typical onboard epidemic. Powhatan died too. In the Virginia Company a new Treasurer was elected for the first time and eliminated Delaware's martial law. The privatized economy naturally induced internal trade and apparently there were already complaints of shortage of coin. The proprietors in England of one plantation included "ten shillings" in the allowance of every man upon arrival.\textsuperscript{124} The instructions to the new Governor included a requirement that owners of privatized lands would pay the company a "rent of one shilling" per 50 acres per year.\textsuperscript{125} It was the first monetary requirement from colonists.

**8. King Tobacco, 1619-1630**

An Assembly convened in 1619 for the first time. It petitioned the company not "to exact money of us (whereof we have none at all, as we have no mint), but the true value of the rent in commodity."\textsuperscript{126} They meant to pay in tobacco. Why was there no coin? Probably nobody brought any. The hundreds of new immigrants which arrived every year were mostly indentured servants, including many criminals and orphans. These supposedly redundant people of England surely brought no coin.\textsuperscript{127} And if any coin did arrive, it quickly left back to England in a pattern that would recur in every American colony. The colonists were utterly desperate in their demand for European manufactured goods, and especially clothes were missing.\textsuperscript{128} Any colonist holding a coin was likely to use it as soon as possible to buy manufactures, rather than use it in the local economy where he could use book credit or barter. A mint would not have helped, because the trade balance was going to remain negative, unless the intention was to mint token coin to be circulated only in the colony. There were no idle metals

\textsuperscript{124} Kingsbury (1933), vol. III, p. 94.
\textsuperscript{125} Kingsbury (1933), vol. III, p. 101.
\textsuperscript{126} Virginia (1874), p. 16.
\textsuperscript{127} Ripley (1894), p. 109.
\textsuperscript{128} Virginia (1874), p. 77.
around waiting to be minted so that they could be used as money. If anything, the colony was dirt poor, with no tools, iron, or artisans. It could barely build and use plows,\textsuperscript{129} let alone a mint. The authority to establish a coin was given in the first charter to the local Council. It still existed so it could have acted on its own.

It should be noted that the colony did not need coin as much as England did. Almost everyone grew tobacco, so there was little opportunity for internal trade.\textsuperscript{130} There were no taxes because officials were paid by servants' labor. The servants got shelter, clothes, and food from their masters, rather than a money wage. Their ability to trade was legally limited. The small plantation communities functioned as households with no need for internal payments. Most colonists were poor young men, feeding on corn and water, having very few clothes, and living in miserable housing. Most Virginians could probably go on for many days without needing money. On the other hand, when internal purchases were made, the enormous mortality rate from disease – often more than 50% a year – was not conducive to credit. It was the sudden need to obtain coin to pay rent to the company which stretched the money supply too much, and so the Assembly petitioned.

The same assembly, in its own laws, kept using English units of account in enacting fines for various offenses,\textsuperscript{131} but for its first tax – paid for salaries of the colony's officials – every adult male was to pay "one pound of the best tobacco" to the local Burgesses.\textsuperscript{132} This hints a major problem with any commodity money: Taxpayers would always prefer to pay the worst, not the best. Dried tobacco leaves, more than grain, were especially prone to spoil.

\textsuperscript{129} Arber and Bradley (1910), vol. II, pp. 538, 541.
\textsuperscript{130} Sylla (1982), p. 25.
\textsuperscript{131} Virginia (1874), pp. 20, 25-8.
\textsuperscript{132} Virginia (1874), pp. 30-1.
Also in 1619 a Dutch ship "sold us twenty negros",\textsuperscript{133} the first to arrive in the colony. They were probably sold for tobacco. The Indians were not forgotten. Efforts at their conversion peaked with plans for a college for their children.\textsuperscript{134} Venetian glass workers were sent by the company to produce glass beads in the colony, this "being the money you trade with the natives". The colony was ordered not to use too much of it, in order to avoid copper's inflationary fate.\textsuperscript{135} Relations between Indians and English seemed better than ever, with trade in goods and labor all over the scattered tobacco plantations.\textsuperscript{136} Then one day in 1622 the Indians murdered 347 men, women, and children.\textsuperscript{137} The coordinated surprise Massacre destroyed one third of the population and most tobacco plantations. It was nearly fatal to the colony,\textsuperscript{138} which is what the Indians hoped to achieve. The glassworks and their manager were dead,\textsuperscript{139} as was the college project and its manager. Among the many wounded was the colony's charter. James launched an investigation. Back to the earliest days of the colony, starvation led to expeditions to trade with Indians for corn, voluntarily or not.\textsuperscript{140} The renewed interest in the suffering colony incidentally brought decisive monetary evidence. One colonist lamented "the loss of our ... tobacco which was as our money", while Smith wrote in England of "tobacco, which passes there as current silver".\textsuperscript{141}

In England Smith proposed to lead the war, paying soldiers from the tobacco customs collected in England. For his own reward he would have not the negligible expected pillage but the labor of enslaved Indians.\textsuperscript{142} He recommended late summer

\textsuperscript{133} Arber and Bradley (1910), vol. II, p. 541. \\
\textsuperscript{134} Arber and Bradley (1910), vol. II, p. 542. \\
\textsuperscript{135} Neill (1869), pp. 231, 236-7. \\
\textsuperscript{136} On the scattering see Arber and Bradley (1910), vol. II, pp. 573-8. \\
\textsuperscript{137} Arber and Bradley (1910), vol. II, p. 574. \\
\textsuperscript{138} Arber and Bradley (1910), vol. II, pp. 584-6. \\
\textsuperscript{139} Arber and Bradley (1910), vol. II, p. 586. \\
\textsuperscript{140} Arber and Bradley (1910), vol. II, pp. 592, 595, 598, 606. \\
\textsuperscript{141} Arber and Bradley (1910), vol. II, pp. 594, 598-9, respectively. \\
\textsuperscript{142} Arber and Bradley (1910), vol. II, pp. 588-91.
as the time of war because nature would feed them best then.\textsuperscript{143} Financing indeed was a problem,\textsuperscript{144} but Smith was not hired. Virginia did schedule its raids to late summer, but for other reasons. This being harvest time, it maximized damage to the Indians, who were doomed to starvation in winter, and maximized plundered corn, some of which was indeed given to the volunteering soldiers.\textsuperscript{145}

The colony recovered and resumed the tobacco boom.\textsuperscript{146} By 1624, tobacco became the official unit of account according to that year's legislative session. Taxes, fees for land surveyors, thresholds for lower courts' jurisdictions, and various fines – were all denominated in pounds of tobacco.\textsuperscript{147} Not a single English unit of account appears there. In the case of a critical lobbying mission to London, the costs were to be defrayed by "the best merchantable tobacco, in leaf".\textsuperscript{148} In all other cases it was expected by default that people would pay in tobacco sums which were denominated in tobacco. Ministers only were to get a share of everyone's tobacco and corn, in kind.\textsuperscript{149} That year the charter was revoked and the company gone. James died shortly thereafter, and his son Charles took over and made Virginia the first royal colony.

In 1626 the Governor reported that tobacco was their currency and they didn't have it all year round to pay workmen. This was the main obstacle, he said, to any economic activity other than tobacco.\textsuperscript{150} This problem probably induced the use of tobacco IOUs to be discharged at harvest time. The next legislative record which survived is from 1629, although the Assembly's constitutional status was still unclear since the revocation of the charter. War was still going on since the Massacre. War

\textsuperscript{143} Arber and Bradley (1910), vol. II, p. 601.
\textsuperscript{144} Arber and Bradley (1910), vol. II, p. 615.
\textsuperscript{145} Arber and Bradley (1910), vol. II, pp. 599-600.
\textsuperscript{146} Arber and Bradley (1910), vol. II, pp. 571, 615.
\textsuperscript{147} Hening (1823), vol. I, p. 123-8.
\textsuperscript{148} Hening (1823), vol. I, p. 128.
\textsuperscript{149} Hening (1823), vol. I, p. 124.
\textsuperscript{150} Bruce (1896), vol. II, p. 413.
expenses were ordered to be paid out of the treasury, all denominated in pounds of tobacco. Only one expense for the purchase of ammunition in England was stated in its English price and then translated into pounds of tobacco. The tax to pay for all this was "five pounds of tobacco per poll", to be brought into the houses of the 46 Burgesses. The latter were to provide cask to pack the tobacco, and they were deemed responsible for damages to the tobacco only if it was their fault. Instead of sending the tobacco to Jamestown, which would have involved improbable costs and risks, the Governor was to send each creditor of the colony to collect tobacco from specific Burgesses, presumably those closest to his home, if the amounts collected matched those that needed to be paid out. Virginia's complete use of an agricultural product in all the functions of money was a dismal reversion to practices not seen since the Bronze Age, and not everyone was happy about it.

9. Monetary Reform under Governor Harvey, 1630-1639

In 1632 and 1633 Virginia went through a remarkable, piecemeal monetary reform, which tried to break away from tobacco. England was petitioned to provide special coin, the official unit of account reverted to English currency, and banks or clearinghouses were to clear all bills of tobacco debts.

The existing explanation in the literature for the first two changes (the third was never noticed) is the problems of tobacco as a physical medium of exchange, and the decline in the value of tobacco which made it a bad unit of account. After September it was dangerous to transport tobacco because of the weather, and after April it rotted. The leaves were large and fragile, if anyone had thought of taking just a bunch of them on a shopping trip instead of a barrel. As for the value, increased production in Virginia and elsewhere resulted in a collapse of tobacco prices in

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151 Hening (1823), vol. I, pp. 142-3.
153 Kingsbury (1933), vol. III, p. 78.
Europe. It may be added that these problems with tobacco as money were more biting in the 1630s because part of the economy became more normal. People were no longer content with corn and water, and wanted to import better food and more manufactured goods than before. This drained coins back to Europe more than before.

These factors were probably important, although it is puzzling why the colonists needed the government to tell them to use a different and better unit of account. To these factors I would add – for the first time – the importance of the Governor and his agenda. In 1629 Sir John Harvey became Governor. Unlike his predecessors he launched a general effort to normalize the colony, and that meant bringing it back to English law on every possible dimension – including money and taxes. He did it partly by persuasion and partly by using his authority to veto any act of the Assembly. I argue that his contribution to the monetary changes was critical, because the colonists completely changed their minds on these issues right after they violently deposed Harvey and sent him back to England.154

Harvey took the first shot in his very first legislative session, in 1630. In an act that limited the amount of tobacco grown per person, it was stated that if anyone tried to "pay away" "bad, or ill conditioned tobacco ... for debts, merchandize or any other commodities" it should be burned by officials.155 In the 1632 session the legislature started getting rid of tobacco as a unit of account, imposing shilling fines on those not attending church, and enacting that "all estates of any deceased persons, be appraised after the rates of money and not in tobacco as has been accustomed heretofore."156 In August 1633 these two exceptions became the new statutory norm. The unit of account in all acts, orders, accounts, contracts, law suits, and judgments, was "to be

154 This was an unusual event even in that chaotic colony, not seen since 1607 and not to be seen again until 1676.
155 Hening (1823), vol. I, p. 143.
156 Hening (1823), vol. 1, pp. 155, 170.
made in money and not in tobacco," or specifically "in lawful money of England only ... according to the custom of all pleas and judgments in the kingdom of England." The former custom was declared to be "contrary to the former custom of this plantation and manner of England, and other places within the king's dominions, which thing has bred many inconveniencies in the trade, and occasioned many troubles."¹⁵⁷ Note the emphasis on the difference from England being a negative thing per se, and the need to resort exactly to the English practice. This language bears the mark of a royal Governor rather than that of an average colonist.

In the 1632 session the Burgesses wrote a petition to the Privy Council, which included this isolated line: "We do also give our humble advise that a current coin debased to 25 percent, may be sent unto us then which nothing will be more useful."¹⁵⁸ Debased coins were common in Europe as a method to keep precious metal at home and to attract more of it from elsewhere, and this was the same trick asked for here.¹⁵⁹ Suppose that special Virginia shillings are minted, and each Virginia shilling has as much silver as nine English pence (twelve English pence constituted an English shilling). Assuming that prices are fixed and equal, one can use the Virginia shilling to buy a shilling worth of goods in Virginia, but only nine pence worth of goods in England. Then sending the coin to England is not a good option. Moreover, people have an incentive to melt nine English pence and recoin them as a Virginia shilling, and then buy a shilling worth of goods in Virginia. This naive reasoning, even with its heroic assumptions, ignored the inevitable rise of Virginia prices to compensate for the lower quantity of silver in Virginia coins.

The three Virginia charters allowed local coinage, but the colonists were not sure which of the rights granted in the charters or by the company remained in force

¹⁵⁷ Hening (1823), vol. I, p. 216.
¹⁵⁸ McIlwaine (1915), vol. III, p. 55.
after the company was dismantled. Their Assembly, which was granted by the company's governor, was still, as of 1632, without an explicit royal approval. Coinage was an even more serious issue, as it infringed directly on the king's prerogative. Violating it would have been dangerous. In any case, the petition was ignored until 1638 (see below). It may be that Charles was happy that Virginia specialized in agricultural exports instead of having a normal economy with internal trade. He may have thought that the idea of sending coin to a colony was quite perverse, being the opposite of the Spanish way.

In February 1633 Virginia made a bold attempt to create banks or clearinghouses to solve one of their tobacco problems. These banks have been hiding in plain sight, and were never recognized as such in the literature.\(^\text{160}\) Presumably, this was because the act did not use the word "bank" and it wasn't even mainly about that. The act stated: "there shall be appointed five stores hereafter specified unto which the planters shall be obliged to bring in all their tobaccos before the last day of December, and in the same stores to be repacked, viewed and tried by sworn men." Tobacco that was inspected and found "to be good and merchantable, shall be received into the several stores, and entered [upon] several accounts of those that were the planters thereof." The goal was to centralize the trade with European ships which until then traveled between individual plantations to pick up the tobacco, thus evading customs and quality control. The important part of the act, for our purposes, is that which follows: "It is ordered, that no person or persons do or shall pay or receive, or cause to be paid or received any tobaccos before it have been viewed, tried and entered into the stores aforesaid. And all payments of debts shall be made at the said stores, with the privity and in the presence of the store keepers; and all tobaccos shall there remain,

\(^{160}\) Bruce (1896), vol. II, pp. 305-7, discussed them but missed this point.
until such time as the same be laden away aboard some ship or ships to be transported out of this colony" (my emphasis). Imported goods, however, were to be landed and traded for tobacco only in Jamestown. In August that year the act was modified to have seven "stores" rather than five.

The emphasized words indicate that debts in the colony were normally denominated and paid in tobacco. The physical properties of tobacco made it one of the worst media of exchange in history. The colonists knew that and presumably went shopping at each other's plantation only with a pen and paper to write IOUs – to be settled after harvest.

Today these "stores" don't look like banks, but the idea was in fact very similar in principle to the contemporary *Amsterdamsche Wisselbank*, known in English as The Bank of Amsterdam, and literally meaning "The Exchange Bank of Amsterdam." That was the most famous and successful bank of the day. Largely imitating the Bank of Venice, the *Wisselbank* did not give loans and did not print paper money. It merely facilitated payments in an economy burdened with what has been estimated as one thousand types of coins – issued by dozens of mints and each worn and clipped to a different degree. The *Wisselbank* accepted coin from depositors, evaluated its intrinsic metallic value, and gave the depositors credit in its books. By law, Amsterdam merchants had to settle their large bills of exchange debts in the bank's books, transferring credit to each other without taking out coin. Any particular coin could stay in the vault for decades.

The seven Virginia banks aimed to do something similar to the *Wisselbank* to solve a different problem. They did not have problems with heterogeneous coinage, but with bulky, fragile, perishable tobacco. Planters were supposed to deposit their

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161 Hening (1823), vol. 1, pp. 203-7.
162 Hening (1823), vol. 1, pp. 211-2.
tobacco in the banks and earn credits in the banks' books. These credits were to be used to settle all debts with nearby planters in a way that avoided the physical use of tobacco. So far this is identical to the Wisselbank except for the object deposited. But now there is a complication. Unlike the Wisselbank's coin, Virginia's tobacco was not going to stay in the banks. It was going to travel to Europe, being exchanged – only at the Jamestown bank – for European goods. It seems that after clearing all debts, each planter would have some credit at the banks' books with which to buy in Jamestown a portion of the European goods brought there by the European ships. Since the tobacco was not supposed to stay in these bank-inspired "stores", perhaps it is better to refer to them as clearinghouses.

Virginia was probably inspired directly by the Wisselbank. Established in 1609, it was the state of the art of banking and famous everywhere. Englishmen recommended establishing something similar in London. More importantly, during those early years, much of Virginia's tobacco, and perhaps most of it, was bought by Dutch ships sent by Dutch merchants. Many English merchants knew Dutch finances well since they had gone through periods of residence in Dutch port cities – an essential move in a period when the Dutch republic was the world financial center. One of them, Edward Bennet, was there for religious reasons, and was one of the leaders of the Puritan Church in Amsterdam. In circumstances reminiscent of Plymouth's Pilgrims, he sent an entire flock from Amsterdam to Virginia in 1621. His plantation was managed by his nephew Richard – a Burgess in 1629-31 and a future governor. The banks were probably never established, and reasons for that are discussed below.

In 1635 the Councilors deposed Harvey and shipped him and his reforms back to England. There Harvey got the king's support and returned as Governor in 1637. In 1638 the king sent a letter to the Burgesses, which included a brief follow-up on Harvey's monetary reform. The Burgesses rejected it. Charles suggested the colonists "that you consider of some convenient place to bring your tobacco to, as to one or more appointed warehouses." Presumably, considerations of customs collection motivated this suggestion as it motivated the 1633 acts. The colonists objected: "the erecting and building of stores and the bringing of every man's tobacco unto them would be very chargeable and burdensome to the whole colony which at present we are very unable to undergo, besides much hazard & the damage and loss in spoiling greater part of our tobaccos. The casualty of wind and weather being considered in respect of the remoteness of our plantations one from another. And we having no means to export our tobaccos but by boating we humbly entreat that convenient shipping may be licensed to come into every county where they will find every man's house a store convenient enough for their lading, we being all seated by the riverside."

This sounds like an explanation of why the banks were never established. Building storehouses required surplus to be taxed away from planters and given to workers and suppliers, but perhaps the colony was indeed too poor. The only practical transportation to the storehouses was boats, since roads and carts were few and of low quality. Boats were not very abundant either, and the risk of transporting dried tobacco on water was large indeed. Virginia, it should be reminded, had just recovered from rough decades. The colony was so poor that it desperately depended even on metal wires from England to hang the tobacco leaves on for drying. The

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167 McIlwaine (1915), p. 57.
168 McIlwaine (1915), pp. 58, 60, 64.
change in the acts from February 1933 to August 1933 (seven stores instead of five) may reflect the problem of transportation and an attempt to make the stores more accessible.

Another explanation is that it was just an excuse, and the banks plan was sabotaged by the colonists themselves. The reason is that Virginia was a smugglers’ paradise. Every plantation along the rivers indeed had deep water at its doorstep and so it could accommodate transatlantic ships right there,\(^{170}\) without the hassle of going to a central port and paying customs. Harvey's centralization plan put that in jeopardy, and the colonists had every reason to make sure it never got off the ground. One might doubt this interpretation because it was an act made by the colonists' representatives, and only consented to by Harvey. But Harvey was formally all-powerful, he could veto anything, and would be deposed for trying to rule without the consent of his Council. It is not unlikely that as a political compromise he agreed to some other thing the colonists did really want in exchange for them passing these acts.

Another possible reason is that Virginia at that particular time was short of qualified people to pull off a workable plan.\(^{171}\) The impressive educated nobility of the first few years all fled or died by 1630, and the Royalist refugees of the Civil War were not there yet. In the 1630s there were no large local merchants or financiers in the infamously town-less colony, only large tobacco planters. These were hardened survivors who somehow escaped the appalling 50% annual death rate of each of the first 20 years. Their adaptation of the \textit{Wisselbank} idea was original and ambitious but impractical. A scheme designed for coin-carrying merchants living in downtown Amsterdam was not applicable to tobacco in the dispersed plantations of Virginia.

\(^{171}\) Bailyn (1959).
In the same letter Charles suggested sending copper token coins of the kind recently rejected by the English public.\textsuperscript{172} The Burgesses rejected the offer, arguing that the worthless coins would be rejected by everyone. They asked again for shipments of silver coin from England, arguing that it was necessary in order to facilitate internal trade and specialization in areas other than tobacco.\textsuperscript{173}

10. Coins, 1640-1645

No legislation survived from 1634 until Harvey was peacefully replaced in 1639. In 1640 we already find the colony's budget calculated again in pounds of tobacco,\textsuperscript{174} and English units gradually disappear from the records. The price of tobacco continued declining, and this indicates that the reversion to English units in 1632-3 was because of Harvey and not because of the price.

The decline of tobacco's value did prompt private parties to write contracts in which the actual payment was to be made in English coin. An 1643 act complained that "many and great inconveniences do daily arise" from this. Ripley speculated that "creditors often demanded extortionate rates for commuting money debts into tobacco".\textsuperscript{175} The drastic legislative solution was that "all money debts ... shall not be pleasurable or recoverable in any court of justice under this government".\textsuperscript{176} This meant that the king's coin, among other coins, was not recognized to a certain extent in his own colony. It might have seemed as an affront to the king, but the only practical alternative, given the absence of coin, was to force creditors to accept tobacco in lieu of coin. That could be an even worse offense, and that in two ways. First, forcing creditors to accept anything as money (i.e., making it legal tender) was a sovereign power. Second, forcing them to accept tobacco instead of their contractual right to the

\textsuperscript{172} McIlwaine (1915), p. 57, Bruce (1896), vol. II, p. 500.
\textsuperscript{173} McIlwaine (1915), pp. 59, 61, 64.
\textsuperscript{174} William and Mary College Quarterly Historical Magazine (1924), p. 159-162.
\textsuperscript{175} Ripley (1894), p. 111.
\textsuperscript{176} Hening (1823), vol. I, p. 262. Debts for some cattle were exempted (p. 268).
king's coin would have been a genuine insult. With this act, plaintiffs were free to take
their lawsuits elsewhere, perhaps to England. The act noted that it applied only to
Virginia courts, which was so obvious that it wasn't worth mentioning unless it served
as a hint. The act also made sure that all incoming ships would be notified of this new
rule, so presumably new arrivals and English merchants were targeted by the act.
They had easier access to English courts. The Governor, who could have vetoed this
act, was the newly arrived Sir William Berkeley. A former courtier (1632-1641), he
was not one likely to casually offend Charles.

In 1644 war with Indians resumed. The colonists were surprised once again in
a Massacre. Berkeley sailed to England to buy weapons, and even fought in one Civil
War battle for Charles. He witnessed firsthand the king's desperate situation (the king
would surrender in 1646). By November 1645 Berkeley was back in Virginia and
joined in the making of a comprehensive, unprecedented coin act. The preamble
emphasized the gravity of the situation: "The Governor, Council and Burgesses of this
present Grand Assembly having maturely weighed & considered how advantageous a
coin current would be to this colony, and the great wants and miseries which do daily
happen unto it by the sole dependence upon tobacco".\footnote{Hening (1823), vol. I, p. 308.}

They "have at length resolved and enacted ... as the only way to procure the
said coin and prevent the further miseries" to use an old European trick: Giving a
foreign coin higher value than its intrinsic worth in metal. The logic is similar to the
petition for debased coin they sent to England in 1632. People would presumably
prefer to use foreign coin in Virginia because, as long as prices were fixed and the
same as elsewhere, they would be able to buy more goods with it. Massachusetts was
the first American colony to pass such an act in 1642. It regulated the value of two
Dutch coins because of its growing trade with New Netherlands (future New York), but also regulated the value of the standard Atlantic coin – the Spanish piece of eight. Its intrinsic worth in silver was 4.5 shillings, and Massachusetts declared its legal value to be 5 shillings.178

Virginia decided: "all pieces of eight in Spanish money be valued and taken in payment, at the rate of six shillings and all other Spanish silver coins proportionally which shall be brought into the colony." It is likely that Virginia picked up the idea from Massachusetts, as they already had much trade between them.179 Ripley thinks the choice of 6 shillings was made to compete with Massachusetts' choice of 5 shillings.180 Another reason could be that a coin legally worth 6 shillings and intrinsically worth 4.5 shillings was exactly what the colony petitioned for in 1632: A coin debased by 25%.

The really interesting part comes next, with the argument that "it is conceived that the said coin will not continue with us unless we have a leger coin." Regarding "leger", this was either a transcription error for "lesser" or the French word léger ("light").181 The legislature was afraid that without fractional coin the big coin would go away in the normal course of trade. It is not clear why they thought so. In any case, they thought "a coin of copper would be the most beneficial to, and with most ease procured by the colony."

The plan was to collect a tax of 24 pounds of tobacco per head to buy in England 10,000 pounds of copper. Each pound of copper, though worth intrinsically only 18 English pence would be minted into 240 Virginia pence in denominations of 2, 3, 6, and 9 pence. The Virginia penny would be debased 92.5% – a token coin.

178 Shurtleff (1853), vol. II, p. 29.
179 Hatfield (2004), passim.
180 Ripley (1894), p. 113.
181 A contemporary dictionary (Bailey 1675) has "leger" only as an alternative spelling to "ledger", with the latter word having the same meaning as today.
Perhaps the difference from 1638 was that this time the minting and its profits were to be kept in the colony. Indeed, a mint was established. "Capt. John Upton is hereby confirmed Mint Master General: We reposing much confidence in his care, ability and trust for the performance of the said office." 182 This copper coin was to be "current," and together with the foreign silver coin it was to replace tobacco as money. Using tobacco as money would become illegal.

The main puzzle about this act is the establishment of a mint in the colony, violating the king's coinage prerogative. From the timing of this act, Ripley thinks this was a result of the Civil War which made Virginia practically independent. Referring only to the regulation of foreign coin, McCusker concurs. 183 Unusual words in the text support such an interpretation. Virginia refers to itself in this act, for the first time, as "state" and "republic." 184

The problem with this interpretation is that this act would be the only evidence in Berkeley's long career for disloyalty towards the royal family. Perhaps he got the king's personal approval to issue coin, while he was in England. If so, why wasn't this stated in the act? The king is not mentioned at all. The mystery around this act smells like something that could only be a result of political compromise.

In the next session, in March 1646, another act mentioned "the hopeful expectation of a current coin, to be made in the colony, which cannot be so readily effected as was then expected." 185 The Virginia mint and coin were never mentioned again, and probably they never existed. Here too we may blame poverty in physical

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182 Hening (1823), vol. I, p. 309.
184 The word "state" appeared before in the records only in expressions such as "Council of State" and "State House". Here the word was mentioned to denote the beneficiary of goods to be confiscated from those using tobacco as money. The normal phrase was half to the informer and half "to His King's Majesty", but here we have "to the benefit of the state." The use of "republic" is wholly unprecedented, and appears here long before the establishment of a republic in England.
185 Hening (1823), vol. I, p. 313.
and human capital. Iron was so scarce that other acts in 1645 and 1646 refer to the custom of burning down abandoned houses to salvage their nails.\textsuperscript{186} This was no place to build a mint. The skilled goldsmiths of the first years were gone by then. Upton, the mint master, was typical of the elite. A former servant, who later posted a bond for good behavior, he served as a Burgess since 1633, and was a justice of the peace. There is no hint in the records as to any technical skills or relevant experience he may have had.\textsuperscript{187} The only thing remaining of the coin act was the manipulation of the value of foreign coin, and this became the standard money legislation for decades.\textsuperscript{188}

11. Conclusion by Comparison

The monetary history of seventeenth century English America seems superficially quite uniform. In all colonies the most common type of money was the main agricultural commodity – tobacco in the south, grain in the north. In the eighteenth century they all gradually moved to paper money. But there are important differences. Only Virginia's Indians appreciated metal enough to accept it as money. While New Netherlands and all of New England quickly recognized Indian seashell money as legal money among themselves, Virginia's colonists never did so on a large scale.\textsuperscript{189} Neither did they use among themselves the goods they used as money with Indians (copper, iron hatchets, glass beads). The reason seems to be that by the time the cooperative was dismantled and the private economy was born, tobacco already emerged as the only game in town. From that point it perpetuated itself. Its monetary function encouraged almost everyone to grow it, which only strengthened its grip on the economy in a vicious circle.

\textsuperscript{186} Hening (1823), vol. 1, pp. 291, 327.
\textsuperscript{188} McCusker (1978), p. 205.
\textsuperscript{189} Bruce (1896), vol. II, pp. 520-1 gives rare examples.
Virginia tried to have a better money through a mint and banks, but failed. The first mint in English America was opened in Massachusetts in 1652. It was shut down by the angry king in the early 1680s. The first bank in English America was almost opened in Massachusetts in 1688. It was to be a private land bank – issuing paper money in exchange for mortgaged land. The plan was aborted because an English governor invalidated all land titles. The first legal tender, unbacked paper money in English America was issued in Massachusetts in 1690. It would be shut down by Britain in 1749. Why did Massachusetts succeed (pending English neglect) where Virginia failed?¹

For one thing, Massachusetts needed convenient money more than Virginia did. It had a diversified economy, which naturally encouraged internal trade. It had no single dominant crop which became the obvious choice for money. It had more wage workers than servants and slaves. Such demand factors are not the entire story, however, because Virginia did try. Its supply of workable ideas and their implementation was insufficient. It was physically poor, having neither equipment nor personnel. Financially, Massachusetts could easily afford the physical equipment – the mint and the printing press for paper money. Virginia could not afford the mint, the banks, and the boats to reach the banks. Both the Massachusetts mint and bank relied on the skills of professional immigrants from London. Its mint also had workmen from its unprofitable iron foundries. There was no English professional that we know of behind the planning and execution of the Virginia projects. Its ironworks and their men were annihilated in the 1622 Massacre. Constitutional, political, and economic problems with England may have also worked against Virginia. It may have abandoned the mint plan because of the prerogative issue. Massachusetts waited for

royalty to be abolished before opening a mint. Virginia's banks were intertwined with customs collection, which the colonists wanted to avoid. The king, for his part, was all too happy with them being an export colony without normal internal trade, because customs on tobacco went straight to his pocket behind Parliament's back.

Ignorance is bliss, sometimes. Virginia did have one advantage over the experienced men who led Massachusetts. It cared little about legal formalities, and when it found Common Law to contradict Common Sense, it preferred the latter. This happened in the same year that ends the paper – 1645 – when Virginia invented the rule of setoff in English law. This allowed anyone sued on a tobacco IOU to present a counter-debt and have the court "balance accounts."¹⁹¹ This novelty saved on the costs of sending tobacco back and forth in discharge of offsetting IOUs. Common Law, dealing traditionally only with one case at a time, could not do that. The English Parliament followed Virginia only in the eighteenth century.¹⁹²

References

¹⁹¹ Hening (1823), vol. I, p. 296.
¹⁹² Loyd (1916).


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