

Proceedings of the American Academy of Arts and Sciences.

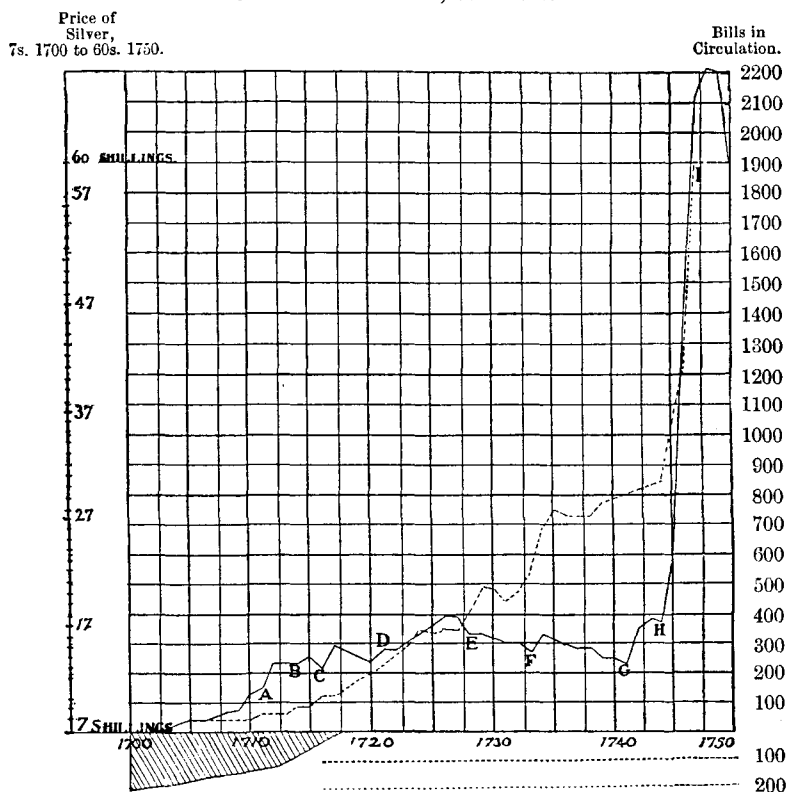
VOL. XXXIII. NO. 12. — FEBRUARY, 1898.

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*CERTAIN CONSIDERATIONS CONCERNING THE COIN-  
AGE OF THE COLONY AND THE PUBLIC BILLS  
OF CREDIT OF THE PROVINCE OF THE MASSA-  
CHUSETTS BAY.*

BY ANDREW MCFARLAND DAVIS.

**DIAGRAM SHOWING DISAPPEARANCE OF SILVER, INCREASE OF  
PROVINCIAL CURRENCY AND CORRESPONDING MOVEMENT  
OF SILVER RATE, 1700-1750.**



- A. Quebec Expedition, £50,000 Loan.
- B. £50,000 Loan.
- C. £100,000 Loan.
- D. £50,000 Loan.
- E. £60,000 Loan.
- F. Merchants' Notes.
- G. W. I. Expedition. Land Bank.
- H. Cape Breton Expedition.
- I. Price of Silver checked by proposed reimbursement.

Unit of Scale of Silver Price one shilling.  
Unit of Scale of Circulation £1,000.  
The shaded block underlying the currency represents the Silver Circulation in New England.  
The years are indicated along the base line between Currency and Silver.

CERTAIN CONSIDERATIONS CONCERNING THE COINAGE  
OF THE COLONY AND THE PUBLIC BILLS OF CREDIT  
OF THE PROVINCE OF THE MASSACHUSETTS BAY.

BY ANDREW MCFARLAND DAVIS.

Presented June 9, 1897.

THE New England shilling was, according to the terms of the Act establishing a Mint,\* to be of the just alloy of new, sterling, English money, and for value to be twopence in a shilling of lesser value than the corresponding English coin. It was to weigh three penny-weights, Troy weight. Like the guinea, this shilling is to-day a mere reminiscence, yet until a very recent period it held its own in many parts of New England, in the price lists of tradesmen, as the sixth of a dollar. Douglass says: † “At the first settling of the New England Colonies, their medium was sterling coin at sterling value, and barter. When they got into trade a heavy piece of eight passed at 5s. A. 1652, they proceeded to coin silver shillings, sixpences, and threepences, at the rate of 6s. to a heavy piece of eight.” There is no reference to the value of the piece of eight in the Act establishing a Mint, but it will be seen that the conversion of the New England shilling into sterling would have been on the basis of exchange at 120, whether the rate be estimated from the corresponding values given in the Act in pence, or from those given by Douglass in pieces of eight. Douglass, however, states elsewhere,‡ that the actual value of the piece of eight was only 4s. 6d. If this was so, then the New England shilling was from the outset worth only ninepence and the normal rate for the conversion of New England currency to sterling was 133. These are the rates that prevailed during the period of the Province, and the only question is whether the shilling ever did have the value of tenpence according to

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\* Mass. Col. Rec., Vol. III pp. 261, 262.

† A Discourse concerning the Currencies, etc., p. 10. In addition to the above coins, silver twopences were authorized in 1662. Mass. Col. Rec., Vol. IV. p. 51.

‡ A Discourse, etc., p. 8.

the language of the act. The heavy piece of eight not only passed within the Colony at five shillings in early days, but, according to Douglass,\* it was remitted to Great Britain on that basis. This being the case, it is easy to understand how the law makers came to rate a piece actually worth only ninepence sterling at tenpence, an effective value accomplished through the remittance of pieces of eight at a rate above their market value, and we need no explanation for its decline from this nominal rating to its proper place in the scale of exchange, so soon as the immediate causes which led the London tradesmen to accept this discrimination against them should have passed away.

The mint was established in the hope of retaining a metallic currency in the Colony, through the agency of the lighter coinage, but it was soon evident that it was not performing this work, and in August, 1654, a law was passed against the exportation of coin.† Mere legislation, however, was no more effective than the system of coinage, and in May, 1669, searchers were appointed with extraordinary powers whose duty it was to examine outgoing vessels which had weighed anchor with the intention of leaving our waters.‡ They were to seize all money which they should find, and were invested with power to break open packages and examine personal effects. Notwithstanding these arbitrary proceedings silver still left the country, and in October, 1672, the General Court prefaced an Act legalizing the currency of pieces of eight with a preamble in which it was stated that these coins were of more value to carry out of the country than they would yield at the mint, and, what was of more consequence, that they were actually carried out of the country instead of being taken to the mint. To prevent this, it was ordered that pieces of eight, of full weight and good silver, Mexico, Seville, and Pillar, should pass current at six shillings, after they had been duly stamped at the mint with the letters N. E. to indicate that they had been inspected.§ Light weight pieces of eight were to be stamped with their actual weight, and to pass for a proportionate value.

This is the first point at which we obtain a legal rating of the piece of eight in New England currency, and it might be inferred that this value was assigned in consequence of the depreciation of the coinage from the rate at which it was originally minted. If this opinion should prevail,

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\* A Discourse, etc., p. 8.

† Mass. Col. Rec., Vol. III. pp. 353, 354.

‡ Mass. Col. Rec., Vol. IV. p. 421.

§ Mass. Col. Rec., Vol. IV. p. 533.

the date of this Act will be accepted as that at which the value of ninepence sterling was recognized as the true value of the New England shilling. It seems much more probable, however, that the Act was the result of two circumstances: first, that, the piece of eight having a recognized value, people could and did avail themselves of it as a medium of trade without paying seigniorage at the mint for its conversion into New England money; and second, that the General Court was desirous of protecting the public against the light weight pieces, if possible. So far as this latter reason may have had influence in promoting this legislation, it is evident that it produced little result; for in May, 1682,\* the General Court authorized the currency of light weight pieces of eight according to their weight. Under the Province, it was enacted in 1692 that pieces of eight, Seville, Pillar, and Mexico, should pass current if of full seventeen penny-weight at six shillings, and this value was again assigned them in 1697.† The expression "full seventeen penny-weight," is probably the equivalent of "not less than seventeen penny-weight." The rate of silver per ounce to be deduced therefrom is a little over seven shillings. The same year the legislation against the export of bullion or money was renewed,‡ and shipmasters on clearing were required to take an oath that they did not have on board their vessels over five pounds in bullion or current silver money.

In 1704, a proclamation was issued by Queen Anne fixing the rates at which certain foreign coins should pass current in her Majesty's dominions in America. The weight and intrinsic value of these coins were given, and also the rates at which they should pass in the Plantations, the latter being fixed in terms of New England currency. It may be inferred from this proclamation and the parliamentary statute passed in 1706 for enforcing it, as well as from colonial legislation, both before and after this date, with regard to the value at which pieces of eight should pass, that the New England coinage had been supplanted by the Spanish and Mexican dollars and fractional parts thereof. The mint had been closed for twenty years when the proclamation was issued, and thenceforth New England money when used to express silver values was known as "proclamation money" or "lawful money," equivalent expressions, found in the acts of the several governments, meaning nothing more nor less than the rate fixed at which coined silver should pass when measured in terms

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\* Mass. Col. Rec., Vol. V. p. 351.

† Province Laws, Vol. I. pp. 70 and 296.

‡ Province Laws, Vol. I. p. 306.

of the New England currency.\* By this proclamation, the Seville piece of eight, old plate, and the Mexican piece of eight, were each valued at 4s. 6d. and the weight of each was given at 17 dwt. 12 grs. The Pillar piece of eight was given a slightly higher value in this table. The rate at which these coins were to circulate was fixed at 6s. the same value as that assigned by the provincial legislation "if of full seventeen penny-weight." The rate of conversion was exactly 133, the 4s. 6d. sterling being equal to 6s. New England money. The rate for silver in London was then 5s. 2d. per ounce. At  $17\frac{1}{2}$  dwt. for the piece of eight, silver was rated at 6s.  $10\frac{3}{4}$ d. per ounce, or at a fraction less than 5s. 2d. sterling.

The Provincial Act of 1697 seems to have been the basis for the rates fixed in the proclamation. In 1706, the Lords of Trade informed Governor Dudley that this was the fact. "You are further to represent to the Assembly," they said,† "that there lies a particular obligation on them to enforce a due obedience to her Majesty's commands herein, for that the regulation of the rates at which foreign coins are to pass was calculated from a law of their own." The establishment of the value at which foreign coins should pass in the Plantations, by the standard fixed for the value of the New England shilling in an Act passed by the General Court of Massachusetts, instead of reversing the process and taking sterling money as the basis, at first glance seems peculiar. It must be remembered, however, that at that date, apart from the fact that the Province was dependent upon foreign silver for its currency, New England money was to a great extent but a nominal measure of value, the mint having been closed for over twenty years and the Province having been compelled in the mean time to resort to legislation against the export of silver, in order to keep within its borders the miscellaneous coins then in circulation. Moreover, the circumstances connected with the silver coinage in Great Britain at that time were such as may serve to some extent to explain this readiness to accept a measure of value set by the Province itself in terms of a foreign coin. The table of values for foreign coins contained in the proclamation was prepared by

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\* Felt, on page 116 of his *Historical Account of Massachusetts Currency*, says, "As debtors, who confided in the last emission of Government notes, had promised to pay lawful money, meaning these bills. . . ." This expression is susceptible of the interpretation that Felt thought the public bills of the issue referred to were lawful money, which may or may not have been his intent. The statute which he was interpreting was passed for the purpose of relieving debtors who had incautiously agreed to pay lawful money for debts incurred in public bills.

"The Editor has been unable to find any definition or explanation of what is meant by 'proclamation money.'" — *New Hampshire Prov. Papers*, Vol. V. p. 672.

† *Province Laws*, Vol. I. p. 580.

Sir Isaac Newton, who had been called to the charge of the mint for the purpose of superintending the recoinage of the silver of the realm. Prior to this process and during its continuance, the relations of the values of English gold and silver coins were greatly disturbed. After the recoinage, confidence was re-established in London, but it was still fresh in the minds of men that the upward career of the guinea, when measured in the clipped and sweated silver in circulation prior to this measure, had been decreed by parliamentary enactment to stop at 30s., and that by successive laws its measure in silver had been ordered to be reduced to 22s., while as a matter of fact it had, at the time the table was made, actually fallen to 21s. 6d. Thus it will be seen that the recent instability of the English silver coinage may have influenced the politic course taken in accepting the measure of value, established in terms of a foreign coin, by the colonists themselves. The rate having been thus fixed between a nominal measure of values and an actual coinage, there was nothing to disturb it, and it was passed on to our day, six New England shillings being equal to the dollar, Mexican or Spanish, and to their successor, our own dollar, 133s. New England money being in the days of the Province equal to 100s. sterling.

Until dollars came into use, all transactions in Massachusetts were stated in New England money. All accounts given in terms of "lawful money" must therefore be reduced twenty-five per cent if we would obtain the corresponding amount in sterling. During the progress of the currency inflation which took place in this country in the first half of the eighteenth century, the Province of the Massachusetts Bay was the leader. The other New England Colonies copied the form of note first issued in this Province, which was in effect a mere certificate that the bill was due from the Province to the possessor and should be in value equal to money, and on these terms would be accepted by the Treasurer in all public payments. The bills of the different governments circulated side by side promiscuously, even after legislation was invoked to prevent it, no matter what the terms on which they were issued or the amounts outstanding of the bills of the several governments, and when they all of them became so seriously depreciated that they were worth only about twenty-five per cent of the value at which they originally circulated, Massachusetts adopted a new form of bill in which the value of the bill was expressed in coined silver or gold. The other Colonies also adopted the new form, and bills of the respective forms were thereafter known as old and new tenor bills. Of the new tenor bills Massachusetts used three different forms, but they all preserved the feature of stating a value in silver at

which the bill should pass, though changes were made in the silver rate and in the phrase which defined their use in payments. The new tenor bills were at first held at the rate of one for three, but very shortly thereafter the fact that the depreciation of the old tenor bills was not fully recognized in this estimate compelled the establishment, when the second form of new tenor bills was adopted, of the ratio of one to four. Old and new tenor bills were sometimes emitted, side by side, in the same Act, and thus it became necessary that one of these forms should be accepted as the measure of value. Inasmuch as all values had been stated in old tenor up to the issue of the new form, and as there were for a short time two forms of new tenor having different measures of value in old tenor, it was customary for writers to convert the bills of the new tenor into old tenor in making statements of the amount in circulation. When, therefore, it is stated that there was in circulation in 1749 £1,900,000 of public bills of the Province of the Massachusetts Bay, it must be remembered that, if the taxes which were laid for the purpose of withdrawing from circulation the old tenor bills had been paid exclusively in these bills, there would have been in circulation at that time only £475,000 in bills of the different forms of new tenor, and exchange, instead of being 1100 or thereabouts, would have been only 275. While such facts as these add greatly to the confusion of the situation, no just appreciation can be acquired of the statements which I am about to submit, showing the movements of exchange, etc. during this period of inflation, which does not take into consideration that in 1737 these disturbing elements were introduced through the emission of the new tenor bill.

The following table, showing the rate of exchange and the price of silver at different dates, 1702 to 1749, was made up by Dr Douglass.\*

Periods.	Exchange with London.	1 oz. Silver.	Periods.	Exchange with London.	1 oz. Silver.
A. D. 1702	133	6s. 10½d.	A. D. 1728	340	18s.
1705	135	7s.	1730	380	20s.
1713	150	8s.	1737	500	26s.
1716	175	9s. 3d.	1741	550	28s.
1717	225	12s.	1749	1.100	60s.
1722	270	14s.			

\* Douglass's Summary, Historical and Political, etc., Vol. I. p. 494.

The Suffolk files furnish us with two papers which give the fluctuations in silver somewhat more in detail than the foregoing table between 1700 and 1738, inclusive. This record is copied from a book kept by Edward Winslow, who was sheriff of Suffolk County, and it has therefore a certain official character.\*

Years.	Rate of Silver per Ounce.	Years.	Rate of Silver per Ounce.	Years.	Rate of Silver per Ounce.
1700 to 1704	7s.	1721	{ 12s. 6d., 13s., 13s. 6d.	1731	{ 18s. 6d., 19s.
1705 to 1710	8s.	1722	14s.-14s. 6d.	1732	{ 19s. 6d., 20s., 20s. 6d.
1711	8s. 4d.	1723	{ 14s. 6d.-15s., 15s. 6d.	1733	{ 21s., 21s. 6d., 22s., 22s. 6d., 23s.
1712, 1713	8s. 6d.	1724	16s.-16s. 6d.	1734	{ 24, 25, 26s., 26s. 6d., 27s.
1714, 1715	9s.	1725	16s.-15s.	1735	27s. 6d.
1716, 1717	10s.	1726, 1727	16s.	1736	27s., 26s. 6d.
1718	11s.	1728	{ 16s. 6d.-17s., 18s.	1737	26s. 6d., 27s.
1719	12s.	1729	{ 19s.-19s. 6d., 20, 21, 22s.	1738	27s.
1720	12s. 4d.	1730	21, 20, 19s.		

From scattered sources we can fill in the missing quotations from 1738 to 1749, with sufficient accuracy for our purposes.† As to the rate of exchange at the latter date, the confusion was so great that no person knew just what it was, but silver was generally quoted at about 60s., and exchange at about 1100. In 1700, the Province was practically on a specie basis, and exchange was quoted at its normal rate, 133. Douglass gives silver in 1702 at 6s. 10½d. Hutchinson practically adopts the same rate.‡ If the piece of eight was permitted to circulate on the

\* Suffolk files, 40,289 and 46,659. There is a table incorporated in the draught of an act which failed of passage, given in the Massachusetts Archives, Vol. CI, p. 473, which includes the rates from 1710 to 1727. Another is to be found in the Diary and Letters of Thomas Hutchinson, p. 53. Felt gives the table from the Archives, Historical Account of Massachusetts Currency, p. 83.

† The important points being 1744, 30s.; 1745, 36s.; 1746, 41s.; 1747, 60s.; 1750, 60s.

‡ History of Massachusetts, Vol. II. p. 393.

basis of 17 dwt. the rate of silver was  $7\frac{1}{7}s.$  per ounce. If the conditions of the proclamation of 1704 were adhered to, then the rate was  $6s. 10\frac{3}{4}d.$  per ounce. The general rating of the period appears, however, to have been that given by Winslow,  $7s.$  per ounce. A committee of the General Court recommended that pieces of eight should pass at  $7s.$  per ounce, in 1701.\* Another committee in 1703† proposed that plate, bullion, and silver of sterling alloy should pass at  $7s.$  per ounce. Seven shillings may therefore be adopted as the generally accepted value at that time.‡

All through the Provincial legislation  $6s. 8d.$  is treated as the normal rate of silver in lawful money, and  $5s. 2d.$  as the sterling rate. With exchange at 133, and silver rated at  $5s. 2d.$  sterling, the rate in lawful money should have been  $6s. 11d.$ , a fraction above the rate to be derived from the proclamation. The question naturally arises, Whence came this rate of  $6s. 8d.$ ? My conjecture is that it dates back to the days of the Colony, at which time silver is sometimes quoted at  $5s.$ § This sterling rating would be the equivalent of  $6s. 8d.$  New England money. Its use would in that event have been merely traditional, but a traditional rate might have fixed itself upon a denominational money.

During the period of the decline of the notes, the influence of the Governors and of the Councillors, especially after the decline became

\* Mass. Archives, Vol. CI. p. 184.

† Court Records, Vol. VII. p. 373.

‡ The author of "Observations on the Scheme for £60,000 in bills of a new Tenour," p. 18, gives the rate in 1702 at seven shillings. The same author, however, in "An Inquiry into the Nature and Uses of Money," etc., p. 4, gives the rate the same year as eight shillings. December 27, 1704, Dudley announced that he had received the proclamation. Court Records, Vol. III. p. 95. On the 3d of March, 1704-5, the Council passed an order that no money should pass by tale but what was of due weight, according to her Majesty's proclamation. Light money and plate of sterling alloy were to pass until further provision should be made at the next session of the Assembly at seven shillings per ounce. The House non-concurred, and the Governor summoned them to a conference. After the conference, the order was amended by striking out the seven shillings, and making it read that light weight coins, etc. should pass and be good in payments by the ounce Troy *pro rata* until the end of the session of the Court in May. Court Records, Vol. III. p. 113. On the same day Dudley issued a proclamation to that effect. Mass. Archives, Vol. CI. pp. 287 and 290.

§ A Discourse, etc., p. 24. Douglass, speaking of the effect of the depreciation of the currency on the salaries of clergymen, says the preachers "when silver was at  $5s.$  had £3 per week; at present, silver at  $29s.$  per oz., they have only £6 to £8, equal to  $40s.$  of former times."

sufficiently pronounced for them to recognize the causes, was as a rule on the side of conservatism. They had no remedy to propose, but the Governors in their speeches repeatedly pointed out the evils which would arise from failure on the part of the Assembly to call in the notes at the appointed time, and the Council many times refused to concur in bills which by their terms postponed the withdrawals. The effect of the decline was felt most by individuals living upon salaries, or having fixed incomes payable in current funds, but it also reached certain branches of the government. The post office, for instance, was dependent for its support upon a schedule of fixed charges, and no compensation was possible for the loss occasioned by the decline of the currency. In 1713, the department lodged a complaint with the Board of Trade, for this reason.\* The Governors not infrequently pointed out that the allowances made them for their services ought to be increased proportionately to the diminution in the purchasing power of the bills, and the members of the Board and of the House took care that their *per diem* pay was at least approximately adjusted. "I own, some part of this community can fence against this evil," said Governor Shute, in 1716, "and ward it off from themselves by advancing their commodities, but the other part must unavoidably suffer. All rents must fall of consequence, and what will your ministers do, who are highly worthy of their salaries? how heavily it will fall upon them and their families, when what they are paid in grows low in value, and their necessities of life are daily advancing." Douglass saw that through the changes made in the allowances to the Governors and in the *per diem* pay which the members of the General Court voted to themselves, a sort of scale could be constructed with which to measure the diminution of the purchasing power of the bills, and he therefore put together the following table.†

A. D.	1702.	1720.	1730.	1740.	1743.	1745.	1747.	1748.
Gov'nors } Per Ann. }	Dudley £600	Shute £1,000	Belcher £2,400	Belcher £3,600	Shirley £5,400	Shirley £6,000	Shirley £7,600	Shirley £9,600
Councillors per day	5s.	6s.	10s.	15s.	18s.	18s.	30s.	40s.
Representa- tives per day	3s.	4s.	6s.	10s.	12s.	12s.	20s.	30s.
Rates	£6,000	£6,000	£6,000	£35,000	£60,000	£120,000	£168,324	£381,672

\* Board of Trade Journal, quoted by Palfrey, Vol. IV. p. 332.

† Douglass's Summary, etc., Vol. I. p. 508.

The growth of the rates or annual charges of the government is almost as instructive as the advance of the pay of the legislators, but is of course complicated by causes outside the currency. The changes in the pay of the Councillors and Representatives, as laid down in the Province Laws, are as follows.

A. D.	1692.	1714.	1728, 1737.	1738, 1740.	1741.	1742, 1746.	1747.
Councillors per day	5s.		10s.	15s.	12s.	18s.	30s.
Representa- tives per day	3s.	4s.	6s.	10s.	8s.	12s.	20s.

It will be seen that the records practically confirm Douglass's table, so far as the *per diem* pay of the legislators is concerned, the brief variation in 1741 not being of sufficient importance for consideration. The increase in the Governor's pay in 1748, would indicate a probable increase at the same time in the pay of the Councillors and Representatives; but there is no record preserved of any action on this point. The Annual Tax Acts all contain statements of the amounts respectively levied for the Province tax and for Representatives' pay and fines. If the service of the Representatives had been uniform each year, we could test the table by a comparison of the appropriations for Representatives' pay for different years; but an examination of these amounts from year to year shows that the growth to be found there does not exactly follow the law which would be deduced from the amount of the *per diem* pay. It is a fact, however, that while the amount assessed in June, 1747, for Representatives' pay and fines, was £2878 11s. 6d., the corresponding amount in the levy next year was £4508 5s. The presumption is that Douglass was correct in the figures which he gave for the pay of the Councillors and Representatives in 1748.

A variety of circumstances complicates the attempt to analyze the allowances made the Governors during this period, but on the whole Douglass's table fairly represents the changes. Phips had three annual allowances of £500 each. Bellamont, who was very popular, had two allowances of £1000 each. Dudley was allowed £500 in 1702. Shute was at first allowed £1200, but this was afterwards cut down to £1000. Belcher's first allowance was £2400, from 1731 to 1737 inclusive he was allowed £3000, then for three years the sum was fixed at £3600. From this point Shirley's allowance was advanced by stages to £5400, £5760, £6000, £7600, and finally it was, in 1748, £9600.

It was stated by a contemporary writer that there was in circulation in the four New England Colonies, when the first issues of Province bills were made, about £200,000 in silver.\* Douglass says that in 1713,† one third in value of the circulating medium of the New England governments was silver, and the other two thirds paper. The bills he estimated at £175,000. Silver was then rated at 8s. per ounce. They were therefore equivalent to 437,500 ounces of silver. He called them 438,000 ounces, and thus got a total of 657,000 ounces. A comparison of some of these estimates may be useful.

Year.	Silver in Circulation.	Bills in Circulation in all New England.	Rate of Silver per Ounce.	Corresponding ounces of Silver in Circulation.	Value of Circulation at 6s. 8d. per Ounce.
1700	£200,000		7s.	571,428	£190,476
1713	219,000 oz.	£438,000	8s.	657,000	219,000
1718		300,000	12s.	500,000	166,666
1731		470,000	20s.	470,000	156,666
1733		630,000	20s.	434,482	144,827

If there is any rule to be deduced from the foregoing table it would seem to be substantially the same as that laid down by Douglass: ‡ “The more paper money we emit, our real value of currency or medium becomes less, and what we emit beyond the trading credit of the country does not add to the real medium, but rather diminishes from it by creating an opinion against us, of bad economy and sinking credit.”

The apparent exception to the rule, in the excess in the purchasing capacity of the circulation shown in 1713, may be capable of explanation. When the Colony began the emission of public bills of credit there was in circulation an amount of silver practically adequate for the transactions of local business affairs. Until it had been totally displaced and superseded by paper money, any estimate of the amount remaining in circulation at any given time must have been conjectural. Douglass's estimate of one third in circulation in 1713 may have been too high, and was indeed disputed by one of his contemporary controversialists. Whether this be so or not, time was required for the emissions to produce their effects upon the discount of the bills and the displacement of

\* The Second Part of South Sea Stock, p. 22.

† A Discourse, etc., p. 29.

‡ A Discourse, etc., pp. 29, 30.

silver, and it is quite probable that the £50,000 emitted for the Hill and Walker expedition against Quebec in 1711 had not then fully done its work. Still another exception to the rule is to be found in 1749. There were outstanding that year, in the month of May, about £2,200,000 old tenor. A tax of £75,000 new tenor was laid that summer. This was equal to £300,000 old tenor, and reduced the amount outstanding to £1,900,000. Silver was then quoted at 60s. an ounce, and the outstanding circulation, thus reduced, was equivalent to 633,333 ounces, which at 6s. 8d. an ounce was equal to £211,111. It must not be forgotten, however, that when that tax was laid it was known that the government of Great Britain had completed its preparations for reimbursing the Province for its expenditures in behalf of the Cape Breton expedition, and a law had been passed in the Province fixing the terms of the redemption of the bills. One cause of the delay in paying over the money to the Province was the opposition of certain merchants in London, who believed that speculators were gathering in the bills in the hope of reaping a profit out of their redemption. These exceptions, therefore, do not furnish adequate reasons for doubting the correctness of the rule deduced by Douglass.

The influence of large emissions on the part of the Province of the Massachusetts Bay upon the silver quotations can be easily distinguished, and in some instances, where the rise of silver was stimulated by causes not connected with the issues of this Province, the coincidence with large emissions in Rhode Island furnishes an adequate explanation of this change in rate. Douglass was of opinion that two thirds of the bills emitted by Rhode Island were absorbed in the circulation of Massachusetts. The table on the opposite page, mainly made up from facts brought together by Douglass in his pamphlets, will illustrate these points.

Wages did not rise proportionately with silver. In a pamphlet published in 1721, when silver was between 12 and 13s. an ounce, the writer says,\* "I will next ask the poor laborer that works for five shillings per day, half money, half goods, whether he lives better now than when he received four shillings per day in good silver money at the rate of seventeen penny-weights for six shillings." Douglass, writing in 1739 concerning the effect of the depreciation on wages, says:† "How much they have suffered and continue to suffer is obvious. For instance, a carpenter, when silver was at 8s. per oz., his wages were 5s. a day all

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\* The Second Part of South Sea Stock, p. 16.

† A Discourse, etc., pp. 23, 24.

Year.	Rate of Silver per Ounce.	Loans and Extraordinary Emissions.
1700	7s.	
1706	8s.	
1712	8s. 6d.	£50,000 advanced acc. Quebec Expedition.
1715	9s. 2d.	£50,000 loan, 1714. £40,000 R. I., 1715.
1717	12s.	£100,000 loan.
1722	14s.	£50,000 loan, 1721. £40,000 R. I.
1728	18s.	£60,000 loan, 1727. £40,000 R. I., 1728.
1732	21s.	£60,000 R. I. loan, 1731.
1733	27s.	£76,000, 1733; £104,000, R. I.; £50,000 Conn.
1738	29s.	£100,000 R. I. loan.

cash. The Town House, A. 1712, was built at this rate; whereas at present, A. 1739, from the bad influence of paper money, silver being 29s. per oz., he has only 12s. a day, equal only to 3s. 4d. of former times; and even this is farther reduced, by obliging him to take one half in shop goods at 25 per cent or more advance above the money price." He then proceeds to show how the purchasing power of the day's wages has diminished, selecting butter for his illustration on the ground that it rose the most uniformly of all provisions. When wages were 5s. per day, butter was 4d. per pound, and the laborer could buy 15 pounds with one day's wages. His 12s. would only purchase 7 pounds, butter being then 20d. a pound. The salaries of clergymen had more than doubled, but the purchasing power of the salaries had diminished thirty-three per cent.

There is much to be learned from a study of the attempts at remedial legislation during this period. The subject of the adjustment of the relations between debtors and creditors, and the application of the legal tender function to the bills, raised complications which occupied much of the time of the General Court, and the various attempts to reconcile the divergent interests of the debtor and creditor classes are entitled to careful consideration. The material bearing upon these questions is, however, too prolific for any attempt at analysis here.

The form of the public bill has already been indicated. It was in effect a certificate of indebtedness, and on that theory, when it found its

way back to the treasury, the debt was extinguished and the temporary function of the bill was performed. Under this theory the amounts originally issued each year were simply intended to meet the immediate needs of the government, and provision was made for their retirement in the next tax bill. The withdrawal from circulation, and the locking up in the hands of a treasurer, of large sums collected by taxation, is recognized as a serious disturbance to the circulating medium of a government, and various devices are to-day resorted to in order to prevent as far as possible the consequent reduction of the circulation. In a similar way, after the country became dependent for a circulating medium upon the amounts thus annually emitted, the sudden emission and the withdrawal each year of so large a proportion of the medium of trade must have created a serious disturbance in commercial affairs, and the cry of a scarcity of bills during the period of the year when the taxes were being collected was based upon a genuine want, even when the bills were most abundant. The increase in the amounts issued, the postponement of the periods for retirement, and the distribution of the withdrawals over several years, were only partial remedies for this evil. Confidence in the bills was based upon their ultimate withdrawal, and the greater the emissions the greater the taxes that must be levied to provide for their retirement. While this was evidently true, and while there were indications that pointed to a loss of confidence in the bills when the Assembly failed to provide the promised fund for the withdrawal of an emission, yet it cannot be doubted, however paradoxical it may seem, that whenever a fund was called in for the purpose of redeeming the government promises and maintaining confidence in the bills, it was expected that there would be an emission to fill the gap thus occasioned in the circulating medium.

The emissions in Massachusetts from 1702 to 1749 reached the sum of £4,630,000, while the withdrawals during the same period, including the £300,000 in 1749, were £2,730,000. It was doubtless to overcome the disturbance occasioned by this annual process of absorption and emission, that the system of distributing bills of public credit among the inhabitants, on loans secured by real estate, was resorted to. £310,000 was thus put out at different times. The first loan was to the Boston merchants who furnished supplies for the Quebec expedition in 1711. This was only a temporary loan, to enable them to carry the sterling exchange paid to them by the paymasters of the expedition, until it should be met in London. In 1714, when it was about to be paid, it was replaced by a loan of £50,000 to the inhabitants of

the Province. When the first instalments on this loan fell due, in 1716, £100,000 was put out and this was followed by £50,000 more immediately after the last instalments on the first popular loan were payable, in 1721. When by the terms of these loans they should have been retired, a new loan of £60,000 was made, and doubtless this process would have been continued but for the interference of the Board of Trade. The meaning of the attempt is obvious. The Assembly was seeking to furnish a medium for trade, which should not be subject to the annual calls for retirement under which bills for government expenditure were issued.

Among the various experiments then made there were but two attempts to give these bills a credit based upon a promise that they should be paid in coin, the first being of little consequence, as it applied to only £1500 emitted in 1693.\* The promise in this, as well as in the later and more important instance, was not on the face of the bill, but was in the Act of emission, and in the second case was so worded that in practical operation it did not prove beneficial for the bills in question. The Act under which the £9,000 in bills of the first new tenor were emitted in February, 1736-7, contained a provision for levying a tax in 1741, adequate for their retirement, payable not only in the bills themselves, but in old tenor bills or in certain produce. It was further provided that after that session, and until 1742, the duties of impost and excise should be paid in coin, and although it was thought that the several funds established for the retirement of the outstanding bills would be adequate for the purpose and all would be out of the way by that time, these duties were pledged as a still further security. If by chance it should happen that any of these new tenor bills should be outstanding at any time after December 31, 1742, the possessor was to be entitled to receive from the treasurer for every six shillings and eightpence in these bills, an ounce of silver or the like value in gold. All of the first new tenor bills were issued with this promise of redemption in December, 1742, attached, and all of them were declared to be in value equal to silver at six shillings and eightpence an ounce, an estimate which was above the true rating of silver based upon sterling exchange, as has already been pointed out, and also above the rate at which the bills circulated, as appears from the discussions which subse-

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\* The delusive promises to be found in some of the later Acts of emission, to the effect that the silver and gold which should be received for commodities turned in by tax collectors were to be held for the benefit of possessors of bills, were not entitled to grave consideration.

quently took place in connection with the adjustment of debts. These bills were declared to be worth three times as much as bills of the corresponding denominations of the old tenor form, and were to be received by the treasurer on the basis of one of the new tenor for three of old tenor. In January, 1741-2, when the second new tenor form was first issued, the bills were rated in the Act on the basis of one of the form mentioned in the Act for four of old tenor, no provision being made in the Act for their redemption in coin. From that time until December, 1742, the Province saw circulating side by side two forms of bills, each declared to be equal to silver at six shillings and eight-pence an ounce, one of these forms being rated in the statutes at a premium of 33 per cent above the other, and the bill that was at a discount having behind it a specific pledge for its redemption in coin within less than twelve months. It was also true that at the same time Rhode Island bills issued on twenty-year loans, to an amount vastly disproportioned to the resources of the Colony, when compared with the circulation of the Massachusetts bills, were freely received at a premium above these first new tenor bills. It is possible that the discredit in which these bills were held during the spring and summer of 1742 was intentional, for the Assembly, just in time to save the credit of the Province, made provision for the exchange of such as were outstanding December 31, 1742, on terms nearly equivalent to their redemption in coin. Thus ended this absurd attempt to give credit to the public bills by promising to redeem in silver and gold such as were outstanding after the fund provided for their withdrawal from circulation was closed. How far it may have affected public opinion at the time, and prevented a more liberal and reasonable attempt at the establishment of a currency redeemable in coin on demand, must be a matter of personal judgment, but it will be admitted that this experience was capable of an interpretation in the hands of those hostile to such a movement which would have militated against any such experiment.

I have prepared and submit herewith a table showing the various amounts annually emitted, inclusive of loans from 1702 to 1750. In parallel columns with these, the amounts retired each year and the amount left outstanding are given, the withdrawals being made up on the assumption that the loans were called in when due. It is known that this was not the case, but it would be impracticable to attempt to follow these payments in detail. It is also known that the tax collectors were at times delinquent in their returns, so that the funds provided for the withdrawal of the bills were not collected according to the terms of the

legislation, but in the long run these things took care of themselves. The emissions in the table are procured from the Acts and Resolves of the General Court. The Tax Acts furnish the withdrawals or retirements. The figures to be obtained from this table correspond in their final result with those given by contemporary writers as to the amount outstanding in 1749. There are some fragments of treasurer's statements and some committee reports showing the amounts outstanding at different dates. These reports require examination before they can be applied to test the accuracy of this table. The treasurer was apparently accustomed to charge himself with all bills which were emitted against future funds, but the bills intended for loans he charged to the commissioners of the loans, and they made their reports direct to the Assembly. The treasurer's reports, therefore, as to the amount of bills outstanding at any given date require correction by the addition of the loans then outstanding to the net amount with which he stands charged after having deducted from the emissions the credits to which he was entitled. For instance a report, the bulk of which is given by Felt,\* shows that up to November 11th, 1724, the treasurer stood charged with bills amounting to £397,006 1s. During the interval which his statement covered, there had been paid in £194,917 2s. 10d., which had been burned by committees of the General Court, and there was in the treasury at that date £10,558 12s. 1d., leaving outstanding according to this statement £191,530 6s. 1d. Now there were actually outstanding at that time the entire amounts of the £100,000 loan and the £50,000 loan of 1721, and in addition thereto the taxes were to a great extent pledged for several years ahead as funds for the retirement of bills which must then have been in circulation. The estimate of the amount outstanding to be found in my table, which is made up from the Acts and Resolves of the General Court, shows £326,000 in May. If we add the £150,000 loans to the treasurer's statement we get £341,000 in November. This difference might easily be explained, but not all the comparisons of the figures to be obtained from these reports with the estimates given in the table will turn out so favorably as this.

The diagram setting forth the disappearance of the silver circulation of the Province and the line of growth of the currency shows also the corresponding movement which took place in the price of silver, all values being stated in the old tenor currency of the Province. Had it been possible to sustain the bills at par until the amount in circulation was

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\* Historical Account of the Massachusetts Currency, p. 80.

equal to the silver in use in 1700, we should have had the starting point for the curve of the silver rate at the date when the emissions were in excess of the trading wants of the Province. The circumstances of the Province necessarily controlled and limited its trading capacity. A greater amount than was needed could not have been kept in circulation. Hence the maintenance at par of an adequate substitute for the silver could only have been attained by the displacement of that metal. If the currency had remained at par up to the point suggested, there would have been no necessity for considering the relations of the increase of the currency to the decrease of the silver. Each emission of bills would have required the displacement of a corresponding amount of coin in order that it should circulate. As a matter of fact, however, the rise of silver began almost as soon as the Province adopted a form of bills of its own. Up to 1702, use was made of the Old Colony bills, to meet by emissions the extraordinary wants of the Province. The adoption at that date of a form of bill specially adapted to the use of the government was a practical announcement that the policy of emitting public bills was to be continued, and was followed so promptly by a rise in silver that the quotation in 1704 shows an advance of a shilling. The displacement of silver was apparently slower in taking effect, so that it would appear that the bills increased slightly the purchasing capacity of the circulation for a few years.

The graphic delineation of the disappearance of the silver is based upon the statement of one of the pamphleteers of the day as to the amount of silver required for the trade of New England,\* and the assertions of Dr. Douglass that there were 219,000 oz. still remaining in circulation in 1713 which had entirely disappeared in 1718.† Since the disappearance of the silver was practically simultaneous throughout New England, the only effect of adjusting this representation to the proportion in use in Massachusetts alone would be to reduce slightly the area included between the two curves. The main features would be the same.

With regard to the time of the disappearance of silver, it is not improbable that the £100,000 loan at the end of 1716, following so closely on the £50,000 loan of 1714, caused the coin to be hoarded in 1717. Then came the process of adjustment, through which the silver rate reduced to its just proportion a paper medium having a nominal valuation in excess of the trading needs of the Province. When distrust and lack of confidence

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\* The Second Part of South Sea Stock, p. 22.

† A Discourse, etc., p. 29.

added the force of their weight, this reduction actually brought the purchasing capacity of the bills in circulation, notwithstanding the great excess of their denominational value, below the amount formerly deemed essential for the use of the Province.

By reference to the table showing the coincidences between certain movements in the price of silver and emissions of large amount by this Province and the Colony of Rhode Island, the dates of some of the Rhode Island loans can be obtained. A glance at the diagram will disclose the effect of these emissions, but it is desirable for the full appreciation of this effect to take note of certain facts in connection with affairs in Massachusetts at the same time. A contemporary writer\* says, in 1740, that the highest point which the Massachusetts currency had then reached was in 1721. This statement would be true, if no consideration were had of the £50,000 loan made that year; but when this is borne in mind, the culminating point prior to 1741 would seem to have been in 1726. The necessity of including the emissions of the other governments, if we would deduce any law from the subject under consideration, is forcibly illustrated by the divergence, between 1727 and 1741, of the lines which mark the currency volume on the one hand, and the silver rate on the other. Under pressure from the Board of Trade the Provinces of the Massachusetts Bay and New Hampshire were not only prevented from further increasing their public bills of credit during this period, but were actually compelled to reduce the amounts in circulation. Meantime Rhode Island had flooded the Province with emission after emission of public bills, some issued upon funds, but nearly all loaned out at interest for terms varying from ten to thirteen years, and then to be liquidated in annual instalments covering ten years more. Of these bills there were £340,000 outstanding in 1741, the greater part of which were in circulation in Massachusetts. Owing to their presence, the Assembly of this Province had witnessed the silver rate advance from 16s. in 1727 to about 29s. in 1741, in the face of the fact that the circulation of their own public bills had been reduced from £396,000 in 1726 to £229,000 in 1741. The purchasing capacity of the bills of the Province in circulation, rated in silver at 6s. 8d. per ounce, had through this cause been reduced from £165,000 to less than £53,000. Attempts had been made, without success, to prevent the circulation of the bills of the neighboring governments. The Colony of Rhode Island was drawing a revenue from the interest of the loans. The borrowers were able, in turn, to

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\* An Inquiry into the Nature and Uses of Money, p. 19.

lend in Massachusetts the public bills which they thus secured at a higher rate of interest than that charged by the Colony, so that they in turn made a profit. The privilege of obtaining shares in these loans commanded a ready sale at a premium. Douglass quotes the premium on the privilege to subscribe to the £100,000 loan in 1738 at 35 per cent. To all of this the people of the Province of the Massachusetts Bay had to submit, through the obstinacy and stupidity of the traders, who insisted upon giving currency to the Rhode Island bills.

The rate of silver should naturally have gone in 1748 above seventy shillings, but the belief that the expenses of the Cape Breton expedition would be reimbursed must have held it in check. Certainly this must have been the case after the passage of the Act in January, 1748-9, providing for the future redemption of the bills, if the coin should be received by the Province, in settlement of the claim for reimbursement. Furthermore, this Act contained arbitrary measures for the prohibition of the circulation of the bills of the other governments, and this again had a tendency to reduce the silver rate.

The addition of another line to the diagram, showing the volume of the entire currency in circulation, including the contributions of the other governments, might perhaps have added to its interest. It will not be difficult, however, to make use of the figures heretofore given to obtain an approximate result of this sort. In its present shape, the diagram brings forth vividly the peculiar condition of this Province, just prior to the inflation under Shirley, when suffering vicariously for the sins of Rhode Island. The Province had responsibilities enough of its own to bear in this connection, and it is well that so much of the burden as can be lifted shall be deposited where it belongs.

EMISSIONS AND RETIREMENTS MAY 1 TO MAY 1,  
INCLUDING LOANS.

Year.	Emissions.	Retirements.	Outstanding.	
	£	£	£	
1702	5,000			
1703	32,000	6,000	5,000	
1704	32,000	22,000	31,000	
1705	22,000	22,000	41,000	
1706	40,000	26,000	41,000	
1707	32,000	22,000	55,000	
1708	32,000	22,000	65,000	
1709	46,000	.....	75,000	
1710	44,000	22,000	121,000	
1711	95,000	.....	143,000	
1712	25,000	22,000	238,000	
1713	14,000	22,000	241,000	£50,000 loan, acc. Quebec Expedition.
1714	64,000	47,000	233,000	£50,000 loan to inhabitants of Province. The payment of the loan acc. Quebec Expedition was about this time. Withdrawals arbitrarily assigned to the years 1714 and 1715.
1715	8,000	47,000	250,000	
1716	111,000	32,000	211,000	£100,000 loan passed Dec. 4, 1716. Emitted 1717. The £50,000 loan of 1714 was to be paid in five annual instalments, £10,000 each 1715-1719 inclusive.
1717	9,000	32,000	290,000	
1718	11,000	32,000	267,000	
1719	15,000	26,000	246,000	
1720	65,000	27,000	235,000	
1721	17,000	16,000	273,000	£50,000 loan to towns, to be drawn in by taxes, 1723-1729 inclusive.
1722	45,000	16,000	274,000	
1723	40,000	17,000	303,000	£100,000 loan expired in 1727. £50,000 loan to towns, paid in instalments, 1723-1732. £60,000 loan to towns, to be paid in taxes in the years 1734-1738 inclusive.
1724	55,000	25,000	326,000	
1725	70,000	30,000	356,000	
1726	25,000	39,000	396,000	
1727	88,000	142,000	382,000	
1728	36,000	39,000	328,000	
1729	20,000	30,000	325,000	
1730	13,000	30,000	315,000	
1731	24,000	24,000	298,000	
1732	.....	26,000	298,000	
1733	79,000	21,000	272,000	£60,000 loan withdrawn by taxes.
1734	27,000	47,000	330,000	
1735	39,000	58,000	310,000	
1736	48,000	59,000	291,000	
1737	81,000	81,000	280,000	
1738	26,000	62,000	280,000	
1739	.....	.....	244,000	
1740	80,000	95,000	244,000	
1741	120,000	.....	229,000	
1742	117,000	86,000	349,000	
1743	85,000	95,000	380,000	
1744	344,000	115,000	370,000	
1745	1,040,000	140,000	599,000	
1746	741,000	124,000	1,499,000	
1747	268,000	168,000	2,116,000	
1748	400,000	415,000	2,216,000	
1749	.....	300,000	2,201,000	
1750	.....	.....	1,901,000	
Total	4,630,000	2,729,000		



Proceedings of the American Academy of Arts and Sciences.

VOL. XXXIII. No. 13. — MARCH, 1898.

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