## Letter concerning the state of the gold and silver coins

**Author:** Isaac Newton

**Source:** T 1/208.43, National Archives, Kew, Richmond, Surrey, UK

<204r>

To the Right Honourable the Lords Commissioners of his Majestys Treasury

May it please your Lordships

In obedience to your Lordships Order of Reference of Aug.  $12^{th}$ , that I should lay before your Lordships a State of the Gold & Silver Coyns of this Kingdom in weight & fineness, & the value of gold in proportion to silver with my observations & opinion, & what method may be best for preventing the melting down of the silver coyn: I humbly represent that a pound weight Troy of Gold eleven ounces fine & one ounce allay is cut into  $44\frac{1}{2}$  Guineas, & a pound weight of silver eleven ounces two penny weight fine & eighteen penny weight allay is cut into 62 shillings; & according to this rate, a pound weight of fine gold is worth fifteen pounds weight six ounces seventeen penny weight & five grains of fine silver, recconing a Guinea at  $1^{\overline{l}i}$   $1^s$   $6^d$  in silver money. But silver in Bullion exportable is usually worth  $2^d$  or  $3^d$  per ounce more then in coyn. And if at a Medium such bullion of standard allay be valued at  $5^s$   $4^d\frac{1}{2}$  per ounce, a pound weight of fine Gold will be worth but  $14^{lwt}$ .  $11^{oz}$   $12^{dwt}$ .  $9^{grs}$  of fine silver in bullion. And at this rate a Guinea is worth but so much silver as would make  $20^s$   $8^d$ . When ships are lading for the East Indies the demand of silver for exportation raises the price to  $5^s$   $6^d$  or  $5^s$   $8^d$  per ounce or above{: but} I consider not those extraordinary cases.

A Spanish Pistole was coyned for 32 Reaus or four pieces of eight Reaus usually called pieces of eight, & is of equal allay & the sixteenth part of the weight thereof. And a Doppio Moeda of Portugal was coyned for ten Crusados of silver & is of equal allay & the sixteenth part of the weight thereof. Gold is therefore in Spain & Portugal of sixteen times more value then silver of equal weight & allay according to the standard of those kingdoms. At which rate a Guinea is worth 22<sup>s</sup> 1<sup>d</sup>. But this high price keeps their gold at home in good plenty & carries away the Spanish silver into all Europe, so that at home they make their payments in Gold & will not pay in silver without a premium. Vpon the coming in of a Plate fleet, the premium ceases or is but small: but as their silver goes away & becomes scarce, the premium increases, & is most commonly about six per cent. Which being abated a Guinea becomes worth about 20<sup>s</sup> & 9<sup>d</sup> in Spain & Portugal.

In France a pound weight of fine gold is recconed worth fifteen pounds weight of fine silver. In raising or falling their money, their king's Edicts have sometimes varied a little from this proportion in excess or defect: but the variations have been so little that I do not here consider them{.} By the Edict of May 1709 a new Pistole was coyned for four new Lewises & is of equal allay & the fifteenth part of the weight thereof except the errors of their Mints. And by the same Edict fine Gold is valued at fifteen times its weight of fine silver. And at this rate a Guinea is worth  $20^{\rm S}$  8 $\frac{\rm d}{2}$ . I consider not here the confusion made in the monies in France by Frequent Edicts to send them to the Mint & give the king a Tax out of them. I consider only the value of Gold & Silver in proportion to <204v> one another.

The Ducats of Holland & Hungary & the Empire were lately current in Holland among the common people in their Markets & ordinary affairs at five Guilders in specie & five styvers, & commonly changed for so much silver moneys in three Guilder pieces, & Guilder pieces as Guineas are with us for  $21^s$   $6^d$  sterling. At which rate a Guinea is worth  $20^s$   $7^d \frac{1}{2}$ .

According to the rates of Gold to Silver in Italy, Germany, Poland, Denmark & Sueden a Guinea is worth about 20<sup>s</sup> & 7<sup>d</sup>, 6<sup>d</sup>, 5<sup>d</sup> or 4<sup>d</sup>. For the proportion varies a little within the several governments in those countries. In Sueden Gold is lowest in proportion to silver, & this hath made that kingdom which formerly was content with copper money abound of late with silver sent thither (I suspect) for naval stores.

In the end of King Williams reign & the {fir}st year of the late Quee{n} when foreign coyns abounded in England, I caused a great many of them to be assayed in the Mint & found by the assays that fine Gold was to fine silver in Spain, Portugal, France, Holland, Italy, Germany, & the northern kingdoms, in the proportions above mentioned, errors of the Mints excepted.

In China and Iapan one pound weight of fine gold is worth but nine or ten pounds weight of fine silver; & in East India it may be worth twelve. And this low price of gold in proportion to silver, carries away the silver from all Europe.

So then by the course of trade & Exchange between nation & natio{n} in all Europe, fine gold is to fine silver as  $14\frac{4}{5}$  or 15 to one. And a Guinea at the same rate is worth between  $20^{\rm s}$  5d &  $20^{\rm s}$  8d  $\frac{1}{2}$ , except in extraordinary cases, as when a Plate Fleet is just arrived in Spain, or ships are lading here for the East Indies, which cases I do not here consider. And it appears by experience as well as by reason that silver flows from those places where its value is lower in proportion to gold, as from Spain to all Europe & from all Europe to the East Indies China & Iapan, & that Gold is most plentifull in those places in which its value is highest in proportion to silver, as in Spain & England.

It is the demand for exportation which hath raised the price of exportable silver about  $2^d$  or  $3^d$  in the ounce above that of silver in coyn, & hath thereby created a temptation to export or melt down the silver coyn rather then give  $2^d$  or  $3^d$  for forreign silver And the demand for exportation arises from the higher price of silver in other places then in England in proportion to gold, that is, from the higher price of gold in England then in other places in proportion to silver; & therefore may be diminished by lowering the value of gold in proportion to silver. If gold in England or Silver in East India could be brought down so low as to bear the same proportion to one another in both places, there would be here no greater demand for silver then for gold to be exported to India. And if Gold were lowered only so as to have the same proportion to the silver money in England which it hath to silver in the rest of Europe, there would be no temptation to export silver rather then Gold to any other part of Europe. And to compass this last there seems nothing more requisite then to take off about  $10^d$  or  $12^d$  from the Guinea, so that Gold may beare the same proportion to the silver money in England which it ought to do by the course of Trade & Exchange in Europe. But if only  $6^d$  were taken off at present, it would diminish the temptation to export or melt down the silver coyn, & by the effects would shew hereafter better then can appear at present, what further reduction would be most convenient for the publick.

In the last year of K. William, the Dollars of Scotland worth about four shillings & six pence half penny, were put away in the north of England {for} 5<sup>s</sup>, & at this price began to flow in upon us. I gave notice thereof to {t}he Lords Commissioners of the Treasury, & they ordered the Collectors of Taxes <205r> to forbear taking them & thereby put a stop to the mischief.

At the same time the Lewidors of France which were worth but seventeen shillings & three farthings a piece passed in England at  $17^s$   $6^d$ . I gave notice thereof to the Lords Commissioners of the Treasury & his late Majesty put out a proclamation that they should go but at  $17^s$ , & thereupon they came to the mint & fourteen hundred thousand pounds were coyned out of them. And if the advantage of five pence farthing in a Lewidor sufficed at that time to bring into England so great a quantity of French money, & the advantage of three farthings in a Lewidor to bring it to the Mint: the advantage of  $9\frac{1}{2}^d$  in a Guinea or above may have been

sufficient to bring in the great quantity of gold which hath been coined in these last fifteen years without any forreign silver.

Some years ago the Portugal Moedors were received in the west of England at  $28^s$  a piece. Vpon notice from the Mint that they were worth only about  $27^s$   $7^d$ , the Lords Commissioners of the Treasury ordered their Receivers of Taxes to take them at no more than  $27^s$   $6^d$ . Afterwards many Gentlemen in the West sent up to the Treasury a Petition that the Receivers might take them again at  $28^s$ , & promised to get returns for this money at that rate, alledging that when they went at  $28^s$  their country was full of gold which they wanted very much. But the Commissioners of the Treasury considering that at  $28^s$  the nation would lose five pence a piece, rejected the Petition. And if an advantage to the Merchant of  $5^d$  in  $28^s$  did pour that money in upon us: much more hath an advantage to the Merchant of  $9\frac{1}{2}^d$  in a Guinea or above, been able to bring into the Mint great quantities of gold without any forreign silver, & may be able to do it still till the cause be removed.

If things be let alone till silver money be a little scarcer, the Gold will fall of it self. For people are already backward to give silver for Gold, and will in a little time refuse to make payments in silver without a premium as they do in Spain, & this premium will be an abatement in the value of the gold. And so the Question is {whe}ther Go{ld} shall be l{ow}ered by the government, or let alone till it falls of it self by the {want} of silver money.

It may be said that there are great quantities of silver in Plate, & if the Plate were coyned there would be no want of silver money. But I reccon that silver is safer from exportation in the form of Plate then in the form of money because of the greater value of the silver & fashion together. And therefore I am not for coyning the Plate till the temptation to export the silver money (which is a profit of  $2^d$  or  $3^d$  an ounce) be diminished. For as often as men are necessitated to send away money for answering debts abroad, there will be a temptation to send away silver rather then Gold because of the profit which is almost 4 per cent. And for the same reason, forreigners will chuse to send hither their gold rather then their silver.

All which is most humbly submitted to your Lordships great wisdome

[1]

Isaac Newton.

<205v>

12.

Sir Isaac Newton's State of the Gold & Silver Coin

25<sup>th</sup> Sept<sup>r</sup> 1717 read.

<206v>

12

Sir Isaac Newton's State of the Gold & Silver

25<sup>th</sup>: Septem<u>r</u>: 1717.

[1] Mint Office.21 Sept. 1717