

## Cost and price



How should we look at the cost of making money? This note aims to expand on this.

### The cost of making money

The cost of something to someone is the price of something to someone else. The [gold] ‘price’ of something means the quantum of unit [gold] coins required by the offerer for the something. Accordingly, the cost of ‘making’ money has to be *in terms* of money. This might seem illogical (or ‘circular’ to those of an ignorant, ‘objectivist’ standpoint) but it is not.

The immutable, ‘unitised,’ gold coin is ‘money’ and the *boundaries* of this are determined by its mass of gold. This does not mean that any other mass of gold *isn’t* ‘money’ per se and therein lies the solution to our problem. How is the ‘cost’ of making this gold coin to be figured out? To answer this, we initially have to take a step back, erase ‘cost’ from the mind and examine the *mechanics* of how *some individual* makes the gold coin.

Imagine *yourself* † as the coiner...

- Unfashioned gold has to be made into coins. The *measurement* of this unfashioned gold is bounded by its mass of gold.
- The unit gold coin is but one size of coin that can be made from this unfashioned gold. Smaller coins (for example 1/2, 1/4,... units) can also be made *up to the smallest gold coin that people generally wish to handle*.
  - Note that two 1/2 unit gold coins do not ‘equal’ a unit gold coin ††.
- Processing and striking the unfashioned gold into (multiples) of the unit coin and smaller coins will *always* result in a *remainder* of un-coined gold.
- This *remainder* of unfashioned gold is the ‘cost’ of ‘making’ money.
- This *remainder* of gold can be considered a cost because it’s not able to be offered in exchange in the same way as a demarcated gold coin can.

If we denote the *smallest* gold coin’s mass as  $M$ , then the cost of making this gold coin is  $M - e$  grams, for *arbitrarily small*  $e$ . Of course, as  $e$  gets arbitrarily small,  $M - e$  and  $M$  are indistinguishable. The cost of making the unit gold coin *is* indistinguishable from the unit gold coin as the limit is approached. Hence the ‘price’ and ‘cost’ of the gold coin are indistinguishable.

### Example

Imagine that *you yourself* make gold coins from *unfashioned* gold.

The unit gold coin is a 10g pure gold coin. Furthermore, 5g, 2g coins can be made with the 2g coin being the smallest the people generally wish to handle. A pure gold nugget of 193.2g can be fashioned into 19X the unit gold coin and 1X the 2g coin leaving *at most* 1.2g of unfashioned gold.

We can say that the ‘cost’ of making 19X the unit gold coin and 1X the 2g coin is *at least* 1.2g gold. Strictly, the cost would be 1.2g *plus* loss  $L$ g from the manufacturing process. Strictly this *unknown and unknowable* loss  $L$  determines the number of coins that can be made to begin with; for if  $L$  is greater than 1.2g, then the 2g coin cannot be made.

Consider the following cases:

- $L$  is less than 1.2g  $\rightarrow$  19X unit gold coins + 1X 2g gold coin can be made.
- $L$  is more than 1.2g  $\rightarrow$  19X unit gold coins can be made.
- $L$  is very much more than 1.2g  $\rightarrow$  *less than* 19X unit gold coins can be made.

As one's technological knowhow increases, it's self-evident that  $L$  – *whatever it may be* – will get smaller and smaller. The 'cost' of making 19X unit gold coins and 1X 2g gold coin is 1.2g plus  $Lg$  when the loss  $Lg$  is less than 1.2g.

The cost of making money has been determined *in terms of* money but not in an illogical way.

There's *always* a non-zero loss in dividing unfashioned gold into gold coins. But combining gold coins into unfashioned gold is a different proposition to the first that *could* result in zero loss. The parts are less than the sum, as a slightly altered saying goes †††.



† This is done to eliminate the difference between 'someone' and 'someone else' when referring to the difference between cost [of something to someone] and price [of the something to someone else].

†† In Principles of Economics, Menger says the following:

*'The only quantities of goods that can be called equivalents (in the objective sense of the term) are quantities which, at a given point in time, can be exchanged at will – that is, in such a way that if one of two quantities of goods is offered, the other can be acquired for it and vice-versa. But equivalents of this sort are nowhere present in human economic life. If goods were equivalents in this sense, there would be no reason, market conditions remaining unchanged, why every exchange should not be capable of reversal.'*

*'Thus commodities that can be exchanged against each other in certain definite quantities (a sum of money and a quantity of some other economic good, for instance), that can be exchanged for each other at will by a sale or purchase, in short, commodities that are equivalents in the objective sense of the term, do not exist—even on given markets and at a given point in time. And what is more important, deeper understanding of the causes that lead to the exchange of goods and to human trade in general teaches us that equivalents of this sort are utterly impossible in the very nature of the case and cannot exist in reality at all.'*(Principles of Economics, Ludwig von Mises Institute edition 1976, Chapter V, Theory of Price.)

††† The Roman frame for the denarius coin wasn't given in terms of grains of silver per coin but the 'division' of a pound of silver into twenty parts. Note that this is *unlike* the demarcation of the Indian silver rupee or American silver dollar; the demarcations of which were given in terms of grains of silver. The Roman frame was the subsequent frame for Europe after Rome's collapse. Just *how* one gets twenty denarii from a pound of silver wasn't highlighted by the Roman authorities and similar miscomprehension is observable today with numerous gold schemes.