

## The 'first' bills of exchange: bills drawn on the moneyer

It's quite undemanding to think of gold bullion's transformation into gold coins but this doesn't mean the task itself isn't undemanding. The quantity of fine gold coins that can be made from a lump of gold bullion doesn't have any relationship but is determined by the moneyer and their company's technological knowhow.

The moneyer and their company have a certain capacity to make gold coins; an unlimited quantity of which cannot be made during any time period. Working on a 'first come, first served' basis, it might be the case that someone arriving with bullion to be coined might not get the coins back ahead of when they wish to exchange them. How can this situation be remedied? Through bills of exchange. Someone's gold bullion being kept by the moneyer in lieu of being coined would have a bill of exchange drawn on the moneyer, issued by the moneyer, in their possession. Whilst the moneyer has this someone's gold, known as *first of exchange*, the someone has a bill of exchange for  $X$  gold coins to be made/received by such-and-such date known as *second of exchange, incomplete*. There isn't even the potential for fraud through double-counting gold coins and gold bills because gold coins against this bill for those gold coins haven't been created yet!



## Market making expanded: 'profit and loss'

Consider market makers in oranges; market makers in oranges *bid* for and *offer* oranges. In this way, we can view an orange market maker as conducting a 'two-way' orange shop: offering oranges for exchange to the public and bidding for the same from the public. We mustn't assume that market makers' motivation for being market makers is 'profit †' (itself a poorly thought out concept) and this note expands on why that is.

A market maker's quote might be '100x10@11x120.' This means that they're willing to offer coins for oranges at 10 coins per kilogram, say, of oranges up to 100 kilograms *and also* offer oranges for coins at 11 coins per kilogram of oranges up to 120 kilograms. Being a 'spot' quotation, this means settlement is done within three days of first exchange. The market maker wishes to change their balance of coins by up to  $(120 \times 11 - 100 \times 10)$  320 coins and change their sum of oranges by up to  $(100 - 120)$  -20 kilograms of oranges within three days from whatever that coin balance and orange sum might have been. What would the quotation be like if the market maker wished to change their sum of oranges and balance of coins in the other direction?

It might seem that the market maker would be 'making a loss instead of profit' if they were to offer oranges at a lower per-kilogram orange quotation than bidding for oranges at a higher, but looking at the situation in terms of 'profit and loss' is itself poorly thought out. The market maker is merely adjusting their quotations to *maintain their exchange* viz *their total* balance of coins and sum of oranges. That might mean a situation where the market maker wishes to decrease their balance of coins; for coin upon coin ad-infinitum cannot be held. Market maker's quotation at '100x11@10x50' means they wish to *change* their coin balance by up to  $(50 \times 10 - 100 \times 11)$  -600 coins and *change* their sum of oranges by up to  $(100 - 50)$  50 kilograms and maybe anything 'in between' up to bartering.

Wishing, as market makers do, to change their orange/coin sums and balances in this manner to maintain their exchange means their action cannot be resolved into 'profit' and 'its opposite' 'loss.' Our next stages of development will look at market makers making quotations for oranges 'in different' months as well as in one coin against another coin. Their relative interplay between all these quotations is where *basis* and *co-basis* come in.

† 'Profit' can be thought of as a planned expectation for a 'positive' v. 'negative' balance of coins, or 'loss,' within whatever period, as opposed to the promotion of the activity against which coins are used. Thinking in terms of a 'positive' and 'negative' balance of coins as the a priori reason for exchange would be reductionist in the extreme.

