

## Appendix A

### Weights, Measures, and Exchange Rates

#### Weights and Measures

tael (兩)	=	37.5 g
catty (斤)	=	600 g (16 taels)
picul (擔)	=	60 kg (100 catty)
last (rice)	=	1,200 kg (20 piculs)
morgen (甲)	=	roughly 8,516 square meters, or about 2.1 acres
mile (Dutch)	=	7.4 km

#### Exchange Rates

Currency values varied by place of exchange and time, with significant changes during the seventeenth century. The rates shown here are meant as a rough guide.

tael (兩) of fine silver	=	1.4 Spanish real
Spanish real	=	60 light stuivers
gulden	=	20 light stuivers

For context, consider these salaries and prices:

- A Chinese laborer in Taiwan might earn around 3 reals per month.
- A Dutch East India Company sailor (*matroos*) might earn about the same (8 or 10 gulden per month at roughly 3 gulden per real).
- A Dutch East India Company "assistant-merchant" (*ondercoopman*) might earn around 13 reals per month (40 gulden).
- A Dutch East India Company "merchant" (*coopman*) might earn around 23 reals per month (70 gulden).
- A horse cost around 50 reals.

Thus, a real was worth on the order of US \$200 (today's dollars), and a tael about 50 percent more.

#### Exchange Rates and Measures on Taiwan: A VOC Document

This excerpt from a VOC source focuses on Taiwan in the seventeenth century and is thus worth reproducing.<sup>1</sup>

- 1 Reael van agten doet 52 stuyvers.
- 1 Reael van 56 stuyvers.
- 1 dito doet 73 condryn.
- 1 Thayl 10 maes.

1 Maes 10 condryn.  
100 Thayl Japans van 57 stuyvers doet 143 3/4 Rycksaelder.  
16 ditos swaerte 1 catty.  
1 Thayl fyn schuyt Silver doet 71 a 773 stuyvers.  
24 Dubbelde stuyvers doen 1 Rycksaelder van 51 stuyv.  
73 Thayl Goudt wort gereeckent tegen 100 Rycksd. swaerte.  
1 Picol Chinees doet 1262 lb.  
1 Vat Vlees . . . . . 380 lb.  
1 dito Spek . . . . . 280 lb.  
1 dito Boter . . . . . 260 lb.  
1 Legger hout in 350 en,  
1 Aem 90 kannen van 10 mutsjens.

**Notes:**

**Note 1:** "Uytrekening van de Goude en Silvere Munts Waardye, inhoud der maten en swaerte de gewigten van Indien" (Middelburg: Johannes Meertens, Drucher van de Ed. Geotroyeerde Oost-Indische Compagnie, 1691), VOC 11207. The source contains similar data for dozens of other trading posts. I am grateful to Paul van Dyke for informing me about this remarkable document and sending me his transcription.