

**Definition** (Category **Curr**). The *category of currencies* **Curr** is specified by:

1. *Objects*: a collection of currencies.
2. *Morphisms*: given two currencies  $X, Y$ , morphisms between them are currency exchangers  $E_{a,b}^{X,Y}$  from  $X$  to  $Y$ .
3. *Identity morphism*: given a currency  $X$ , its identity morphism is the currency exchanger  $E_{1,0}^{X,X}$ . We also call such morphisms “trivial currency exchangers”.
4. *Composition of morphisms*: the composition of morphisms is given by the formula ??.