

Answers to Exercises of Chapter 1

1. The three main characteristics are:
 - a. A Warehouse contains all transactions denominated in one currency only (euro Warehouse, US dollar Warehouse, Chinese Renminbi Warehouse, etc.).
 - b. Typically, the daily turnover measured in value terms has an order of magnitude comparable to about half of GDP. For the euro Warehouse it is 60% of GDP.
 - c. It contains three floors for retail payments, large-value payments and, securities and derivative transactions.
2. Ground floor: $\text{€ } 130 \text{ bn} / \text{€}530 \text{ mln} = \text{€ } 245,30 / \text{transaction}$
Middle floor : $\text{€ } 2900 \text{ bn} / \text{€}0.7 \text{ mln} = \text{€ } 4.14 \text{ million} / \text{transaction}$
Upper floor : $\text{€ } 3300 \text{ bn} / \text{€}1.0 \text{ mln} = \text{€ } 3.30 \text{ million} / \text{transaction}$
3. Upper floor because it contains all financial assets denominated in one currency.
4. It implies that some euros are used multiple times a day.
5. The outstanding stock of banknotes is recorded by the central bank but transactions paid by banknotes are generally unobservable and need to be estimated by, for example, the diary method (see also Querious' question on page 4).
6. A barter transaction has no financial leg while a financial transaction has one leg or two legs.
7. Crucial difference is that in case of two-sided financial transactions both legs are in the Warehouse whereas for one-sided transactions only the money leg is inside.

