Patrizia Tettamanzi

ADJUSTING AND CLOSING ENTRIES

Preparing the Balance Sheet and the Income Statement

Accrual-based vs. cash-based accounting ?

Until now we have recorded transactions as they occurred, specifically:

- we recorded revenues as they were earned;
- we recorded expenses as they were incurred;

whether or not cash was received or paid.

This method of accounting is called **accrual-based accounting.**

A possible alternative method is **cash-based accounting,** which books revenues only when cash is received and expenses only when cash is paid.

In the past cash-based accounting was quite common. Nowadays, all developed countries use accrual-based accounting.

Accrual-based accounting: basic principles

Accrual-based accounting is based on two key principles:

- **revenue principle:** revenue must be recorded when earned, i.e. when a completed good or service is delivered to customer;
- **matching principle:** expenses are the costs of all resources used up in the revenue earning. Therefore, expenses must be recorded in the same period when the related revenues are recorded. In different words, expenses must be matched against the revenues they contribute to.

Some issues in the application of these principles come from the fact that businesses need periodic reports of their financial and economic situation. In order to provide such reports, accountants slice the business life into small segments and prepare financial statements for each segment.

Each segment is an **accounting period**, as we saw at the beginning of the course. It usually coincide with the **calendar year**.

The accounting cycle

During each accounting period, a number of accounting operations are performed. They are the following:

- journalizing and posting transactions, as they occur
- issuing an unadjusted trial balance
- posting adjusting entries
- issuing an adjusted trial balance
- posting closing entries
- preparation of Income Statement and Balance Sheet
- back to journalizing and posting transactions

The unadjusted trial balance

The **unadjusted trial balance** is a list of all the accounts and their balance before the adjusting entries. It's the starting point for the adjustment process.

Adjusting entries accomplish two purposes:

- to assign revenues to the period in which they are earned and expenses to the period in which they are incurred, on the basis of the matching principle;
- to update asset and liability accounts.

They are posted before the financial statements are prepared.

The adjusting entries

We need to post adjusting entries because not all transactions are recorded immediately as they occur.

At the end of each period we need to update all the accounts to record all revenues which were already earned but not recorded yet and all related expenses.

Moreover, the value of some assets and liabilities may need to be updated since it may be different from what recorded during the period.

There are three main categories of adjusting entries:

- deferrals
- depreciation
- accruals.

Expense Deferrals

Deferrals are revenue or expense adjustments related to time and for which the business paid or received cash in advance.

There are both deferrals of expenses and of revenues.

If we pay for an expense in advance, we'll benefit of the good or service acquired in the future, therefore we have to record an asset.

For example, suppose that on Sept. 30 we pay in advance for the rent of 8 months. At the payment we record:

Prepaid (or deferred) rent (A)	1.600	
Cash		1.600

Deferrals

If our accounting period ends on Dec. 31, before preparing the financial statements we have to post an adjusting entry in order to record the rent expense for the period Sept. 30 – Dec. 31

Rent expense (E)	600	
Prepaid (or deferred) rent (A)		600

Another typical example of prepaid expenses are insurance expenses. The accounting entries are similar to the ones just reported.

Deferrals

Revenues

- There are also cases of revenue collected in advance, e.g. newspaper subscriptions, which are typically collected in advance. For example, if we collect on June 1 cash for a subscription covering the period from June 1 to May 31 of the following year, on June 1 we record:

Cash (A)	120	
Prepaid (or deferred) rent (A)		120

- On Dec. 31 we have to record the revenues already earned (from June 1 to Dec. 31):

Unearned (or deferred) revenue (L)	70	
Subscription revenue (R)		70

Depreciation

All assets but land decline in usefulness and, as a consequence, in value, as they age and as they are used.

This decline in value is an expense to the business.

At the end of the accounting period, we have to book an expense related to the fact that during the same period we used those assets, therefore they contributed to the revenue earned.

Depreciation is the process of allocating the cost of a long-lived asset over the years of its useful life, i.e. over the years that the asset was used.

For example, if we bought a plant for 1.000 and we expect to use it for 10 years, at the end of each year of its useful life we record:

Depreciation expense - plants (E)	100	
Accumulated depreciation - plants (-A)		100

Depreciation

We put (-A) for the accumulated depreciation since it represents a decrease in the value of the assets.

Accumulated depreciation is a **contra-account**, i.e. it corrects (reduces) the value of the plants recorded in the account **“plants and equipment”.**

The two accounts (called **companion accounts**) are always represented and considered together.

The net amount of the plants (original cost minus accumulated depreciation) is called the asset’s book value or net book value.

In our example, the book value of the plants at the end of the first accounting period is = 1.000 – 100 = 900

Accruals

- Accruals refer to expenses and revenues, usually related to time, which the business has already incurred or earned but not booked yet.
- This happens for expenses and revenues that incurred or earned during the period, that will be paid or collected after the end of the accounting period.
- There are both **accrued expenses** and **accrued revenues**. Typically accruals refer to interests, income taxes, salaries and wages.

Accrued expenses

- Suppose that on Sept. 1 we issue a payable bond, related to which we pay interests for 1.200 at the end of each semester. The due dates for interest payment are March 1 and Aug. 31. On Dec. 31 (the end of our first accounting period) we must record the interests already incurred but not paid (therefore not booked) yet (from Sept. 1 to Dec. 31):

Interest expense (E)	800	
Interest payable (L)		800

Accruals

A typical adjusting entry is related to **severance pay** (that we have already seen) or **pension and post-retirement liabilities**.

These are liabilities which will be paid only when the employees retire or leave, but they are incurred during the whole of their working life.

Therefore, for such expenses we have to record at the end of the accounting period as follows:

Employee post-retirement expense (E)	1.000	
Employee post-retirement liabilities (L)		1.000

Accruals

Another typical accrued expense is **income taxes expense**. This is typically the last adjusting entry of the period.

After calculating the taxes on income of the closing accounting period, we make the following adjusting entry:

Income tax expense (E)	1.000	
Income tax payable (L)		1.000

Accruals

Accrued revenues

- Suppose we have marketable securities, related to which we collect interests for 600 at the end of each quarter. The due dates for interest payment are 2/28, 5/31, 8/31, 11/31. On Dec. 31 (at the end of the accounting period) we must record the interests already earned but not collected (therefore not booked yet) related to the period 11/30-12/31:

Interest receivable (A)	200	
Interest revenue (R)		200

Inventories and cost of goods sold

We previously saw that most businesses book the cost of goods sold each time they book a sale. This is called the "**perpetual inventory system**". In these cases, businesses do not need to take into consideration inventories among the adjusting entries.

A possible alternative approach, mostly used if there are a lot of small sales during the accounting period, is to book the cost of goods sold only at the end of the accounting period for the whole amount. This is called the "**periodic inventory system**".

If we use the periodic system, among the adjusting entries we'll book:

Cost of goods sold (E)	2.500	
Inventories (A)		2.500

The adjusted trial balance

The adjusted trial balance lists all the accounts and their balances after the adjusting entries. This is a very useful step in preparing the Income Statement and the Balance Sheet.

Before making the closing entries and preparing the financial statements we need to identify all the “revenue” and “expense” accounts, whose balance will be reported in the Income Statement, and all the “asset”, “liability” and “owners’ equity” accounts, whose balance will be reported in the Balance Sheet.

Remember that balance sheet’s accounts include the Net Earnings account.

The closing entries and the preparation of the financial statements

After all the adjustments have been made and the adjusted trial balance has been prepared, the balances of the different T-accounts are reported in the right-statement.

First, revenues and expenses T-accounts are reported in the income statement.

Second, the net income (or earnings) is calculated as the balance of the income statement.

Third, the assets, liabilities and owners' equity T-accounts are reported in the balance sheet.

At the end of the closing procedure, total assets must equal total liabilities + owners' equity in the Balance Sheet.

If not, we probably made some mistakes, so… good luck!!!

Appendix: sales of depreciated long-lived assets

Now that we know what depreciation is, we can see how to book a sale of a depreciated long-lived asset.

Let's suppose that we bought a plant three years ago and we paid for it 2.000 Euros. Let's also suppose that we depreciated it 500 each year, for a total amount of 1.500, since we expected it would be used for 4 years.

After the end of the 3° period we sell it for 700.

Our accounting entries for the sale will be:

Accumulated depreciation (-A)	1.500	
Cash (A)	700	
Plant and equipment (A)		2.000
Gain on sale of plants (R)		200

Appendix: sales of depreciated long-lived assets

This way we delete from our assets the plant and its contra account, since there is no reason to keep it any longer after its companion account was “emptied”.

In case we sell an asset for a value smaller than its net book value, we’ll record a “loss on sale of the asset”.