Accounting Foundations

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2024-09-01

Topics

1. The relevance of accounting
2. Basic concepts
    1. Accounting events
    2. Accounting equation
    3. Revenue recognition
3. Financial Statements
4. FSA framework

1. The relevance of accounting

The objective of this course: understand how economic events **impact** and and are **reflected** in the financial statements.

Boeing Co

Boeing cruising towards a mega equity raise Premium

The case against the company is that operational problems will persist despite its insistence better days are just around the corner

SEPTEMBER 16, 2024

Marhen Lithium executives in Catamarca. *(Image by the United Mining Projects Corporation).*

Emirati engineering company United Mining Projects Corporation (UMPC) announced, through its subsidiary Marhen Lithium, a $550-million, four-year investment in Argentina's northwestern Catamarca province.

2. Basic concepts

Accounting events

What information is important to capture, process, aggregate, and report?

1. Purchasing merchandize or raw materials
2. Hiring employees
3. Contracting a loan
4. Selling goods or services
5. Returning goods to suppliers
6. Paying employees

Accounting Equation

$$Assets = Liability + Equity$$

- Transactions (or economic events) modify assets, liabilities, and equity.
- However, always the **accounting equation holds**.
- This equation is the basis of **double-entry accounting.**

Extended Accounting Equation

$$Assets = Liability + E_0 + NetIncome - Withdrawals$$

- Net Income: Revenues - Expenses
  - Revenues increase Owner's Equity, whereas Expenses decrease it.
- Owner's Equity is not static.
- This nuanced view captures how the dynamics of business operations impact the company's financial position.

Revenue recognition

It is the second pillar in accounting. It is the process of recording revenue in the financial statements. When a company records revenues, it must also record related expenses. This is the **matching principle**:

1. Recognizing revenue when earned, regardless of when payment is received.
2. Expenses should be matched with revenues they helped to generate in the same period, even if payment occurs later.

> **Note**
>
> In 2018, the FASB (ASC 606) and IFRS (IFRS 15) converged into a standard for revenue recognition. The standard is based on the principle that revenue is recognized when the risk and rewards of the goods or services are transferred to the customer.

Example Silvana eTravel SA

Let’s apply the accounting equation and matching principle to the following transactions:

Transaction 1: Starting the business.

Silvana invested $30,000 of her own money to start the business. She deposits $30,000 in a “Silvana eTravel SA” bank account.

> **Note**
>
> Exercice in MS Excel.

Transaction 2: Buying an office.

Silvana purchases an office, paying $20,000 in cash. Montly Depreciation: $200

Transaction 3: Buying an office supplies.

Silvana buys office supplies, agreeing to pay $500 within 30 days. These supplies will last until the end of the month.

Transaction 4: Earnings of Service Revenue

Silvana eTravel earns service revenue by providing travel services for clients. She earns $5,500 in revenues and collects this amount in cash. The labor cost of providing the service was $600 and will be paid the first day of the next month.

Transaction 5: Revenue on account

Silvana eTravel performs services for clients who do not pay immediately. Silvana receives clients' promises to pay $3,000 within one month in return for her travel services. The labor cost of the service was $200.

Transaction 6: Paying expenses

During the same month, Silvana eTravel pays with cash:

- Wharehouse rent, $1,100.
- Utilities, $1600.

Transaction 7: Long-term debt

Silvana borrows $5.000 using a bank credit. The first month generates $35 on interest expenses.

Accounts classification

Assets

Current Assets	Non-current Assets
1. Cash and cash equivalents	1. Long-term investments
2. Accounts receivable	2. Property, plant, and equipment
3. Inventory	3. Intangible assets
4. Prepaid expenses	

Liabilities

Current Liabilities	Non-current Liabilities
1. Accounts payable	1. Long-term debt
2. Accrued expenses	2. Deferred income tax
3. Deferred/unearned revenues	3. Pension liabilities
4. Current portion of Long-term debt	4. Other long-term liabilities
5. Taxes payable	5. Commitments and contingent liabilities

Equity

Share capital	Other
1. Common stock	1. Retained earnings
2. Preferred stock	2. Treasury stock
3. Additional paid-in capital	3. Accumulated other comprehensive income

3. Financial Statements

Aggregations

Each accounting event requires determining an amount affecting the respective accounts.

Some rules help us to define these amounts.

- **IFRS**: International Financial Reporting Standards
- **US GAAP**: Generally Accepted Accounting Principles

Consistency across time and transactions is key!

Asset valuation basis

1. **Historical Cost**: Assets are valued at their original cost.
    1. Acquisition cost
    2. Production cost
2. **Amortized cost**: Assets are valued at their original cost minus accumulated depreciation.
3. **Fair Value**: Assets are valued at their current fair value.
    1. Market value
    2. Net realizable value

> **Tip**
>
> The same asset (e.g., an office) can be valued using different methods. What are the managerial incentives for using one method or another?

Liabilities valuation

1. **PV**: Present value of future payments.
2. **Expected PV**
3. **Fair Value**: Liabilities are measured at their current fair value.

Equity valuation

1. **Historical Cost**: Retained earnings at original value.
2. **Revaluation Reserves**: Equity can be revalued to fair value through reserves.
3. **Fair Value through OCI**: Some equity instruments can be valued at fair value through other comprehensive income.

Financial Statements: Why?

Once we have **recorded all the transactions using the same rules**, we need to aggregate them to provide helpful information to the users of the financial statements.

Users of financial statements:

1. Investors
2. Creditors
3. Employees
4. Customers
5. Suppliers
6. Governments

… but why do they need financial statements? What are they looking for?

1. Growth: is the company growing? How?
2. Profitability: is the company's profit satisfactory?
3. Liquidity: can the company pay its short-term obligations?
4. Solvency: can the company handle its long-term obligations?

Users find the information to answers to these questions in the company's fillings.

- Annual report (**10-K**)
- Quarterly report (**10-Q**)
- Acquisition and disposal of financial assets, changes in company management or corporate governance (**8-K**).
- Information for shareholders to vote on issues related to the company's management (**DEF-14A: Proxy Statement**)

Core financial statements:

1. Statement of Financial Position (Balance Sheet)
2. Statement of Comprehensive Income (Income Statement)
3. Cash Flow Statement
4. Statement of Changes in Equity

Other sources of information:

1. Notes to the Financial Statements
2. Management’s Discussion and Analysis (MD&A)

Statement of Financial Position

The balance sheet is a statement that lists what the organization owns (assets), what it owes (liabilities), and what it is worth (equity) on a *specific date*.

Silvana eTravel Balance sheets

As of December 31, 2022

Assets	**€**	**40.100**
Current assets	*€*	*20.300*
Cash and cash equivalents	€	17.300
Accounts receivable	€	3.000
Inventories		
Other current assets		
Noncurrent assets	*€*	*19.800*
Property Plan and Equipment, Net	€	19.800
Goodwill, Net		
Other Intangible assets		
Liabilities and Shareholders' Equity	**€**	**40.100**
Current Liabilities	€	835
Accounts payable		
Short-term debt	€	35
Income taxes liabilities		
Accrued expenses	€	800
Noncurrent Liabilities	€	5.000
Long-term debt	€	5.000
Deferred income taxes		
Commitments and contingent liabilities		
Shareholders' Equity	€	34.265
Share capital/Issued Capital	€	30.000
Retained Earnings	€	4.265

Benefits:

- It provides insights about company situation in terms of:
  - liquidity
  - solvency
  - ability to make distributions to shareholders

Limitations

- it does not reflect the value of the intangible assets such as human capital, or reputation.
- information is based on an specific date.
- it incorporate various measurement bases: fair value, historical cost, amortized cost, etc.

Statement of Comprehensive Income

Silvana eTravel Income Statement		
For the period ended at December 31, 2022		
Revenues	€	8,500
Cost of service	-€	*800*
Gross Profit	**€**	**7,700**
Selling, General, and Administrative expenses	-€	1,800
Advertising		
Depreciation	-€	200
Rent	-€	1,100
Payrol taxes		
Salaries and wages		
Supplies	-€	500
Travel and entertainment		
Other operating income/expense	-€	1,600
Operating Profit	**€**	**4,300**
Financial Income		
Financial Expense	-€	35
Financial Profit	**-€**	**35**
Income before income tax	€	4,265
Provision for income tax		
Net income	**€**	**4,265**

Note

Exercice in MS Excel.

Cash Flow Statement

The matching principle implies that cash inflows and outflows differ from revenues and expenses.

Components:

1. Cash flows from operating activities: main business activities.
2. Cash flows from investing activities: purchase and sale of assets.
3. Cash flows from financing activities: issuance and repayment of debt and equity.

Statement of Changes in Equity

- Changes in *Equity* over a specified period.
- In general, the focus is on what elements affected the two main components of *Equity* during the period: *Common Stock* and *Retained Earnings*.

Components:

1. Beginning balance of equity accounts
2. **Common Stock/Subscribed Capital**: + capital increase; - capital decrease
3. **Retained Earnings**: + net income; - net loss; - dividends
4. Ending balance of equity accounts

Why could other stakeholders be interested in this?

- Creditors check if the company is reinvesting enough. Each dollar paid as a dividend is a dollar that cannot be paid later on to credits.
- External investors also see if the company is increasing its capital base. It indicates that current shareholders see growth opportunities that need to be financed.

Dependencies across Financial reports

Some examples

1. Cash payments to reduce Trade payables will be reflected in the Balance sheet and Cash Flow Statement.
2. Recognizing non-current assets depreciation will be reflected in the Balance sheet and Income Statement.
3. Profits of the year will be reflected in the Balance Sheet, Income Statement, and Statement of Changes in Equity.

Notes to the Financial Statements

They reveal important information about the company's financial position and performance that would be difficult to discern from the financial statements.

Elements:

1. Basis of preparation: IFRS, US GAAP, etc.
2. Summary of significant accounting policies: valuation, depreciation, etc.
3. Management' assumptions and estimates: useful life, etc.
4. Risk characteristics: credit, liquidity, market, etc.
5. Contingent liabilities: legal disputes, etc.
6. Related party transactions: transactions with owners, managers, etc.

Management's Discussion and Analysis (MD&A)

It is a section of the annual report that provides management's interpretation of the company's recent performance.

- Issues related to current and future operations/performance
- Favorable/unfavorable trends
- Important events and uncertainties
- Explanations of unusual or infrequent events
- Price changes

It is mainly forward-looking information.

4. FSA framework

Let’s study a general framework for financial statement analysis (FSA).

- How is the company growing? Type of assets, funding.
- Do the company needs to change our liquidity/solvency policy?
- Are the managers using our assets efficiently?
- What is driving our profits/losses?

Steps

1. Macro-economic factors:
2. Industry factors:
    1. Industry growth
    2. Industry structure: competition, barriers to entry, etc.
    3. New products or technologies
3. Company factors:
    1. Business model
    2. Long-term plans
    3. Who?

Analysis and Metrics

After analyzing the previous steps, we can analyze the company's financial statements.

1. Comparison across time:
    - How is the company doing relative to previous years?
    - What has internally and externally changed?
2. Comparison within industry peers:
    - What explains cross-sectional differences?
    - Different shocks, efficiencies, innovation, or new products.

Areas of Financial Statement Analysis:

1. Credit (Risk) Analysis:
    1. Liquidity
    2. Solvency
2. Profitability Analysis:
    1. Return on investment
    2. Operating performance
    3. Asset utilization
3. Valuation: estimate the intrinsic value of a company (stock).

Common rules

- Balance sheet items: Ratios are calculated using average values.
- Income statement items: Ratios are calculated using year-end values.
- Cash flow statement items: Ratios are calculated using year-end values.

Check the Formula Sheet for the most common ratios.

> **Note**
>
> Exercice in MS Excel.

A very naive approach is to analyze the statement “as they are reported” without adjusting them.

However, in this course, we will dig deep and learn how to measure them correctly:

- Topic 2: Adjustments to represent real financing activity
- Topic 3: Adjustments to represent real investing activity
- Topic 4: Adjustments to represent real operating activity

Questions

Check my website for an updated version of this presentation:

https://www.marceloortizm.com/