

# Enhanced US GAAP Financial Statement Elements

## *Building on the FASB conceptual framework to facilitate XBRL-based financial reporting for US GAAP*

By Charles Hoffman, CPA ([Charles.Hoffman@me.com](mailto:Charles.Hoffman@me.com))

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“I skate to where the puck is going to be, not where it has been.” *Wayne Gretzky*, legendary Canadian hockey star

### Executive summary:

- FASB issued SFAC 6<sup>1</sup> which defines the elements of financial statements. Ten core high-level financial statements are defined.
- The elements of financial statements are the building blocks from which financial statements are constructed. The elements are the classes of items that comprise a financial statement. The interrelations between the classes of elements are also specified.
- Articulation is the notion that the four primary financial statements are interrelated.
- This document enhances those ten core element definitions in three ways. First, it puts these definitions in machine-readable form. Second, it puts the elements in context by showing the associations between the concepts. Third, it adds additional important concepts that are ultimately defined implicitly or explicitly by the FASB to provide a complete set of core high-level financial report elements.

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<sup>1</sup> FASB, *Statement of Financial Reporting Concepts No. 6 (SFAC 6), Elements of Financial Statements*, [https://www.fasb.org/jsp/FASB/Document\\_C/DocumentPage?cid=1218220132802](https://www.fasb.org/jsp/FASB/Document_C/DocumentPage?cid=1218220132802)

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FASB SFAC 6<sup>2</sup> explicitly defines 10 elements of a financial statement. Those elements are: assets, liabilities, equity, investments by owners, distributions to owners, comprehensive income, revenues, expenses, gains, losses.

The elements of financial statements are the building blocks from which financial statements are constructed. The elements are the classes of items that comprise a financial statement.

This document enhances those ten core element definitions in three ways. First, it puts these definitions in machine-readable form. Second, it puts the elements in context by showing the associations between the concepts. Third, it adds additional important concepts that are ultimately defined implicitly or explicitly by the FASB to provide a complete set of core high-level financial report elements.

## Double-entry Accounting.

Single-entry accounting is how ‘everyone’ would do accounting. In fact, that is how accounting was done for about 4,000 years before double-entry accounting was invented. Double-entry accounting was the invention of medieval merchants and was first documented by the Italian mathematician and Franciscan Friar Luca Pacioli<sup>3</sup> in 1494. The section related to double-entry accounting was translated into English in 1914<sup>4</sup>.

Double-entry accounting adds an additional important property to the accounting system, that of a clear strategy to identify errors and to remove the errors from the system. Even better, double-entry accounting has a side effect of clearly firewalling errors as either accident or fraud. This then leads to an audit strategy. Double-entry accounting is how professional accountants do accounting.

Which came first, double-entry accounting or the enterprise? It is hard to overstate the impact of double-entry accounting on the evolution of the complex global enterprise<sup>5</sup>.

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<sup>2</sup> FASB, *Statement of Financial Reporting Concepts No. 6 (SFAC 6), Elements of Financial Statements*, [https://www.fasb.org/jsp/FASB/Document\\_C/DocumentPage?cid=1218220132802](https://www.fasb.org/jsp/FASB/Document_C/DocumentPage?cid=1218220132802)

<sup>3</sup> Wikipedia, *Luca Pacioli*, [https://en.wikipedia.org/wiki/Luca\\_Pacioli](https://en.wikipedia.org/wiki/Luca_Pacioli)

<sup>4</sup> J. B. Geijsbeek, *Ancient Double-Entry Bookkeeping*, <https://archive.org/details/ancientdoubleent00geij/page/n3>

<sup>5</sup> Ian Grigg, *Triple Entry Accounting*, [https://iang.org/papers/triple\\_entry.html](https://iang.org/papers/triple_entry.html)

## Foundational Mathematical Equation for Double-Entry Accounting

The foundational basis of double-entry accounting is straightforward. Quoting David Ellerman from his paper *The Math of Double-Entry Bookkeeping: Part I (scalars)*<sup>6</sup>:

“Given an equation  $w + \dots + x = y + \dots + z$ , it is not possible to change just one term in the equation and have it still hold. Two or more terms must be changed.”

And so, the left-hand side of the equation “ $w + \dots + x$ ” (the DEBIT side) must always equal the right-hand side of the equation “ $y + \dots + z$ ” (the CREDIT side) in double-entry accounting. The reason that double-entry accounting is used, as contrast to single-entry accounting, is double-entry accounting’s capability to detect errors and to distinguish an error from fraud.

Of course, there are a lot of details associated with setting up and operating an accounting system appropriately, but the fundamental feature is that DEBITS must equal CREDITS and if they don’t, then something is up which needs to be investigated and corrected.

If you desire to learn more about double-entry accounting, see Colin Dodd’s rap song, Debit Credit Theory (Accounting Rap Song)<sup>7</sup>.

## The Accounting Equation: Framework for Financial Accounting

While the model “Debits = Credits” or the notion of basically using two single entry ledgers and synchronizing them to detect errors or fraud is useful; additional power is provided to double-entry accounting via the accounting equation<sup>8</sup> which is:

$$\text{“Assets = Liabilities + Equity”}$$

The accounting equation within the double-entry accounting is the fundamental basis for financial accounting. By definition, every financial reporting scheme<sup>9</sup> has this high-level model at its core.

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<sup>6</sup> David Ellerman, *The Math of Double-Entry Bookkeeping: Part I (scalars)*, <http://www.ellerman.org/the-math-of-double-entry-bookkeeping-part-i-scalars/>

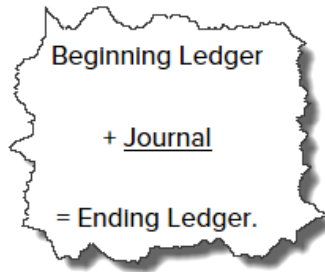
<sup>7</sup> YouTube, *Colin Dodd’s rap song, Debit Credit Theory (Accounting Rap Song)*, <https://www.youtube.com/watch?v=j71Kmxv7smk>

<sup>8</sup> Wikipedia, Accounting Equation, [https://en.wikipedia.org/wiki/Accounting\\_equation](https://en.wikipedia.org/wiki/Accounting_equation)

<sup>9</sup> Charles Hoffman, CPA, *Comparison of Financial Reporting Schemes High Level Concepts*, <http://xbrlsite.azurewebsites.net/2018/Library/ReportingSchemes-2018-12-30.pdf>

## Ledgers and Journals, Stocks and Flows

Another important piece of double-entry accounting is explained well in David Ellerman's article, *The Math of Double-Entry Bookkeeping: Part II (vectors)*, is ledgers and journals<sup>10</sup>. Many accountants use the terms "ledger" and "journal" incorrectly. This works the same for general and special ledgers and journals. This is the relationship between a ledger and a journal:


$$\begin{array}{l} \text{Beginning Ledger} \\ + \text{Journal} \\ = \text{Ending Ledger.} \end{array}$$

Ledgers summarized balances. For example, the general ledger summarizes account balances.

Journals record the transactions which make up the changes between ledger balances. Other terms used for the relationship shown above are "roll forward" or "movements" or "stocks and flows" or "account analysis". All three of these terms basically explain the following equation:

$$\text{"Beginning balance + Additions - Subtractions = Ending balance"}$$

Balance sheet accounts are stocks. Roll forwards of the beginning and ending balances of balance sheet accounts are flows. The income statement is a flow of net income (loss). The cash flow statement is a roll forward of the net change in cash and cash equivalents. The statement of changes in equity is a roll forward of equity accounts.

Many transactions, events, circumstances, and other phenomenon are recorded as transactions in a journal, make their way to a ledger, and then end up in the primary financial statements or within disclosures which detail the line items of the primary financial statements. Much of this information is part of the two trees which make up the roll ups of "Assets" and "Liabilities and Equity". However, other there are other trees that can make up the complete "forest" of a financial report. For more information about the "forest" and the "trees" of a financial report, see the document *Leveraging the Theoretical and Mathematical Underpinnings of a Financial*

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<sup>10</sup> David Ellerman, *The Math of Double-Entry Bookkeeping: Part II (vectors)*, <http://www.ellerman.org/the-math-of-double-entry-bookkeeping-part-ii-vectors/>

*Report*<sup>11</sup>. That document also has some good information related to triple-entry accounting which I am not going to get into here.

As pointed out in the document *General Ledger Trial Balance to External Financial Report*<sup>12</sup>, each balance sheet line item has a roll forward. While perhaps not reported externally, these roll forwards can be quite helpful internally to verify that a financial report has been created correctly.

## Building on the Accounting Equation: Elements of a Financial Report

And so now we have a framework for understanding the importance of the elements of a financial report.

Every professional accountant is exposed to the conceptual framework of financial reporting and the elements of a financial report in intermediate accounting. The accounting students might be exposed to different conceptual frameworks, US GAAP<sup>13</sup> in the United States and International Financial Reporting Standards (IFRS)<sup>14</sup> in the rest of the world. Pretty much any significant or useful financial reporting scheme provides a conceptual framework that helps users of that framework understand the framework.

In addition, others publish interpretations of the conceptual framework of reporting schemes and interpretations of the standards that make up a reporting scheme. Two popular interpretations of IFRS are provided by Deloitte via IASPLUS<sup>15</sup> and IFRSBOX<sup>16</sup>.

One issue with all of these resources is that they are published in books or using e-paper like HTML and PDF. They are not machine-readable.

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<sup>11</sup> Charles Hoffman, CPA, *Leveraging the Theoretical and Mathematical Underpinnings of a Financial Report*, <http://xbrlsite.azurewebsites.net/2018/Library/TheoreticalAndMathematicalUnderpinningsOfFinancialReport.pdf#page=6>

<sup>12</sup> Charles Hoffman, CPA, *General Ledger Trial Balance to External Financial Report*, <http://xbrlsite.azurewebsites.net/2018/RoboticFinance/TrialBalanceToReport.pdf>

<sup>13</sup> FASB, *Conceptual Framework*, <https://www.fasb.org/jsp/FASB/Page/BridgePage&cid=1176168367774>

<sup>14</sup> IFRS Foundation, *Conceptual Framework for Financial Reporting*, <https://www.ifrs.org/issued-standards/list-of-standards/conceptual-framework/>

<sup>15</sup> Deloitte, IASPLUS, <https://www.iasplus.com/en/news/2018/03/cf>

<sup>16</sup> IFRSBOX, *Conceptual Framework for the Financial Reporting*, <https://www.ifrsbox.com/ifrs-conceptual-framework-2018/>

## Enhanced Elements of a Financial Report

In order to better enable XBRL-based financial reporting and the effective audit of XBRL-based financial reports<sup>17</sup>, I enhanced the elements of a financial statement defined by the FASB. The enhancements included explicitly defining those elements in machine-readable XBRL, articulating the important associations between those elements, and appending that list of ten elements of a financial reports with other critically important elements that are necessary to construct a complete machine-readable model of a financial report. This particular instantiation is being created for US GAAP. These same ideas can be used for IFRS and other financial reporting schemes. In fact, it is incredibly hard to create a useful or even correct XBRL taxonomy for any financial reporting scheme if you do not provide this sort of high-level framework which form the keystones of the financial reporting scheme.

The FASB defines the following ten interrelated elements of a financial report:

- Assets
- Liabilities
- Equity
- Investments by Owners
- Distributions to Owners
- Comprehensive Income
- Revenues
- Expenses
- Gains
- Losses

The FASB uses the analogy of a “photograph” and a “motion picture” to differentiate the two types of elements<sup>18</sup>. Three elements like a photograph are “assets”, “liabilities” and “equity” and are for a point in time. In XBRL terms, they are instants. The others are like “motion pictures”, over a period of time, in XBRL terms they are durations.

The FASB explicitly states the components of comprehensive income which include: revenues, expenses, gains, and losses<sup>19</sup>.

Note that the balance types, “debit” or “credit”, of each of the ten core elements of a financial statement are not articulated by the FASB. However, professional accountants understand

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<sup>17</sup> Charles Hoffman, CPA, *Auditing XBRL-based Financial Reports*, <http://xbrlsite.azurewebsites.net/2019/Library/AuditingXBRLBasedFinancialReports.pdf>

<sup>18</sup> FASB, SFAC 6, page 21, paragraph 20

<sup>19</sup> FASB, SFAC 6, page 21, paragraph 20

these relations implicitly. However, I am specifying the balance types explicitly in my XBRL representation.

Note the term “interrelated”. If you read the definitions you can implicitly understand the specific interrelations. The FASB uses the term “articulation” to describe the notion that financial statements are fundamentally interrelated<sup>20</sup>. They result in financial statements that are fundamentally interrelated and connected mathematically. The following two equations articulate the fundamental relationships between all these elements of a financial report. First, as the FASB stated;

$$\text{“Comprehensive Income} = \text{Revenues} - \text{Expenses} + \text{Gains} - \text{Losses”}$$

The equation above defines the relationship between comprehensive income and its components and the equation below define the relations between the other concepts.

$$0 = (\text{Equity}^{\text{T0}} + \text{Revenue}^{\text{P1}} - \text{Expenses}^{\text{P1}} + \text{Gains}^{\text{P1}} - \text{Losses}^{\text{P1}} + \text{InvestmentsByOwners}^{\text{P1}} - \text{DistributionsToOwners}^{\text{P1}}) + \text{Liabilities}^{\text{T1}} - \text{Assets}^{\text{T1}}$$

And so, using both equations, the relations between each of the concepts is crystal clear as long as you understand the balance type (debit, credit) of each of the core elements.

## Further Enhanced Core Elements of Financial Statement

In order to better create a full set of financial statements it is important to further enhance the core elements of a financial statement with a few more details. As such, the additional core elements were added to this model:

- Current Assets
- Noncurrent Assets
- Current Liabilities
- Noncurrent Liabilities
- Equity Attributable to Controlling Interests
- Equity Attributable to Noncontrolling Interests
- Liabilities and Equity
- Net Cash Flow
- Net Cash Flow from Operating Activities
- Net Cash Flow from Investing Activities
- Net Cash Flow from Financing Activities

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<sup>20</sup> FASB, SFAC 6, page 21 and 22, paragraph 21



With these additional elements of a financial statements it is possible to create the four primary financial statements such that they resemble at least shell statements.

## Four Statement Model with Shell Statements

As such, we can now create the four statements that make up a set of financial statements. Note that these are not yet intended to resemble actual financial statements. Rather, the purpose of this step is simply to show the connections between the four statements.

Statement of Financial Position (Balance sheet):

| Balance Sheet [Abstract]                       | Period [Axis] |            |
|--|---------------|------------|
|  | 2020-12-31    | 2019-12-31 |
| <b>Balance Sheet [Abstract]</b>                |               |            |
| <b>Assets [Roll Up]</b>                        |               |            |
| Current Assets                                 | 3,500         | 0          |
| Noncurrent Assets                              | 0             | 0          |
| Assets   | 3,500         | 0          |
| <b>Liabilities and Equity [Roll Up]</b>        |               |            |
| <b>Liabilities [Roll Up]</b>                   |               |            |
| Current Liabilities                            | 0             | 0          |
| Noncurrent Liabilities                         | 0             | 0          |
| Liabilities                                    | 0             | 0          |
| <b>Equity [Roll Up]</b>                        |               |            |
| Equity Attributable to Controlling Interest    | 3,500         | 0          |
| Equity Attributable to Noncontrolling Interest | 0             | 0          |
| Equity   | 3,500         | 0          |
| Liabilities and Equity                         | 3,500         | 0          |

Statement of Financial Performance (Comprehensive income):

| Comprehensive Income Statement [Abstract]        | Period [Axis]           |
|--|-------------------------|
|  | 2020-01-01 - 2020-12-31 |
| <b>Comprehensive Income Statement [Abstract]</b> |                         |
| <b>Comprehensive Income [Roll Up]</b>            |                         |
| Revenues   | 7,000                   |
| (Expenses)                                       | (3,000)                 |
| Gains  | 1,000                   |
| (Losses)   | (2,000)                 |
| Comprehensive Income                             | 3,000                   |

Statement of Cash Flow:

|   | Period [Axis]           |
|---|-------------------------|
| Cash Flow Statement [Abstract]          | 2020-01-01 - 2020-12-31 |
| <b>Cash Flow Statement [Abstract]</b>   |                         |
| <b>Net Cash Flow [Roll Up]</b>          |                         |
| Net Cash Flow from Operating Activities | 3,000                   |
| Net Cash Flow from Investing Activities | 0                       |
| Net Cash Flow from Financing Activities | 500                     |
| Net Cash Flow                           | 3,500                   |
| <b>Assets [Roll Forward]</b>            |                         |
| Assets, Beginning                       | 0                       |
| Net Cash Flow                           | 3,500                   |
| Assets, Ending                          | 3,500                   |

Note that on a cash flow statement normally the roll forward is for Cash and Cash Equivalents. As we are not yet down to that level of detail, we are using Assets to provide the roll forward.

Statement of Changes in Equity:

|                                     | Period [Axis]           |
|-------------------------------------|-------------------------|
| Changes in Equity [Abstract]        | 2020-01-01 - 2020-12-31 |
| <b>Changes in Equity [Abstract]</b> |                         |
| <b>Equity [Roll Forward]</b>        |                         |
| Equity, Beginning                   | 0                       |
| Comprehensive Income                | 3,000                   |
| Investments by Owners               | 1,000                   |
| (Distributions to Owners)           | (500)                   |
| Equity, Ending                      | 3,500                   |

The four statements above show the details of the statement line items; the graphic below shows the interrelationships between the four primary financial statements:

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| Balance Sheet [Abstract]                       |  | Period [Axis] |            |
|--|--|---------------|------------|
|  |  | 2020-12-31    | 2019-12-31 |
| <b>Assets [Roll Up]</b>                        |  |               |            |
| Current Assets                                 |  | 3,500         | 0          |
| Noncurrent Assets                              |  | 0             | 0          |
| <b>Assets</b>                                  |  | <b>3,500</b>  | <b>0</b>   |
| <b>Liabilities and Equity [Roll Up]</b>        |  |               |            |
| <b>Liabilities [Roll Up]</b>                   |  |               |            |
| Current Liabilities                            |  | 0             | 0          |
| Noncurrent Liabilities                         |  | 0             | 0          |
| <b>Liabilities</b>                             |  | <b>0</b>      | <b>0</b>   |
| <b>Equity [Roll Up]</b>                        |  |               |            |
| Equity Attributable to Controlling Interest    |  | 3,500         | 0          |
| Equity Attributable to Noncontrolling Interest |  | 0             | 0          |
| <b>Equity</b>                                  |  | <b>3,500</b>  | <b>0</b>   |
| <b>Liabilities and Equity</b>                  |  | <b>3,500</b>  | <b>0</b>   |

| Cash Flow Statement [Abstract]          |  | Period [Axis]           |  |
|---|--|-------------------------|--|
|   |  | 2020-01-01 - 2020-12-31 |  |
| <b>Cash Flow Statement [Abstract]</b>   |  |                         |  |
| <b>Net Cash Flow [Roll Up]</b>          |  |                         |  |
| Net Cash Flow from Operating Activities |  | 3,000                   |  |
| Net Cash Flow from Investing Activities |  | 0                       |  |
| Net Cash Flow from Financing Activities |  | 500                     |  |
| <b>Net Cash Flow</b>                    |  | <b>3,500</b>            |  |
| <b>Assets [Roll Forward]</b>            |  |                         |  |
| Assets, Beginning                       |  | 0                       |  |
| <b>Net Cash Flow</b>                    |  | <b>3,500</b>            |  |
| <b>Assets, Ending</b>                   |  | <b>3,500</b>            |  |

| Changes in Equity [Abstract]        |  | Period [Axis]           |  |
|-------------------------------------|--|-------------------------|--|
|                                     |  | 2020-01-01 - 2020-12-31 |  |
| <b>Changes in Equity [Abstract]</b> |  |                         |  |
| <b>Equity [Roll Forward]</b>        |  |                         |  |
| Equity, Beginning                   |  | 0                       |  |
| Comprehensive Income                |  | 3,000                   |  |
| Investments by Owners               |  | 1,000                   |  |
| (Distributions to Owners)           |  | (500)                   |  |
| <b>Equity, Ending</b>               |  | <b>3,500</b>            |  |

| Comprehensive Income Statement [Abstract]        |  | Period [Axis]           |  |
|--|--|-------------------------|--|
|  |  | 2020-01-01 - 2020-12-31 |  |
| <b>Comprehensive Income Statement [Abstract]</b> |  |                         |  |
| <b>Comprehensive Income [Roll Up]</b>            |  |                         |  |
| Revenues   |  | 7,000                   |  |
| (Expenses)                                       |  | (3,000)                 |  |
| Gains  |  | 1,000                   |  |
| (Losses)   |  | (2,000)                 |  |
| <b>Comprehensive Income</b>                      |  | <b>3,000</b>            |  |

The details and the relationships can be tested by running the supporting XBRL taxonomy and XBRL instance that define the elements, the associations between the elements, and the assertions which show mathematical relations between the elements processed by an XBRL formula processor:

**Summary**

| Formulas Compiled | Formula Fired | Assertions Compiled | Assertions Fired | Assertions Satisfied | Assertions Not Satisfied |
|-------------------|---------------|---------------------|------------------|----------------------|--------------------------|
| 0                 | 0             | 6                   | 8                | 8                    | 0                        |

**Assertion Report**

**Value Assertions**

| id  | satisfied | message  |
|---|-----------|--|
| ASSERTION_CORE_Equality_AccountingEquation (evaluation 1)                   | satisfied | $\$Assets=0 = \$Liabilities=0 + \$Equity=0$  |
| ASSERTION_CORE_Equality_AccountingEquation (evaluation 2)                   | satisfied | $\$Assets=3500 = \$Liabilities=0 + \$Equity=3500$  |
| ASSERTION_CORE_Equality_AccountingEquation_NetAssetsApproach (evaluation 1) | satisfied | $\$NetAssets=0 = \$Assets=0 - \$Liabilities=0$   |
| ASSERTION_CORE_Equality_AccountingEquation_NetAssetsApproach (evaluation 2) | satisfied | $\$NetAssets=3500 = \$Assets=3500 - \$Liabilities=0$   |
| ASSERTION_Core_ROLLUP_ComprehensiveIncome (evaluation 1)                    | satisfied | $\$ComprehensiveIncome=3000 = (\$Revenues=7000 + \$Gains=1000 - \$Expenses=3000 - \$Losses=2000)$  |
| ASSERTION_CORE_ROLLFORWARD_Equity (evaluation 1)                            | satisfied | $\$Equity\_BalanceStart=0 + \$ComprehensiveIncome=3000 + \$InvestmentsByOwners=1000 - \$DistributionsToOwners=500 = \$Equity\_BalanceEnd=3500$   |
| ASSERTION_CORE_ROLLFORWARD_Assets (evaluation 1)                            | satisfied | $\$Assets\_BalanceStart=0 + \$NetCashFlow=3500 = \$Assets\_BalanceEnd=3500$  |
| ASSERTION_CORE_CONCEPTUAL_FRAMEWORK_RECONCILIATION (evaluation 1)           | satisfied | $0 = ((\$Equity\_BalanceStart=0 + ((\$Revenues=7000 - \$Expenses=3000) + (\$Gains=1000 - \$Losses=2000)) + (\$InvestmentsByOwners=1000 - \$DistributionsToOwners=500)) + (\$Liabilities\_BalanceEnd=0 - \$Assets\_BalanceEnd=3500))$ |

This verifies that the XBRL-based report and the logical relations articulated via that report are as would be expected.

## Framework for Adding Further Details

This enhanced set of financial report elements provides for a framework for adding additional details within the framework. The framework would likely best be expanded further to include other pieces of a financial report that do not run through the double-entry accounting ledgers and journals.

The document Introduction to the Fact Ledger<sup>21</sup> explains

## Machine-readable Information is Reusable

All of this information is both readable by humans<sup>22</sup> and machine-readable<sup>23</sup>. Information in one machine-readable format such as XBRL presentation relations<sup>24</sup> can be processed into other human-readable formats<sup>25</sup> or other machine-readable formats<sup>26</sup>.

The XBRL is also a global standard syntax. Others can easily append the machine-readable information to enhance it even more. For example, commentary<sup>27</sup> can be added to supplement and enhance what I have created. Extensions can be created using XBRL to add additional details. All one needs is a standard off-the-shelf XBRL taxonomy creation tool.

## Variability

As is explained in SFAS 6, the elements of financial statements are appropriate for economic entities that are enterprises (businesses) or not-for-profit organizations. While some financial report elements might be appropriate for one type of economic entity, they might not be appropriate for the other. The conceptual framework anticipates these differences. For example, here are two alternative balance sheet shell formats:

Balance sheet alternative 1:

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<sup>21</sup> Charles Hoffman, CPA and Andrew Noble, PNA, BBus, *Introduction to the Fact Ledger*, <http://xbrl.azurewebsites.net/2018/Library/IntroductionToTheFactLedger.pdf>

<sup>22</sup> Human-readable, <http://xbrl.azurewebsites.net/2019/Core/core-usgaap/evidence-package/contents/index.html#Rendering-Core-Implied.html>

<sup>23</sup> Machine-readable, <http://xbrl.azurewebsites.net/2019/Core/core-usgaap/instance.xml>

<sup>24</sup> Machine-readable XBRL presentation relations, <http://xbrl.azurewebsites.net/2019/Core/core-usgaap/core-presentation.xml>

<sup>25</sup> Human-readable HTML model structure, [http://xbrl.azurewebsites.net/2019/Core/core-usgaap/core\\_ModelStructure.html](http://xbrl.azurewebsites.net/2019/Core/core-usgaap/core_ModelStructure.html)

<sup>26</sup> Machine-readable XML infonet, [http://xbrl.azurewebsites.net/2019/Core/core-usgaap/core\\_ModelStructure.xml](http://xbrl.azurewebsites.net/2019/Core/core-usgaap/core_ModelStructure.xml)

<sup>27</sup> Commentary and references demonstration, <http://xbrl.squarespace.com/journal/2018/6/6/commentary-and-references-demonstration.html>

| Balance Sheet [Abstract]                       | Period [Axis] |            |
|--|---------------|------------|
|  | 2020-12-31    | 2019-12-31 |
| <b>Balance Sheet [Abstract]</b>                |               |            |
| <b>Assets [Roll Up]</b>                        |               |            |
| Current Assets                                 | 3,500         | 0          |
| Noncurrent Assets                              | 0             | 0          |
| Assets   | 3,500         | 0          |
| <b>Liabilities and Equity [Roll Up]</b>        |               |            |
| <b>Liabilities [Roll Up]</b>                   |               |            |
| Current Liabilities                            | 0             | 0          |
| Noncurrent Liabilities                         | 0             | 0          |
| Liabilities                                    | 0             | 0          |
| <b>Equity [Roll Up]</b>                        |               |            |
| Equity Attributable to Controlling Interest    | 3,500         | 0          |
| Equity Attributable to Noncontrolling Interest | 0             | 0          |
| Equity   | 3,500         | 0          |
| Liabilities and Equity                         | 3,500         | 0          |

Balance sheet alternative 2:

| Balance Sheet [Abstract]        | Period [Axis] |            |
|---------------------------------|---------------|------------|
|                                 | 2020-12-31    | 2019-12-31 |
| <b>Balance Sheet [Abstract]</b> |               |            |
| <b>Net Assets [Roll Up]</b>     |               |            |
| Assets                          | 3,500         | 0          |
| Liabilities                     | 0             | 0          |
| Net Assets                      | 3,500         | 0          |

Note that the second balance sheet both uses the net assets approach and is an unclassified balance sheet (i.e. it does not differentiate between current and noncurrent assets and liabilities).

Financial statements are not arbitrary or random. Some model is used to represent a financial report within the boundaries specified by some reporting scheme. But any financial statement can both have the appropriate variability that they need but at the same time conform to the conceptual framework of the reporting scheme.

I refer to the approaches an economic entity organizes the elements of a financial statement reporting styles. An analysis of public companies that report to the SEC reveal reporting style<sup>28</sup> patterns used by economic entities that report using US GAAP.

<sup>28</sup> US GAAP Reporting Styles, <http://www.xbrlsite.com/2018/10K/US-GAAP-Reporting-Styles.pdf>

## Variability Caused by Alternative Intermediate Components of Comprehensive Income

By far, the most variability that exists within a set of financial statements exists on the income statement. SFAS 6 discusses the notion of intermediate components<sup>29</sup> of comprehensive income:

“Examples of intermediate components in business enterprises are gross margin, income from continuing operations before taxes, income from continuing operations, and operating income. Those intermediate components are, in effect, subtotals of comprehensive income and often of one another in the sense that they can be combined with each other or with the basic components to obtain other intermediate measures of comprehensive income.”

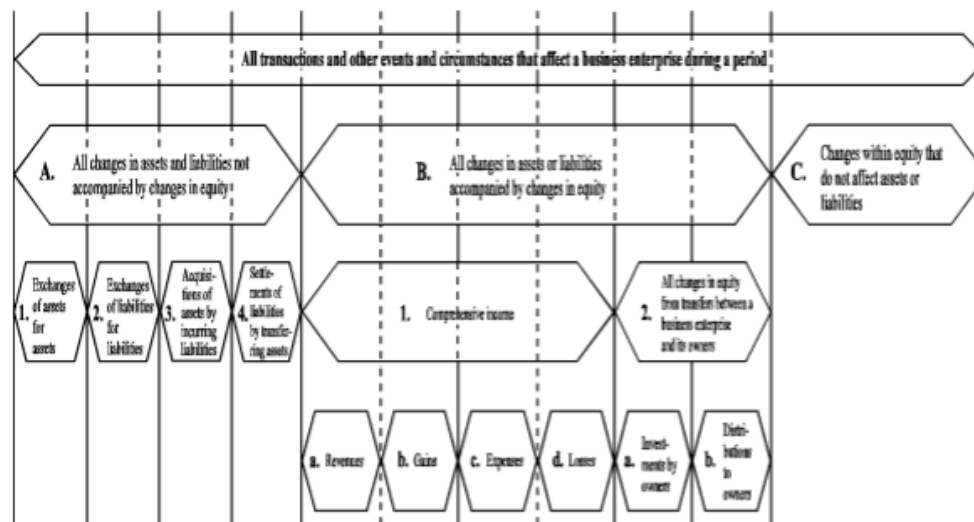
Basically, variability can be caused by choosing to report different common subtotals. Again, this variability is not random or completely arbitrary. There are patterns.

Of the four concepts “revenues”, “expenses”, “gains”, and “losses” there are themes. One them is the notion of something related to an “entity’s ongoing major or central operations” (i.e. revenues, expenses) and something “from peripheral or incidental transactions” (i.e. gains, losses).

The bottom line here is that 87% of all public companies that report to the SEC use one of only nine different sets of intermediate components, i.e. subtotals, to do so.

## Transactions

SFAC 6 provides the following diagram<sup>30</sup> which essentially breaks transactions down into a number of specific categories.



<sup>29</sup> FASB, SFAC 6, page 47, paragraph 77.

<sup>30</sup> FASB, SFAC 6, page 41, paragraph 64.

Every transaction which flows through a journal and into a ledger fits into one of these categories. Further, ultimately every transaction flow through some balance sheet account and can be grouped into some category. For example, below you see the roll forward of cash and cash equivalents and the categories of transactions such as “Collection of Receivables” or “Payment of Accounts Payable” that flow through the general ledger account “Cash and Cash Equivalents”:

| Cash and Cash Equivalents [Roll Forward]             | Period [Axis]              |
|--|----------------------------|
|  | 2018-01-01 -<br>2018-12-31 |
| <b>Cash and Cash Equivalents [Roll Forward]</b>      |                            |
| Cash and Cash Equivalents, Beginning Balance         | 3,000                      |
| Collection of Receivables                            | 3,000                      |
| Payment of Accounts Payable                          | (2,000)                    |
| Additional Long-term Borrowings                      | 6,000                      |
| Repayment of Long-term Borrowings                    | (1,000)                    |
| Capital Additions of Property, Plant and Equipment   | (5,000)                    |
| Proceeds from Sale of Property, Plant, and Equipment | 0                          |
| <b>Cash and Cash Equivalents, Ending Balance</b>     | <b>4,000</b>               |

Every transaction works in this manner. Basically, transactions fall into patterns. Some transaction patterns are common, some transaction patterns are less common, and some transaction patterns are cause for investigation. For example, a transaction that affects, say, “Property, Plant, and Equipment” and “Retained Earnings” would be suspicious.