

## Issue 01 – Inconsistent Axis

### A. Other Comprehensive Income (Loss), Net of Tax [Abstract]

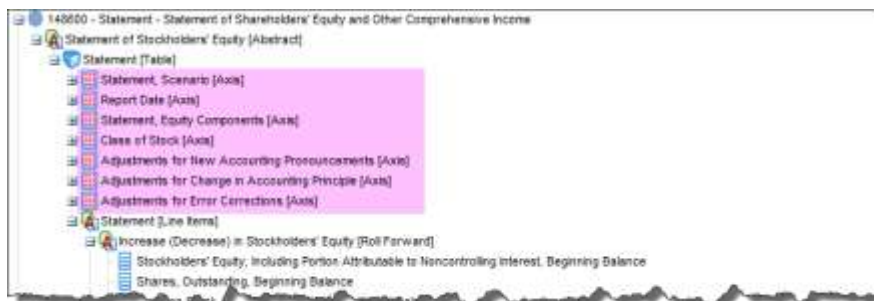
Other Comprehensive Income (Loss), Net of Tax is modeled in three areas within the US GAAP Taxonomy (2011 version is shown, same thing exists for 2009 version). If you look at each of the places where it is modeled, exactly the same information has different sets of [Axis]. Yet, this is exactly the same information. What seems to be the case is that where something is reported (i.e. what network or what table) using XBRL can dictate what the set of [Axis] which must be used, which is simply not true. The business semantics of a fact is the same no matter where that fact value is used.

Clearly it is not the case that “where something is reported” impacts the business semantics (which are articulated using the explicit [Axis] and the implicit axis of entity identifier and period.

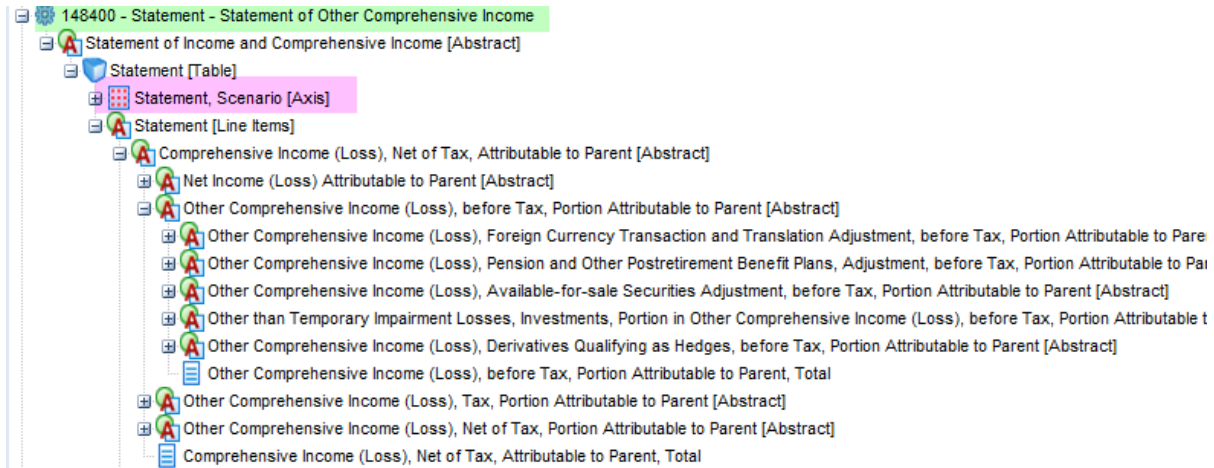
*NOTE: There is an exception (not sure if exception is the right word) to this rule. Where detailed information and summary information intersects, the [Axis] can “morph”; this is what the syntax of XBRL Dimensions “default-dimension” enables. See the conclusion for a discussion of the intersection of summary information (like the balance sheet) and detailed information (like the disclosures) in the conclusion of this issue document.*

So, consider three places where Other Comprehensive Income (Loss), Net of Tax is modeled in the US GAAP Taxonomy:

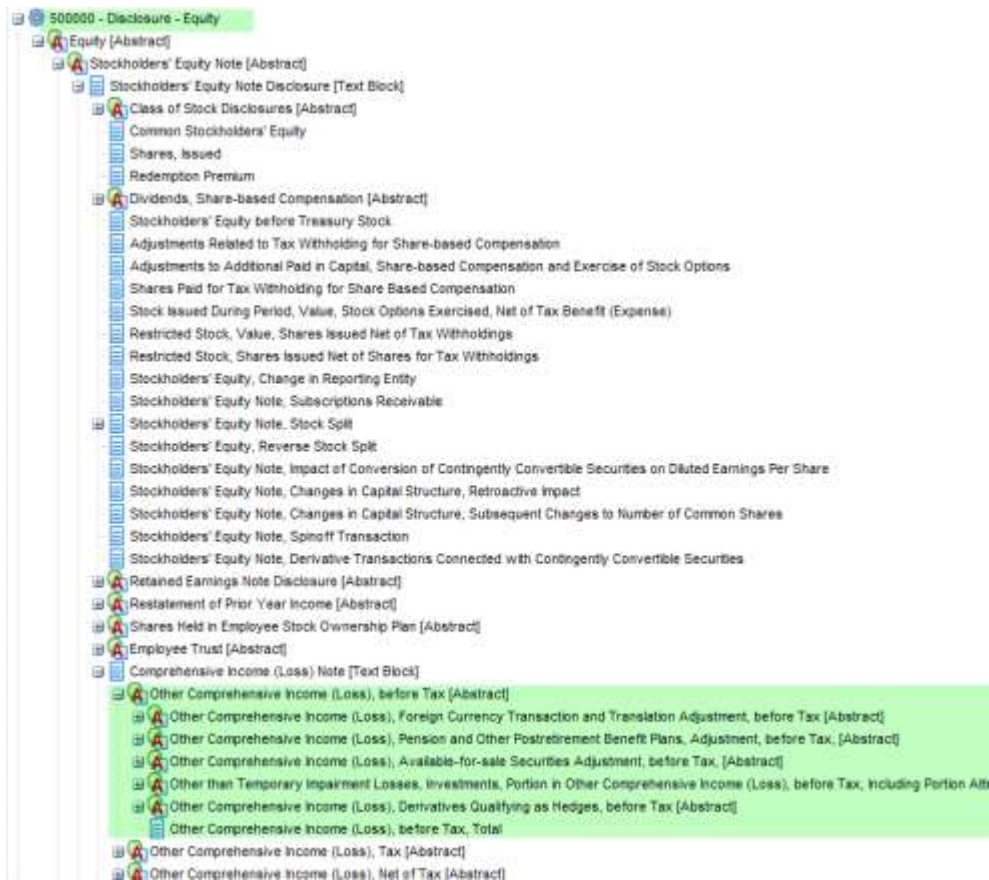
*Statement of Shareholders’ Equity and Other Comprehensive Income:*



## Statement of Other Comprehensive Income:



## Equity Disclosures: (Not in a table, so the only axis are entity identifier and period)

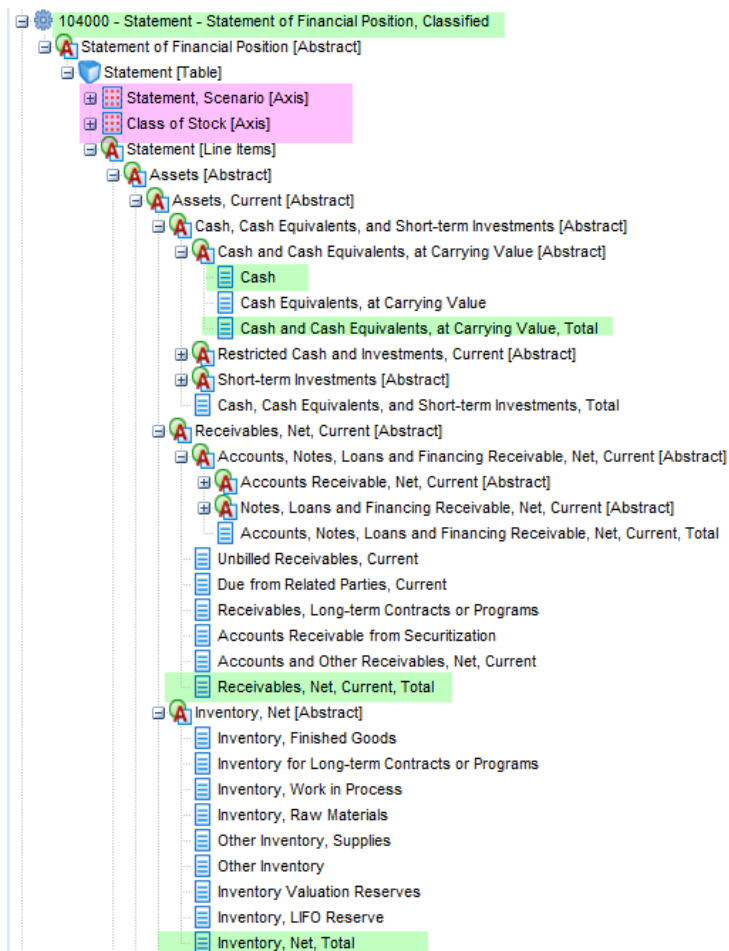


## B. Balance Sheet Line Items

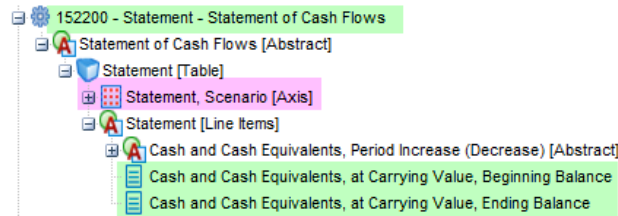
The balance sheet has a set of [Axis]. And yet, the same line items such as “Cash and Cash Equivalents, at Carrying Value” and “Inventory, Net” and many, many other detailed line items which could be reported per US GAAP on either the balance sheet or in the disclosures have different [Axis]. Most of the disclosures are not modeled within an explicit [Table] meaning that they should be modeled only with the implicit entity identifier and period axis.

Further, the [Axis] of a [Table] applies to every concept within the set of [Line Items]. The balance sheet has a “Class of Stock [Axis]” which applies to every [Line Item] such as “Cash and Cash Equivalents, at Carrying Value”. Yet on the Statement of Cash Flows which has a different set of [Axis], that same line items is used.

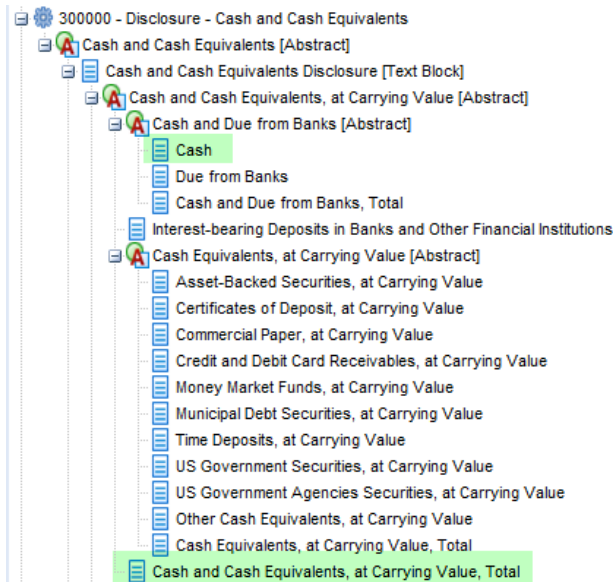
Consider the balance sheet



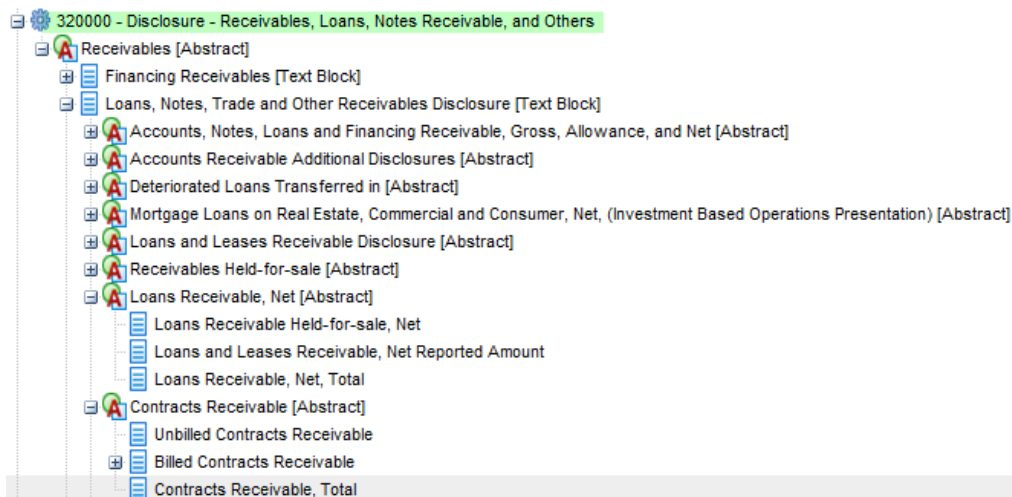
## Statement of Cash Flows:



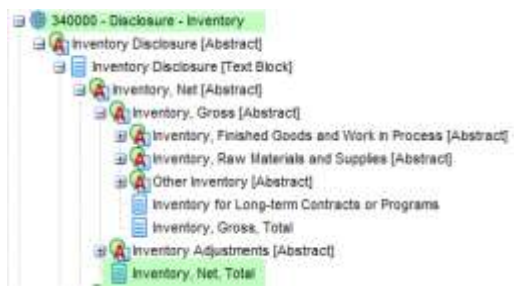
## Cash Disclosures:



## Receivables Disclosures:

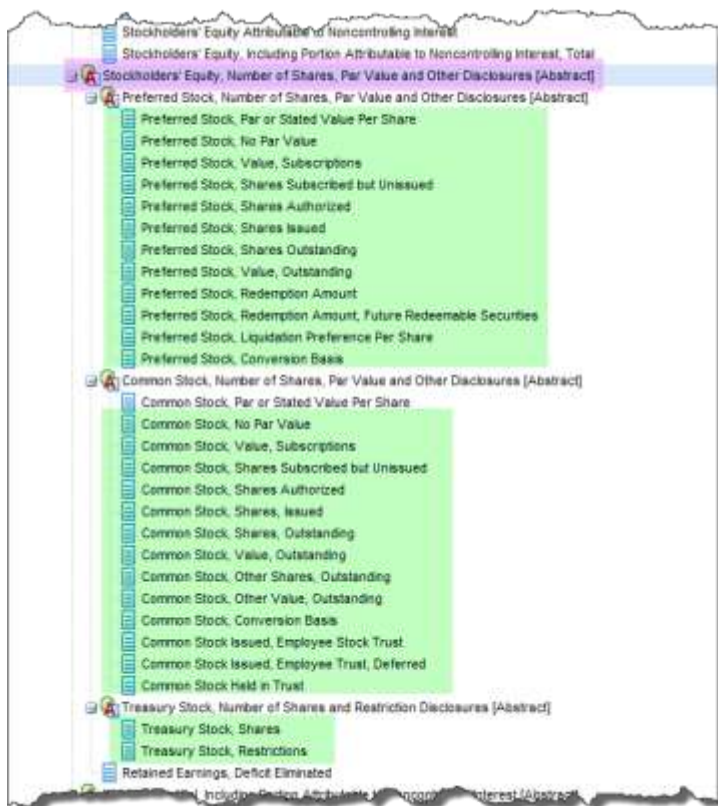


## Inventory Disclosures:



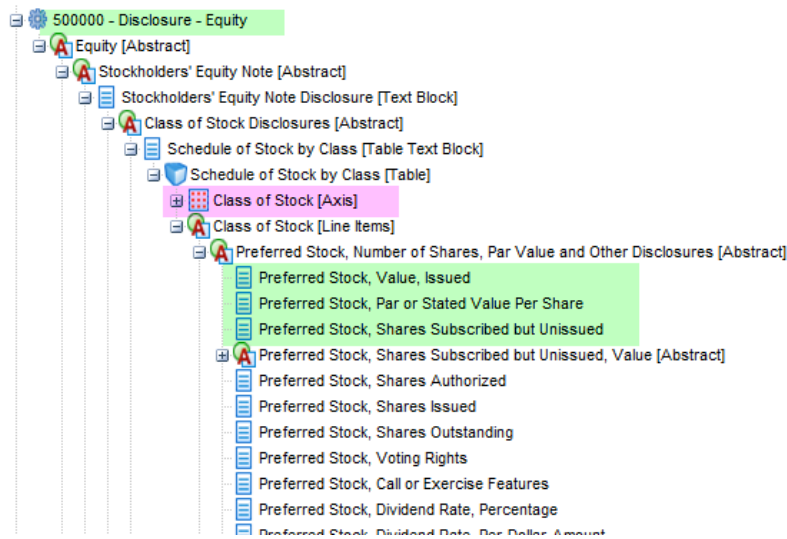
### C. Class of Stock

Considering the “Class of Stock [Axis]” in more detail. The balance sheet has this [Axis] and the concepts “Preferred Stock, Value, Issued” and “Common Stock, Value, Issued”, as an example, use this [Axis] on the balance sheet. But in the Equity disclosures, these same concepts, and others, are used with a different set of [Axis]. Further, on the balance sheet Treasury Stock, Value uses the “Class of Stock [Axis]” and yet in the disclosures it uses the “Equity, Class of Treasury Stock [Axis]”.

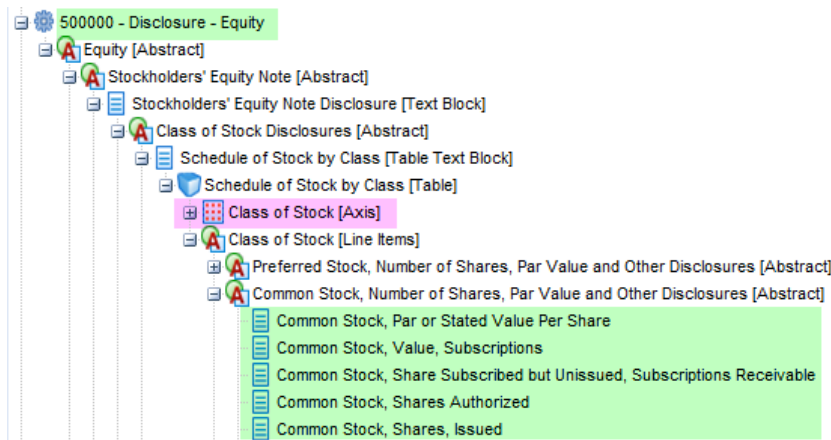




## Equity Disclosures “Class of Stock Disclosures”, Preferred Stock



## Equity Disclosures “Class of Stock Disclosures”, Common Stock



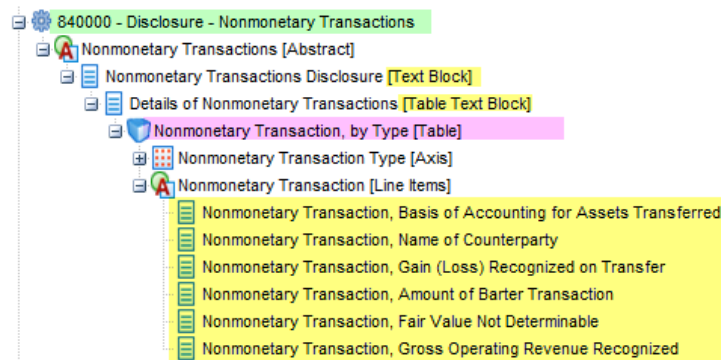
## Treasury Stock “Schedule of Treasury Stock by Class”:



### C. [Table Text Block]s and [Text Block]s

The [Table Text Block] (which used to be just a [Text Block] but still has the same data type of nonnum:textBlockItemType as a [Text Block]) is generally modeled just outside a table. Generally, depending on the level of tagging you are doing you may only tag a set of information as one big [Table Text Block]. If you are doing detailed tagging, you might provide only the details or both the details and the [Table Text Block]. Yet, the big chunk of information in the [Table Text Block] and the details are EXACTLY the same information. It is just that one provides more details than others. But, in the Compensation Related Costs, Retirement Benefits, the US GAAP Taxonomy provides a bunch of [Table Text Block]s within a [Table], rather than outside the [Table].

Consider this small [Table] for Nonmonetary transactions, noting the [Table Text Block] which would be used to tag the entire disclosure, or the detailed tags which could be used to provide the exact same information but in more detail:



[Table Text Block]s within a [Table], which actually makes more sense than having them outside the [Table]



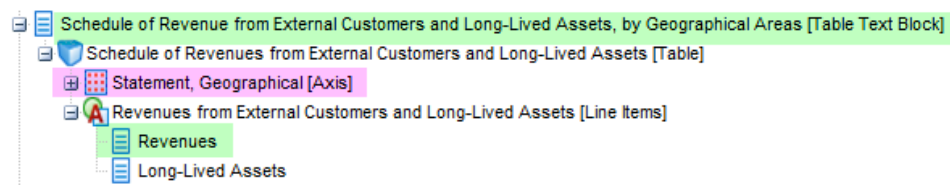


The classic example of the intersection between a summary set of information and detailed information is business segment information and geographic areas information. Consider that the concept Revenues (in some form) is generally reported on the consolidated income statement, in the business segments breakdown, and in the geographic area breakdown. As such, the fact value reported for “Revenue” in an SEC XBRL financial filing for the consolidated entity would tie in all reporting areas of the financial report. But to do this, the [Axis] need to be coordinated between these different areas of a the financial report

[illegible]

- 790008 - Disclosure - Segment Reporting
- Segment Reporting [Abstract]
  - Segment Reporting Disclosure [Text Block]
  - Segment Reporting, Disclosure of Entity's Reportable Segments [Abstract]
  - Schedule of Segment Reporting Information, by Segment [Table Text Block]
  - Schedule of Segment Reporting Information, by Segment [Table]
  - Statement, Business Segments [Axis]
  - Segment Reporting Information [Line Items]
    - Segment Reporting Information, Profit (Loss) [Abstract]
    - Segment Reporting Information, Income (Loss) before income Taxes [Abstract]
    - Segment Reporting Information, Operating Income (Loss) [Abstract]
      - Segment Reporting Information, Revenue for Reportable Segment [Abstract]
        - Revenues
      - Segment Reporting information, Intersegment Revenue
      - Interest Revenue (Expense), Net [Abstract]
      - Segment Reporting information, Interest Income or Expense, Net
      - Segment Reporting information, Revenue for Reportable Segment, Total
    - Depreciation, Depletion and Amortization [Abstract]
    - Operating Income (Loss)
    - Other Nonrecurring (Income) Expense
    - Income (Loss) from Equity Method Investments
    - Income (Loss) from Continuing Operations before income Taxes, Extraordinary Items, Noncontrolling interest
    - Income Tax Expense (Benefit)
    - Extraordinary Item, Gain (Loss), Gross
    - Net Income (Loss), Including Portion Attributable to Noncontrolling interest

Geographic area breakdown:



## Conclusion:

The US GAAP taxonomy is many times not a good guide determining the [Axis] which should be used to modeled your financial information. Constructing an SEC XBRL instance correctly is a bit like completing a Sudoku puzzle. It does work. Here is an example:

<http://www.xbrlsite.com/US-GAAP-2011/ReferenceImplementation/2011-02-01/Landing.html>

## APPENDIX: Understanding the intersection of summary information and detailed information

Many people tend to confuse what “default-dimensions” is used for. Default dimensions is not some shortcut for making the users life easier, providing a default value for them. Nor does default-dimensions “work around” conflicts between [Axis] (meaning that just because you cannot physically see the [Axis] does not mean that the [Axis] does not exist.

Consider the following business information which models “Sales” consolidated, broken down by business segment, and broken down by geographic area:

### Sample Company For Period Ending December 31, (thousands of dollars)

	2010	2009	2008
Sales, all Business Segments, all Geographic Areas	32,038	35,805	32,465
<b>Breakdown by Business Segment:</b>			
Pharmaceuticals	20,181	18,150	15,275
Generics	2,433	1,973	1,823
Consumer Health	6,675	6,514	5,752
Other Segments	2,749	9,168	9,615
<b>Breakdown by Geographic Area:</b>			
North America	10,214	12,649	10,137
Europe	11,901	10,374	10,396
Asia	5,639	4,371	3,210
Other regions	4,284	8,411	8,722

The concept “Sales” is used on every fact value in that table (i.e. every number). This can be modeled as three different tables. The **first table** is the summary [Table], this would be like the consolidated income statement. In that table, the concept “Sales” might be modeled as having no business segment

and no geographic area. Alternatively the business segment and geographic areas axis could be modeled. In our case, we choose not to provide the business segment axis or geographic area axis.

In the **second table** the concept “Sales” could be modeled with a “Business Segment [Axis]” axis with a domain of “Business Segments, All [Domain]” and members for each business segment of “Pharmaceuticals [Member]”, “Generics [Member]”, etc. This table may, or may not, have a Geographic Areas [Axis]. The domain is modeled as the default-dimension.

The **third table** the concept “Sales” could be modeled with a “Geographic Area [Axis]” axis with a domain of “Geographic Areas, All [Domain]” and members for each geographic area of “North America [Member]”, “Europe [Member]”, etc. The domain is modeled as the default-dimension.

The Business Segments [Axis] and the Geographic [Axis] do not have to physically exist on the first table which expresses the “Sales” for all business segments and all geographic segments. However, other [Axis] which exist on tables one, two, and three MUST be in sync. For example, the entity (an implicit axis), the period (another implicit axis), and as in the example below the explicit [Axis] “Legal Entity [Axis]” MUST be in sync as they do physically exist on all three tables.

The Business Segments [Axis] and the Geographic [Axis] could be modeled on the first table, but they would also be the default dimension, so they would not physically exist. But they would VIRTUALLY exist when you looked at the concept “Sales” for all business segments and for all geographic areas. This is hard to explain, but very easy to see in an application for viewing XBRL.

To better understand this, you can see this physically modeled in a very simple example at this URL:

[http://www.xbrlsite.com/Patterns/2010-08-01/BUC21-PivotTable/PivotTable\\_Landing.html](http://www.xbrlsite.com/Patterns/2010-08-01/BUC21-PivotTable/PivotTable_Landing.html)

You can see the actually [Axis] values in a human readable form here:

[http://www.xbrlsite.com/Patterns/2010-08-01/BUC21-PivotTable/PivotTable-SampleInstance\\_InfoSet-FactGroups.html](http://www.xbrlsite.com/Patterns/2010-08-01/BUC21-PivotTable/PivotTable-SampleInstance_InfoSet-FactGroups.html)

You can try viewing this within the Firefox XBRL Viewer add on to see how this works.

Or, you can use this more complex example to see how the [Axis] are modeled:

<http://www.xbrlsite.com/Examples/ComprehensiveExample/2010-08-01/Matrix.html>