

# Core Financial Reporting Semantics

*Based on analysis of 5525 SEC XBRL financial filings*

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*This document provides an analysis of the core financial reporting semantics found in 5525 SEC XBRL financial 10-K and 10-Q filings between 2011-04-01 and 2011-08-19. This analysis is intended to be helpful to filers creating SEC XBRL financial filings, auditors reviewing such filings, agents assisting filers in the creation of such filings, analysts making use of filings, and others interested in understanding and using the XBRL medium. The list of SEC XBRL filings was obtained from reading the XBRL Cloud Edgar Dashboard as of August 20, 2011. The complete list of filings and associated data can be found here:*

*<http://www.xbrlsite.com/2011/Analysis3/>*

*Other analysis look only to find concepts, this analysis is different in that it sought values for facts which used the concepts and sought to prove the numeric relationships between facts. The purpose is to understand the semantic relationships which do exist, can exist, and must exist.*

## 1.1. Overview

This analysis looked for concept which were only in the consolidated entity (dei:EntityDomain) context. Therefore other detailed entity breakdowns were not looked for. As such, the numbers shown could be higher if those entity breakdowns were taken into consideration, but they would not be lower.

Note that the top 100 and top 1000 are determined by total assets and therefore they will always be 100% for having assets.

#	Core level semantic rule	30 Dow Industrial Companies	Top 100 Companies	Top 1000 Companies	All 5525 Companies
1	Balance sheet must report assets (us-gaap:Assets)	100%	100%	100%	98%
2	Balance sheet must report liabilities and equity (us-gaap:LiabilitiesAndStockholdersEquity, us-gaap:LiabilitiesAndPartnerCapital)	96%	99%	99%	97%
	<i>Note that one concept us-gaap:LiabilitiesAndEquity would be preferable to multiple.</i>				
3	Balance sheet balances (assets = liabilities and equity)	96%	99%	99%	98%
4	Balance sheet must report equity (see concepts in detailed section)	100%	100%	99%	97%
	<i>Note that the numerous concepts should be distilled down to two concepts us-gaap:Equity and us-gaap:EquityAtributableToParent) and other existing concepts should be depreciated. These two concepts could make concept selection easier, follow FASB CON 6, and eliminate extensions for all the type of equity the taxonomy forgot or which people come up with in the future, and drop the number of concepts used for this now by 10 or so.</i>				
5	Cash flow statement must report net cash flow (us-gaap:CashAndCashEquivalentsPeriodIncreaseDecrease or us-gaap:CashPeriodIncreaseDecrease)	100%	93%	98%	98%
6	Net cash flow foots:	93%	87%	93%	89%
	Net Cash Flow = Net Cash Flow from Operating Activities, Continuing Operations + Net Cash Flow from Investing Activities, Continuing Operations + Net Cash Flow from Financing Activities, Continuing Operations + Net Cash Flow from Discontinued Operations + Effect of Exchange Rate Changes				
	<i>Possible Alternative: Net Cash Flow = Net Cash Flow from Operating Activities, Continuing Operations + Net Cash Flow from Investing Activities, Continuing Operations + Net Cash Flow from Financing Activities, Continuing Operations + Net Cash Flow from Discontinued Operations</i>				

#	Core level semantic rule	30 Dow Industrial Companies	Top 100 Companies	Top 1000 Companies	All 5525 Companies
7	Income statement must report Net Income (Loss) (us-gaap:ProfitLoss, us-gaap:NetIncomeLoss, and/or us-gaap:NetIncomeLossAvailableToCommonStockholdersBasic as the rules are written now, however, it seems that one concept would be common to all filings (now filers are using one of these three concepts)	100%	98%	99%	98%
8	Income statement must report Income (loss) from continuing operations before Tax (OPTIONAL)  This is an option, not required	73%	76%	78%	72%

(All 30 reported the line item, however 8 created a seemingly inappropriate extension concept)

## 1.2. Balance sheet

Balance sheets have clear semantics. They have assets, liabilities and equity, and equity as those concepts are required to be disclosed. At time there are some oddities. For example, the following is an example of a balance sheet from the SEC EDGAR system which reports total and current assets as the same one line:

	June 30, 2011 (unaudited)	December 31, 2010 (audited)
<b>ASSETS</b>		
<b>CURRENT ASSETS</b>		
Cash	\$ --	\$ --
Notes receivable (Note 4)	500,000	500,000
Interest receivable	51,918	27,123
<b>Total current assets and total assets</b>	<b>\$ 551,918</b>	<b>\$ 527,123</b>

This balance sheet has only Cash, which is also total assets and total current assets, but these lines are not explicitly provided. But, they can be implied.

	June 30, 2011 (Unaudited)	December 31, 2010
<b>ASSETS</b>		
<b>CURRENT ASSETS:</b>		
Cash	\$ 15,442	\$ 3,455
<b>LIABILITIES AND STOCKHOLDERS' EQUITY (DEFICIT)</b>		
<b>CURRENT LIABILITIES:</b>		
Due to Stockholders	€ 147,500	€ 117,500

This balance sheet has no assets to report, but reports zeros.

	Unaudited 6/30/2011	Audited 12/31/10
ASSETS		
CURRENT ASSETS		
Cash	\$ -	\$ -
TOTAL ASSETS	-	-
LIABILITIES AND STOCKHOLDERS' DEFICIT		
CURRENT LIABILITIES		
Accrued Liabilities	1,300	3,000
Payable to Stockholder	53,694	49,863
TOTAL CURRENT LIABILITIES	54,994	52,863
STOCKHOLDERS' DEFICIT		
Preferred Stock: Par value \$.01; 5,000,000 shares authorized; no shares issued and outstanding		
Common Stock: Par value \$.001; 25,000,000 shares authorized; 2,647,640 shares issued and outstanding	2,648	2,648
Additional paid in capital	5,160	5,160
Deficit accumulated during the development stage	(62,802)	(60,671)
TOTAL STOCKHOLDERS' DEFICIT	(54,994)	(52,863)
TOTAL LIABILITIES AND STOCKHOLDERS' DEFICIT	\$ -	\$ -

The accompanying notes are an integral part of these financial statements.

Further, balance sheets balance. Assets = Liabilities + Equity is a fundamental equation which every accountant understands.

### 1.2.1. General observations

Interestingly, a small minority of filers had amounts which did not add up due to rounding discrepancies. For example, below is the IBM balance sheet where total liabilities + total equity is off from the total by 1 (one million dollars per their scale factor). While this is allowable, it seems as it would be undesirable from an automated data consumption perspective. Other filers have these sorts of rounding issues, but they deal with them by making adjustments to the numbers on the statements.

Goodwill	25,609	25,136
Intangible assets - net	3,205	3,488
Investments and sundry assets	5,329	5,778
<b>Total assets</b>	<b>113,474</b> <sup>[1]</sup>	<b>113,452</b> <sup>[1]</sup>
<b>Current liabilities:</b>		
Taxes	2,363	4,216
Short-term debt	7,858	6,778
Accounts payable	7,112	7,804
Compensation and benefits	4,706	5,028
Deferred income	12,660	11,580
Other accrued expenses and liabilities	5,144	5,156
<b>Total current liabilities</b>	<b>39,843</b>	<b>40,562</b>
Long-term debt	21,915	21,846
Retirement and nonpension postretirement benefit obligations	16,014	15,978
Deferred income	3,641	3,666
Other liabilities	8,851	8,226
<b>Total liabilities</b>	<b>90,263</b> <sup>[1]</sup>	<b>90,279</b> <sup>[1]</sup>
<b>IBM stockholders' equity:</b>		
Common stock - par value \$0.20 per share, and additional paid-in capital Shares authorized: 4,687,500,000 Shares issued: 2011 - 2,175,594,604 2010 - 2,161,800,054	46,975	45,418
Retained earnings	97,334	92,532
Treasury stock - at cost Shares: 2011 - 981,316,389 2010 - 933,806,510	(104,073)	(96,161)
Accumulated other comprehensive income/(loss)	(17,109)	(18,743)
<b>Total IBM stockholders' equity</b>	<b>23,127</b>	<b>23,046</b>
Noncontrolling interests	84	126
<b>Total equity</b>	<b>23,210</b> <sup>[1]</sup>	<b>23,172</b> <sup>[1]</sup>
<b>Total liabilities and equity</b>	<b>\$ 113,474</b> <sup>[1]</sup>	<b>\$ 113,452</b> <sup>[1]</sup>

[1] Amounts may not add due to rounding.

COMMENT: This practice should be discouraged in my view. There are a few SEC filers who do have rounding errors, but only a few. This practice makes using and verifying information unnecessarily more complex for analysts.

### **1.2.2.Assets**

Of the 5525 filings, 5426 (98%) used the concept "us-gaap:Assets" to express total assets on the balance sheet. There were about 80 filings which did not use this concept, rather they tended to have only current assets and provided one line item for both current and total assets, which was us-gaap:AssetsCurrent. Or, they had only cash and only that line item was shown as assets on the balance sheet. A few other filers used net assets.

For all filers who had us-gaap:Assets, 5347 (97%) also had liabilities and equity (one of two concepts, see below) and total assets equalled liabilities and equity.

### **1.2.3.Liabilities and Equity**

Of the 5525 filings, 5384 (97%) used the concept "us-gaap:LiabilitiesAndStockholdersEquity" or "us-gaap:LiabilitiesAndPartnersCapital" to express total liabilities and equity on the balance sheet. There were 141 filings which did not use one of these concepts.

Of the 141, multiple situations were occurring. For example, a number of filers use "Liabilities and Member Equity" (cik0:LiabilitiesAndMembersEquity). A few used of net assets (cswc:LiabilitiesAndNetAssets). There were other obscure cases such as these.

COMMENT: It seems that the concept "us-gaap:LiabilitiesAndEquity" would be superior because the FASB CON 6 defines both "Liabilities" and "Equity", because this would eliminate the need to create additional concepts such as "us-gaap:LiabilitiesAndMemberEquity", "us-gaap:LiabilitiesAndCooperativeEquity", "us-gaap:LiabilitiesAndSoleProprietorEquity."

### **1.2.4.Assets = Liabilities and Equity (Balance sheet balances)**

As mentioned above, 5347 (97%) of all filings had assets and liabilities and equity and the balance sheet balanced (the two numbers agree). Interesting there were a number of filings which a balance sheet was provided but the balance sheet did not balance for some reason.

### **1.2.5.Current assets**

Of all filings, 4010 (73%) used the concept us-gaap:AssetsCurrent to report current assets. Reporting current assets is required unless a filer is in an industry where it is not common practice to report current assets such as banking or insurance.

### **1.2.6.Liabilities**

Of all filings, 3912 (71%) used the concept us-gaap:Liabilities to report total liabilities. Reporting the line item total liabilities is common, but it is not required.

For those filers who do not report liabilities, it is easy to impute total liabilities by taking liabilities and equity and backing out equity, nonredeemable preferred stock, other

temporary equity, commitments and contingencies which has a value (8 filers reported a value, 111 filers reported 0) to arrive at total liabilities.

### **1.2.7. Current liabilities**

Of all filings, 3992 (72%) used the concept us-gaap:LiabilitiesCurrent to report current liabilities. Reporting current liabilities is required unless a filer is in an industry where it is not common practice to report current liabilities such as banking or insurance.

### **1.2.8. Equity**

Of all filings, 5354 (97%) reported the line item equity on their balance sheet using one of the following four concepts:

- us-gaap:StockholdersEquity
- us-gaap:StockholdersEquityIncludingPortionAttributableToNoncontrollingInterest
- us-gaap:PartnersCapital
- us-gaap:PartnersCapitalIncludingPortionAttributableToNoncontrollingInterest

COMMENT: The FASB and XBRL US provide conflicting information as to which concept should be used to express total equity. XBRL US (<http://xbrl.us/research/Documents/20110729BPC.pdf>, see page 3) says total equity depends on if a company has a controlling interest, information from the FASB indicates that the concept with the longer name should be used. It seems strange that the concept for total equity changes depending upon if a filer does or does not have a noncontrolling interest. The FASB guidance seems correct. See the comment below, that solves the problem.

The remaining 171 (3%), either did not report the line item of equity or created an extension concept to report equity such as "MemberEquity".

I believe it is the case that US GAAP requires the disclosure of the line item equity. Filers use the concepts interchangeably between total equity and equity attributable to noncontrolling interests.

COMMENT: FASB CON 6 defines the concept equity. It seems to me that having two concepts "us-gaap:Equity" and "us-gaap:EquityAttributableToParent" would be superior to both the current naming/labeling and would reduce the number of extension concepts required for thing like "MemberEquity" and "SoleProprietorEquity" and "CooperativeEquity" which the US GAAP taxonomy neglected to provide.

It seems that disclosing the line item "Equity Attributable to Parent" is a best practice because most filers disclose that subtotal, the noncontrolling interest and "Equity". Equity always exists. If a filer does not disclose the line item "Equity Attributable to Parent", it can always be imputed using "Equity" and the "Equity Attributable to Noncontrolling Interest".

As such "Equity" is part of the core financial reporting model and while "Equity Attributable to Parent" and "Noncontrolling Interest" fit into that core financial reporting model, they only exist if, in fact, a noncontrolling interest exists.

### 1.3. Cash Flow Statement

The cash flow statement has clear semantics. A cash flow statement aggregates “net cash flow” from operating, investing, and financing activities and then reconciles that net change in cash to some cash balance on the balance sheet.

COMMENT: It is still unclear to me whether the cash account reconciled on the cash flow statement is always exactly the same cash concept on the balance sheet. In 100% of the balance sheets and cash flow statements I have seen, it is the same concept. Under IFRS, it may not be the same concept as certain short term investments are not included in the cash flow reconciliation. However, under IFRS you are required to then provide a reconciliation between the cash used on the balance sheet and cash used on the cash flow statement.

#### 1.3.1. General observations

This is a classic cash flow statement, Verizon:

Condensed Consolidated Statements of Cash Flows (USD \$) In Millions	6 Months Ended	
	Jun. 30, 2011	Jun. 30, 2010
<b>Cash Flows from Operating Activities</b>		
Net Income	\$ 6,868	\$ 2,871
<b>Adjustments to reconcile net income to net cash provided by operating activities:</b>		
Depreciation and amortization expense	8,137	8,299
Employee retirement benefits	726	3,988
Deferred income taxes	1,501	775
Provision for uncollectible accounts	498	680
Equity in earnings of unconsolidated businesses, net of dividends received	(195)	(227)
Changes in current assets and liabilities, net of effects from acquisition/disposition of businesses	(2,361)	1,502
Other, net	(2,382)	(1,081)
<b>Net cash provided by operating activities</b>	<b>12,792</b>	<b>16,807</b>
<b>Cash Flows from Investing Activities</b>		
Capital expenditures (including capitalized software)	(8,918)	(7,619)
Acquisitions of licenses, investments and businesses, net of cash acquired	(1,668)	(538)
Proceeds from dispositions		2,594
Net change in short-term investments	47	(17)
Other, net	667	37
<b>Net cash used in investing activities</b>	<b>(9,872)</b>	<b>(5,543)</b>
<b>Cash Flows from Financing Activities</b>		
Proceeds from long-term borrowings	6,440	
Repayments of long-term borrowings and capital lease obligations	(7,356)	(4,594)
Increase (decrease) in short-term obligations, excluding current maturities	1,012	(97)
Dividends paid	(2,759)	(2,690)
Proceeds from sale of common stock	122	
Other, net	(807)	(1,131)
<b>Net cash used in financing activities</b>	<b>(3,348)</b>	<b>(8,512)</b>
<b>Increase (decrease) in cash and cash equivalents</b>	<b>(428)</b>	<b>2,752</b>
Cash and cash equivalents, beginning of period	6,668	2,009
Cash and cash equivalents, end of period	\$ 6,240	\$ 4,761

### 1.3.2. Net Cash Flow

Of all filings, 5403 (98%) reported net cash flow using one of the following concepts:

- "us-gaap:CashAndCashEquivalentsPeriodIncreaseDecrease" 5229 (95%)
- "us-gaap:CashPeriodIncreaseDecrease" 174 (3%)

Of the remainder, 122 (2%) used some other concept such as us-gaap:NetCashProvidedByUsedInContinuingOperations or us-gaap:IncreaseDecreaseInRestrictedCash, no cash flow statement was provided, or an extension concept was created and used.

COMMENT: It seems as though one concept should be used to report net cash flow regardless of what cash account you use on the cash flow statement or balance sheet. Why would the type of cash account you use impact this concept. It seems that one concept such as "us-gaap:NetCashFlow" should exist, and that concept is always used if a cash flow statement is provided.

Interestingly, the percentage of the top 100 companies which used common concepts was significantly less than the averages of the Dow, the top 1000 or all 5225 filings. So, I looked at each individual filing of the seven filings where I did not discover net cash flows and found the following:

- *Ford*: us-gaap:NetCashProvidedByUsedInContinuingOperations
- *Allstate Life Insurance*: alic:CashPeriodIncreaseDecrease
- *Hartford Life Insurance*: hlic:NetIncreaseDecreaseInCash
- *Allstate Corp*: all:CashPeriodIncreaseDecrease
- *Hartford Financial Services*: hig:NetIncreaseDecreaseInCash
- *General Motors*: us-gaap:CashAndCashEquivalentsPeriodIncreaseDecrease (but did not report for consolidated entity)
- *CitiGroup*: c:CashAndDueFromBanksPeriodIncreaseDecrease

Not sure why these extensions would be justifiable, considering that most others including most insurance companies, felt that an existing concept worked for them.

### 1.3.3. Net Changes in Cash Foots to Detailed Items

Of 4933 (89%) filings, net cash flow was computed from the components which make up net cash flow as being (note that I believe at least one more line item should be in this computation relating to assets which have been transferred to or from held for sale):

**Net Cash Flow** = Net Cash Flow from Operating Activities, Continuing Operations + Net Cash Flow from Investing Activities, Continuing Operations + Net Cash Flow from Financing Activities, Continuing Operations + Net Cash Flow from Discontinued Operations + *Effect of Exchange Rate Changes*

**Ending Cash** = Beginning Cash + Net Cash Flow

A number of filers (fewer than 118, but this number is not clear as each of these filings was not checked) compute net cash flow differently, not including the effect of exchange rate changes within net cash flow, but rather including it in the reconciliation of the cash balance:

**Net Cash Flow** = Net Cash Flow from Operating Activities, Continuing Operations + Net Cash Flow from Investing Activities, Continuing Operations + Net Cash Flow from Financing Activities, Continuing Operations + Net Cash Flow from Discontinued Operations

**Ending Cash** = Beginning Cash + Net Cash Flow + *Effect of Exchange Rate Changes*

For example, Home Demo has them OUTSIDE Net Cash Flow (i.e. Operating + Investing + Financing = Net Cash Flow; then Beginning Balance + Net Cash Flow + Exchange Gains = Ending Balance).

Consolidated Statements of Cash Flows (USD \$) In Millions	3 Months Ended	
	May 01, 2011	May 02, 2010
<b>CASH FLOWS FROM OPERATING ACTIVITIES:</b>		
Net Earnings	\$ 812	\$ 725
Reconciliation of Net Earnings to Net Cash Provided by Operating Activities:		
Depreciation	47	43
Amortization of Intangible Assets	99	99
Deferred Income Taxes	8	(63)
Other	(52)	54
<b>Net Cash Provided by Operating Activities</b>	<b>2,098</b>	<b>2,039</b>
<b>CASH FLOWS FROM INVESTING ACTIVITIES:</b>		
Capital Expenditures	(199)	(167)
Proceeds from Sales of Property and Equipment	15	27
<b>Net Cash Used in Investing Activities</b>	<b>(184)</b>	<b>(140)</b>
<b>CASH FLOWS FROM FINANCING ACTIVITIES:</b>		
Proceeds from Long-Term Borrowings, net of discount	1,994	
Repayments of Long-Term Debt	(1,007)	(71)
Common Dividends Paid to Stockholders	(403)	(1)
Other Financing Activities	19	8
<b>Net Cash Used in Financing Activities</b>	<b>(664)</b>	<b>(893)</b>
Change in Cash and Cash Equivalents	1,250	1,006
Effect of Exchange Rate Changes on Cash and Cash Equivalents	11	9
Cash and Cash Equivalents at Beginning of Period	545	1,421
Cash and Cash Equivalents at End of Period	\$ 1,806	\$ 2,436

This does not seem to be an error, the accounting rules are potentially ambiguous here or perhaps allow either computation. Whether this situation is desirable is a different story. What is the possible business reason that a company would compute net cash flow differently? What industry specific practice might require this? If there is no solid answer to this question, then it seems that the accounting rules should be adjusted to use only one computation.

#### 1.3.4. Cash and Cash Equivalents per Cash flow statement

Of 5525 filings, 5487 (99%) used one of the following concepts to express cash and cash equivalents:

- us-gaap:CashAndCashEquivalentsAtCarryingValue 5055 (91%)
- us-gaap:CashCashEquivalentsAndFederalFundsSold 171 (3%)
- us-gaap:CashCashEquivalentsAndShortTermInvestments 87 (2%)
- us-gaap:CashAndDueFromBanks 511 (9%)
- us-gaap:Cash 611 (11%)
- us-gaap:FederalFundsSoldAndSecuritiesPurchasedUnderAgreementsToResell 126 (2%)

### 1.3.5. Effect of Exchange Rate Gains (Losses)

Of all filings, 1840 (33%) had an effect of exchange gains on the cash flow statement. It is expected that not all filers would have this line item.

## 1.4. Income statement

Generally, all financial statements have an income statement. There are occasions where one would not be necessary, but for most companies which have continuing operations, they would have an income statement.

### 1.4.1. General observations

The income statement has vastly more variety than either the balance sheet or cash flow statement. Although, it may be the case that one could break the types of income statements into categories. For example, the Microsoft income statement below is one classic income statement.

INCOME STATEMENTS (USD \$) In Millions, except Per Share data	12 Months Ended		
	Jun. 30, 2011	Jun. 30, 2010	Jun. 30, 2009
Revenue	\$ 69,943	\$ 62,484	\$ 58,437
Operating expenses:			
Cost of revenue	15,577	12,395	12,155
Research and development	9,043	8,714	9,010
Sales and marketing	13,940	13,214	12,879
General and administrative	4,222	4,063	4,030
Total operating expenses	42,782	38,386	38,074
Operating income	27,161	24,098	20,363
Other income (expense)	910	915	(542)
Income before income taxes	28,071	25,013	19,821
Provision for income taxes	4,921	6,253	5,252
Net income	\$ 23,150	\$ 18,760	\$ 14,569
Earnings per share:			
Basic	\$ 2.73	\$ 2.13	\$ 1.63
Diluted	\$ 2.69	\$ 2.10	\$ 1.62
Weighted average shares outstanding:			
Basic	8,490	8,813	8,945
Diluted	8,593	8,927	8,996
Cash dividends declared per common share	\$ 0.64	\$ 0.52	\$ 0.52

This Kraft income statement is another, this format with gross profit:

Condensed Consolidated Statements Of Earnings (USD \$) In Millions, except Per Share data	3 Months Ended		6 Months Ended	
	Jun. 30, 2011	Jun. 30, 2010	Jun. 30, 2011	Jun. 30, 2010
Condensed Consolidated Statements Of Earnings				
Net revenues	\$ 13,878	\$ 12,253	\$ 26,451	\$ 23,571
Cost of sales	9,007	7,559	16,944	14,788
Gross profit	4,871	4,694	9,507	8,783
Selling, general and administrative expenses	3,008	2,933	5,941	5,783
Amortization of intangibles	57	60	114	93
Operating income	1,806	1,701	3,452	2,907
Interest and other expenses, net	441	439	887	1,063
Earnings from continuing operations before income taxes	1,365	1,262	2,565	1,844
Provision for income taxes	389	323	787	656
Earnings from continuing operations	976	939	1,778	1,188
Earnings and gain from discontinued operations, net of income taxes (Note 2)				1,644
Net earnings	976	939	1,778	2,832
Noncontrolling interest		2	3	12
Net earnings attributable to Kraft Foods	\$ 976	\$ 937	\$ 1,775	\$ 2,820
Basic earnings per share attributable to Kraft Foods:				
Continuing operations	\$ 0.55	\$ 0.54	\$ 1.01	\$ 0.70
Discontinued operations				\$ 0.98
Net earnings attributable to Kraft Foods	\$ 0.55	\$ 0.54	\$ 1.01	\$ 1.68
Diluted earnings per share attributable to Kraft Foods:				
Continuing operations	\$ 0.55	\$ 0.53	\$ 1.01	\$ 0.70
Discontinued operations				\$ 0.97
Net earnings attributable to Kraft Foods	\$ 0.55	\$ 0.53	\$ 1.01	\$ 1.67
Dividends declared	\$ 0.29	\$ 0.29	\$ 0.58	\$ 0.58

### 1.4.2. Net Income (Loss)

Of all filings, 5407 (98%) reported "Net Income (Loss)" using one of following four concepts:

- 3365 (61%) reported the concept "us-gaap:NetIncomeLoss"; (Net Income (Loss) Attributable to Parent)
- 1994 (36%) reported "us-gaap:ProfitLoss"; (Net Income (Loss))
- 23 (1%) reported "us-gaap:NetIncomeLossAvailableToCommonStockholdersBasic" (Net Income Attributable to Common Shareholders).
- 5 (less than 1%) reported us-gaap:IncomeLossFromContinuingOperations

These concepts are used inconsistently to report "Net Income (Loss)", it seems that filers are confused when to use which of the for concepts, particularly the first three. Basically, the US GAAP taxonomy and SEC filing rules are ambiguous in this area.

However, that being said, if an income statement exists, Net Income (Loss) is generally reported. There are a small minority of filers who have no net income on their income statement.

### 1.4.3. Revenue

Of 5525 filings, 4904 (89%) used one of the following 12 concepts to express revenues:

- us-gaap:Revenues 2051 (37%)
- us-gaap:SalesRevenueNet 1359 (37%)
- us-gaap:SomeOtherConcept 884 (16%)
- us-gaap:InterestAndDividendIncomeOperating 565 (10%)
- us-gaap:SalesRevenueGoodsNet 328 (6%)

- us-gaap:SalesRevenueServicesNet 163 (3%)
- us-gaap:RealEstateRevenueNet 67 (1%)
- us-gaap:OilAndGasRevenue 63 (1%)
- us-gaap:RegulatedAndUnregulatedOperatingRevenue 18 (less than 1%)
- us-gaap:HealthCareOrganizationRevenue 14 (less than 1%)
- us-gaap:RevenueMineralSales 9 (less than 1%)
- us-gaap:FinancialServicesRevenue 4 (less than 1%)

Revenues is one of the most complicated concepts to locate within an SEC XBRL financial report as there is such a wide variety of concepts used, many times there is no total for revenues, extension concepts are used, and other such reasons.

For example, Exxon Mobil created an extension concept for revenues `xom:SalesAndOtherOperatingRevenueIncludingSalesBasedTaxes` (Sales and other operating revenue) and provides the following definition for the concept:

Total revenue from sale of goods and services during the reporting period, reduced by sales returns and allowances, and sales discounts. Also includes sales-based taxes (e.g. excise and sales taxes) which are then deducted as sales-based tax expense.

That definition seems like it could apply to virtually any SEC filer really, it is very general. Why Exxon decided that it needed to create an extension concept for revenue is unknown. The best guess is that the concept combines the concepts "Revenues" (`us-gaap:Revenues`) and "Other Operating Income" (`us-gaap:OtherOperatingIncome`).

While most filers do report revenue, the concepts vary widely.

#### **1.4.4. Gross Profit**

Of 5525 filings, 1927 (35%) reported `us-gaap:GrossProfit`. Generally having gross profit indicates that a multi-step income statement presentation is being used and so approximately one-third of filers use a multi-step and two-thirds use a single step presentation format or some other presentation format.

#### **1.4.5. Costs of Sales**

Of all filings, 1431 (72%) reported one of the following costs of sales

- us-gaap:CostOfGoodsSold 846 (59%)
- us-gaap:CostOfGoodsAndServicesSold 522 (36%)
- us-gaap:CostOfServices 285 (20%)
- us-gaap:CostsAndExpenses 44 (3%)

#### **1.4.6. Operating Income (Loss)**

Of all filings, 3820 (69%) reported `us-gaap:OperatingIncomeLoss`.

#### **1.4.7. Income from Continuing Operations before Tax**

Of all filings, 3954 (72%) reported income from continuing operations before taxes using one of the following concepts:

- us-gaap:IncomeLossFromContinuingOperationsBeforeIncomeTaxesExtraordinaryItemsNoncontrollingInterest

- us-gaap:IncomeLossFromContinuingOperationsBeforeIncomeTaxesMinorityInterestAndIncomeLossFromEquityMethodInvestments
- us-gaap:IncomeLossFromContinuingOperationsBeforeIncomeTaxesDomestic
- us-gaap:IncomeLossFromContinuingOperationsBeforeIncomeTaxesForeign

Many filers do not report the line item "Income (Loss) from Continuing Operations Before Taxes". The labels used on these line items where this is reported are very consistent in their meaning, but vary widely in the actual terms used within the label.

Interestingly, of the 30 Dow Industrial companies examined, 8 created extension concepts which had, in essence, the same meaning as other filer labels for this concept. Of the 30 companies which make up the Dow Industrials, 22 use the same concept to report what amounts to "Income (Loss) from Continuing Operations Before Taxes".

The other 8 companies all reported that line item. I could even back into the value of that line item by starting at net income (loss) and backing out income from discontinued operations and income taxes. But, for some reason they chose to create an extension concept. What is REALLY interesting, it is as if those 8 companies were almost comparing notes when naming the concept. And if you look at the names that they use, it would seem to me that one would expect the concepts that they created would be in the US GAAP taxonomy already. Very, very common terms:

- *McDonald's*; mcd:IncomeLossFromContinuingOperationsBeforeIncomeTaxes
- *Coca-Cola*;  
ko:IncomeLossFromContinuingOperationsBeforeIncomeTaxesExtraordinaryItemsNon controllingInterest
- *Procter & Gamble*; pg:IncomeLossFromContinuingOperationsBeforeIncomeTaxes
- *AT&T*; t:IncomeFromContinuingOperationsBeforeIncomeTaxes
- *Intel*; intc:IncomeLossBeforeTaxes
- *Cisco Systems*; csc:IncomeLossFromContinuingOperationsBeforeIncomeTaxes
- *Hewlett-Packard*; hpq:IncomeLossBeforeIncomeTax
- *Alcoa*; aa:IncomeLossFromContinuingOperationsBeforeIncomeTaxes

While it is certainly a best practice to include "Income (Loss) from Continuing Operations before Taxes" on an income statement, it cannot be considered a required line item.

On the other hand, if the same percentages hold true for the other filers as is the case for the Dow and 27% of all filers create extension concepts for this line item (8 or 30 Dow companies created extensions which seem unjustifiable for this line item); then more filers actually have this line item. But, likely not 100% have this line item. As such, this line item may not be includable in a core semantic model of an income statement.

However, this could be included as an option as the percentage of use is so high.

Predicting what causes these extensions, it seems that filers get confused by all the different permutations and combinations of subtotals cause by the different permutations and combinations of line items. For example, things like income from equity method investment, income taxes, discontinued operations, extraordinary items, income attributable to noncontrolling interest and preferred dividends cause certain subtotals to be needed. Currently, this causes ambiguity in which concept to use, given the sparse guidance provided by the FASB and SEC.

#### **1.4.8. Income Tax Expense (Benefit)**

Of all filings, 3742 (68%) reported income tax expense (benefit) using the concept us-gaap:IncomeTaxExpenseBenefit. It seems understandable that many filers would not have this line item.

## **1.5. Policies**

### **1.5.1. Organization, Consolidation, Basis of Presentation/Reporting, Nature of Business**

Of 5525 filings, 5296 (96%) used one of the following concepts in their filing:

- us-gaap:OrganizationConsolidationAndPresentationOfFinancialStatementsDisclosureTextBlock 2774 (53%)
- us-gaap:SignificantAccountingPoliciesTextBlock 796 (14%)
- us-gaap:NatureOfOperations 614 (11%)
- us-gaap:OrganizationConsolidationAndPresentationOfFinancialStatementsDisclosureAndSignificantAccountingPoliciesTextBlock 278 (5%)
- us-gaap:OrganizationConsolidationBasisOfPresentationBusinessDescriptionAndAccountingPoliciesTextBlock 227 (4%)
- us-gaap:BasisOfAccounting 211 (38%)
- us-gaap:BasisOfPresentationAndSignificantAccountingPoliciesTextBlock 199 (4%)
- us-gaap:BusinessDescriptionAndBasisOfPresentationTextBlock 114 (2%)
- us-gaap:BusinessDescriptionAndAccountingPoliciesTextBlock 57 (1%)
- us-gaap:QuarterlyFinancialInformationTextBlock 26 (<1%)

The remaining 229 filings used some other concept, created an extension concept, or did not report organizational information, basis of reporting, or nature of their business. Not unexpectedly, of the 229 filings which did not utilize one of these concepts, every one was a 10-Q.

A fair amount of filers packed the organization information, consolidation policies, basis of presentation/reporting and nature of business information within the concept us-gaap:SignificantAccountingPoliciesTextBlock along with the actual significant policies. A fair amount of filers also created an extension concept as the permutation/combination which they apparently felt they were providing did not match the permutations/combinations provided in the US GAAP taxonomy.

## **1.6. Document information**

Document information is really a combination of document information and entity information. Some filings separate these two, others do not.

### **1.6.1. General observations**

None.

### **1.6.2. Entity registered name**

Of all filings, 5525 (100%) reported the concept `dei:EntityRegistrantName`. While this can really be considered nonfinancial information perhaps, there is a very important point to realize here: 100% of filers report this and it exists in 100% of filings because the SEC EFM specifically requires this concept and submission validation tests for the existence of this concept, making it impossible to make the mistake of not reporting this concept. It is true that a filer could report the wrong name. Although, that could be tested also by comparing the CIK number with a name registry.

If there is a desire to use this approach on other concepts, it is available to be used. This is a choice, not a technical limitation of XBRL to not have 100% of all filers to report a specific fact. There are other required concepts, this is only used as an example.

### **1.6.3. Trading symbol**

Of all filings, 1166 (21%) reported the concept `dei:TradingSymbol`. This concept is pointed out to provide a contrast of the concept entity registered name above. This information is of less value because the information is not available for all SEC filers. For example, one could not create a lookup by trading symbol based on this concept. SEC filing information would have to be supplemented in some way with other information to create a useful lookup by trading symbol.

Again, whether a concept is required or optional impacts the utility of a system.

## **1.7. Conclusions**

The following conclusions are reached from the analysis of these 5525 SEC XBRL financial filings.

### **1.7.1. Core financial integrity**

The following core financial reporting semantics are hard to dispute:

- Balance sheet must report assets (`us-gaap:Assets`)
- Balance sheet must report liabilities and equity (`us-gaap:LiabilitiesAndStockholdersEquity`, `us-gaap:LiabilitiesAndPartnerCapital`)
- Balance sheet balances (assets = liabilities and equity)
- Balance sheet must report equity (see concepts in detailed section)
- Cash flow statement must report net cash flow (`us-gaap:CashAndCashEquivalentsPeriodIncreaseDecrease` or `us-gaap:CashPeriodIncreaseDecrease`)
- Net cash flow foots in one, or perhaps two ways:
  - Net Cash Flow = Net Cash Flow from Operating Activities, Continuing Operations + Net Cash Flow from Investing Activities, Continuing Operations + Net Cash Flow from Financing Activities, Continuing Operations + Net Cash Flow from Discontinued Operations + Effect of Exchange Rate Changes
  - Possible Alternative: Net Cash Flow = Net Cash Flow from Operating Activities, Continuing Operations + Net Cash Flow from Investing Activities, Continuing Operations + Net Cash Flow from Financing Activities, Continuing Operations + Net Cash Flow from Discontinued Operations

- Income statement must report Net Income (Loss) (us-gaap:ProfitLoss, us-gaap:NetIncomeLoss, and/or us-gaap:NetIncomeLossAvailableToCommonStockholdersBasic as the rules are written now, however, it seems that one concept would be common to all filings (now filers are using one of these three concepts)
- OPTIONAL (Perhaps): Income statement must report Income (loss) from continuing operations before Tax
- OPTIONAL if a classified balance sheet is provided: Balance sheet must contain current assets and current liabilities.

### **1.7.2. Significant Ambiguities in US GAAP taxonomy**

The following significant ambiguities exist within the US GAAP Taxonomy making it unclear how to model these specific areas of an SEC XBRL financial filing:

**Total Stockholders' Equity.** The issue here is which concept should you use to represent total stockholders' equity if you DO NOT have "Stockholders' Equity Attributable to Noncontrolling Interest". If you do have that concept, the answer is clear, you will use both "Stockholders' Equity Attributable to Parent" and "Stockholders' Equity, Including Portion Attributable to Noncontrolling Interest." But this is less clear if you don't have a noncontrolling interest. Per the US GAAP taxonomy documentation and per what I heard from folks at the FASB, "Stockholders' Equity, Including Portion Attributable to Noncontrolling Interest" is the proper concept to use for total equity whether you do, or do not have a noncontrolling interest. The key is the "if any" phrase in the concept's documentation.

**Income (Loss) from Continuing Operations Before Tax.** Pretty much every filer is going to have a concept which expresses what amounts to "Income (Loss) from Continuing Operations Before Taxes". But, because of all the steps or levels in the income statement, it is less clear WHICH concept to use. Many filers become so confused that they try and get around the decision by creating their own extension concept, clearly the wrong approach to take. While the label will be different, my view of which concept to use is consistent with the 73% of filers who picked the concept with the US GAAP Taxonomy standard label "Income (Loss) from Continuing Operations Before Taxes, Extraordinary Items, Noncontrolling Interest".

**Net Income (Loss) Including Portion Attributable to Noncontrolling Interest.** Similar to the total equity issue, if a filer has "Net Income (Loss) Attributable to Noncontrolling Interest", they generally pick the right concepts to use. But if they don't have a noncontrolling interest, then they get confused between picking "Net Income (Loss) Attributable to Parent" and "Net Income (Loss), Including Portion Available to Noncontrolling Interest." Consistent with total equity, I say the correct concept to use if you do not have a controlling interest is the latter, "Net Income (Loss), Including Portion Available to Noncontrolling Interest" whether you do, or do not, have a noncontrolling interest.

**Net Cash Provided by (Used in) Operating Activities.** Again, same deal. If you have discontinued operations, which concepts to use in the cash flow statement for "Net Cash Provided by (Used in) Operating Activities" is clear, you use "Net Cash Provided by (Used in) Operating Activities, Continuing Operations" and "Cash Provided by (Used in) Operating Activities, Discontinued Operations" and you may even provide a subtotal for both using "Net Cash Provided by (Used in) Operating Activities". But, which concept should you select if you ONLY have continuing operations: "Net Cash Provided by (Used in) Operating Activities" or "Net Cash Provided by (Used in) Operating Activities, Continuing Operations"? My analysis shows that 86% of filers used "Net Cash Provided by (Used in) Operating

Activities" which I would personally tend to agree with. Others have a different view. (Note that the same issue exists for investing and financing activities also.)

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