

# Pacioli

## Knowledge Graph of Microsoft 10-K Demonstration

For more information and details see: <http://xbrl.squarespace.com/journal/2021/7/12/knowledge-graph-of-microsoft-10-k-financial-report.html>

To understand this, it is helpful to understand the METHOD that is applied so that financial report quality can be controlled and therefore guaranteed. The method helps you understand WHY you see the things you see:

**Method Overview:** <http://accounting.auditchain.finance/framework/MethodOverview.pdf>

### Pacioli logic/rules/reasoning engine:

Run this script in Pacioli Power User tool to process the knowledge graph: <https://pacioli.auditchain.finance/tools/PowerUserTool.swinb>

```
% Microsoft 2017 10-K, Load Verification Rules Dynamically, Last Period only %
checkReport3("https://www.sec.gov/Archives/edgar/data/789019/000156459017014900/msft-20170630.xml",
['http://www.xbrlsite.com/2021/kg/us-gaap/mathematics/mathematics2.xsd',
'http://www.xbrlsite.com/2021/kg/us-gaap/fac/ReportingStyles/COMID-BSC-CF1-ISM-IEMIB-OILY-SPEC6_schema.xsd',
'http://www.xbrlsite.com/2021/kg/us-gaap/model-structure/model-structure-rules-def.xml',
'http://www.xbrlsite.com/2021/kg/us-gaap/type-subtype/type-subtype.xsd',
'http://www.xbrlsite.com/2021/kg/us-gaap/disclosure-mechanics/disclosure-mechanics.xsd',
'http://www.xbrlsite.com/2021/kg/us-gaap/reporting-checklist/reporting-checklist2-rules-def.xml',
'http://xbrl.fasb.org/us-gaap/2017/elts/us-gaap-ref-2017-01-31.xml',
'http://xbrl.fasb.org/us-gaap/2017/elts/us-gaap-doc-2017-01-31.xml'],
[newRulesFormat, removePrecondFallbacks, removeValueAssertionFallbacks, lastPeriodOnly , cacheValidity(3600)], Result).
```

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Dashboard: <https://pacioli.auditchain.finance/reportAnalysis/4840b9024c7caab4f2817b4aa84f0f1195f1988e.report/index.html>

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2	100010 - Statement - INCOME STATEMENTS	Structures	Facts Pivots
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16	100150 - Disclosure - PROPERTY AND EQUIPMENT	Structures	Facts Pivots

The coloring has meaning, helps you understand the verification report.

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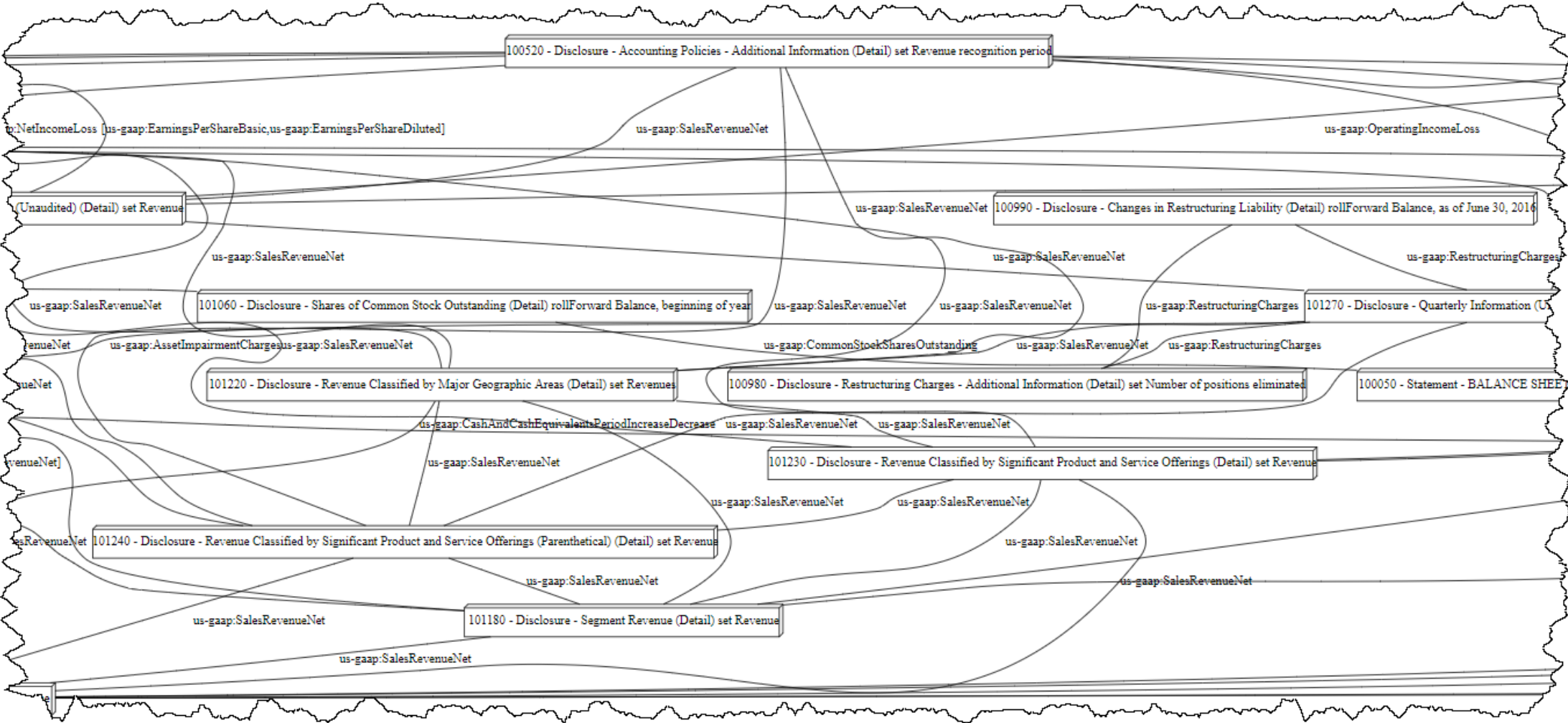
Information blocks list: <https://pacioli.auditchain.finance/reportAnalysis/4840b9024c7caab4f2817b4aa84f0f1195f1988e.report/blocks.html>

#	Network	Hypercube	Block
1	100000 - Document - Document and Entity Information	Statement [Table]	1.1.2.1.set Document Type
2	100010 - Statement - INCOME STATEMENTS	Statement [Table]	1.1.2.12.rollUp Net income
3	100010 - Statement - INCOME STATEMENTS	Statement [Table]	1.1.2.13.1.set Basic
4	100020 - Statement - COMPREHENSIVE INCOME STATEMENTS	Statement [Table]	1.1.2.3.rollUp Comprehensive income
5	100030 - Statement - COMPREHENSIVE INCOME STATEMENTS (Parenthetical)	Statement [Table]	1.1.2.1.set Net unrealized gains (losses) on derivatives, tax effects
6	100040 - Statement - BALANCE SHEETS	Statement [Table]	1.1.2.1.7.rollUp Total assets
7	100040 - Statement - BALANCE SHEETS	Statement [Table]	1.1.2.2.9.rollUp Total liabilities and stockholders' equity
8	100050 - Statement - BALANCE SHEETS (Parenthetical)	Statement [Table]	1.1.2.1.set Short-term investments, securities loaned
9	100060 - Statement - CASH FLOWS STATEMENTS	Statement [Table]	1.1.2.5.rollUp Net change in cash and cash equivalents
10	100060 - Statement - CASH FLOWS STATEMENTS	Statement [Table]	1.1.2.6.rollForward Cash and cash equivalents, beginning of period
11	100070 - Statement - STOCKHOLDERS' EQUITY STATEMENTS	Statement [Table]	1.1.3.1.set Balance, beginning of period
12	100080 - Disclosure - ACCOUNTING POLICIES	Statement [Table]	1.1.2.1.textBlock ACCOUNTING POLICIES
13	100090 - Disclosure - EARNINGS PER SHARE	Statement [Table]	1.1.2.1.textBlock EARNINGS PER SHARE
14	100100 - Disclosure - OTHER INCOME (EXPENSE), NET	Statement [Table]	1.1.2.1.textBlock OTHER INCOME (EXPENSE), NET
15	100110 - Disclosure - INVESTMENTS	Statement [Table]	1.1.2.1.textBlock INVESTMENTS
16	100120 - Disclosure - DERIVATIVES	Statement [Table]	1.1.2.1.textBlock DERIVATIVES
17	100130 - Disclosure - FAIR VALUE MEASUREMENTS	Statement [Table]	1.1.2.1.textBlock FAIR VALUE MEASUREMENTS
18	100140 - Disclosure - INVENTORIES	Statement [Table]	1.1.2.1.textBlock INVENTORIES
19	100150 - Disclosure - PROPERTY AND EQUIPMENT	Statement [Table]	1.1.2.1.textBlock PROPERTY AND EQUIPMENT
20	100160 - Disclosure - BUSINESS COMBINATIONS	Statement [Table]	1.1.2.1.textBlock BUSINESS COMBINATIONS
21	100170 - Disclosure - GOODWILL	Statement [Table]	1.1.2.1.textBlock GOODWILL
22	100180 - Disclosure - INTANGIBLE ASSETS	Statement [Table]	1.1.2.1.textBlock INTANGIBLE ASSETS
23	100190 - Disclosure - DEBT	Statement [Table]	1.1.2.1.textBlock DEBT
24	100200 - Disclosure - INCOME TAXES	Statement [Table]	1.1.2.1.textBlock INCOME TAXES
25	100210 - Disclosure - RESTRUCTURING CHARGES	Statement [Table]	1.1.2.1.textBlock RESTRUCTURING CHARGES
26	100220 - Disclosure - UNEARNED REVENUE	Statement [Table]	1.1.2.1.textBlock UNEARNED REVENUE

A block is a unit of information. Networks are technical syntax oriented and can be arbitrary. Hypercubes are likewise technical oriented and arbitrary. Individual facts are too small a set for many tasks. Complete networks of facts are too big and arbitrary. An information block is driven by logic rather than arbitrary technical choices. Blocks of information follow logical patterns. The Microsoft 10-K has 194 blocks of information.

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Information Blocks Graph: <https://pacioli.auditchain.finance/reportAnalysis/4840b9024c7caab4f2817b4aa84f0f1195f1988e.report/blocksGraph.html>



This shows the 194 information blocks that exist in the financial report and the interconnections between those information blocks. An information block is simply a unit of information that exists within a financial report irrespective of where that information was presented. An information block is about the logical, objective representation of information not the subjective choice as to where the information is disclosed.

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Disclosures: <https://pacioli.auditchain.finance/reportAnalysis/4840b9024c7caab4f2817b4aa84f0f1195f1988e.report/disclosures.html>

#	Type	Name	Rule Expression
1	disclosure	disclosures:AccumulatedOtherComprehensiveIncomeLoss • detections:1	<p>Accumulated Other Comprehensive Income (Loss), by Equity Component [Roll Forward]  <i>Network SEC type: cm:DisclosureType</i></p> <ul style="list-style-type: none"> <li>disclosures:AccumulatedOtherComprehensiveIncomeLoss <b>requires:</b> <ul style="list-style-type: none"> <li>Concept Arrangement Pattern cm:RollForward                             <ul style="list-style-type: none"> <li><b>with</b> us-gaap:AccumulatedOtherComprehensiveIncomeLossNetOfTax <b>OR:</b> <ul style="list-style-type: none"> <li>us-gaap:StockholdersEquityIncludingPortionAttributableToNoncontrollingInterest</li> <li>us-gaap:StockholdersEquity</li> </ul> </li> </ul> </li> <li>disclosure-equivalentTextblock us-gaap:ScheduleOfAccumulatedOtherComprehensiveIncomeLossTableTextBlock</li> </ul> </li> </ul> <p>1 instance:</p> <p>In network 100480 - Disclosure - ACCUMULATED OTHER COMPREHENSIVE INCOME (Tables):            Detected block 1.1.2.1.textBlock with us-gaap:ScheduleOfAccumulatedOtherComprehensiveIncomeLossTableTextBlock</p>
2	disclosure	disclosures:AssetsRollUp • detections:2	<p>Assets [Roll Up]  <i>Network SEC type: cm:StatementType</i></p> <ul style="list-style-type: none"> <li>disclosures:AssetsRollUp <b>requires:</b> <ul style="list-style-type: none"> <li>Concept Arrangement Pattern cm:RollUp                             <ul style="list-style-type: none"> <li><b>with</b> us-gaap:Assets <b>OR:</b> <ul style="list-style-type: none"> <li>us-gaap:AssetsCurrent</li> </ul> </li> </ul> </li> </ul> </li> </ul> <p>2 instances:</p> <p>In network 100040 - Statement - BALANCE SHEETS:            Detected block 1.1.2.1.7.rollUp with us-gaap:Assets</p> <p>In network 100040 - Statement - BALANCE SHEETS:            Detected block 1.1.2.1.7.rollUp with us-gaap:Assets</p>
3	disclosure	disclosures:AssumptionsUsedInEstimatingFairValueOfStockAwardGrants • detections:1	<p>Assumptions Used in Estimating Fair Value of Stock Award Grants [Hierarchy]  <i>Network SEC type: cm:DisclosureType</i></p> <ul style="list-style-type: none"> <li>disclosures:AssumptionsUsedInEstimatingFairValueOfStockAwardGrants <b>requires:</b> <ul style="list-style-type: none"> <li>Concept Arrangement Pattern cm:Hierarchy                             <ul style="list-style-type: none"> <li><b>with</b> us-gaap:ShareBasedCompensationArrangementByShareBasedPaymentAwardFairValueAssumptionsRiskFreeInterestRateMinimum</li> <li>Concept us-gaap:ShareBasedCompensationArrangementByShareBasedPaymentAwardFairValueAssumptionsRiskFreeInterestRateMaximum</li> </ul> </li> </ul> </li> </ul> <p>1 instance:</p> <p>In network 101140 - Disclosure - Assumptions Used in Estimating the Fair Value of Stock Award Grants (Detail):            us-gaap:ShareBasedCompensationArrangementByShareBasedPaymentAwardFairValueAssumptionsRiskFreeInterestRateMaximum is presented</p>

The blocks of information make up the disclosures that are provided within a financial report. Disclosures are simply the logical sets or blocks of information that have been disclosed. A disclosure can be made up of one to many information blocks.

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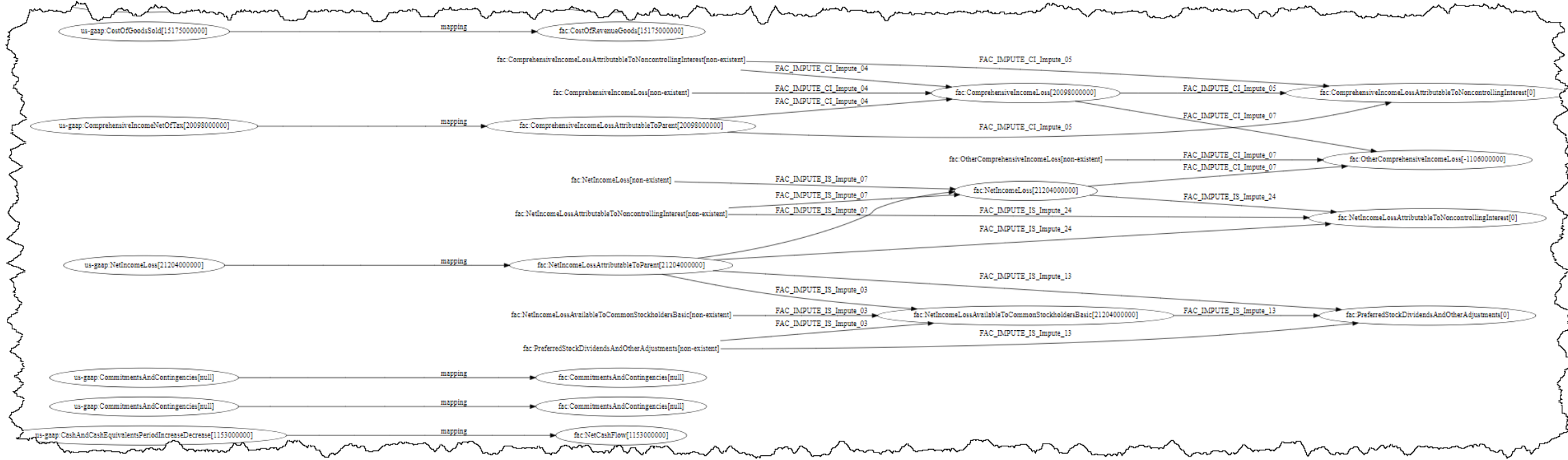
Reporting checklist (a.k.a. disclosure checklist): <https://pacioli.auditchain.finance/reportAnalysis/4840b9024c7caab4f2817b4aa84f0f1195f1988e.report/disclosureChecks.html>

#	Type	Name	Rule Expression
1	disclosureCheck	possibleDisclosure [disclosures:AssumptionsUsedInEstimatingFairValueOfStockAwardGrants] • ok:1 • failed:0	Possible disclosure: • disclosures:AssumptionsUsedInEstimatingFairValueOfStockAwardGrants  1 instance:  See link above
2	disclosureCheck	require [disclosures:BalanceSheet] • ok:1 • failed:0	Require disclosure: • disclosures:BalanceSheet  1 instance:  See link above
3	disclosureCheck	possibleDisclosure [disclosures:BalanceSheetParenthetical] • ok:1 • failed:0	Possible disclosure: • disclosures:BalanceSheetParenthetical  1 instance:  See link above
4	disclosureCheck	require [disclosures:BasisOfReporting] • ok:1 • failed:0	Require disclosure: • disclosures:BasisOfReporting  1 instance:  See link above
5	disclosureCheck	possibleDisclosure [disclosures:BusinessAcquisitionProFormalInformation] • ok:0 • failed:0	Possible disclosure: • disclosures:BusinessAcquisitionProFormalInformation

A reporting checklist is a machine-readable checklist (similar to the hear-to-for human readable memory jogger) that helps accountants understand when specific disclosures are required to be provided within a financial report.

# Pacioli

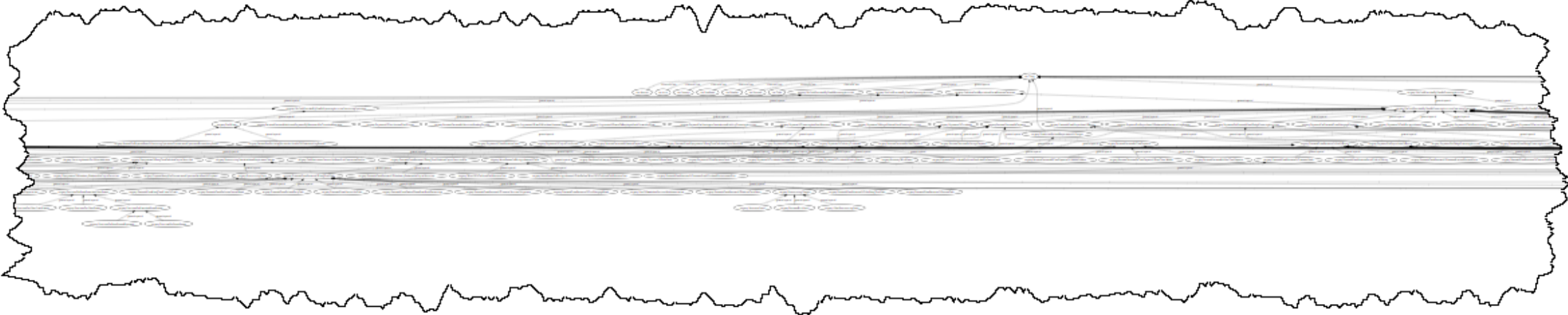
Logical derivations: <https://pacioli.auditchain.finance/reportAnalysis/4840b9024c7caab4f2817b4aa84f0f1195f1988e.report/derivationsGraph.html>



New facts are derived from existing facts per rules of deductive reasoning.

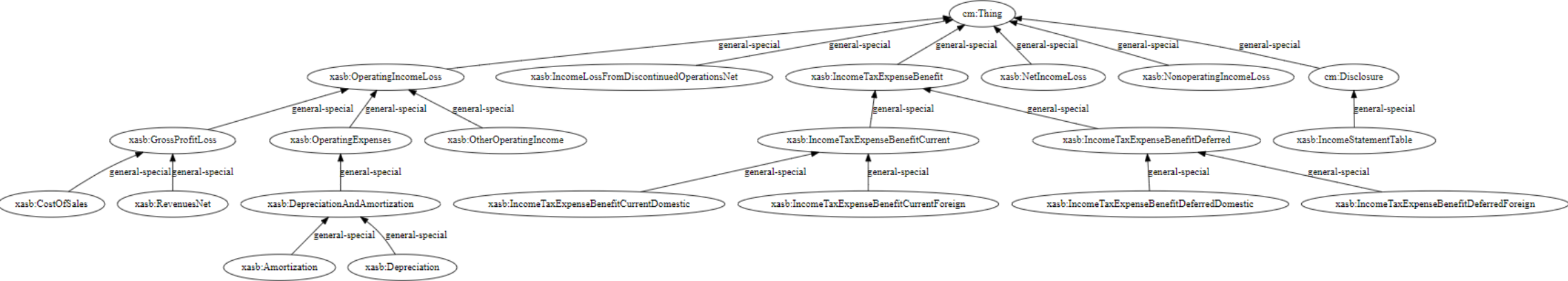
# Pacioli

Types and subtypes (a.k.a. wider-narrower associations): <https://pacioli.auditchain.finance/reportAnalysis/4840b9024c7caab4f2817b4aa84f0f1195f1988e.report/typeSubTypeGraph.html>



(This is a smaller and easier to read example; the rendering above will be fixed to make this readable and useful; the smaller example below helps you understand what we are trying to achieve.)

<https://pacioli.auditchain.finance/reportAnalysis/b84efc55b21e2392c91105213d9207a5b62f7caf.report/typeSubTypeGraph.html>





# Pacioli

**Term detail:** <https://pacioli.auditchain.finance/reportAnalysis/4840b9024c7caab4f2817b4aa84f0f1195f1988e.report/term?concept=%27us-gaap%27%3a%27OtherComprehensiveIncomeLossDerivativesQualifyingAsHedgesNetOfTax%27>

## Term details

Standard label: Net unrealized gains (losses) on derivatives (net of tax effects of \$(5), \$(12), and \$20)

**QName:** us-gaap:OtherComprehensiveIncomeLossDerivativesQualifyingAsHedgesNetOfTax

**Category:** Concept (Monetary)

Data Type: xbrli:monetaryItemType

Period Type: duration

Balance Type: credit

*Technical Details:* Abstract: nil; Substitution Group: item; Identifier: us-gaap\_OtherComprehensiveIncomeLossDerivativesQualifyingAsHedgesNetOfTax

Documentation: Amount after tax and reclassification adjustments, of increase (decrease) in accumulated gain (loss) from derivative instruments designated and qualifying as the effective portion of cash flow hedges and an entity's share of an equity investee's increase (decrease) in deferred hedging gain (loss).

References: Publisher:FASB Name:Accounting Standards Codification Topic:220 SubTopic:10 Section:45 Paragraph:10A Subparagraph:(d) URI:<http://asc.fasb.org/extlink&oid=84228862&loc=SL7669646-108580>

Mapped terms:

## Rules "computing" this term:

Where this term is a calculation total or left side of a value assertion

## Other rules mentioning this term:

- [calculation\(http://www.microsoft.com/20170630/taxonomy/role/StatementCOMPREHENSIVEINCOMESTATEMENTS,us-gaap:OtherComprehensiveIncomeLossNetOfTaxPortionAttributableToParent\)](http://www.microsoft.com/20170630/taxonomy/role/StatementCOMPREHENSIVEINCOMESTATEMENTS,us-gaap:OtherComprehensiveIncomeLossNetOfTaxPortionAttributableToParent)

## Networks presenting this term:

- [100020 - Statement - COMPREHENSIVE INCOME STATEMENTS](#)

## Facts for this term:

#	Network	Hypercube	Block	Reporting Entity [Aspect]	Period [Aspect]	Concept [Aspect]	Fact Value	Unit	Rounding	Parenthetical Explanations	Origin
1	100020 - Statement - COMPREHENSIVE INCOME STATEMENTS	Statement [Table]	1.1.2.3.ro!!Up	0000789019 ( <a href="http://www.sec.gov/CIK">http://www.sec.gov/CIK</a> )	2016-07-01 to 2017-06-30	Net unrealized gains (losses) on derivatives (net of tax effects of \$(5), \$(12), and \$20)	-218000000	iso4217:USD	-6		Reported

NOTE that additional documentation, references, commentary, and other information can be added to the knowledge graph by simply adding a reference to an XBRL linkbase containing that information to the script run by Pacioli.

# Pacioli

Facts list (list of individual facts): <https://pacioli.auditchain.finance/reportAnalysis/4840b9024c7caab4f2817b4aa84f0f1195f1988e.report/facts.html>

Network	Label	Context	Period	Dimensions	Concept	Value	Unit	Origin	Origin term
filter column...	filter column...	filter column...	filter column...	filter column...	filter column...	filter column...	filter column...	filter column...	filter column...
100040 - Statement - B...	Accounts payable	C_0000789019_20170630	2017-06-30		us-gaap:AccountsPayabl...	7390000000	iso4217:USD	Reported	reported
100040 - Statement - B...	Accounts payable	C_0000789019_20160630	2016-06-30		us-gaap:AccountsPayabl...	6898000000	iso4217:USD	Reported	reported
100040 - Statement - B...	Accounts receivable, net...	C_0000789019_20170630	2017-06-30		us-gaap:AccountsReceiv...	19792000000	iso4217:USD	Reported	reported
100540 - Disclosure - Ex...	Accounts receivable, net	C_0000789019_20170630	2017-06-30		us-gaap:AccountsReceiv...	19792000000	iso4217:USD	Reported	reported
100040 - Statement - B...	Accounts receivable, net...	C_0000789019_20160630	2016-06-30		us-gaap:AccountsReceiv...	18277000000	iso4217:USD	Reported	reported
100540 - Disclosure - Ex...	Accounts receivable, net	C_0000789019_20160630	2016-06-30		us-gaap:AccountsReceiv...	18277000000	iso4217:USD	Reported	reported
100040 - Statement - B...	Accounts receivable, net...	C_0000789019_us-gaap...	2017-06-30	Accounting Standards U...	us-gaap:AccountsReceiv...	2639000000	iso4217:USD	Reported	reported
100540 - Disclosure - Ex...	Accounts receivable, net	C_0000789019_us-gaap...	2017-06-30	New Revenue Standard ...	us-gaap:AccountsReceiv...	2639000000	iso4217:USD	Reported	reported
100040 - Statement - B...	Accounts receivable, net...	C_0000789019_us-gaap...	2017-06-30	Accounting Standards U...	us-gaap:AccountsReceiv...	0	iso4217:USD	Reported	reported
100540 - Disclosure - Ex...	Accounts receivable, net	C_0000789019_us-gaap...	2017-06-30	New Lease Standard Adj...	us-gaap:AccountsReceiv...	0	iso4217:USD	Reported	reported
100040 - Statement - B...	Accounts receivable, net...	C_0000789019_us-gaap...	2017-06-30	Scenario Plan [Member]	us-gaap:AccountsReceiv...	22431000000	iso4217:USD	Reported	reported
100540 - Disclosure - Ex...	Accounts receivable, net	C_0000789019_us-gaap...	2017-06-30	Scenario Plan	us-gaap:AccountsReceiv...	22431000000	iso4217:USD	Reported	reported
100040 - Statement - B...	Accounts receivable, net...	C_0000789019_us-gaap...	2016-06-30	Accounting Standards U...	us-gaap:AccountsReceiv...	2359000000	iso4217:USD	Reported	reported
100540 - Disclosure - Ex...	Accounts receivable, net	C_0000789019_us-gaap...	2016-06-30	New Revenue Standard ...	us-gaap:AccountsReceiv...	2359000000	iso4217:USD	Reported	reported
100040 - Statement - B...	Accounts receivable, net...	C_0000789019_us-gaap...	2016-06-30	Accounting Standards U...	us-gaap:AccountsReceiv...	0	iso4217:USD	Reported	reported
100540 - Disclosure - Ex...	Accounts receivable, net	C_0000789019_us-gaap...	2016-06-30	New Lease Standard Adj...	us-gaap:AccountsReceiv...	0	iso4217:USD	Reported	reported
100040 - Statement - B...	Accounts receivable, net...	C_0000789019_us-gaap...	2016-06-30	Scenario Plan [Member]	us-gaap:AccountsReceiv...	20636000000	iso4217:USD	Reported	reported
100540 - Disclosure - Ex...	Accounts receivable, net	C_0000789019_us-gaap...	2016-06-30	Scenario Plan	us-gaap:AccountsReceiv...	20636000000	iso4217:USD	Reported	reported
100040 - Statement - B...	Income taxes	C_0000789019_20170630	2017-06-30		us-gaap:AccruedIncome...	718000000	iso4217:USD	Reported	reported
100040 - Statement - B...	Income taxes	C_0000789019_20160630	2016-06-30		us-gaap:AccruedIncome...	580000000	iso4217:USD	Reported	reported

Searchable, filterable, sortable

## Pacioli

**Fact table:** <https://pacioli.auditchain.finance/reportAnalysis/4840b9024c7caab4f2817b4aa84f0f1195f1988e.report/4f685eb41dfb5ead25c3.html#1082250f878c974c391f>

Fact Table									
Network	100040 - Statement - BALANCE SHEETS ( <a href="http://www.microsoft.com/20170630/taxonomy/role/StatementBALANCESHEETS">http://www.microsoft.com/20170630/taxonomy/role/StatementBALANCESHEETS</a> )								
Table	Statement [Table]								
#	Block	Reporting Entity [Aspect]	Period [Aspect]	Concept [Aspect]	Fact Value	Unit	Rounding	Parenthetical Explanations	Origin
1	1.1.2.1.7.rollUp	0000789019 ( <a href="http://www.sec.gov/CIK">http://www.sec.gov/CIK</a> )	2016-06-30	Cash and cash equivalents	6510000000	iso4217:USD	-6		Reported
2	1.1.2.1.7.rollUp	0000789019 ( <a href="http://www.sec.gov/CIK">http://www.sec.gov/CIK</a> )	2017-06-30	Cash and cash equivalents	7663000000	iso4217:USD	-6		Reported
3	1.1.2.1.7.rollUp	0000789019 ( <a href="http://www.sec.gov/CIK">http://www.sec.gov/CIK</a> )	2016-06-30	Short-term investments (including securities loaned of \$3,694 and \$204)	106730000000	iso4217:USD	-6		Reported
4	1.1.2.1.7.rollUp	0000789019 ( <a href="http://www.sec.gov/CIK">http://www.sec.gov/CIK</a> )	2017-06-30	Short-term investments (including securities loaned of \$3,694 and \$204)	125318000000	iso4217:USD	-6		Reported
5	1.1.2.1.7.rollUp	0000789019 ( <a href="http://www.sec.gov/CIK">http://www.sec.gov/CIK</a> )	2016-06-30	Total cash, cash equivalents, and short-term investments	113240000000	iso4217:USD	-6		Reported
6	1.1.2.1.7.rollUp	0000789019 ( <a href="http://www.sec.gov/CIK">http://www.sec.gov/CIK</a> )	2017-06-30	Total cash, cash equivalents, and short-term investments	132981000000	iso4217:USD	-6		Reported
7	1.1.2.1.7.rollUp	0000789019 ( <a href="http://www.sec.gov/CIK">http://www.sec.gov/CIK</a> )	2016-06-30	Accounts receivable, net of allowance for doubtful accounts of \$405 and \$426	18277000000	iso4217:USD	-6		Reported
8	1.1.2.1.7.rollUp	0000789019 ( <a href="http://www.sec.gov/CIK">http://www.sec.gov/CIK</a> )	2017-06-30	Accounts receivable, net of allowance for doubtful accounts of \$405 and \$426	19792000000	iso4217:USD	-6		Reported
9	1.1.2.1.7.rollUp	0000789019 ( <a href="http://www.sec.gov/CIK">http://www.sec.gov/CIK</a> )	2016-06-30	Inventories	2251000000	iso4217:USD	-6		Reported
10	1.1.2.1.7.rollUp	0000789019 ( <a href="http://www.sec.gov/CIK">http://www.sec.gov/CIK</a> )	2017-06-30	Inventories	2181000000	iso4217:USD	-6		Reported
11	1.1.2.1.7.rollUp	0000789019 ( <a href="http://www.sec.gov/CIK">http://www.sec.gov/CIK</a> )	2016-06-30	Other	5892000000	iso4217:USD	-6		Reported
12	1.1.2.1.7.rollUp	0000789019	2017-06-	Other	4897000000	iso4217:USD	-6		Reported

# Pacioli

**Fact detail:** [https://pacioli.auditchain.finance/reportAnalysis/4840b9024c7caab4f2817b4aa84f0f1195f1988e.report/fact?factkey=factKey%28%27us-gaap%27%3a%27Assets%27%2c%27C\\_0000789019\\_20170630%27%2c%27U\\_iso4217USD%27%2creported%29](https://pacioli.auditchain.finance/reportAnalysis/4840b9024c7caab4f2817b4aa84f0f1195f1988e.report/fact?factkey=factKey%28%27us-gaap%27%3a%27Assets%27%2c%27C_0000789019_20170630%27%2c%27U_iso4217USD%27%2creported%29)

## Fact details

Concept: [us-gaap:Assets](#) (Total assets)  
Context: C\_0000789019\_20170630  
Reporting Entity: 0000789019 (<http://www.sec.gov/CIK>)  
Period: 2017-06-30  
Dimensions: ([])  
**Value:** 241086000000 U\_iso4217USD  
Decimals: -6  
Negated: false  
Parenthetical:  
Origin: Reported. (context C\_0000789019\_20170630)

## Blocks with this fact:

#	Network	Hypercube	Block
1	100040 - Statement - BALANCE SHEETS	Statement [Table]	1.1.2.1.7.rollUp <a href="#">Total assets</a>

## Other networks presenting this concept:

## Rules using this fact:

- Arithmetic\_BS01
- Arithmetic\_BS03
- CONSISTENCY\_AccountingEquation
- calculation(<http://www.microsoft.com/20170630/taxonomy/role/StatementBALANCESHEETS>,us-gaap:Assets)
- disclosureCheck(cm:FinancialReport,[us-gaap:Assets],financialReport-reportsConcept)

## Reasoning supporting this fact:



## Pacioli

Model structure: <https://pacioli.auditchain.finance/reportAnalysis/4840b9024c7caab4f2817b4aa84f0f1195f1988e.report/4f685eb41dfb5ead25c3.html#f0421c0095790d03d547>

Model Structure					
Network	100040 - Statement - BALANCE SHEETS <i>(http://www.microsoft.com/20170630/taxonomy/role/StatementBALANCESHEETS)</i>				
Table	Statement [Table]				
#	Label	Report Element Class	Period Type	Balance	Name
1	Statement [Table]	Hypercube	duration		<a href="#">us-gaap:StatementTable</a>
2	Legal Entity [Axis]	Dimension	duration		<a href="#">dei:LegalEntityAxis</a>
3	Entity [Domain]	Member	duration		<a href="#">dei:EntityDomain</a>
4	Statement [Line Items]	LineItems	duration		<a href="#">us-gaap:StatementLineItems</a>
5	Assets	Abstract	duration		<a href="#">us-gaap:AssetsAbstract</a>
6	Current assets:	Abstract	duration		<a href="#">us-gaap:AssetsCurrentAbstract</a>
7	Cash and cash equivalents	Concept (Monetary)	instant	debit	<a href="#">us-gaap:CashAndCashEquivalentsAtCarryingValue</a>
8	Short-term investments (including securities loaned of \$3,694 and \$204)	Concept (Monetary)	instant	debit	<a href="#">us-gaap:AvailableForSaleSecuritiesCurrent</a>
9	Total cash, cash equivalents, and short-term investments	Concept (Monetary)	instant	debit	<a href="#">us-gaap:CashCashEquivalentsAndShortTermInvestments</a>
10	Accounts receivable, net of allowance for doubtful accounts of \$405 and \$426	Concept (Monetary)	instant	debit	<a href="#">us-gaap:AccountsReceivableNetCurrent</a>
11	Inventories	Concept (Monetary)	instant	debit	<a href="#">us-gaap:InventoryNet</a>
12	Other	Concept (Monetary)	instant	debit	<a href="#">us-gaap:OtherAssetsCurrent</a>
13	Total current assets	Concept (Monetary)	instant	debit	<a href="#">us-gaap:AssetsCurrent</a>
14	Property and equipment, net of accumulated depreciation of \$24,179 and \$42,900	Concept (Monetary)	instant	debit	<a href="#">us-gaap:PropertyPlantAndEquipmentNet</a>

## Pacioli

Fact pivots (dynamic renderings, pivot tables):

<https://pacioli.auditchain.finance/reportAnalysis/42aafe44824252d8772d5e6cc0f8d7cf806b545f.report/8141b07115f3d30f4b51.html#057053355d1877b21db4>

Table				
Statement [Table]		Period		
Concept	Period	2016-07-01 to 2017-06-30	2015-07-01 to 2016-06-30	2014-07-01 to 2015-06-30
<b>Revenue</b>				
<b>Product</b>		57,190,000,000	61,502,000,000	75,956,000,000
<b>Service and other</b>		32,760,000,000	23,818,000,000	17,624,000,000
<b>Total revenue</b>		<u>89,950,000,000</u>	<u>85,320,000,000</u>	<u>93,580,000,000</u>
<b>Cost of revenue</b>				
<b>Product</b>		15,175,000,000	17,880,000,000	21,410,000,000
<b>Service and other</b>		19,086,000,000	14,900,000,000	11,628,000,000
<b>Total cost of revenue</b>		<u>34,261,000,000</u>	<u>32,780,000,000</u>	<u>33,038,000,000</u>
<b>Gross margin</b>		<u>55,689,000,000</u>	<u>52,540,000,000</u>	<u>60,542,000,000</u>
<b>Research and development</b>		13,037,000,000	11,988,000,000	12,046,000,000
<b>Sales and marketing</b>		15,539,000,000	14,697,000,000	15,713,000,000
<b>General and administrative</b>		4,481,000,000	4,563,000,000	4,611,000,000
<b>Impairment, integration, and restructuring</b>		306,000,000	1,110,000,000	10,011,000,000
<b>Operating income</b>		<u>22,326,000,000</u>	<u>20,182,000,000</u>	<u>18,161,000,000</u>
<b>Other income (expense), net</b>		823,000,000	(431,000,000)	346,000,000
<b>Income before income taxes</b>		<u>23,149,000,000</u>	<u>19,751,000,000</u>	<u>18,507,000,000</u>
<b>Provision for income taxes</b>		1,945,000,000	2,953,000,000	6,314,000,000
<b>Net income</b>		<u>21,204,000,000</u>	<u>16,798,000,000</u>	<u>12,193,000,000</u>

Interface is dynamic, dimensions can be moved similar to how an Excel pivot table works.

# Pacioli

Table												
Statement [Table]												
Period												
Unit												
Concept	Period	2017-04-01 to 2017-06-30	2017-01-01 to 2017-03-31	2016-10-01 to 2016-12-31	2016-07-01 to 2017-06-30	2016-07-01 to 2016-09-30	2016-04-01 to 2016-06-30	2016-01-01 to 2016-03-31	2015-10-01 to 2015-12-31	2015-07-01 to 2016-06-30	2015-07-01 to 2015-09-30	2014-07-01 to 2015-06-30
Concept	Unit	(iso4217:USD)/shares	(iso4217:USD)/shares	(iso4217:USD)/shares	(iso4217:USD)/shares	(iso4217:USD)/shares	(iso4217:USD)/shares	(iso4217:USD)/shares	(iso4217:USD)/shares	(iso4217:USD)/shares	(iso4217:USD)/shares	(iso4217:USD)/shares
<b>Earnings per share:</b>												
<b>Basic</b>		0.84	0.62	0.67	2.74	0.6	0.4	0.48	0.63	2.12	0.61	1.49
<b>Diluted</b>		0.83	0.61	0.66	2.71	0.6	0.39	0.47	0.62	2.1	0.61	1.48

# Pacioli

Model structure verification: <https://pacioli.auditchain.finance/reportAnalysis/4840b9024c7caab4f2817b4aa84f0f1195f1988e.report/modelStructure.html>

## Model Structure Validation

Whether XBRL presentation relations are represented consistent with expectation; parent-child relations between report element categories are logical and consistent with [what is permitted](#)

Child	Parent						
	Network	Hypercube (a.k.a. Table)	Dimension (a.k.a. Axis)	Member	Line Items (a.k.a. Primary Items)	Abstract	Concept
Network	0	0	0	0	0	0	0
Hypercube (a.k.a. Table)	12	0	0	0	0	128	0
Dimension (a.k.a. Axis)	0	229	0	0	0	0	0
Member	0	0	229	264	0	0	0
Line Items (a.k.a. Primary Items)	0	140	0	0	0	0	0
Abstract	128	0	0	0	45	18	0
Concept	0	0	0	0	428	254	0