



An Australian Government Initiative  
Standard Business Reporting

SBR

# Standard Business Reporting

## IFRS AU Taxonomy Formula Linkbase 2015 Guide

Program name: *Standard Business Reporting*

Date: 18 June 2015

Production Release – suitable for use

! This document and its attachments are **Unclassified**



For further information or questions, contact the SBR Service Desk at [SBRServiceDesk@sbr.gov.au](mailto:SBRServiceDesk@sbr.gov.au) or call 1300 488 231. International callers may use +61-2-6216 5577

## VERSION CONTROL

Version	Release date	Description of changes
2013	18 July 2013	The release of the IFRS AU Taxonomy Formula Linkbase 2013 Guide for the IFRS AU Taxonomy 2013. This version provides guidance about the use of IFRS AU Taxonomy Formula Linkbase 2013, which is based on the IFRS Taxonomy Formula Linkbase 2013 (as released by the IFRS Foundation on 22 May 2013), for the purpose of validating instance documents prepared using IFRS AU Taxonomy 2013 (as released on 20 June 2013).
2014	19 June 2014	The release of the IFRS AU Taxonomy Formula Linkbase 2014 Guide for the IFRS AU Taxonomy 2014. This version provides guidance about the use of IFRS AU Taxonomy Formula Linkbase 2014, which is based on the IFRS Taxonomy Formula Linkbase 2014 (as released by the IFRS Foundation on 02 April 2014), for the purpose of validating instance documents prepared using IFRS AU Taxonomy 2014 (as released on 19 June 2014).
2015	18 June 2015	The release of the IFRS AU Taxonomy Formula Linkbase 2015 Guide for the IFRS AU Taxonomy 2015. This version provides guidance about the use of IFRS AU Taxonomy Formula Linkbase 2015, which is based on the IFRS Taxonomy Formula Linkbase 2015 (as released by the IFRS Foundation on 20 April 2015), for the purpose of validating instance documents prepared using IFRS AU Taxonomy 2015 (as released on 18 June 2015).

## ENDORSEMENT

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## Terminology

For definition of the terminology and acronyms used within this document please refer to the glossary on the SBR website and on the IFRS Foundation website.

Click <http://www.sbr.gov.au/software-developers/developer-tools/glossary> to go to the SBR glossary.

Click <http://www.ifrs.org/XBRL/Resources/Glossary.htm> to go to the IFRS glossary

The key words “MUST”, “MUST NOT”, “REQUIRED”, “SHALL”, “SHALL NOT”, “SHOULD”, “SHOULD NOT”, “RECOMMENDED”, “MAY”, and “OPTIONAL” in this document are to be interpreted as described in RFC 2119 <http://www.ietf.org/rfc/rfc2119.txt>. The use of the word “Mandatory” is to be read as “MUST”.

# 1 INTRODUCTION

## 1.1 PURPOSE

The purpose of this document is to provide the additional guidance to users of the IFRS AU Taxonomy 2015 ("the Taxonomy") about validation of XBRL financial reports using the IFRS AU Taxonomy Formula Linkbase 2015 (also referred to as "the IFRS AU Formula 2015").

Given the nature and complex structure of financial reports and the Taxonomy's architecture users are faced with the challenge of ensuring that the reported information is accurate, complete and consistent. The IFRS AU Formula 2015 is designed to help users identify unintended errors and inconsistencies in XBRL financial reports.

## 1.2 AUDIENCE AND SCOPE

This document is the supplementary guide for the preparers of financial reports and software developers (collectively referred to as "the users of the IFRS AU Taxonomy 2015") and should be read in conjunction with the IFRS AU Taxonomy Guide 2015 and the IFRS Taxonomy Formula Linkbase – Documentation and Guidance issued by the IFRS Foundation and available at the link provided in *References* section below. The validation rules and processes referred to in this document concern only the validations related to the XBRL financial report. Any other validation rules related to ASIC forms 388, 7051, FS70, and 405 are available in respective Message Implementation Guides and are not within the scope of this document.

It is assumed that the readers are familiar with XBRL terminology and concepts and therefore this guide is not designed to be a XBRL technical guide or to address any specific software product issues. For certain parts of the document, it is also assumed that readers are familiar with the basic financial reporting concepts.

This version of the IFRS AU Formula 2015 is based on the IFRS Formula 2015 (as issued by the IFRS Foundation) and on the IFRS AU Taxonomy 2015 (as issued by SBR).

The IFRS AU Taxonomy Formula Linkbase 2015 does not represent a complete set of validation rules as it is still being developed by the IFRS Foundation and ASIC. However, validation rules provided in the IFRS AU Taxonomy Formula Linkbase 2015 are fully functional and as such are primarily intended to assist users of the Taxonomy in achieving the high quality of XBRL financial reports.

The IFRS AU Formula 2015 entry point can be readily used to validate XBRL instance documents by software tools compliant with the XBRL Formula Specification 1.0 - 2009 – 2011.

For the benefit of software developers, a formula processor component for the SBR SDK XBRL API may be available. Please contact the SBR service desk (details in section 1.3) for availability and access.

## 1.3 FEEDBACK

Users of the IFRS AU Formula 2015 are invited to provide feedback on its potential improvements by contacting the SBR Service Desk at [SBRServiceDesk@sbr.gov.au](mailto:SBRServiceDesk@sbr.gov.au) or call 1300 488 231.

## 1.4 REFERENCES

List of relevant references

Ref	Document Link	Document description
1)	<b>IFRS AU Taxonomy Guide 2015</b> <a href="http://www.sbr.gov.au/software-developers/developer-tools/asic/asic-finrpt">http://www.sbr.gov.au/software-developers/developer-tools/asic/asic-finrpt</a>	Reference documentation of the IFRS AU Taxonomy 2015 as issued by SBR. Contains the taxonomy files and the IFRS AU Taxonomy Guide 2015.
2)	IFRS Taxonomy Formula Linkbase	IFRS Taxonomy Formula Linkbase 2015 as issued

	2015 <a href="http://www.ifrs.org/XBRL/Resources/Pages/Formula-Linkbase-2015.aspx">http://www.ifrs.org/XBRL/Resources/Pages/Formula-Linkbase-2015.aspx</a>	by the IFRS Foundation.
3)	<a href="http://www.ifrs.org/XBRL/Resources/Pages/Formula-Linkbase-2015.aspx">http://www.ifrs.org/XBRL/Resources/Pages/Formula-Linkbase-2015.aspx</a>	The documentation and a guidance document for IFRS Taxonomy Formula Linkbase 2015.

## 1.5 CHANGE MANAGEMENT

If a material change is required to the IFRS AU Formula Linkbase 2015 Guide the document will be re-released.

## 2 VALIDATION OVERVIEW

### 2.1 INTRODUCTION

Instance documents lodged with ASIC as Forms 388, 7051, FS70, and 405 contain two components: one representing the form itself prepared using appropriate SBR form taxonomy and the other representing the XBRL financial report prepared using the IFRS AU Taxonomy ("XBRL financial report"). The validations of the XBRL financial report component are presented in Table 1 below.

**Table 1: Validation of XBRL financial reports**

Validation type	Business perspective	Technical perspective	Validation requirements
Format	Instance document is formatted correctly	Instance document is a valid XML document (i.e. valid schema, correct grammar, well formatted XML)	Mandatory(*)
Content	Instance document contains correct information based on valid XBRL specification and correct taxonomy	Instance document is valid XBRL document (i.e. conformance to XBRL Specification 2.1 and IFRS AU Taxonomy).	Mandatory(*)
		Instance document complies with ASIC business rules (**)(i.e. correct taxonomy version)	Mandatory(*)
Quality	Financial data provided in the instance is consistent.	Data is consistent with the calculation linkbase (i.e. calculated values equal entered values)	Voluntary
		Data is consistent with the formula linkbase (i.e. members of an axis are calculated to their parent members properly)	Voluntary

(\*) refer to section 4 of IFRS AU Taxonomy Guide 2015.

(\*\*) ASIC business rules also include other conditions and checking which are not within the scope of this presentation.

#### 2.1.1 Calculation Linkbase

The IFRS AU Taxonomy 2015 provides the calculation linkbase as an integral part of the taxonomy based on the hierarchical modelling applied in the taxonomy development. The calculation linkbase is designed to improve the quality of an XBRL financial report by checking whether the lower level monetary elements within an extended link role, summed up or subtracted from one another, are equal to the entered value of the corresponding upper level concept.

However, the calculation linkbase cannot carry out the calculations on elements that have different values of the periodType attribute (cross context calculations). For example, in ELR [610000] *Statement of Changes in Equity* or ELR [822100] *Notes - Property, Plant and Equipment* elements representing period end balances (instant) and elements representing changes during the period (duration) are mixed together and accuracy of some calculations (i.e. opening balance plus changes during the period equals the closing balance) cannot be checked by the calculation linkbase.

Similarly, the calculation linkbase cannot be used to check whether the value of an element is correctly entered as either positive or negative which depends on its balance type (credit or debit) and its nature. For example, *Property Plant and Equipment* (defined as having a 'debit' balance type) is typically reported as a positive value. However, it must be a negative value if it is used to report accumulated depreciation of property plant and equipment under *Accumulated depreciation, amortisation and impairment [member]* in the extended link role [822100] *Notes - Property, plant and equipment*. Negative values in this case are required due to the reduction of the carrying amount of items of property plant and equipment for the value of recognised depreciation, amortisation or impairment expenses for those items.

In these situations, the formula linkbase is used to enable more complex validation scenarios that are not supported by the calculation linkbase. Another example which can be effectively validated using XBRL Formula relates to reporting the same element for different purposes. For example, *Revenue* is defined as having 'credit' balance attribute as its normal attribute according to its nature and as such it is expected to be reported as a positive value in ELR [310000] *Statement of comprehensive income , profit or loss, by function of expense*. However, the *Revenue* line item in ELR [871100a] *Note disclosure – Operating segments* reported under *Elimination of intersegment amounts [member]* must be a negative value as it is eliminating revenue.

## 2.1.2 Formula Linkbase

As noted above, high quality XBRL financial information requires more validation than the functionality offered through the calculation linkbase alone. The IFRS AU Formula 2015 enables the users to apply the following additional validations:

**Table 2: Summary of assertion types available in IFRS AU Formula 2015**

Formula type	Purpose	File name
Cross period validations	To check whether the calculation of roll-forwards from beginning balance over the total changes over the period equals the ending balance.	for_ifrs-cro_2015-04-20.xml
Axis aggregation validations	To check whether the sum of all children in a given dimension equal the parent fact value.	for_ifrs-axi_2015-04-20.xml
Fact equivalence validations	To check whether the single facts reported in different data models (dimensional vs. non-dimensional contexts) are equal if representing the same economic fact.	for_ifrs-equ_2015-04-20.xml
Positive value validations	To check whether the specified fact is greater than or equal to zero.	for_ifrs-pos_2015-04-20.xml
Negative value validations	To check whether the specified fact is less than or equal to zero when disclosing reconciling line items representing changes in values due to "decrease", "disposals", "transfers" and "derecognitions".	for_ifrs-neg1_2015-04-20.xml
Negative value validations	To check whether the specified fact is less than or equal to zero when disclosing specified line items under "Elimination of intersegment amounts [member]".	for_ifrs-neg2_2015-04-20.xml
Earnings per share validations	To check whether the EPS calculation of the profit (loss) and the average number of shares equals entered value within the set tolerance threshold.	for_ifrs-eps_2015-04-20.xml
Percentage warnings	To check whether the percentage facts is in the correct format ".xx" as required under XBRL Specification.	for_ifrs-per_2015-04-20.xml
Technical validations	To check whether any duplicate facts have been reported for the same contextual information.	for_ifrs-tech_2015-04-20.xml

More details about business and technical aspects of individual formula types from the above table is available in the document "IFRS Taxonomy Formula Linkbase – Documentation and Guidance", issued by the IFRS Foundation available at the link provided in *References* section above.

## 2.2 VALIDATION REQUIREMENTS

As shown in Table 1, although the lodgement of Forms 388, 7051, FS70, 405 and accompanying XBRL financial reports is not mandatory, the voluntary lodgement of an instance document with ASIC must comply with certain mandatory validation rules concerning the format and content of the instance documents.

The IFRS AU Formula 2015 is not mandatory and at this stage represents the optional tool available to users to ensure the quality of XBRL financial data reported.



## 3 IFRS AU TAXONOMY FORMULA LINKBASE 2015

### 3.1 AUSTRALIAN VERSION OF IFRS FORMULA LINKBASE

#### 3.1.1 Background

The IFRS Formula linkbase is developed to be used to validate XBRL financial reports created using the jurisdictional taxonomies based on the IFRS taxonomy such as the IFRS AU Taxonomy. As a result, the IFRS Formula Linkbase 2015 can be used with the IFRS AU Taxonomy 2015 subject to some changes required in files listed in table 2 in order to correctly identify extended link roles to which axis aggregation assertions apply. These are the only changes made in this version of the IFRS AU Formula 2015 which is released with this guide.

The IFRS Foundation has published the annual set of IFRS Formula Linkbase since 2011 and most recently on 20 April 2015 following the annual releases of the IFRS Taxonomy..

#### 3.1.2 Content

The IFRS AU Taxonomy Formula Linkbase 2015 is compiled using the same set of taxonomy files as for the taxonomy released on 18 June 2015 plus the following eleven formula linkbase files saved in the [formula] folder under the [ifrs\_au\_20150618] folder:

- for\_ifrs-axi\_2015-04-20.xml - axis aggregation assertions;
- for\_ifrs-cro\_2015-04-20.xml - cross period assertions;
- for\_ifrs-eps\_2015-04-20.xml - earnings per share assertions;
- for\_ifrs-equ\_2015-04-20.xml - equivalency assertions;
- for\_ifrs-neg1\_2015-04-20.xml - negative value assertions for reconciling line items;
- for\_ifrs-neg2\_2015-04-20.xml - negative value assertions for certain line items reported under Elimination of intersegment amounts [member];
- for\_ifrs-per\_2015-04-20.xml - percentage warnings;
- for\_ifrs-pos\_2015-04-20.xml - positive value assertions; and
- for\_ifrs-tech\_2015-04-20.xml - technical assertions to identify any duplicate facts.
- gla\_for\_ifrs\_2015-04-20.xml – generic files for formular entry point of the IFRS Taxonomy
- rol\_for\_ifrs\_2015-04-20.xsd – schema file for the formula entry point of the IFRS Taxonomy

These formula linkbase files represent the files originally released by the IFRS Foundation on 20 April 2015 including some changes referred above to align them with the IFRS AU Taxonomy 2015.

Using the taxonomy and formula files, a formula entry point [finrpt.0006.formula.request.02.00.report.xsd] has been provided and is located in the [finrpt\_0006] folder. Therefore, the users of the IFRS AU Taxonomy 2015 have both the formula files and the formula entry point available to validate the XBRL financial reports.

More details about the purpose of validations expressed in the above files is provided in Table 2. It should be noted that the value assertions contained in "for\_ifrs-neg2\_2015-04-20.xml" file are not applicable to users of the IFRS AU Taxonomy 2015 in the circumstances where the segment reporting dimensions have to be extended given that in such cases relevant disclosures are required to be block tagged (see 3.1.4 and 3.4.1 of IFRS AU Taxonomy Guide 2015). Similarly, there are some other value assertions in other formula files which assume the taxonomy extensions by users to be applicable. Those assertions would also not be applicable to users of the IFRS AU Taxonomy 2015 given that company extensions are currently not allowed.

#### 3.1.3 Potential uses

The IFRS AU Formula and accompanying documents can be utilised for the following uses:

1. The formula entry point [finrpt.0006.formula.request.02.00.report.xsd] can be used to validate the XBRL financial reports created using the IFRS AU Taxonomy 2015 by software packages supporting the XBRL Formula specification 1.0. This formula entry point can be used to validate XBRL financial reports prepared using either entry points of the Taxonomy (i.e.[finrpt.0006.consolidated.request.02.00.report.xsd] or [finrpt.0006.consolidatedandseparate.request.02.00.report.xsd]).
2. Alternatively, the formula files available in the [formula] folder can be used by software developers in developing the formula validations based on XBRL Formula Specification 1.0 in their software packages.
3. The underlying validation rules applied in the formula files can be used by those software developers who may choose to validate XBRL financial report against these rules using technologies other than XBRL Formula.

### 3.1.4 Issue, releases, and effective date

As the taxonomy continues to evolve reflecting the developments in the accounting standards, the formula linkbase will change as well to reflect the taxonomy changes and other enhancements. At this point, it is expected that the IFRS AU Formula releases will be aligned with the releases of the IFRS Formula.

The following are the main characteristics of the IFRS AU Formula 2015:

- It contains all assertions available in IFRS Formula 2015;
- Its use is optional;
- It does not include any additional assertions that may be required to validate Australian jurisdictional extension included in the IFRS AU Taxonomy 2015.

Subject to the feedback received in relation to the use of the IFRS AU Formula 2015, IFRS AU Formula may include additional validations for Australian specific assertions in the future.