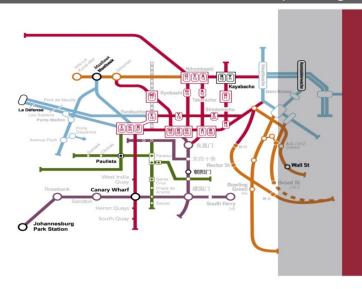
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International Financial Reporting Standards



Data modelling the IFRSs

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Introduction



At the moment

- The IFRS Taxonomy data model is:
 - Disclosure and presentation based
 - XBRL based
 - Partly dimensional (hybrid) possibly inconsistently so
 - Not documented outside of the taxonomy
- Formal data models are not used outside the taxonomy during standard setting



Joint DPM trial with the FASB



Aim and questions

Investigate the uses for a detailed data model and how that might interact with the IFRS Taxonomy

Questions

- Assessing the existing taxonomy model
 - Does it have the appropriate line items and dimensions?
 - Is it consistent?
- Where should the IFRS Taxonomy sit on the scale of taxonomy dimensionality?
- How else can we use the information we gain from the data modelling?
- Are we looking at the right level data models?



Approach

- Joint trial project with the FASB
- Starting by looking at IFRS 13 Fair Value Measurement (FASB codification no. 820)
 - Is a converged standard
 - There is more work on Fair Value underway at the moment
 - Is a standard where we have already applied dimensional modelling



Modelling levels

Abstract model

- High level but can vary in detail describe to a useful level
- Idealised description of the terms and relationships

Logical model

- Takes the abstract model and applies use cases and requirements to it
- A practical description of the terms and relationships

Physical model

- The physical implementation of the logical model
- Takes account of limitation in the physical format (XBRL, database)



Modelling approach

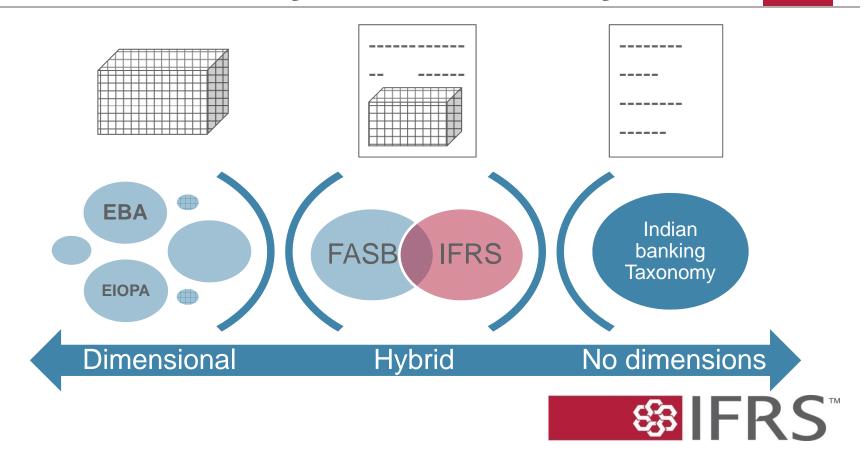
- Using Data Point Methodology style modelling
- Starting at an abstract level and working towards the physical model
- Very detailed consideration of the reporting standard properties
- Will also consider other concept relationships
- Outputs will not necessarily include DPM style tables (but may do)

Modelling from...

- Primarily:
 - the IFRS standard (and FASB standard) not just the disclosure text but including measurement, recognition and the basis for conclusions
- Other source materials for cross checking including:
 - External explanatory materials
 - Disclosure in practice (mainly in later stages)



XBRL taxonomy dimensionality



Data Point Methodology

- Highly multidimensional model
- Uses hierarchies and domains to describe the relationships between attributes and allow defined sub-categories and values
- Generally aims to produce a small number of main reporting items, which can then be narrowed to represent a specific "data point" using a range of metadata attributes (modeled in a taxonomy using the dimensions and domains)

Data Point Methodology

- Implicit information about a reported concept is usually made explicit, for example, measurement information implied elsewhere in a note
- Resulting tables produce a description or map of all possible data points resulting from the main reporting items and dimensions, this can then be limited to those useful or valid in actual reporting



Reasons to use DPM

- The attributes and properties defining data points are made explicit
- Once one financial reporting model has been produced many of the primary items and attributes identified will be applicable to other financial reporting systems and can be reused
- The data-focussed modelling is less constrained by the existing presentation and labelling of items in reports and produces a more accurate model of what may be reported
- Highly flexible reporting items can be built up from many possible combinations of properties
- Minimizes extensions?



Expected outputs?

- Not confirmed at this stage but could include:
 - Model diagrams
 - Mapping to the IFRS Taxonomy
 - Spreadsheet documentation
 - Contributes towards a clearer model/policy for dimension use within the IFRS Taxonomy
- There are a number of ways the model could be used to examine and improve the IFRS Taxonomy. The following are examples – no decisions have been made yet!

Using the model

Analysis on the existing IFRS Taxonomy



Assessment of existing dimensions

- For example the existing IFRS Taxonomy model for Fair Value Measurement includes axes for:
 - Measurement
 - Classes of assets, liabilities and equity instruments
 - Level of fair value
 - Valuation technique
 - Range



Assessment of existing dimensions

- We can map these axes and the domains and members to the model and consider:
 - Are they the appropriate axes?
 - Should there be other axes not used?
 - Should the domains/members be categorised differently?
 - How do these interact with the rest of the IFRS Taxonomy?
- For example we could consider changing the way we represent the fair value levels
 - Represent the properties defining the levels?
 - Represent both?



Using the model

A highly dimensional taxonomy

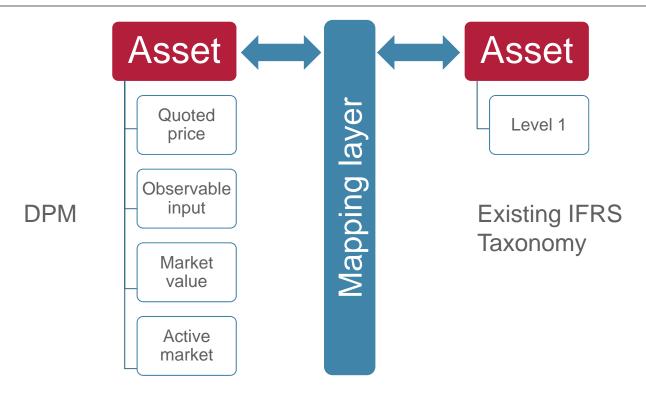


A new taxonomy?

- The assessment of the existing IFRS Taxonomy against the modelled information may result in changes to the way we use dimensions or we may conclude that for purposes requiring a more dimensional approach a separate taxonomy may be a more sensible output
- It seems unlikely in the current reporting environment that we would conclude a more dimensional taxonomy is more suitable for all purposes but we are not ruling anything out!



A second mapped IFRS Taxonomy?





Possible advantages

- Model advantages discussed previously plus:
 - Explicit descriptions improve business rule coverage within the taxonomy
 - Facilitates analysis of a "slice & dice" or cube style
 - Can cover a wider range of data points seen in reporting use – combinations not covered by the taxonomy would be rarer



Possible disadvantages

- Many possible combinations for preparers to consider when tagging (even with narrowing) – tagging of the "same" items could be variable
- Labels, documentation and other metadata needs associating with a data point rather than just concepts directly
- Can be more difficult to render for easy use and this rendering may make it harder to use in flexible, principle-based reporting

Using the model

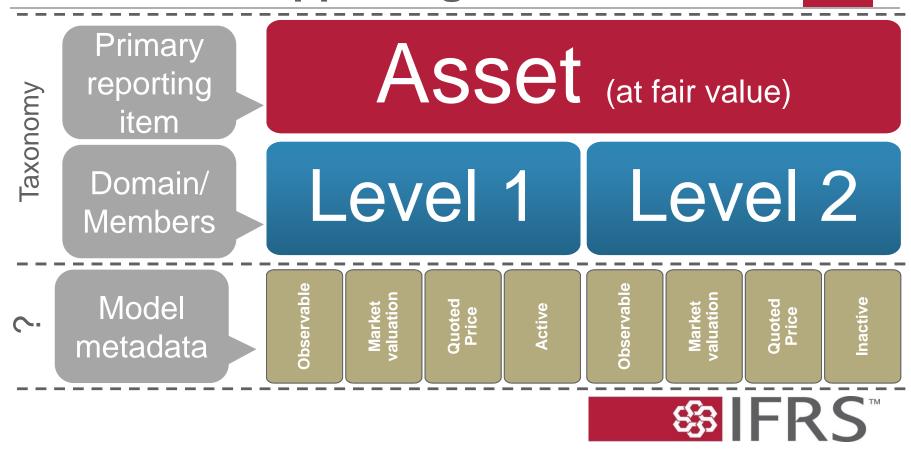
Supporting metadata



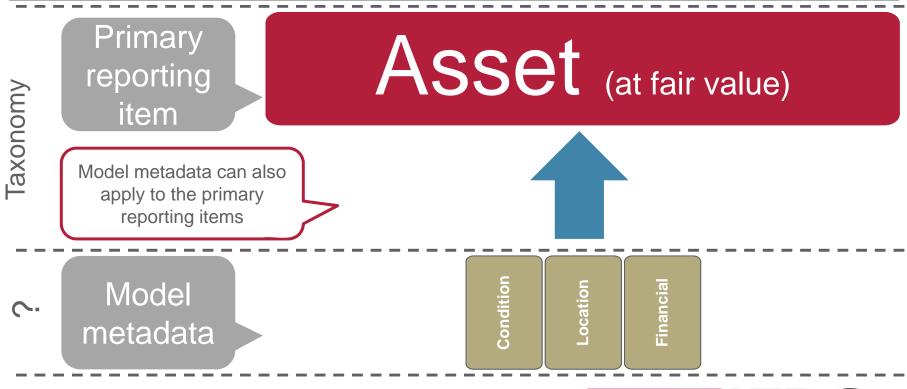
Supporting metadata?

- Providing information derived from the model as further detail on taxonomy concepts
- Could be embedded within the IFRS Taxonomy XBRL files
- Or provided as a separate but consumable and related format
- Model could be published without direct taxonomy links for use by data consumers and other interested parties

Model as supporting metadata



Model as supporting metadata





Future work



Next steps?

- Mainly undecided at this stage. Could include:
- Expanding the data modelling to cover more of the standards/financial reporting
- Working on a less detailed model of the more fundamental concepts to tie into the conceptual framework
- Taxonomy development
- Any others?



Thank you



