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Academic Research Track:

What will be needed for the structured report.
-- Under the era of the inline XBRL --

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About Nomura Research Institute;

A research institute, which is a member of the group companies in financial sectors. Nomura securities used to be a parent company before we went to public on Tokyo Stock Exchange. Our department provides information and solution for mainly asset management companies, trust banks, and advisory service companies, etc.

Before presentation..

Discussion Target and Definitions of words

- Type of XBRL project my presentation addresses
  - Corporate disclosure(reporting) which is submitted to Regulator for capital market for investors.
  - The case where the purpose of introduction XBRL is improving quality of reports by automate checking, or distributing information to all market participants (including foreigner)as soon as possible

- Definitions of words
  - HTML => A part of “inline XBRL instance” which is written only by HTML syntax without any XBRL tags.
  - Type of Taxonomies => For my discussion purpose, categorized into two types: Describing report presentation / Defining data structure.

1. Inline XBRL - Its trends and merits.

Back ground1: One filing and Flexibility

- US SEC recently decided to allow company to submit inline XBRL. Main reason is for solving discordance between HTML and XBRL.
- UK has introduced inline XBRL for Tax purpose filing as the first case in the world since 2010. The biggest merit of inline XBRL is "one file for reporting". So it meets the purpose of regulatory filing, because originality is important..
  - Note: When company files both XBRL and HTML, "Which is real?" becomes always issue…
- Japan FSA has introduced inline XBRL since 2013 for its disclosure system EDINET, for expanded tagging to whole reports, including non-financial reports. (such as "the large share-holder report" etc)
- Traditional XBRL doesn't have so much ability of presentation. So original idea was "put tags on the report so that we can handle data from any types of report". In result, flexibility is increasing, but there are other trade-off relations. See Next.

1. Inline XBRL - Its trends and merits.

Back ground2: Usage XBRL, role of taxonomy, EDINET experience

Some people said that inline XBRL has ability of display without taxonomy, so it tend to forget about the role of taxonomy…..

However, You need taxonomy for some merits of XBRL, such as….

- ✓ For the countries having local language, Taxonomy (presentation link role) can present it with English label. That is one of the biggest reason of introduction XBRL for capital market.
- ✓ Supporting understanding of each accounting items, as same as Auditor checked. Unfortunately in the financial statements for capital market, company naming each accounting items. (This is not only IFRS, Any GAAP has same issues). So there are some break-down elements or subtotals which have same names but different meanings. Taxonomy can help user understanding systematically.

Japan FSA introduced inline XBRL for full-tagging of a wide variety of documents, with text block tags. Those tags at least provide what information was included in the reports. They are linking to the presentation-link and telling “what the company disclosed under requirements of regulation” to users.

Information

EDINET XBRL filing Traditional ~2013

JAPAN FSA provided

BASE TAXONMY

For Primary Financial Statements (J-GAAP)

Items and Required Presentation LR, etc.

Company had to prepare..

Extension items

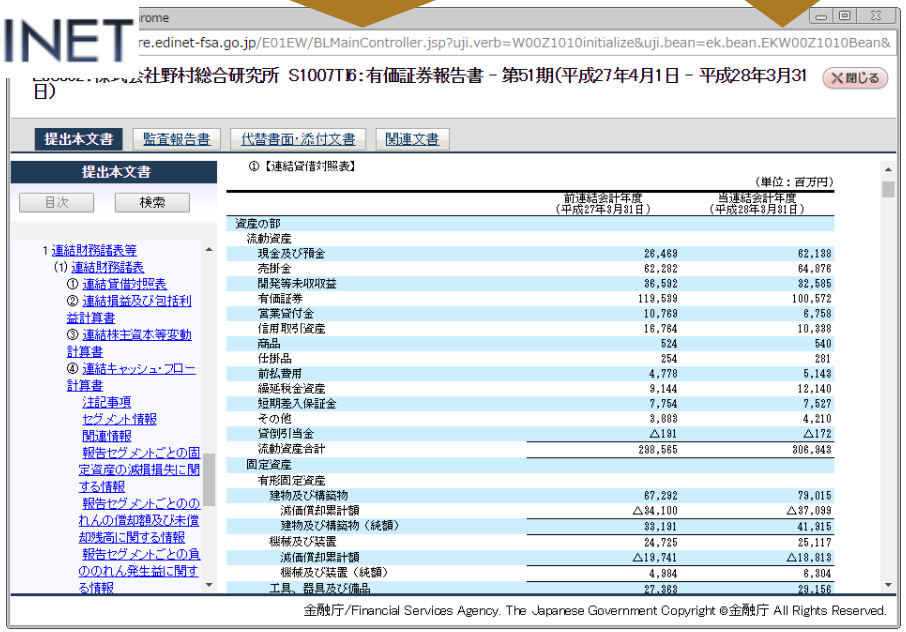
Extension taxonomies based on Base Taxonomy (Presentation LR, etc.)

Traditional Instance

EDINET was creating HTML view from traditional instance and extension taxonomies automatically. (Company didn't need to submit HTML separately)

At the same time, HTML is never different from taxonomy.

EDINET



Information

EDINET XBRL filing　2013~ inlineXBRL

JAPAN FSA provides

BASE TAXONMY

For Financial Statements (J-GAAP)
And
For 64 forms of disclosure documents.

Items and Required Presentation LR, etc.

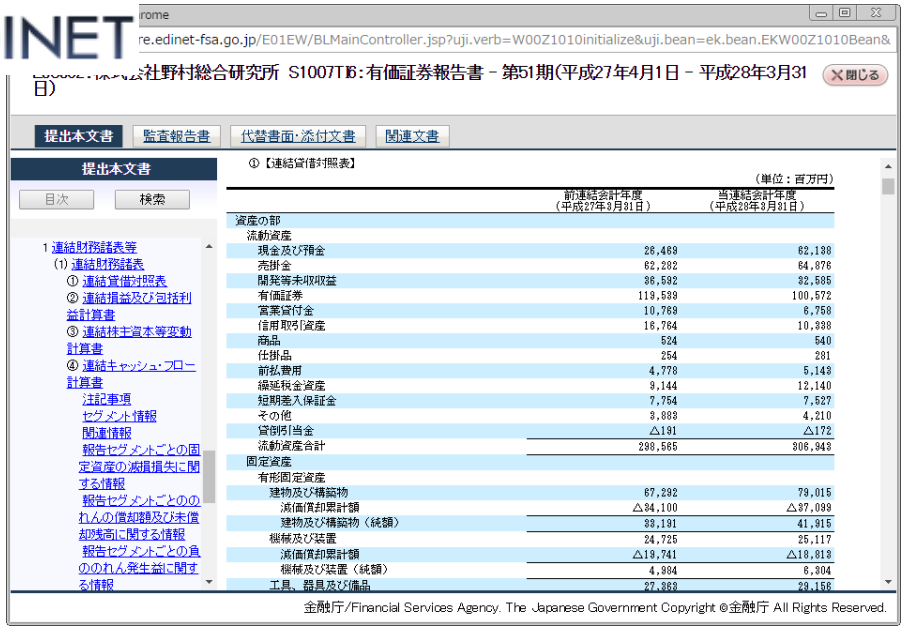
Company has to prepare..

Extension items

Extension taxonomies
（Presentation LR, etc）

Inline XBRL instance
(with HTML part)

EDINET



After introduction inline XBRL, EDINET just puts inline XBRL instance for displaying on It's Web page.

So Taxonomy might not be same what company written on the HTML….

2. What happens with data from inline XBRL?

- No doubt one filing reduces errors, but what about flexibility?

One filing?	Flexibility?
Previous (in case of US) HTML + XBRL ↓ Now (in case of Japan) Inline XBRL + Taxonomy	Flexibility means, enable to tag on any types of presentation. Flexibility gives company more choice, naturally increasing potential errors.

- Inline XBRL increases flexibility of tagging. Companies could tag on items which are similar names but different meanings. also might not make extension taxonomy as same as HTML. In case of traditional XBRL, there were no difference between tag / taxonomy and views on the browser. But now, we wouldn't recognize errors which couldn't be checked consistency between HTML and tags (label) & taxonomies.

2. What happens with data from inline XBRL?

- Those data are difficult to ignore when users want to understand the reports well.

✓ Current year and previous year's data usually shared one taxonomy.

	Current	Previous
Revenue	999,999	999,999
Cost of sales	999,999	999,999
Gross profit	999,999	999,999
Operating Profit (loss)	999,999	999,999
Finance income	999,999	999,999
Finance costs	999,999	999,999
Other income	999,999	999,999
Profit (loss)	999,999	999,999

✓ It seems useful for handling data. In addition, traditional XBRL doesn't have a chance to mistake, but inline XBRL there are risk to mistake to insert appropriate tags.

✓ Segment information usually two tables. If taxonomy shared current years' table and previous years' table, company changed segment in current year, user can not distinguish which items are disclosed only previous year, or only current year.

Previous year

	Segment A	Segment B	Segment C	Total
Net sales				
Net sales out side				
Net sales inter segments				
total				
Segment net Profit				

Current year

	Segment A	Segment C	Segment D	Total
Net sales				
Net sales out side				
Net sales inter segments				
total				
Segment net Profit				

2. What happens with data from inline XBRL?

Previous year

	Segment A	Segment B	Segment C	Total
Net sales				
Net sales out side				
Net sales inter segments				
total				
Segment net Profit				

Current year

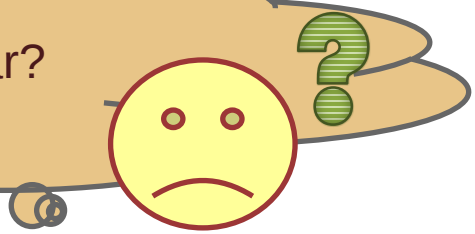
	Segment A	Segment C	Segment D	Total
Net sales				
Net sales out side				
Net sales inter segments				
total				
Segment net Profit				

So it's extension taxonomy must be…

--ITEMS--
- Net Sales
  - Net sales out side
  - Net Sales inter segments
- Total
- Segment net profit

--Dimension member—
- Segment A
- Segment B
- Segment C
- Segment D

Why there are no data segment B current year?
No data? Errors? Wrong disclosure?



- ✓ Flexibility makes difficult to know systematically what was actually disclosed.
- ✓ Besides there are two types of errors are appeared….
  - Wrong tag (systematically difficult to detect)
  - Missing / wrong link to presentation link (same above)

3. How they affect the usage of data and how can manage?

The second case that tells difficulty of having a consensus of way to tag between company and user. Tagging on Inline XBRL could be different from HTML view physically. Company could choose tags which have different name as label.

✓ Goodwill is a part of Intangible asset. So standard taxonomy may prepare like this; “Goodwill”, “intangible asset other than goodwill”, and “intangible asset” for total.

Assets [abstract]
- Non-current assets [abstract]
  - Property, plant and equipment
  - Investment property
  - Goodwill
  - ① Intangible assets other than goodwill
  - ② Intangible assets

Meaning is correct. But “other than XXX” is not popular line item name. So company’s choice of tags becomes difficult…

If three companies A, B, C disclose in different ways, there are some ways to tag on them using base taxonomy above, the combination might be …. =>

		Same as HTML	meaning	Potential Choice
A	“Intangible assets” (but actually excludes goodwill)	②	①	Extend
B	“Intangible assets” (they doesn’t have goodwill)	②	?	②
C	“Intangible assets and goodwill”	—	②	Extend

XBRL eXtensible Business Reporting Language

3. How they affect the usage of data and how can manage?

- The reason why these tagging become trouble for user side?

	Disclosed name on HTML	Selected tag	Taxonomy based display	Possible User reaction
Company A	“Intangible assets” (but actually excludes goodwill)	②	Intangible assets	Same as Japanese label. Looks good. In terms of meaning, wrong tag.
Company B	“Intangible assets” (they doesn’t have goodwill)	①	Intangible assets other than goodwill	User might confuse
Company C	“Intangible assets and goodwill”	②	Intangible assets	User might misunderstand

Assets [abstract]
- Non-current assets [abstract]
  - Property, plant and equipment
  - Investment property
  - Goodwill
  - ① Intangible assets other than goodwill
  - ② Intangible assets

To avoid this trouble above, **japan FSA prohibited to overwrite label in case of accounting items, under JFSA rules.** Now Japanese company make extension when company want do use different name from based taxonomy. So **we do not have those confusions and difficulties now.**

3. How they affect the usage of data and how can manage?

- Usually when user collecting data using XBRL, to search tags and put the data on appropriate items. In that case, handling key is usually only tag and context name.

- When user believed tags, but if data on the financial statement has different meaning from the tags' one?

  - User need to stop automate system and check human eyes, or re-modulate the definition.
    - Delay consuming data
    - Need check => need to give-up automate data collection.

- So EDINET rule helps user understanding to use data in the second case.

However, XBRL does not have technical specification to check inline and XBRL taxonomies whether company complied those rules.

4. Understanding items needs entire statement.

- Accounting standards allow company to use the accounting name (definition of each accounting item) flexible. User can not rely on the tags name for using data.
- However, at least, whole presentation tells users, what is included / what is excluded in the subtotal. But if taxonomy doesn't tell the order of presentation, user can not know those difference below (the third case).

Revenue
Cost of sales
Gross profit
Other income
Other expense
Operating Profit (loss)
Finance income
Finance costs
Other income (expense)
Profit (loss) before tax
Tax income (expense)
Profit (loss) from continuing operations
Profit (loss) from discontinued operations
Profit (loss)

Users can know that "operating profit" excludes Profit from subsidiary in equity method"

Revenue
Cost of sales
Gross profit
Operating Profit (loss)
Finance income
Finance costs
Other income
Profit (loss)

-

Gross profit
Profit from subsidiary in equity method
Operating Profit (loss)
Finance income
Finance costs
Profit (loss) before tax
Tax income (expense)
Profit (loss)

User need to know what is included or not included for each subtotal.

Revenue
Cost of sales
Gross profit
Finance income
Finance costs
Other income (expense)
Profit (loss) before tax
Tax income (expense)
Profit (loss)

Users can not know "no data" or "forget to tag" without looking at the statement.

✓ <u>Taxonomy needs to tell this information to user. User can not rely on only tags isolated from the disclosure context because financial statements have flexibility.</u>

4. Understanding items needs entire statement.

- In the third case, user needs to relay on order of presentation taxonomy.

  - However, currently there are no ways to check the consistency between HTML and presentation taxonomy systematically.

  - Third party (such as Accountant) check, or some other way to checking operation needed. Without that, user can not use XBRL safely. -- This is one of inline XBRL's weakness.

  - At least user understand this weakness. Without understanding well, user might use these data for something more automating process, --- so called, AI etc. and got wrong result.

5. What we should solve? What we have to give up?

- Inline XBRL has limitation to trust if only tags and taxonomy without some new functions.

  - The first case
    - ✓ We need to make a choice about the role of taxonomy, describe data structure or display. Display is realistic, and we need to create technology to check HTML and taxonomy

  - The second case.
    - ✓ Some rules can help to avoid user's confusions.

  - The third case
    - ✓ We need to co-work with disclosure practice
      For example, Prohibit to use same name for different items in disclosure rule.

6. For better usage of inline XBRL

- Inline XBRL allows report to have flexibility. But we need to get information in detail from taxonomy.

1. We need to recognize its' limitation. (it is not unlimited flexibility, for users)

2. Taxonomy needs to care about presentation, more than data structure.

3. Have to care about preparers' operation (mistake)

4. Need to co-work with disclosure rule more.

Any Questions?
Thank you!

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