



# 23rd XBRL International Conference

**“XBRL: Enhancing Business Performance”**

**25-27 October 2011**

**Montreal, Quebec, Canada**

**Barbara Lougee, Assistant Professor, University of San Diego**

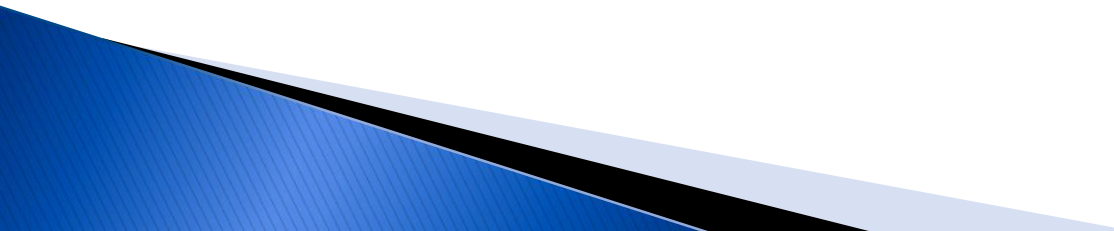
**Johan Perols, Assistant Professor, University of San Diego**

**Christine Tan, XBRL Project Manager, Financial Accounting Standards Board**

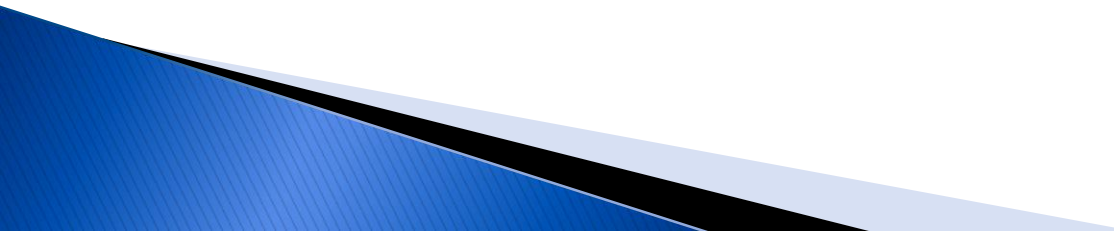
**Academic Track, October 27, 2011**

# Acknowledgements

The authors thank:

- ▶ Qinlin Luo from Prime Aim Technology, LLC, for providing access to Prime Aim Technology's database of XBRL filings and for his team's research support in collecting the data.
  - ▶ XBRL US and FASB for access to their data and resources.
- 

# Overview

- ▶ Research Objective
  - ▶ Overview of 2011 US GAAP Financial Reporting Taxonomy Changes
  - ▶ Analyses of Extensions
  - ▶ Sample Selection
  - ▶ Descriptive Statistics
  - ▶ Future Analyses
  - ▶ Concluding Remarks
- 

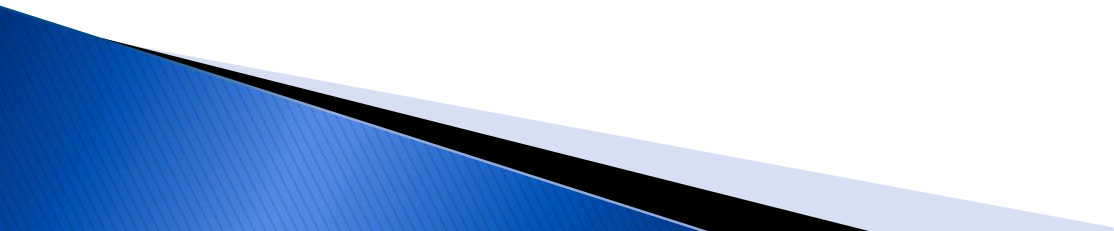
# Research Objective and Methodology

- ▶ Document and understand the trends and nature of extensions
- ▶ Determine whether there is a link between extensions and firm characteristics
- ▶ Sample – XBRL filings using the 2009 and 2011 US GAAP Financial Reporting Taxonomy (UGT)
- ▶ Research Methodology
  - Examine nature and frequency of extensions
  - Examine association between extensions and firm characteristics

# 2011 US GAAP Financial Reporting Taxonomy

- ▶ Update for accounting standards since 2009 Taxonomy and effective for periods ending after December 15, 2010
  - 17 new ASUs
    - New elements added to the Statement and Disclosure groups
- ▶ Expanded disclosure for current practices:
  - Common reporting practices observed in company filings
  - Additional primary financial statement aggregation elements
  - Industry specific elements:
    - Agriculture
    - Airlines
    - Entertainment
    - Franchisors

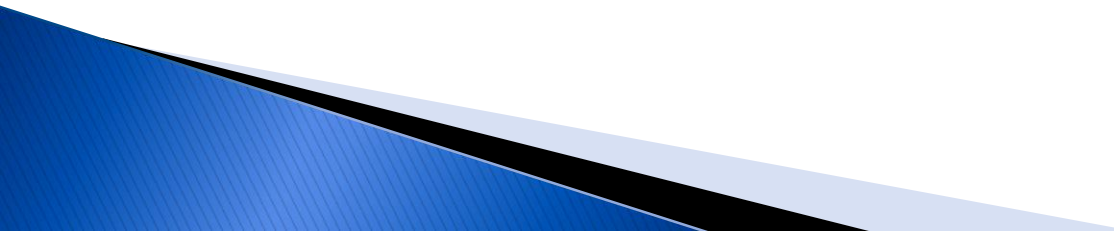
# 2011 US GAAP Financial Reporting Taxonomy

- ▶ FASB's focus was on a finite list of extension elements and primarily on the primary financial statements
  - ▶ Approximately 11,000 extension elements from filings using the 2009 US GAAP Financial Reporting Taxonomy were categorically analyzed (68% in detail)
  - ▶ From that analysis came recommendations across topics to modify the 2011 UGT
- 

# New Elements Added

Type of Change	Number of elements added
Accounting Standards Update	608
Best Practice, Public Comments, Internal Analyses, and Miscellaneous	1,320
Best Practice Table Text Blocks	88
Additional Codification Disclosures	132
Industry elements	<u>125</u>
Total	2273

# Other types of changes

- ▶ Data type and period types changes
  - ▶ Deprecated redundant elements
  - ▶ Label changes
  - ▶ Definition changes
  - ▶ Overall impact on UGT – Statement and Disclosures
- 



# Analyses of Extensions

- ▶ Types of extensions
  - Common reporting practice
    - Information not required by US GAAP, but as a common practice, is commonly disclosed (e.g., aggregation points)
  - Error
    - Company extended when an appropriate UGT element existed
  - Company-specific
    - Idiosyncratic disclosure

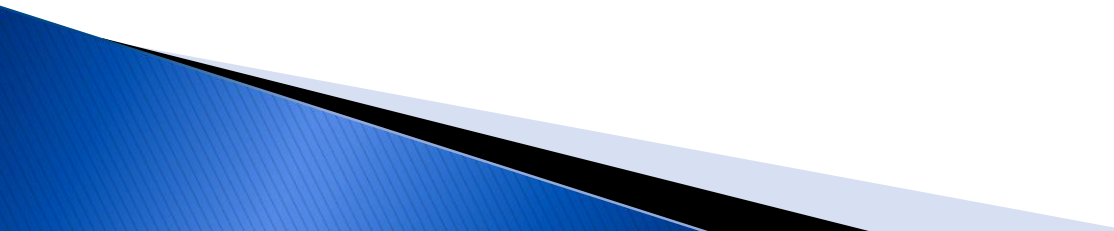
# Analyses of Extensions

- ▶ Focus on Primary Financial Statements
- ▶ Analysis extends beyond just XBRL filings
  - Understanding the US GAAP presentation and disclosure requirements
  - Understanding how disclosures are currently reported
  - Understanding how that is translated into current UGT
  - Then taking that understanding and applying it to XBRL data

# Sample: Scope and Data Source

- ▶ Limit analyses to Primary Financial Statements
  - Balance Sheet
  - Income Statement
  - Companies using the 2009 and 2011 UGT
- ▶ Collected data from Prime Aim's XBRL filings database
  - Processes all companies' XBRL filings with the SEC
  - Captures all data in XBRL document
  - Stores data as relational database in the cloud

# Sample: Data Collection

- ▶ Collected UGT and extension elements based on extended link roles (“balance” AND “statement”; “income” AND “statement”)
  - ▶ Identified filings using the 2011 UGT for the 10-K: 110 filings
  - ▶ Identified filings using the 2009 UGT for the 10-K
  - ▶ Collected firm characteristics data from Compustat
  - ▶ Initial sample: 110 filings using the 2011 UGT
- 

# 2011 Sample

Sample Selection	Number of filings
All filers that used 2011 UGT for 10-K filings in 2011 (up to Sept 30)	110
Less: filings that contained no records in fact table	<u>-11</u>
Initial Sample	99
Less: filings without 2011 Compustat data	<u>-42</u>
Final Sample	57

# 2009 Sample

Sample Selection	Number of filings
Of the 110 filers that used 2011 UGT for 10-K filings, filers that used 2009 UGT for 10-K filings in prior year	20
Less: filings that contained no records in fact table	<u>-3</u>
Initial Sample	17
Less: filings without 2010 Compustat data	<u>-0</u>
Final Sample	17

# Extension Rates: Income Statement

	Mean	St Dev	Min	Median	Max
<b>2011 (n=57)</b>					
# facts	29.2	22.3	5	24	110
# extensions	2.3	3.9	0	1	22
extension rate (%)	7.9%	17.5%	0.0%	4.2%	25.0%
<b>2009 (n=17)</b>					
# facts	25.7	17.9	5	23	85
# extensions	2.0	2.5	0	1	9
extension rate (%)	7.8%	14.1%	0.0%	4.3%	22.0%

## Observations:

- Maximum # facts higher in 2011 than in 2009
- Mean, median extension rates similar

# Extension Rates: Balance Sheet

	Mean	St Dev	Min	Median	Max
<b>2011 (n=57)</b>					
# facts	40.7	6.2	26	40	63
# extensions	1.4	1.9	0	1	8
extension rate (%)	3.4%	31.0%	0.0%	2.5%	17.8%
<b>2009 (n=17)</b>					
# facts	40.8	6.7	26	44	51
# extensions	1.4	1.3	0	2	4
extension rate (%)	3.5%	19.0%	0.0%	4.5%	11.5%

## Observations:

- Max # facts higher in 2011; median # facts higher in 2009
- Max extension rate higher in 2011; median higher in 2009
- Median # facts higher on Balance Sheet than Income Stmt
- Extension rates higher on Income Stmt than Balance Sht



# 2011 Sample: Industry Distribution

1-Digit SIC	Industry	No. Filings	Ave. % Extensions Balance Sheet	Ave % Extensions Income Statement
0	Agriculture, Forestry, Fishing	0	NA	NA
1	Mining, Construction	0	NA	NA
2	Mfg: Food, Textile, Lumber, Printing, Publishing, Chemicals	12	4.4%	4.6%
3	Mfg: Stone, Metal, Machinery, Elect, Equipment, Instruments	20	1.6%	4.8%
4	Transportation, Utilities, Communications	1	17.8%	25.0%
5	Wholesale and Retail Trade	8	3.4%	4.2%
6	Finance, Insurance, Real Estate	2	10.2%	3.8
7	Services: Hotels, Business, Automotive, Recreation	12	2.8%	8.6%
8	Services: Health, Legal, Educational, Social, Eng	2	1.1%	3.8%
9	Public Administration	<u>0</u>	NA	NA
Total		57	3.3%	5.8%

# 2009 Sample: Industry Distribution

1-Digit SIC	Industry	No. Filings	Ave. % Extensions Balance Sheet	Ave % Extensions Income Statement
0	Agriculture, Forestry, Fishing	0	NA	NA
1	Mining, Construction	0	NA	NA
2	Mfg: Food, Textile, Lumber, Printing, Publishing, Chemicals	4	2.4%	4.3%
3	Mfg: Stone, Metal, Machinery, Elect, Equipment, Instruments	5	3.1%	3.8%
4	Transportation, Utilities, Communications	0	NA	NA
5	Wholesale and Retail Trade	3	1.6%	4.2%
6	Finance, Insurance, Real Estate	0	NA	NA
7	Services: Hotels, Business, Automotive, Recreation	4	5.9%	11.8%
8	Services: Health, Legal, Educational, Social, Eng	1	6.4%	7.7%
9	Public Administration	<u>0</u>	NA	NA
Total		17	3.5%	6.1%

# Firm Characteristics

Variable	Mean	StDev	25%	Median	75%
<i>Total Assets</i>					
2011	7,617	18,911	1,182	1,951	5,110
2009	19,640	25,583	5,247	9,910	23,815
<i>Market-to-Book</i>					
2011	1.660	14.306	1.783	2.786	4.302
2009	4.086	2.949	2.170	3.185	4.423
<i>Sales Growth</i>					
2011	14.0%	14.1%	5.5%	12.1%	22.2%
2009	4.6%	11.4%	-1.4%	1.2%	10.9%
<i>ROA</i>					
2011	0.097	0.074	0.057	0.087	0.131
2009	0.107	0.070	0.057	0.077	0.134
<i>ROE</i>					
2011	0.073	0.902	0.106	0.157	0.213
2009	0.286	0.208	0.140	0.214	0.334

# Firm Characteristics by Extension Quartile (2011 Sample, n = 57)

Variables	Quartile 1	Quartile 2	Quartile 3	Quartile 4
Total Assets	2,395	2,010	1,854	1,823
Market-to-Book	2.786	2.651	2.642	2.922
Sales Growth	10.9%	12.5%	16.9%	12.4%
ROA	0.078	0.093	0.087	0.084
ROE	0.178	0.144	0.166	0.137

## Observations:

- Firms with higher extension rates are smaller
- Firms with lowest extension rates have higher ROE

# Summary of Observations:

## Income Statement:

- Maximum # facts higher in 2011 than in 2009
- Mean, median extension rates similar

## Balance Sheet:

- Max # facts higher in 2011; median # facts higher in 2009
- Max extension rate higher in 2011; median higher in 2009

## Comparison: Income Statement vs. Balance Sheet

- Median # facts higher on Balance Sheet than Income Statement
- Extension rates higher on Income Statement than Balance Sheet

Industry Distribution: extension rate appears higher in some industries

## Firm characteristics by extension quartile:

- ▶ Firms with higher extension rates are smaller
- ▶ Firms with lowest extension rates have higher ROE

# Future Analyses

- ▶ Collect more data from 10-K filings
- ▶ Categorize extensions:
  - Necessary vs. unnecessary
  - Nature: more detail, different aggregation
- ▶ Statistical tests:
  - Univariate: 2009 vs. 2011; Balance Sht vs. Inc Stmt
  - Multivariate
    - Detect relations between extension rate and explanatory variables:
      - Firm characteristics
      - Number of previous XBRL filings
      - Which taxonomy was used (2011 or 2009 UGT)

# Concluding Remarks

- ▶ Must increase sample size to deliver statistically significant results
- ▶ Understanding the trends and the nature of extensions has important implications for regulators, preparers of and users of financial statements

# Supplemental Slides





# Extension Rates: Full Sample

	Mean	StDev	25%	Median	75%
<b>2011</b>					
# facts	69.9	26.0	56.0	64.0	70.0
# extensions	3.7	4.5	1.0	2.0	5.0
extension rate (%)	5.3%	17.1%	1.8%	3.1%	7.1%
<b>2009</b>					
# facts	66.5	21.2	56.0	64.0	70.0
# extensions	3.4	3.0	2.0	3.0	5.0
extension rate (%)	5.1%	14.2%	3.6%	4.7%	7.1%