



24th XBRL International Conference

“Transparency: with Available, Reliable, Comparable and Re-usable Data”

**March 20-22, 2012
Abu Dhabi, UAE**

**Academic Research and Insight
A “Real World” Perspective on the state of XBRL**

Discussion Topics

- ▶ Expanding Regulatory Adoption & Alternatives
 - ▶ Taxonomies Expanding
 - ▶ Built-in Applications Accelerating
 - ▶ Social Processes
 - ▶ Enhanced Risk Assessments
-
- ▶ Potential Academic Research Topics

XBRL Mandates Accelerating

Adoption accelerating around the world

G20		Outside the G20	
Argentina Australia (SBR) Brazil (SBR) Canada (SBR) <u>China</u> (SBR) France Germany <u>India</u> (SBR) Indonesia Italy	Japan (SBR) Mexico Russia Saudi Arabia South Africa Korea Turkey United Kingdom (SBR) United States European Union	United Arab Emirates Belgium (SBR) Bermuda Denmark Hong Kong Ireland Israel Luxembourg Malaysia	<u>Netherlands</u> (SBR) Poland (SBR) Romania Singapore (SBR) Thailand (SBR) Taiwan (SBR) Spain Sweden Switzerland UAE Others

- ▶ **KEY:** –SBR = “Standard Business Reporting” – burden reduction effort converging disparate agencies compliance processes via IFRS XBRL Taxonomy.
- **Bold** = XBRL Mandate(s) in production
- Black = In development; Voluntary filing
- Blue = No Formal Program Announced
- Underlined = Audit of XBRL Reports Mandated

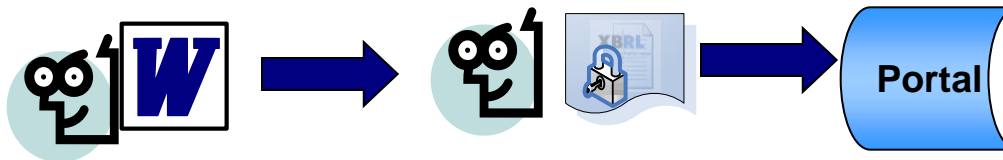
Common Adoption Alternatives

1. Regulator provided XBRL enabled excel, word, and PDF templates and Web Interface



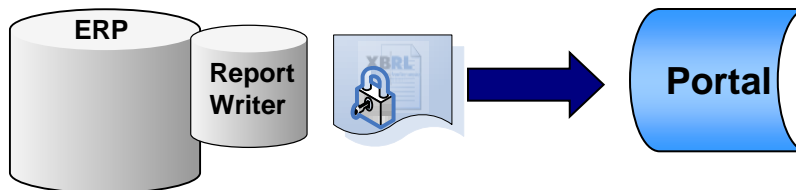
The Regulator will provide submission options using the Regulatory portal and via XBRL embedded word documents, excel workbooks, and PDF templates

2. Bolt-on via Outsourcing or internal Utility



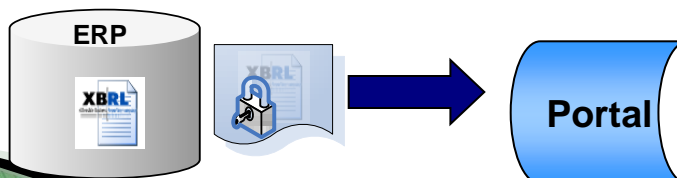
Printers and other third party service providers provide outsourced solution for mapping the disclosure elements on the financial statements and note disclosures (in block text) to the Regulator Taxonomy

3. Bolt-on via Internal Process



XBRL can be adopted by companies at the "highest" reporting level (i.e. consolidated) solely for purposes of complying with regulatory requirements. However, potential XBRL process enhancement benefits are not fully realized.

4. Embedded Processes



- Enables automation of currently manual assembly and review processes
- Requires companies to assess information needs and provides an opportunity to eliminate inefficiencies in current compliance and reporting processes.
- Enables process enhancements that lead to more timely higher quality data for decision making purposes
- Maximizes benefits of XBRL to preparers and internal users of financial and non-financial information.

Taxonomies – Expanding Applications

- ▶ US GAAP
- ▶ IFRS
- ▶ Basel II
- ▶ Solvency II
- ▶ XBRL GL
- ▶ Global Reporting Initiative
- ▶ World Intellectual Capital Initiative
- ▶ Carbon Disclosure Project Taxonomy
- ▶ GRC-XML
- ▶ UAE SCA Taxonomy

XBRL Embedded Case Study

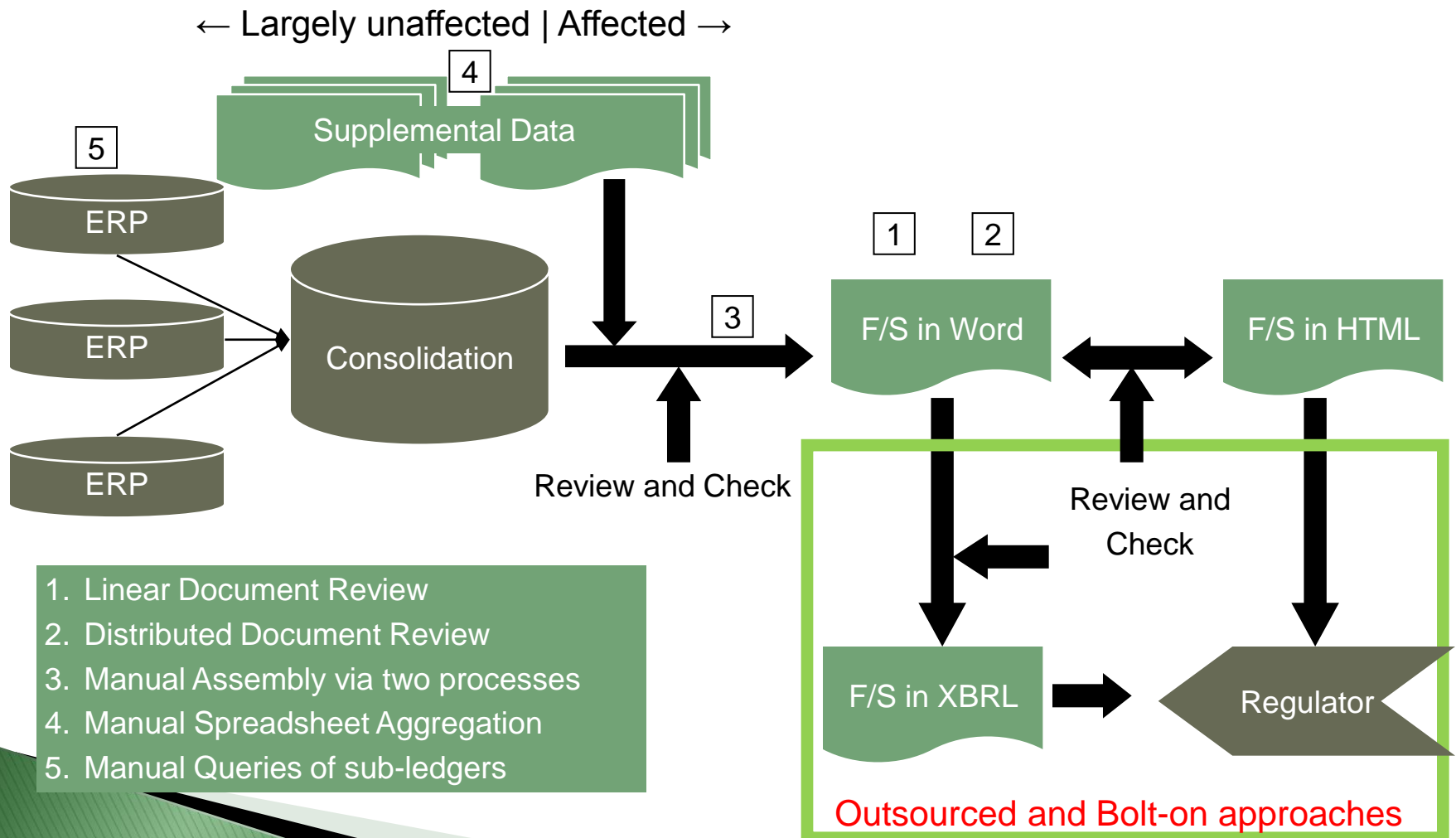
XBRL GL Implementation by college intern at small not-for-profit

- ▶ [MACPA XBRL GL Implementation](#)
- ▶ [MACPA Case Study](#)
- ▶ [MACPA Case Study YouTube](#)

What are the barriers, tools, process and control considerations?

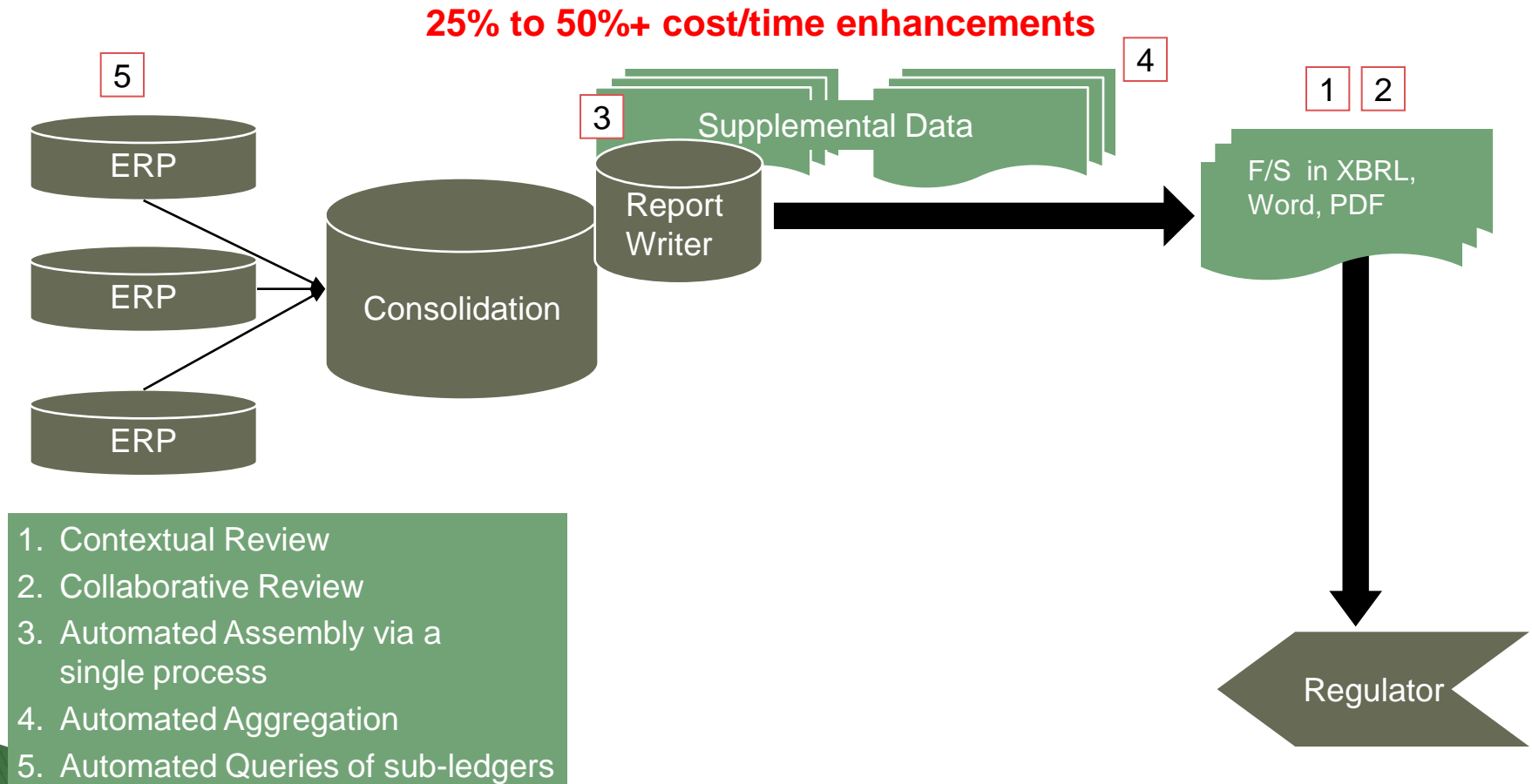
Current Manual Assembly/Review Processes

Common Year 1 'Bolt-on' approach adds cost/time

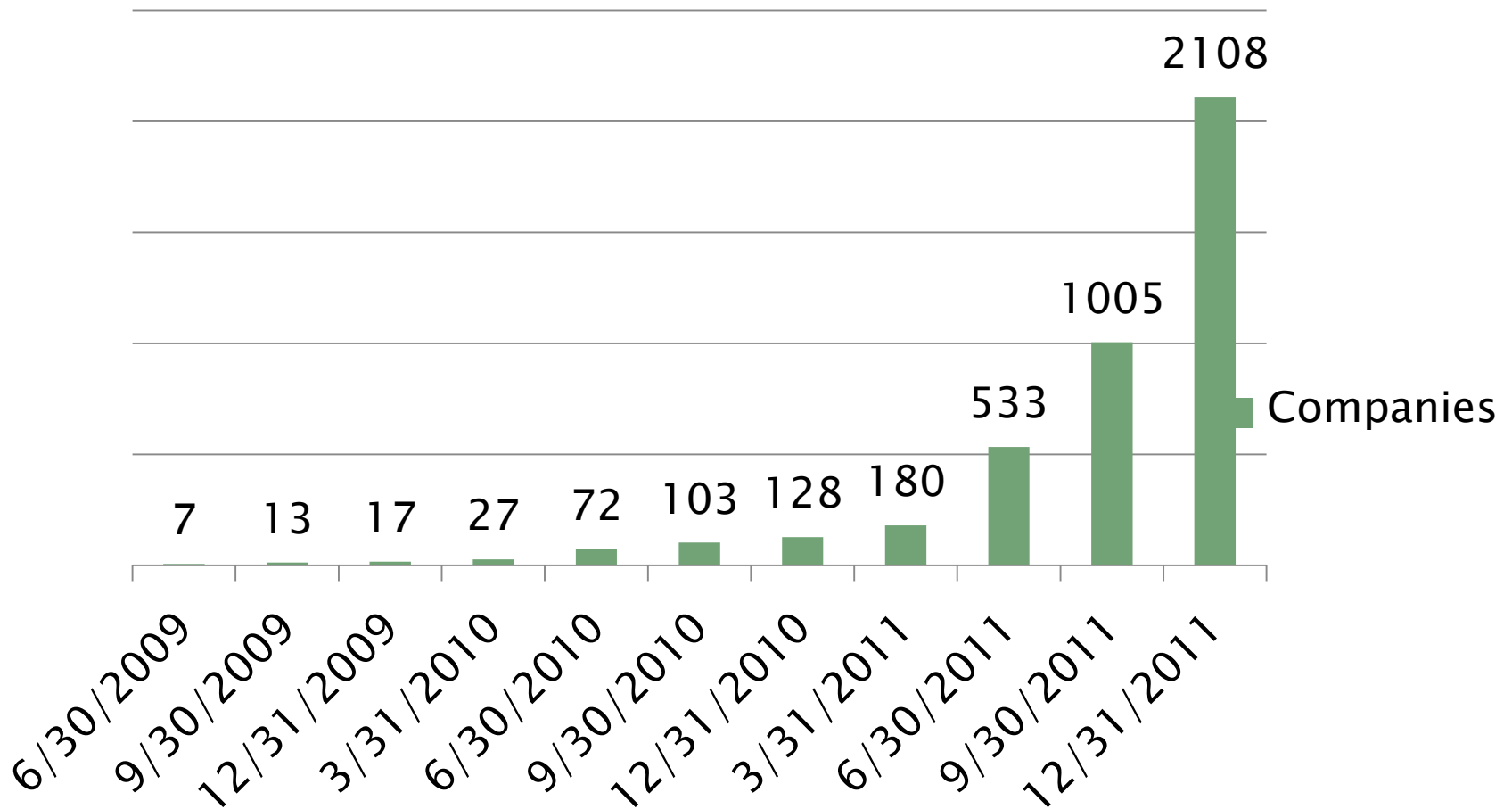


Built-in Enables Enhanced Processes

Applying standards earlier enables streamlined processes



US Registrants Using Built-In Solution



Errors are Reasonably Common

► SEC Staff Observations (from Dec 13, 2011 and June 15, 2011)

- Format of the Statements
- Negative Values
- Extending
- Completeness of tagging
- Modeling of Level 4 tagging
- Units, Data types, “footnotes” and other metadata components
- Calculation linkbases
- Regulation S-X Article 12

Sample Data Aggregator Distortions

- ▶ Following are two examples of the distortion and omission that exists within the data that supply chain data aggregators provide to the analyst community. These are examples from the publicly available query sites.
- ▶ Items highlighted in the **red boxes** reflect disclosures that are “**different**” between what the company reported and what is available via data aggregator feeds available to the analyst community.
- ▶ Typically, the level of detail is normalized into summary concepts that tend to limit company specific disclosures.

Company vs. Google Finance (Assets)

Assets	
Cash and due from banks	\$ 18,314
Federal funds sold, securities purchased under resale agreements and other short-term investments	89,804
Trading assets	57,786
Securities available for sale	207,176
Mortgages held for sale (includes \$38,845 and \$47,531 carried at fair value)	42,704
Loans held for sale (includes \$495 and \$873 carried at fair value)	743
Loans (includes \$0 and \$309 carried at fair value)	760,106
Allowance for loan losses	(20,039)
Net loans	740,067
Mortgage servicing rights:	
Measured at fair value	12,372
Amortized	1,397
Premises and equipment, net	9,607
Goodwill	25,038
Other assets	99,937
Total assets (1)	\$ 1,304,945

In Millions of USD (except for per share items) As of 2011-09-30	
Cash & Equivalents	-
Short Term Investments	-
Cash and Short Term Investments	-
Accounts Receivable - Trade, Net	-
Receivables - Other	-
Total Receivables, Net	-
Total Inventory	-
Prepaid Expenses	-
Other Current Assets, Total	-
Total Current Assets	-
Property/Plant/Equipment, Total - Gross	-
Accumulated Depreciation, Total	-
Goodwill, Net	25,038.00
Intangibles, Net	23,165.00
Long Term Investments	-
Other Long Term Assets, Total	-
Total Assets	1,304,945.00

Company vs. Yahoo Finance (Income)

Interest income	
Trading assets	\$ 343
Securities available for sale	2,053
Mortgages held for sale	389
Loans held for sale	13
Loans	9,224
Other interest income	156
Total interest income	12,178
Interest expense	
Deposits	559
Short-term borrowings	20
Long-term debt	980
Other interest expense	77
Total interest expense	1,636
Net interest income	10,542
Provision for credit losses	1,811
Net interest income after provision for credit losses	8,731
Noninterest income	
Service charges on deposit accounts	1,103
Trust and investment fees	2,786
Card fees	1,013
Other fees	1,085
Mortgage banking	1,833
Insurance	423
Net gains (losses) from trading activities	(442)
Net gains (losses) on debt securities available for sale	
(1)	300
Net gains from equity investments (2)	344
Operating leases	284
Other	357
Noninterest expense	
Salaries	3,718
Commission and incentive compensation	2,088
Employee benefits	780
Equipment	516
Net occupancy	754
Core deposit and other intangibles	466
FDIC and other deposit assessments	332
Other	3,026
Total noninterest expense	11,677
Income before income tax expense	6,140
Income tax expense	1,998
Net income before noncontrolling interests	4,142
Less: Net income from noncontrolling interests	87
Wells Fargo net income	\$ 4,055

Total Revenue	21,264,000
Cost of Revenue	559,000

Gross Profit	-
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Operating Expenses	
Research Development	-
Selling General and Administrative	11,211,000
Non Recurring	466,000
Others	1,811,000
Total Operating Expenses	-

Operating Income or Loss	-
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Income from Continuing Operations	
Total Other Income/Expenses Net	-
Earnings Before Interest And Taxes	7,217,000
Interest Expense	1,077,000
Income Before Tax	6,140,000
Income Tax Expense	1,998,000
Minority Interest	(87,000)
Net Income From Continuing Ops	4,055,000

Why analysts use XBRL?

Enhance cost and time to access, reuse , analyze, report and act

- Traditional data sources are error prone, incomplete, slow to market and expensive
- Company has no control or input on third party tagging (Please see Appendix A that compares company reported disclosures and data aggregator data on the company)
- Third party data aggregator parsing errors and normalization of company reported disclosures
 - Typically 20% to 25% error rate on primary tables
 - Note disclosures are limited to non-existent
- XBRL enhances: Speed, Accuracy, Completeness, Cost effectiveness, analytical capabilities
- Company has limited insights on analyst use of company disclosures or analytical drivers; social analytical platforms provide a collaborative model

Examples of XBRL Enabled Analysts Applications



RIXML.org

Research Information Exchange Markup Language

MicroStrategy Bank
Performance iPhone App



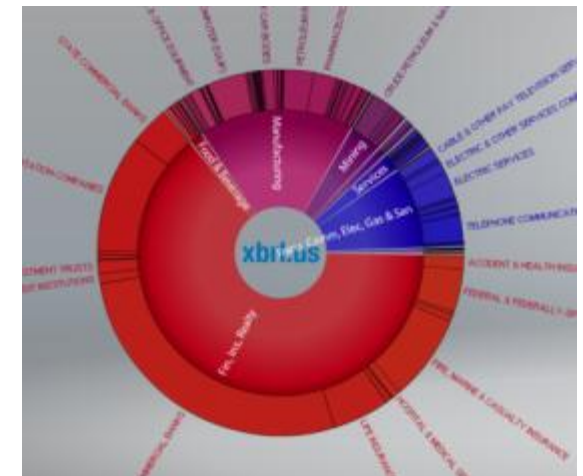
9wsearch.com

Financial Report			
	AAPL	GOOG	MSFT
assets	\$116,371,000,000	\$69,088,000,000	\$107,415,000,000
revenue	\$28,270,000,000	\$9,720,000,000	\$17,372,000,000
EBITDA	\$9,253,000,000	\$3,550,000,000	\$7,929,000,000
EPS	7.0710	8.3300	0.6759
margin-gross	0.4048	0.6524	0.7826
current ratio	1.6084	5.6303	2.9468
	AAPL	GOOG	MSFT
assets	\$106,756,000,000	\$64,861,000,000	\$108,704,000,000
revenue	\$28,571,000,000	\$9,026,000,000	\$17,367,000,000
EBITDA	\$9,860,000,000	\$3,336,000,000	\$6,860,000,000
EPS	7.7926	7.6800	0.6836
margin-gross	0.3982	0.6518	0.7773
current ratio	1.7461	5.9556	2.6037
	AAPL	GOOG	MSFT
assets	\$94,904,000,000	\$59,960,000,000	\$99,727,000,000
revenue	\$24,667,000,000	\$8,575,000,000	\$16,428,000,000
EBITDA	\$8,308,000,000	\$2,697,000,000	\$6,429,000,000
EPS	6.3968	5.5100	0.6148
margin-gross	0.3907	0.6576	0.7808
current ratio	1.9319	4.6410	2.7561

BlueMatrix Analyst Suite



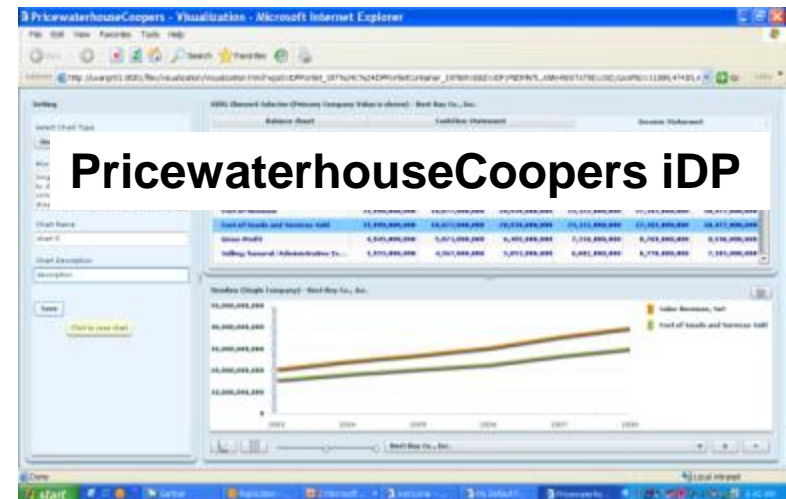
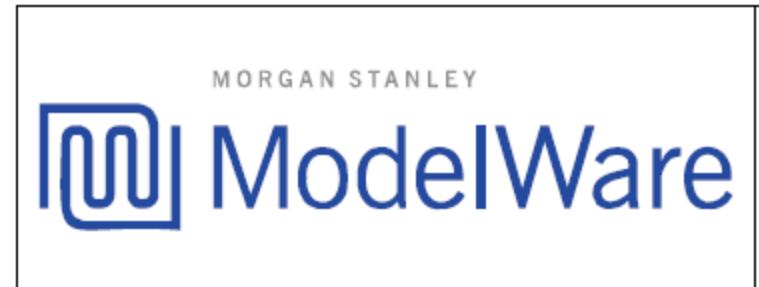
XBRL US EDGAR Viewer



SEC Filings XBRL
iOS iPad

Examples of Social Analytics

Social analytics – Standards enable collaborative development and maintenance of formulas and models among authorized individuals



open source xbrl platform

US SEC Expands Social Analytical Capabilities

- ▶ “The support services required under this solicitation will develop and improve OLD's internal processes, databases, services and applications as they relate to Interactive Data”

The screenshot displays the FEDBIZOPPS.GOV website interface. At the top, the header includes the site logo, 'Federal Business Opportunities', and navigation links for 'Home', 'Getting Started', 'General Info', 'Opportunities' (highlighted), 'Agencies', and 'Privacy'. Below the header, there are links for 'Buyers: Login | Register' and 'Vendors: Login | Register', along with an 'Accessibility' icon.

The main content area features the SEC logo and the title 'Interactive Data Support Services'. Below the title, the solicitation details are listed: 'Solicitation Number: SECHQ1-11-R-0014', 'Agency: Securities and Exchange Commission', 'Office: Office of Acquisitions', and 'Location: Operations Center'. There are three tabs: 'Notice Details' (selected), 'Packages', and 'Interested Vendors List'. To the right of the tabs are 'Print' and 'Link' icons.

Under the 'Notice Details' tab, there is a section for 'Original Synopsis' dated 'Jul 11, 2011 3:13 pm'. Below this, there are three buttons: 'Return To Opportunities List', 'Watch This Opportunity', and 'Add Me To Interested Vendors'. The 'Solicitation Number' is 'SECHQ1-11-R-0014' and the 'Notice Type' is 'Combined Synopsis/Solicitation'.

The 'Synopsis' section states: 'Added: Jul 11, 2011 3:13 pm. The Office of Interactive Data (OID) in the Division of Risk, Strategy and Financial Innovation gives investors and SEC decision makers' faster access to the information that resides in the several kinds of regulatory forms, financial reports and related disclosures that registrants can now file, in structured data formats, with the SEC. These formats employ'.

On the right side, there is a section titled 'ALL FILES' with a list of documents: 'Solicitation', 'SECHQ1-11-R-0014 Att...', 'SECHQ1-11-R-0014 Int...', and 'Offeror Letter.pdf'. Below this is a 'GENERAL INFORMATION' section with fields for 'Notice Type: Combined Synopsis/Solicitation', 'Posted Date: July 11, 2011', and 'Response Date: Jul 11, 2011 3:13 pm'.

Craig Lewis, SEC Chief Economist, RiskFin Leader

- ▶ Predictive modeling expert joins SEC leading analytical efforts.



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U.S. Securities and Exchange Commission

Vanderbilt Professor Craig Lewis Named SEC Chief Economist and Director of RiskFin Division

FOR IMMEDIATE RELEASE
2011-114

Washington, D.C., May 20, 2011 – The Securities and Exchange Commission today announced that Craig M. Lewis has been named SEC Chief Economist and Director of the Division of Risk, Strategy, and Financial Innovation (RiskFin).

Dr. Lewis, the Madison S. Wigginton Professor of Finance at Vanderbilt University's Owen Graduate School of Management, is currently a visiting scholar at the SEC and will assume his new role next month. RiskFin was created in September 2009 to provide interdisciplinary analysis to help inform the Commission's policymaking, rulemaking, enforcement and examinations.

"Professor Lewis is a distinguished economist with a clear understanding of the complexities of financial markets," said SEC Chairman Mary L. Schapiro. "As the head of the Division, he will not only lead our qualified team of expert economists, but will also help to inject strong data-driven analysis

SIFMA AMF Letter to SEC Requesting Expansion of XBRL Mandate



October 26, 2009

Meredith Cross, Esq.
Director
Division of Corporation Finance
U.S. Securities and Exchange Commission
100 F Street, NE
Washington, DC 20549

Re: Effective Processing of Corporate Actions

Dear Ms. Cross:

The Asset Managers Forum ("AMF") Corporate Actions Committee is writing this letter to support the "Issuer to Investor: Corporate Actions" initiative which promotes the use of XBRL for corporate actions announcements. The Asset Managers Forum is the operations affiliate of the Securities Industry and Financial Markets Association's Asset Management Group ("AMG"), the voice for the buy side within the securities industry and the broader financial markets. The clients of AMF member firms include state and local pension funds, universities, and individuals saving for retirement.

The Asset Managers Forum formed the Corporate Actions Committee in response to the on-going risk exposure confronting market participants in the current corporate actions processing environment. The goal of the Committee is to identify solutions to reduce financial, operational and reputation risk for AMF members (asset managers, custodians and vendors). The Committee encourages the industry to implement best practices and standards to effectively manage the processing of corporate actions.

Potential Research Opportunities

- ▶ Realization of Benefits enabled by Disclosure Management implementations
- ▶ Barriers & Benefits of embedded applications
- ▶ Implications of Errors in XBRL reports for analysis
- ▶ Assurance standards for XBRL formatted disclosures
- ▶ Collaborative analytical model development
- ▶ Taxonomy alignment among non-financial frameworks
- ▶ Sustainability Taxonomies – Chaos or Convergence?
- ▶ Embracing Technology in Financial Reporting
- ▶ Status of XBRL within Academic Curriculum

Thank you

Questions?

If you have any questions or comments and wish to contact me directly please do so via:

mike.willis@us.pwc.com

001 813 340 0932