STRUCTURED DISCLOSURES & ANALYTICS DURING COVID-19

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U.S. SECURITIES AND EXCHANGE COMMISSION
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Discussion Topics

- Why Structured Disclosures
- Inline XBRL
- COVID-19 Guidance
- Quality Matters
- Analytical Insights
- Potential Research Considerations

- Appendix
Why Structured Disclosures
Why Structured Disclosure

▪ Unstructured for Human readability (also machine readable):

   Revenue  125,843

▪ Structured for machine readability:

   <us-gaap:RevenueFromContractWithCustomerExcludingAssessedTax id="F_000028" contextRef="C_0000789019_20180701_20190630" decimals="-6" unitRef="U_iso4217USD">125843000000</us-gaap:RevenueFromContractWithCustomerExcludingAssessedTax>
Why Use Structured Disclosures?

Amazon 10-K (As Reported)

<table>
<thead>
<tr>
<th>Item</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net product sales</td>
<td>$ 160,408</td>
</tr>
<tr>
<td>Net service sales</td>
<td>120,114</td>
</tr>
<tr>
<td>Total net sales</td>
<td>280,522</td>
</tr>
</tbody>
</table>

Operating expenses:

<table>
<thead>
<tr>
<th>Item</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost of sales</td>
<td>165,536</td>
</tr>
<tr>
<td>Fulfillment</td>
<td>40,232</td>
</tr>
<tr>
<td>Technology and content</td>
<td>35,931</td>
</tr>
<tr>
<td>Marketing</td>
<td>18,878</td>
</tr>
<tr>
<td>General and administrative</td>
<td>5,203</td>
</tr>
<tr>
<td>Other operating expense (income), net</td>
<td>201</td>
</tr>
<tr>
<td>Total operating expenses</td>
<td>265,981</td>
</tr>
</tbody>
</table>

Operating income                      | 14,541     |

Interest income                        | 832        |

Interest expense                       | (1,600)    |

Other income (expense), net            | 203        |

Total non-operating income (expense)   | (565)      |

Income before income taxes             | 13,976     |

Provision for income taxes             | (2,374)    |

Equity-method investment activity, net of tax | (14) |

Net income                             | $ 11,588   |

Amazon per Data Aggregator A

<table>
<thead>
<tr>
<th>Date</th>
<th>Total Revenue</th>
<th>280,522,000</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cost of Revenue</td>
<td>205,768,000</td>
</tr>
<tr>
<td></td>
<td>Gross Profit</td>
<td>74,754,000</td>
</tr>
<tr>
<td></td>
<td>Operating Expenses</td>
<td>60,213,000</td>
</tr>
<tr>
<td></td>
<td>Research Development</td>
<td>35,931,000</td>
</tr>
<tr>
<td></td>
<td>Selling General and Administrative</td>
<td>24,081,000</td>
</tr>
<tr>
<td></td>
<td>Total Operating Expenses</td>
<td>60,213,000</td>
</tr>
<tr>
<td></td>
<td>Operating Income or Loss</td>
<td>14,541,000</td>
</tr>
<tr>
<td></td>
<td>Interest Expense</td>
<td>1,600,000</td>
</tr>
<tr>
<td></td>
<td>Total Other Income/Expenses Net</td>
<td>203,000</td>
</tr>
<tr>
<td></td>
<td>Income Before Tax</td>
<td>13,976,000</td>
</tr>
<tr>
<td></td>
<td>Income Tax Expense</td>
<td>2,374,000</td>
</tr>
<tr>
<td></td>
<td>Income from Continuing Operations</td>
<td>11,588,000</td>
</tr>
<tr>
<td></td>
<td>Net Income</td>
<td>11,588,000</td>
</tr>
</tbody>
</table>
Why Use Structured Disclosures?

- Immediate access to 100% of financial statement and footnote disclosures (numeric and narrative)
- Immediately reusable
- Freely available
- Includes all of the meta-data
  - Dimensional insights (e.g. sectors, geography, products)
  - Company specific disclosures
  - Explicit definitions
  - Relationships (e.g. calculations, references, etc.)
  - Narrative disclosures
Structured Disclosure Levels

Footnote

All Financial Statement and Footnote Amounts

Tables

Policies
Structured Disclosure Levels

- Narrative Blocks
  - Policy
  - Texts
  - Tables

- Enhances analytical access – Examples:
  - Commitments and contingencies for specific risks
  - Income taxes for CARES Act carryback liquidity options
  - Intangible assets & weighted-average remaining useful lives
  - Goodwill related impairments
  - Liquidity sources
  - Accounting policy changes for revenue recognition
  - Segment reporting
Inline XBRL
Inline XBRL

Changes in the carrying amount of goodwill for fiscal year 2010 and 2009 by segment:

<table>
<thead>
<tr>
<th>Segment</th>
<th>2010 Carrying Amount (in millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EN Division</td>
<td>$77</td>
</tr>
<tr>
<td>FM Division</td>
<td>577</td>
</tr>
<tr>
<td>LL Division</td>
<td>555</td>
</tr>
<tr>
<td>ME Division</td>
<td>3,132</td>
</tr>
<tr>
<td>MP Division</td>
<td>419</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$7,777,777</strong></td>
</tr>
</tbody>
</table>

Non-vested goodwill are expected to be deductible for income tax purposes as more detailed analyses are completed. Our company within this timeframe will change the determination of a specific accounting adjustments and other in the fiscal year 2010, we changed the date for the assessment of the annual impairment and forecasting process. We believe that accounting principle is preferable under current test was performed.
Inline XBRL Viewer

- Familiar view (enhanced)
- Leverages structured data:
  - Review of detailed information
  - Navigation of content
  - Search and filtering
- Open source
  - Completely browser-based web technologies
  - Code available to public (e.g., 3rd party applications)
Why Inline XBRL Viewer?

- Demo
  - Sections
  - Search
  - Data
  - Tags
  - More Filters

- Other Features
  - Disclosure Checklist
  - Time series graphs
  - Benchmarking
  - Red-lining narrative disclosures
  - Collaborative queries
  - And More
COVID-19 Guidance
SEC Coronavirus (COVID-19) Response


Statement on the importance of disclosures – for investors, markets and our fight against COVID-19, Jay Clayton, Chairman of the SEC, and William Hinman, Director of the Division of Corporation Finance (4/8/2020)
COVID-19- CF Disclosure Guidance Topics


• Assessing and disclosing the impact of COVID-19
• Management’s discussion and analysis (MD&A)
• Risk factors
• Legal proceedings
• Disclosure controls and procedures
• Internal control over financial reporting (ICFR)
• Non-GAAP financial measures
COVID-19 - CF Disclosure Guidance Topics


  - Highlights a numbers of areas for disclosure considerations
    - Ex. Funding sources, debt covenants, share repurchase programs, dividends, modifications, concessions
  - Government Assistance – CARES Act
  - Company’s Ability to Continue as a Going Concern
FASB Staff Q&A – COVID-19

- APPLICATION OF THE TAXONOMY FOR COVID-19 PANDEMIC AND RELIEF DISCLOSURES HERE
- FASB Taxonomy staff created this Q&A to address the application of the Taxonomy to disclosures in the following areas:
  - Income taxes
  - Payroll taxes
  - Loans
  - Grants
  - Pensions
  - Overall discussion of the COVID-19 pandemic
Tagging Reminders

- Review disclosure requirements and taxonomies to determine appropriate standard tags
- Review rule requirements on taxonomy extensions
- Custom tags allowed in limited cases
- Quality matters
  - Structured data processed by machines
  - Quality errors linked to R and r
Quality Matters
Quality Matters

- Use of outdated revenue tags after new standards
- Context Dates – DEI (6 months ended June 30) v Document Period End date (March 31)
- Scaling - Unremitted Foreign Earnings $B vs. $M
- Inappropriate extensions - for ‘Total Revenues’ and ‘Other Income’
- Negative values - for a ‘Contingent Liability’
- Incorrect tagging - Tagging Gross Revenue with ‘Discount Rate’ tag
- Duplicate tagging - same data with different tags
- Disclosures not tagged
- Staff Observations and Guidance here
Quality Matters - Examples

Scaling Error in Public Float

<table>
<thead>
<tr>
<th>Public Float in HTML</th>
<th>Public Float in XBRL</th>
</tr>
</thead>
<tbody>
<tr>
<td>$8 Billion</td>
<td>$8 Trillion</td>
</tr>
</tbody>
</table>

Inappropriate Extensions

GAAP Tag: PropertyPlantAndEquipmentNet

Inappropriate Extension:
PropertyAndEquipmentZeroThreeEightFourZeroZerohSevenFThreeLySevenFivewxQx
Quality Matters – Example (Aggregation)

Aggregation - Research & Development Expense

<table>
<thead>
<tr>
<th>Company Name</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALPHABET INC.</td>
<td>26,018,000,000</td>
</tr>
<tr>
<td>MICROSOFT CORP</td>
<td>16,876,000,000</td>
</tr>
<tr>
<td>APPLE INC</td>
<td>16,217,000,000</td>
</tr>
<tr>
<td>FACEBOOK INC</td>
<td>13,600,000,000</td>
</tr>
<tr>
<td>INTEL CORP</td>
<td>13,362,000,000</td>
</tr>
<tr>
<td>MERCK &amp; CO. INC.</td>
<td>9,872,000,000</td>
</tr>
<tr>
<td>NOVARTIS AG</td>
<td>9,402,000,000</td>
</tr>
<tr>
<td>GILEAD SCIENCES INC</td>
<td>9,106,000,000</td>
</tr>
<tr>
<td>FORD MOTOR CO</td>
<td>7,400,000,000</td>
</tr>
<tr>
<td>GENERAL MOTORS CO</td>
<td>6,800,000,000</td>
</tr>
<tr>
<td>CISCO SYSTEMS INC.</td>
<td>6,577,000,000</td>
</tr>
<tr>
<td>BRISTOL MYERS SQUIBB CO</td>
<td>6,148,000,000</td>
</tr>
<tr>
<td>ALIBABA GROUP HOLDING LTD</td>
<td>6,085,000,000</td>
</tr>
<tr>
<td>ASTRAZENECA PLC</td>
<td>6,059,000,000</td>
</tr>
<tr>
<td>ORACLE CORP</td>
<td>6,026,000,000</td>
</tr>
<tr>
<td>ELI LILLY &amp; CO</td>
<td>5,595,000,000</td>
</tr>
<tr>
<td>QUALCOMM INC/DE</td>
<td>5,398,000,000</td>
</tr>
<tr>
<td>DELL TECHNOLOGIES INC.</td>
<td>4,992,000,000</td>
</tr>
<tr>
<td>UBER TECHNOLOGIES INC.</td>
<td>4,836,000,000</td>
</tr>
<tr>
<td>BOEING CO</td>
<td>3,219,000,000</td>
</tr>
<tr>
<td>TAIWAN SEMICONDUCTOR MANUFACTURING CO LTD</td>
<td>3,056,500,000</td>
</tr>
<tr>
<td>REGENERON PHARMACEUTICALS INC.</td>
<td>3,036,600,000</td>
</tr>
<tr>
<td>UNITED TECHNOLOGIES CORP /DE/</td>
<td>3,015,000,000</td>
</tr>
<tr>
<td>NVIDIA CORP</td>
<td>2,829,000,000</td>
</tr>
<tr>
<td>SALESFORCE.COM INC.</td>
<td>2,766,000,000</td>
</tr>
</tbody>
</table>
Quality Matters – Example (Extensions)

- Company A element extension
  - Tradeaccountsreceivablenet – with no definition provided

- US GAAP Taxonomy element alternative
  - AccountsReceivableNetCurrent – defined as “Amount due from customers or clients, within one year of the balance sheet date (or the normal operating cycle, whichever is longer), for goods or services (including trade receivables) that have been delivered or sold in the normal course of business, reduced to the estimated net realizable fair value by an allowance established by the entity of the amount it deems uncertain of collection.”
COVID Tagging

Example: Tagging of COVID Related Disclosures
**XBRL US**

- **XBRL US** consists of filers, data aggregators, vendors, accounting standards bodies

- Bi-annual meetings with Commission staff

- XBRL US publishes data quality “validation **rules**” that filers may freely use

- XBRL US’ filing and data quality **check**
Analytical Insights
Financial Statement Query Viewer (FSQV)

- Intuitive, quick and easy-to-use web browser interface.
- Search and review filings and **all** facts across **all** filers in ways not previously possible.
- Potential staff uses include:
  - Search using various criteria (e.g., CIK, ticker, industry, filer status, country).
  - Search by Fact (e.g. specific disclosure type and/or specific taxonomy element)
  - Search by Text (e.g. any text within a narrative disclosure)
  - Compare footnote narrative text differences between periods (e.g. ‘red-line’ changes).
  - Save all results and searches locally for further analysis and reuse.
iView

- Leverages the open source freely available publicly available Inline XBRL Viewer
- Includes all public filters and query capabilities
- Offers time series charting for numeric values
- Offers benchmarking charting for numeric values
- Provides interface for contextual delivery of compliance, risk, liquidity, etc. models
- Proxy for an ‘augmented reality’ platform for report analysis.
Financial Statement and Notes Data Sets

The Financial Statement and Notes Data Sets provide the text and detailed numeric information from all financial statements and their notes. This data is extracted from exhibits to corporate financial reports filed with the Commission using eXtensible Business Reporting Language (XBRL).
Analytical Insights - Liquidity

- Liquidity Analysis
  - Aggregation of Cash Flows from Operations
  - Aggregation of Cash flows from Financing
  - CARES Act carrybacks
  - Other Liquidity sources
  - COVID-19 Narratives
  - Company Specific Extensions
  - Measurements
  - Others
Analytical Insights Example - Text

- Text Analytics
- Targeted Disclosures
- Search ‘terms’ and ‘topics’

Potential Search Terms:
- Coronavirus
- COVID-19
- 2019-nCoV
- Pandemic
- Epidemic
- Wuhan
- China
- Italy
- Cares Act
- margin call
- counterparty
- forbearance
- collateral
- obligation
- MBS
- repurchase
- default
- penalties
- book value
- Impair
- Etc.
Analytical Insights Example - Topic Analysis

1. Identify “topics” (groupings of words that tend to co-occur)

2. Identify distribution of topics per document

<table>
<thead>
<tr>
<th>Topic 1</th>
<th>Topic 2</th>
<th>Topic 3</th>
<th>Topic 4</th>
<th>Topic 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>fees, charged, expenses, charges, paid, performance based, charge, mutual, distinct, separate, negotiable,</td>
<td>value, market, conditions, decline, fair, price, line, based, money, stock, relative, rates, cash, factors, valuation,</td>
<td>risk, loss, bear, risks, prepared, investing, involves, tolerance, liquidity, return, term, methods, market, approach, investor,</td>
<td>disciplinary, legal, history, criminal, regulatory, civil, report, evaluation, events, activities, personnel, material, reportable,</td>
<td>conflicts, potential, conflict, interests, fiduciary, arise, duty, incentive, affiliates, manner, resolve, create, avoid,</td>
</tr>
</tbody>
</table>

Graph showing distribution of topics per document.
Analytical Insight Example - Machine Learning

Machine learning allows us to map signals in text to outcomes of interest.

Requires significant effort to train ML algorithms.
Analytical Insight Example – Aggregation

Cash from Operating Activity for Hotels & Lodging Places

![Graph showing cash from operating activity for hotels & lodging places]
Python code used for aggregation example

Create a Data Frame for Quarterly Cash from Operating Activities

```python
quarterlyCashData = {'Quarter Ended': ['2019-12-31', '2020-03-31', '2020-06-30'], 'Net Cash provided by or used in Operating Activities ($ in millions)': [totalCashQuarterEnded2, cashFromOperatingActivitiesDF = pd.DataFrame(data=quarterlyCashData)
cashFromOperatingActivitiesDF
```

<table>
<thead>
<tr>
<th>Quarter Ended</th>
<th>Net Cash provided by or used in Operating Activities ($ in millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>3923.51</td>
</tr>
<tr>
<td>1</td>
<td>-102.15</td>
</tr>
<tr>
<td>2</td>
<td>-782.85</td>
</tr>
</tbody>
</table>

Visualize Cash from Operations using Matplotlib

```python
%matplotlib inline
cashFromOperatingActivitiesDF.plot(x='Quarter Ended', y='Net Cash provided by or used in Operating Activities ($ in millions)', kind='bar', figsize=(20,10), fontsize=12)
plt.title('Cash from Operating Activities for Hotels, Rooming Houses, Camps, and Other Lodging Places', fontsize=20)
plt.xlabel('Quarter Ended', fontsize=15)
plt.ylabel('Net Cash provided by or used in Operating Activities (USD in millions)', fontsize=15)
plt.ticklabel_format(axis='y', style='plain')
plt.xticks(rotation=0)
plt.yticks(np.arange(-1000, 5000, step=1000))
plt.savefig("barChartOfCashFromOps.jpg")
plt.show()
```
Analytical Insight Example – Text Blocks

Custom COVID-19 Text Block Tags

AccountingEffectsOfGlobalPandemicTextBlock
AccountingEffectsofWorldwidePandemicTextBlock
BusinessImpactOfCovidNineteenTextBlock
COVID19AccountingPolicyPolicyTextBlock
COVID19AndBusiness InterruptionPolicyTextBlock
COVID19AssessmentPolicyTextBlock
COVID19DisclosureTextBlock
COVID19EffectPolicyTextBlock
COVID19GlobalPandemicPolicyTextBlock
COVID19GlobalPandemicTextBlock
COVID19PandemicAndCARESActDisclosureTextBlock
COVID19PandemicAndCARESActPolicyTextBlock
COVID19PandemicImplicationsTextBlock
COVID19PandemicPolicyTextBlock
COVID19PolicyTextBlock
COVID19RelatedImpactsTableTextBlock
COVID19RelatedImpactsTextBlock
COVID19RelatedLiabilitiesTableTextBlock
COVID19RisksAndUncertaintiesPolicyTextBlock
COVID19TextBlock
COVIDNineteenImpactPolicyTextBlock
COVIDNineteenPolicyTextBlock
COVIDNineteenPolicyTextBlock
COVIDNineteenRisksAndUncertaintiesPolicyTextBlock
COVIDNineteenUncertaintiesPolicyTextBlock
EffectOfCovid19PandemicPolicyTextBlock
EffectOfCOVID19DisclosureTextBlock
EffectOfCOVID19DisclosureTextBlock
ImpactOfCoronavirusDiseasePolicyTextBlock
ImpactOfCOVID19PandemicPolicyTextBlock
ImpactOfCOVID19PandemicPolicyTextBlock
ImpactOfCOVID19PolicyPolicyTextBlock
ImpactOfCOVID19TextBlock
ImpactOfCOVID19PolicyPolicyTextBlock
ImpactOfCOVID19PolicyPolicyTextBlock
ImpactOfCOVID19PolicyPolicyTextBlock
ImpactOfCOVID19PolicyPolicyTextBlock
LiquidityAndImpactOfCOVID19PolicyTextBlock
LiquidityAndImpactOfCovid19PandemicTextBlock
PandemicImpactOnOurBusinessPolicyTextBlock
PandemicImpactPolicyTextBlock
UnusualOrInfrequentItemsCovid19PandemicPolicyTextBlock
COVIDTextBlock

CoronavirusAidReliefAndEconomicSecuritiesCARESActDisclosureTextBlock
CoronavirusAidReliefAndEconomicSecuritiesCARESActPolicyPolicyTextBlock
CoronavirusAidReliefAndEconomicSecurityActPolicyPolicyTextBlock
CoronavirusAidReliefAndEconomicSecurityActPolicyPolicyTextBlock
CovidNineteenPandemicTextBlock
CovidNineteenPolicyTextBlock
CovidNineteenRelatedRisksAndUncertaintiesPolicyTextBlock
CovidNineteenUncertaintiesPolicyTextBlock
EffectOfCovid19PandemicPolicyTextBlock
EffectOfCOVID19DisclosureTextBlock
EffectOfCOVID19DisclosureTextBlock
ImpactOfCoronavirusDiseasePolicyTextBlock
ImpactOfCOVID19PandemicPolicyTextBlock
ImpactOfCOVID19PandemicPolicyTextBlock
ImpactOfCOVID19PolicyPolicyTextBlock
ImpactOfCOVID19PolicyPolicyTextBlock
ImpactOfCOVID19PolicyPolicyTextBlock
ImpactOfCOVID19PolicyPolicyTextBlock
LiquidityAndImpactOfCOVID19PolicyTextBlock
LiquidityAndImpactOfCovid19PandemicTextBlock
PandemicImpactOnOurBusinessPolicyTextBlock
PandemicImpactPolicyTextBlock
UnusualOrInfrequentItemsCovid19PandemicPolicyTextBlock
COVIDTextBlock
Find Custom Textblock Tags For COVID-19 using Python

Import Python Libraries

```python
import pandas as pd
import csv
```

Read Tags Data Set for 2020 Q1 and 2020 Q2 into Pandas DataFrame

```python
tags2020Q1 = pd.read_csv('data/2020q1_notes/tag.tsv', sep='\t', encoding='cp1252', quoting=csv.QUOTE_NONE)
tags2020Q2 = pd.read_csv('data/2020q2_notes/tag.tsv', sep='\t', encoding='cp1252', quoting=csv.QUOTE_NONE)
tags = tags2020Q1.append(tags2020Q2, ignore_index=True)
tags.head(3)
```

Filter for text block tags

```python
textBlockTags = tags[tags['tags'].str.contains('textBlock')]  
textBlockTags.head(2)
```

Find COVID-19 related tags by searching for coronavirus, covid or pandemic

```python
covidRelatedTagsFilter = (textBlockTags['tag'].str.contains('coronavirus', case=False, regex=False) |  
textBlockTags['tag'].str.contains('covid', case=False, regex=False) |  
textBlockTags['tag'].str.contains('pandemic', case=False, regex=False))
covidRelatedTags = textBlockTags[covidRelatedTagsFilter]  
covidRelatedTags = covidRelatedTags[['tag', 'tlabel', 'doc', 'version']].sort_values('tag')
covidRelatedTags
```

Generate a unique list of Tags

```python
print(covidRelatedTags['tag'].unique())
```

Save COVID Related Tags to Excel

```python
covidRelatedTags.to_excel('covid19CustomTags.xlsx', index=False)
```
Potential Research Considerations
Potential Research Considerations

- Data Quality (extensions, negative values, inappropriate element selection, etc.) v earnings quality
- Data Quality vs CAMS
- Data Quality vs Reporting Internal Controls
- COVID-19 tagging vs Guidance
- FSANDS Github analytical collaboration
- Open Source Inline Viewer filters, references, others?
- Assurance on structured disclosures
- Extension ‘Appropriateness’
- Disclosure modeling variances across ‘comparable’ companies
- Others?
Appendix
Resources

- Information on Structured Data: https://www.sec.gov/StructuredData
- U.S. GAAP Taxonomy: https://www.fasb.org/jsp/FASB/Page/LandingPage?cid=1176164131053
- IFRS Taxonomy: http://www.ifrs.org/issued-standards/ifrs-taxonomy/
- Staff Observations, Guidance, and Trends on Interactive Data Quality: https://www.sec.gov/structureddata/staffobsandguide
- XBRL US Data Quality: https://xbrl.us/data-quality/
- Technical Questions on Structured Data: StructuredData@sec.gov
- Sign-up to Receive Emails from the Office of Structured Disclosure: https://www.sec.gov/structureddata/news
Division of Corporation Finance COVID-19

- Commission extends effective period for Regulation Crowdfunding relief to facilitate capital formation for small businesses impacted by coronavirus disease 2019 (COVID-19) (8/28/2020)
- Division of Corporation Finance Statement Regarding Submission of Supplemental Materials and Information Subject to Rule 83 Confidential Treatment Requests in Light of COVID-19 Concerns (8/4/2020)
- Staff Statement Regarding Rule 302(b) of Regulation S-T, Relating to Signature Authentication, in light of COVID-19 Concerns (6/25/2020)
- Division of Corporation Finance Statement Regarding Requirements for Form 144 Paper Filings in Light of COVID-19 Concerns (6/25/2020)
- Division of Corporation Finance Statement Regarding Requirements for Certain Paper Documents (other than Forms 144) in Light of COVID-19 Concerns (6/25/2020)
Division of Corporation Finance COVID-19

- Staff Guidance for Conducting Shareholder Meetings in Light of COVID-19 Concerns (4/7/2020)
- Staff Interpretations Regarding Certain Exchange Act Forms (Form 10-K, Part III; Form 40-F) (4/6/2020)
- Staff Interpretations Regarding Rule 12b-25 (3/31/2020)
- Relief for Form ID Filers and Regulation Crowdfunding and Regulation A Issuers Related to COVID-19 (3/26/2020)
- Extension of Conditional Regulatory Relief from Reporting and Proxy Delivery Requirements for Public Companies (3/25/2020)
- Conditional Regulatory Relief and Assistance for Companies Affected by COVID-19 (3/4/2020)
- Statement on Continued Dialogue with Audit Firm Representatives on Audit Quality in China and Other Emerging Markets; Coronavirus — Reporting Considerations and Potential Relief (2/19/2020)
Academic Research Paper

The Impact of Information Processing Costs on Firm Disclosure Choice: Evidence from the XBRL Mandate

Abstract: “This paper examines the effect of market participants’ information processing costs on firms’ disclosure choice. Using the recent eXtensible Business Reporting Language (XBRL) regulation, I find that firms increase their quantitative footnote disclosures upon implementation of XBRL detailed tagging requirements designed to reduce information users’ processing costs. These results hold in a difference-in-difference design using matched non-adopting firms as controls, as well as two additional identification strategies. Examination of the disclosure increase by footnote type suggests that both regulatory and non-regulatory market participants play a role in monitoring firm disclosures. Overall, these findings suggest that the processing costs of market participants can be significant enough to impact firms’ disclosure decisions.”

Academic Research Paper

Effects of Information Processing Costs on Price Informativeness: Evidence from XBRL Mandate

Abstract: “Using the Securities and Exchange Commission’s eXtensible Business Reporting Language (XBRL) mandate as a pseudo-natural experiment, we identify a causal link between information processing costs and stock price informativeness. We find prices have become more informative after the XBRL mandate, and such effect is upward-trending over the first three years post adoption, which indicates a learning curve for firms and investors. Examining the tagging process reveals that detailed tagging contributes to improved price informativeness, whereas block tagging has no impact. Further, firms with relatively shorter trading age have more benefit from XBRL adoption than older firms, supporting the conjecture that XBRL accelerates the information incorporation process and facilitates the market to learn about younger firms faster.”

Digital corporate reporting and value relevance: evidence from the US and Japan

Abstract:
“The study improves current understanding concerning the implications of digital corporate reporting technology on the informativeness of accounting information. It looks at how XBRL, an exemplar digital corporate financial reporting technology, affects value relevance of accounting information in the US and Japan, two key jurisdictions where XBRL has been mandated. We operationalise stock price and return value relevance models to assess and compare predicted associations between selected accounting measures and market value of equity in these countries. We predict that the selected accounting measures are more value relevant after XBRL was mandated than before. We find evidence to support our prediction for the US sample. We also predict and find that the contribution of XBRL to the value relevance of the selected accounting measures is greater in the US than in Japan. Overall, our evidence provides support that digital corporate reporting technology enhances relevance and reliability of accounting measures.”