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REVENUE RECOGNITION: TOP 10 QUESTIONS INVESTORS SHOULD ASK ABOUT THE ADOPTION OF THE NEW STANDARD

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Effective 1 January 2018, revenue for all companies following US generally accepted accounting principles and International Financial Reporting Standards will be recognized under a new accounting standard. Much of what has been written on the standard has focused on how it should be applied by accountants, not on how it should be analyzed by analysts and investors. In this paper, we examine the top 10 questions investors should consider as they review year-end 2017 results and consider first quarter 2018 reporting as it relates to the adoption of the new standard.

EXECUTIVE SUMMARY

Effective 1 January 2018, revenue for all companies following US Generally Accepted Accounting Principles (US GAAP) and International Financial Reporting Standards (IFRS) will be recognized under a new accounting standard. The degree of change resulting from this standard will vary by company and industry. The new standard replaces substantial prescriptive US GAAP guidance with principles that are highly, but not completely, converged with IFRS, which offered minimal guidance on revenue recognition prior to this standard. In 2018, all investors should be aware and consider the impact of the standard. To that end, this paper includes a series of analytical considerations for investors. Much of what has been written on the standard has focused on how it should be applied by accountants, and not on how it should be analyzed by analysts and investors. In this paper, we examine the top 10 questions investors should consider as they review year-end 2017 results and consider first quarter 2018 reporting as it relates to the adoption of the new standard.

Although companies should already be disclosing the impact and method of adoption, research shows that these impacts have not been well disclosed as of the third quarter 2017. Most companies will follow a modified retrospective method of adoption, which will leave investors with little trend information upon

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which to consider the impact of the transition on their analysis. While a handful of companies have early adopted—and have been fairly effective at their communications—we think investors should develop their own expectations related to the companies they follow or invest in as well as the nature of the changes in their respective industries.

Furthermore, investors should be aware that more than simply revenue may change as a result of the new revenue recognition standard. Costs associated with obtaining contracts with customers and taxes also may change. To that end, investors need to be mindful of all the financial statement effects and their related impact on ratios. Investors also should recognize that cash should not be affected by the adoption of the new standard, unless a company's current taxes in future periods are computed based on book revenues or unless companies alter their contracts with customers in advance of transitioning to the new standard. Accordingly, valuations should not change significantly despite a change in EBITDA, net income, or earnings per share (EPS) resulting from the transition to the new revenue standard.

Even if companies are minimally impacted, the change presents an opportunity to better understand and ask questions about a company's contracts with customers and how the company allocates revenue to performance obligations and actually earns revenue. The transition provides an opportunity to assess earnings quality and a company's future prospects. Whether or not the standard has any impact on revenue, new incremental disclosures regarding the disaggregation of revenue will be useful to investors. The change also may give rise to new or different non-GAAP measures that investors should evaluate—not only the nature of the new metric or adjustment but also all of the reasons why it is deemed necessary.

As investors welcome the new year, they should consider the adoption of and transition to this new standard by companies. They also should be mindful that the most interesting elements of the new standard may emerge as it evolves in the next several years because of the significant judgment and estimates the new standard allows companies to make and their potential effect on future earnings quality.

INTRODUCTION

In May 2014, the Financial Accounting Standards Board (FASB) and the International Accounting Standards Board (IASB) issued a new standard on how companies should recognize revenue. Referred to as Accounting Standards Update (ASU) 606 under US GAAP and IFRS 15, *Revenue from Contracts with Customers*, it is a highly, but not completely, converged standard. The standard adds much-needed guidance to IFRS, which previously was limited. The standard also replaces the extensive but fragmentary and industry-specific guidance for US GAAP. In 2015, the FASB and IASB delayed the required adoption of the standard from 2017 to 2018. For most public companies with a calendar-year reporting period, the standard needed to be adopted effective 1 January 2018.

CFA Institute has followed the project closely on behalf of its members specifically and investors generally. We issued comment letters in 2009, 2010, and 2012 (Part I and Part II) on the various discussion papers and exposure drafts as well as on the proposal to delay implementation and some of the proposed amendments in 2015. CFA Institute also sponsored several webcasts on the topic, most recently in 2014.

The preparer and accounting community has paid close attention to this standard for nearly a decade as it has developed. Investors will get their first look at the actual effects of the standard beginning in the first quarter 2018. Although several companies adopted early, the vast majority of public companies will adopt beginning in 2018. Investors need to consider that the disclosure of the effects of issued but not yet implemented standards should improve beginning with the third-quarter and year-end 2017 financial statements.

During 2016 and 2017, CFA Institute issued several publications addressing issues related to the revenue recognition standard:

- *Watching the "Top-Line": Areas for Investors Scrutiny on Revenue Recognition Changes* (20 April 2016 Market Integrity Insights)
- *Top-Line Watch: Investors Considerations in Run-up to 2018: Long-Term Contract Revenue Recognition Changes* (1 August 2016 Market Integrity Insights)
- *Revenue Recognition Changes: Key Judgments and Implementation Progress* (23 August 2017 and 25 October 2017 Market Integrity Insights)

As much of what is written is from the perspective of accountants preparing the results, this publication is meant to provide a road map for analysts and investors when considering the analytical effects and consequences of the adoption of the new standard on companies they follow or invest in.

As we are on the precipice of the adoption of this new standard, we wanted to provide our members with the top 10 questions they should consider as they watch companies they invest in adopt the new standard.

1. SHOULD INVESTORS EXPECT A CHANGE IN REVENUE RECOGNITION FOR ALL INVESTEE COMPANIES?

No, investors should not expect that all companies will change how they recognize revenue. Companies with simple business models in which cash is collected at the point of delivery of the good or service are unlikely to see a change. Other companies with more complex arrangements with customers could experience a significant change in the pattern of revenue recognition. Investors should consider the following questions when evaluating whether there will be a significant change in how revenue is recognized for any particular company.

1. ***Multiple Deliverables:*** Do the entity's arrangements with customers include multiple deliverables?
2. ***Long-Term Contracts:*** Are there long-term contracts in which revenue is recognized based on progress on the project?

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3. ***Costs:*** Are significant costs associated with obtaining or fulfilling a contract with a customer, or a contract that may extend beyond one year?

4. ***Financing:*** Is financing an element of the arrangement with the customer?

5. ***Performance versus Cash Collection:*** Is there a significant difference in the timing of the completion of obligations under the contract and the collection of cash?

6. ***Variable or Uncertain Consideration:*** Are variable or uncertain considerations associated with contracts with customers?

7. ***Collectability:*** Has collectability been a significant consideration in the past? Is the basis of determining bad debt expense changing based on contract price?

8. ***Principal versus Agent and Gross versus Net:*** Does the company sell goods or services on behalf of others? Are they the principal or agent and is gross versus net presentation something that has been a consideration in the past?

9. ***Point in Time versus Over Time:*** Does the company have contracts where there might need to be consideration as to whether revenue should be recognized at a point in time or over time?

10. ***Degree of Estimation:*** Has there been a significant degree of estimation in the recognition of revenue in the past?

11. ***Evidence of Objective Selling Price:*** Has the company used vendor-specific objective evidence (VSOE) to determine selling price and revenue in the past?

12. ***Recent Change in Business Practices:*** Has there been an alteration in business practices or contracts in recent years in the lead-up to this change in revenue recognition?

13. ***Sale of Software:*** Does the company's business involve the sale of software as a product or as a service?

14. ***Licensing:*** Does the company's business involve intellectual property and licensing arrangements?

In the aforementioned publications, CFA Institute considered the issues related to these questions in detail. The list above highlights questions investors should ask to develop an expectation of change or identify areas requiring further evaluation.

A recent analysis of the second- and third-quarter disclosures done by the *Analyst's Accounting Observer*[1] found that the most significant issues driving change included contract costs, principal versus agent considerations, point-in-time issues, customer loyalty programs, licensing arrangements, deferred revenue, customer incentives, software-related matters, and utility tariffs.

[1]J. Ciesielski et al., RG Associates, "S&P Update: Expected Effects of the New Revenue Recognition Standard," *Analyst's Accounting Observer*, vol. 26, no. 10 (26 September 2017); and J. Ciesielski et al., RG Associates, "Last Quarterly Update: S&P 500's 2018, Revenue Recognition Standard Fallout," *Analyst's Accounting Observer*, vol. 26, no. 12 (29 November 2017).

The first question investors should ask themselves is whether investors should expect a change. This question establishes an expectation based on an understanding of the underlying business being analyzed and the relationship the company has with its customers. Furthermore, if a company says there has been no material change, then an investor can be better prepared to agree or disagree with that response as they have formulated their own expectation.

The adoption of a new standard provides an opportunity for investors to ask questions about the nature of the contract with customers and to assess the earnings quality of the companies in which they invest. Even if the transition may not be significant, it may be difficult to discern the impact based on the transition method selected.

Investors should take this transition as an opportunity to learn more about the contracts with customers and the revenue recognition processes the company utilizes. This new standard provides significant latitude in the use of judgments and estimates in the determination of performance obligations, the allocation of transaction price, and the timing of the recognition of revenue. Investors should confirm their assessments of earnings growth and risk as a part of the transition to the new standard.

The effects of the new standard are not simply felt in the transition. The effect on the quality of earnings and the ability to manage earnings going forward are essential to understand and are an equally if not more important outcome when analyzing this transition.

2. HOW IS THE INVESTEE COMPANY'S INDUSTRY BEING AFFECTED?

This question must be considered by industry.

One of the pluses and minuses of the new standard under US GAAP is that it eliminates industry-specific revenue recognition standards and replaces such guidance with overarching principles. That said, various organizations are issuing industry-specific analyses of the new standard—along with consideration of implementation issues or examples that may emerge in a particular industry. The American Institute of Certified Public Accountants (AICPA) is working to issue a new accounting guide for revenue recognition and has developed industry task forces to consider the new standard in the context of specific industries. A summary of the Revenue Recognition Task Force's Status of Implementation Issues is available on the AICPA website. Accounting firms are also producing accounting guides by industry, such as those published by PwC (PwC Revenue Guides).

Most analysts and many investors are industry focused. Therefore, we think they should consider the issues relevant to their industry in such publications and develop an overall expectation by industry, as some industries will be more affected by the standard than others.

Investors should understand the impact on various players within the industry. This understanding may provide insight into how revenue is being recognized across the industries in which they invest. Investors also should consider whether their contracts with customers have changed in the lead-up to the revenue

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recognition standard. Both pieces of information should be used to develop an industry, as well as a company specific, interpretation.

Comparability is an essential element of financial analysis and investment decision making. The ability to adopt the standard at different dates and with different transition methods, as will be discussed, is another issue investors should be cognizant of because it has the potential to affect comparability within and between companies until such time as all contracts existing at the date of adoption have been completed.

The *Analyst's Accounting Observer*[2] notes the following as the most significantly disclosed effects by industry:

- Information technology is most affected by contract costs, licensing, and software-related issues.
- Consumer discretionary goods are most affected by principal versus agent issues, loyalty programs, and customer incentives.
- Industrials are most affected by point-in-time issues.
- Financials are most affected by contract costs and principal versus agent issues.

3. WHAT DISCLOSURE IS THE INVESTEE COMPANY MAKING ABOUT THE IMPACT OF ADOPTION?

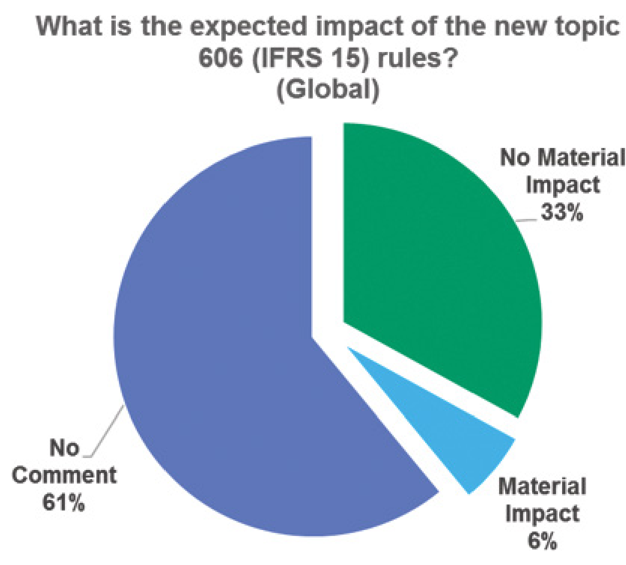
As 2017 financial statements are filed, companies should be disclosing more precisely the impact of adoption. Under US SEC Staff Accounting Bulletin (SAB) 74, US publicly traded companies are required to disclose the impact of issued but not yet implemented standards. Similarly, the European Securities Markets Authority issued guidance setting out expectations for company guidance to promote a consistent and transparent transition in Europe.

UBS released a study[3] in May 2017 that looked at the adoption and transition disclosures of 300 companies—equally distributed among the United States, Europe, and Asia Pacific. Acknowledging that it was early, UBS observes, "We are not really in a position, with this level of disclosure to adjust forecasts." This observation provides an overarching sentiment with regard to the quality and information content of the disclosures. As will be described, the informativeness of disclosures did not improve substantially as 2017 progressed.

The UBS study found that very few (1.3%) of the companies provided detailed narratives and numbers describing the possible impact of the change. Rolls-Royce Holdings plc was considered to have some of the best disclosures. We found the presentation Rolls-Royce provided on its investor website to be among

[2] Ibid.
[3] G. Robinson and G. Weyns, *Fundamental Analytics: Topic 606 (IFRS 15) Rev Rec: Guidance Starts to Trickle Down the Pipe*, UBS Global Research, 19 May 2017.

FIGURE 1. EXPECTED IMPACT



the best illustrations of effective communication with investors. Overall, UBS found (**Figure 1**) that 6% of companies expected a material impact, 33% indicated that they expected no material impact, and 61% made no comment on the potential impact (many were still assessing the impact).

European company disclosures were relatively consistent with these global averages. US company disclosures had a similar expectation regarding materiality of impact (5%), but a greater percentage (52%) indicated no material impact, which reduced the percentage of companies providing no comment on potential impact to 43%. In Asia Pacific, the opposite was true: 86% of companies provided no comment on the impact, 10% indicated that the standard was not expected to have a material impact, and a similar percentage to other regions (4%) indicated a possible impact.

Another analysis of disclosures of US companies in the S&P 500 conducted by the *Analyst's Accounting Observer*[4] found similar results. The analysis was based on 391 and 369 companies, respectively, in the second and third quarter 2017 (**Figures 2** and **3**). Only 1.4% disclosed a material impact, but the number disclosing no material impact rose from 38.1% in the second quarter to 41.5% in the third quarter. ***The majority of companies in both quarters made no disclosure of the impact.***

For investors, the substantive question is whether the majority of companies that provide no comment are behind in their analysis or whether ultimately they do not expect an impact from the new standard. On the basis of investors' understanding of the industry, the company, and its current revenue practices (considering the previous questions), investors should evaluate what is a reasonable expectation and query management in the upcoming months, as year-end results are reported, on potential impact.

[4]J. Ciesielski et al. (26 September 2017); J. Ciesielski et al. (29 November 2017).

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FIGURE 2. IMPACT OF ADOPTION (SECOND QUARTER)

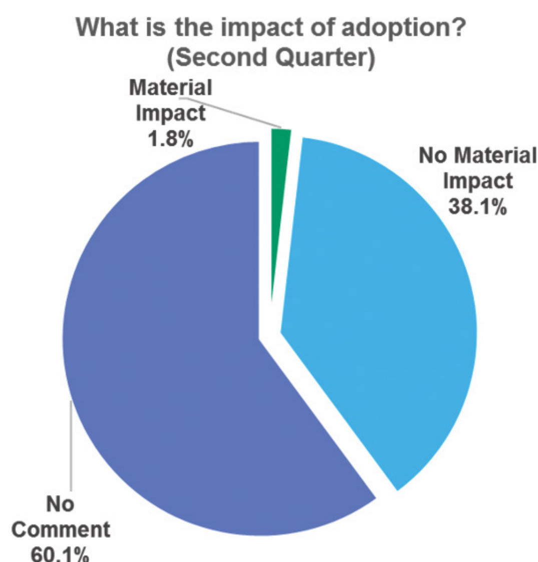
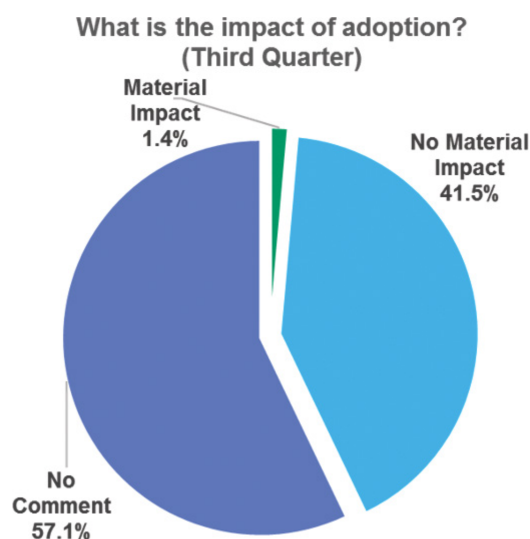


FIGURE 3. IMPACT OF ADOPTION (THIRD QUARTER)



4. HOW ARE COMPANIES TRANSITIONING TO THE NEW GUIDANCE?

The IASB and FASB have allowed for early adoption and multiple transition methods. As such, investors need to understand when and how a company they follow plans to transition to the new revenue recognition standard.

Early Adoption

Few companies have adopted early. Microsoft Corporation, the Raytheon Company, and General Dynamics Corporation are three of the handful of companies who transitioned early. Several of the early adopters have provided excellent transition information, likely because of their relative sophistication and significant impact.

Transition Method

Retrospective Application—On the basis of our investor outreach, and the position we advocated, the preferred method of transition was achieved through a retrospective application for all companies. We advocated against the option to use a different method of transition because of the implications on comparability between periods and companies. Additionally, the retrospective method enables investors to better understand the implications of the transition.

Under the retrospective methods, all prior periods are recast so that investors can see the implementation of the new standard from the earliest period presented (i.e., the current year with two prior periods). The IASB and FASB have allowed, but not required, this method. The SEC is not requiring the five-year table outside of the financials to be restated, so there will not be a five-year trend unless management chooses such an option. Several early adopters, including Raytheon and General Dynamics, have utilized the retrospective method.

Modified Retrospective Application—Companies also are allowed to adopt the standard using a modified retrospective method, which results in a catch-up adjustment in equity for the prior periods. The modified retrospective method will result in an adjustment to opening retained earnings (increase or decrease) in stockholders' equity at 1 January 2018 (or earlier if early adoption is selected) and a corresponding entry to the revenue-related balance sheet account (e.g., contract asset or liability; decrease or increase). The change in the trend of revenue over time would not be disclosed, although it would be provided by the retrospective method. The current period will be provided under the previous revenue recognition standard. Said differently, investors will see an additional year of the previous revenue trend, but they will not see disclosure that illustrates the new trend in revenue.

From the modified retrospective adjustment, investors can glean that any debit to retained earnings is a reduction to previously stated revenue, which will appear in revenue again in future periods. Substantively, this equates to a recycling of previously recognized revenue. Correspondingly, a credit to retained earnings is revenue that did not appear in the prior period income statement and that likely will not appear in the future income statement. Substantively, this is revenue that was and will never be recognized in the income statement.

Analysis of Current Disclosures

The aforementioned UBS study[5] found that only 9% of companies planned to utilize the full retrospective method (**Figure 4**). The vast majority of companies (70%) did not disclose their transition method, and 21% planned to utilize the modified retrospective method. In Europe, the results were similar to the global results, whereas in the United States, 47% versus 21% of companies disclosed they would be using the modified retrospective method. Approximately 10% in each region planned to use the full retrospective method. In Asia Pacific, 93% of companies had not disclosed their transition method and only 1% planned to use the full retrospective method. As with the disclosure of impact, disclosure regarding transition methods by companies in Asia Pacific was substantially less informative.

The aforementioned *Analyst's Accounting Observer* disclosure analysis[6] of S&P 500 companies found that most companies plan to follow the modified retrospective method (see **Figures 5** and **6**). Compared with Figure 4, more companies know which method of transition they will follow than know whether the impact will be material or immaterial. What is unusual about this finding is that the significance of the impact should drive the method of transition, with a more significant impact necessitating the retrospective transition method.

[5]G. Robinson and G. Weyns (2017).

[6]J. Ciesielski et al. (26 September 2017); J. Ciesielski et al. (29 November 2017).

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FIGURE 4. COMPANY TRANSITIONS

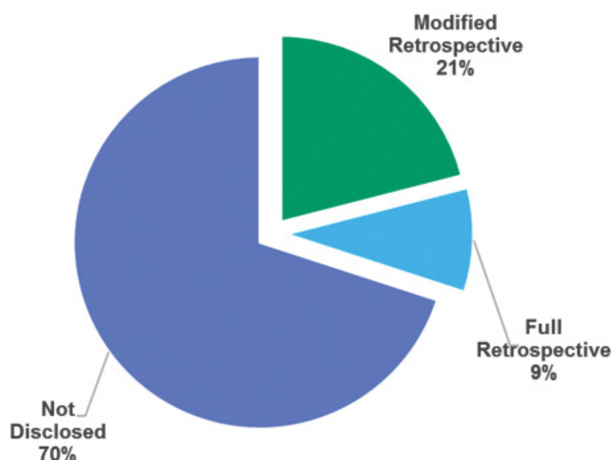


FIGURE 5. METHOD OF TRANSITION (SECOND QUARTER)

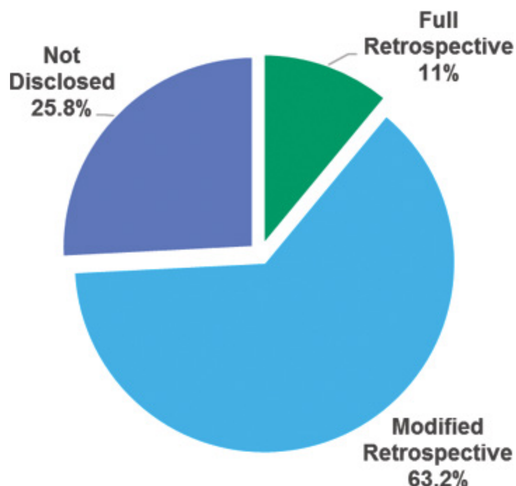
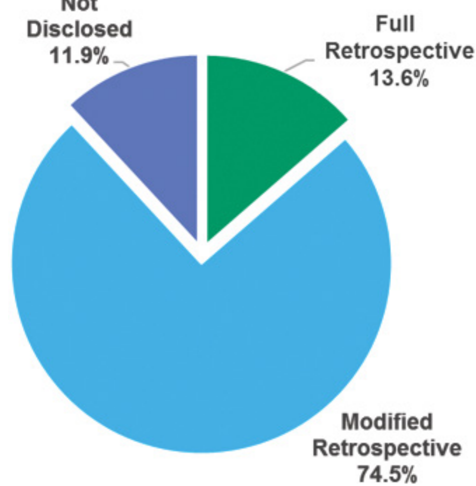


FIGURE 6. METHOD OF TRANSITION (THIRD QUARTER)



Investors should consider whether the materiality of the change is being judged relative to the adjustment to equity, to the trend in earnings, or to other financial statement captions. When companies conclude that a change is not material, investors should ensure that the impact is not material to any trends they perceive to be important.

Practical Expedients

Boards have allowed the use of various practical expedients associated with this transition, including the following: (a) no retrospective restatement is necessary for contracts that begin and end in the same annual reporting period; (b) for completed contracts with variable consideration, an entity may use the final transaction price when the contract was completed rather than an estimate of the variable consideration at each reporting period; and (c) for all reporting periods before the date of initial application, the entity need not disclose the amount of the transaction price.

Transition Impacts: Comparability

With early adoption permissible and two different transition methods allowed, comparability between periods and between companies may be challenging for investors. Some companies will restate prior periods, and others will use the modified retrospective method with no comparative periods presented. Comparability issues will not persist simply at adoption. Comparability differences will exist until such time as all contracts in place at adoption have been fully completed and all revenue associated with these contracts has been recognized because of the difference in assumptions underlying the revenue estimation techniques that may exist at the date of transition, which may be different from one period to the next.

5. IS THE REVENUE CAPTION THE ONLY INCOME STATEMENT LINE ITEM CHANGE?

No, the revenue caption is not the only income statement line item change.

Revenues and Expenses—Entitled *Revenue from Contracts with Customers*, and colloquially referred to as the "revenue recognition standard," the standard obviously will affect the pattern of revenue recognition, but investors must look beyond the "headline news" that might lead them to believe that revenue is the only financial statement caption that will change. As CFA Institute highlighted during the drafting and exposure process, one unknown issue for investors is that certain costs associated with acquiring and fulfilling long-term contracts with customers will be subject to deferral. CFA Institute also highlighted the lack of disclosures associated with such deferral, which is discussed more fully in question 10 on disclosures.

Furthermore, one of the key changes resulting from the new standard may be evident in how companies reflect certain sales—gross or net—in their financial statements. This change will have an impact on the volume and rate in growth of revenue.

Income Taxes—Because of the change in revenue and the possible expense changes, investors need to consider all of the income statement captions. Moreover, investors need to consider the tax implications of the new standard. If income before tax changes, deferred tax likely will change. Depending on the extent to which the taxing jurisdiction follows the book accounting for recognition of revenue, current tax—and ultimately the cash flow pattern—also may change going forward.

Income Statement Subtotals—If revenue, expenses, and taxes change, income statement subtotals such as gross margin, operating earnings, net income, and EPS also will change.

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Balance Sheet Accounts—Investors should be cognizant of the resulting changes to equity (as noted previously in relation to the transition method) and to other balance sheet accounts, including contract assets, contract liabilities, and deferred revenue. As an early adopter, Microsoft illustrates the changes to its balance sheet accounts as a result of its adoption, which is helpful to investors in understanding the overall effects of the change. Not all companies will provide this disclosure, as it is not required, but this is something investors should ask for.

Analytical Considerations—Although it may seem simplistic to say it is important to consider all the income statement and balance sheet accounts that will be affected by this standard, such changes have important analytical considerations (as discussed in the next section), and they may communicate changes in the quality of earnings or growth rate as investors consider the future prospects of the investee.

Remember that the effects on financial statement captions and ratios are not just important as a result of adoption. The adoption and transition should be seen as an opportunity to evaluate a company's contracts with its customers and its revenue recognition practices on a going forward basis.

6. WILL RATIOS BE AFFECTED?

Yes, ratios will be affected to the extent that revenue and other financial statement captions change (e.g., expenses, gross profit, operating income, net income). As described previously, a variety of ratios likely will change.

Earnings Per Share—To the extent that net income changes, EPS will be the most obvious ratio in the financial statements to change as a result of a change in the numerator.

Profitability Ratios—Indicators of profitability, such those listed in **Figure 7**, also may change, as their denominators are composed of revenue.

FIGURE 7. INDICATORS OF PROFITABILITY

Profitability		
Net Profit Margin (Profit Margin or Return on Sales)	Net Income / Revenue or Sales	✓
Gross Profit Margin	Gross Profit / Revenue	✓
Operating Profit Margin	Operating Income / Revenue	✓
Pretax Margin	Earning Before Taxes / Revenue	✓

Balance Sheet, Solvency, and Liquidity Ratios—To the extent that any balance sheet accounts change (e.g., contract assets, contract liabilities, deferred revenue), balance sheet ratios also could change. Similarly, to the extent that total equity and total assets change, solvency ratios also will be affected. Although less likely, changes in current assets and current liabilities could change and affect liquidity ratios.

Return on Equity—One of the most important ratios to investors is ROE. The DuPont formula is decomposed in **Figure 8**. It is evident that if revenue changes, each of the elements of the ROE formula will change.

Cash Flow Ratios—Performance ratios that have as their numerator cash flow from operations (CFO) will change because their denominator will change (see **Figure 9**). CFO is defined as cash flow from operating activities under US GAAP or IFRS (in which case the company has included interest in operating activities). Coverage ratios are less likely to change given that financial statement captions included in their denominator are not likely to change as a result of the adoption of the new standard (see **Figure 10**).

Trend Analysis and Comparability—Because companies will be utilizing different transition methods, comparability in financial ratios likely will be affected. If companies do not adopt the standard using the full retrospective method, then the ability to perform meaningful trend analysis will be compromised because comparative period information within and between companies will be lacking.

FIGURE 8. DUPONT ROE FORMULA

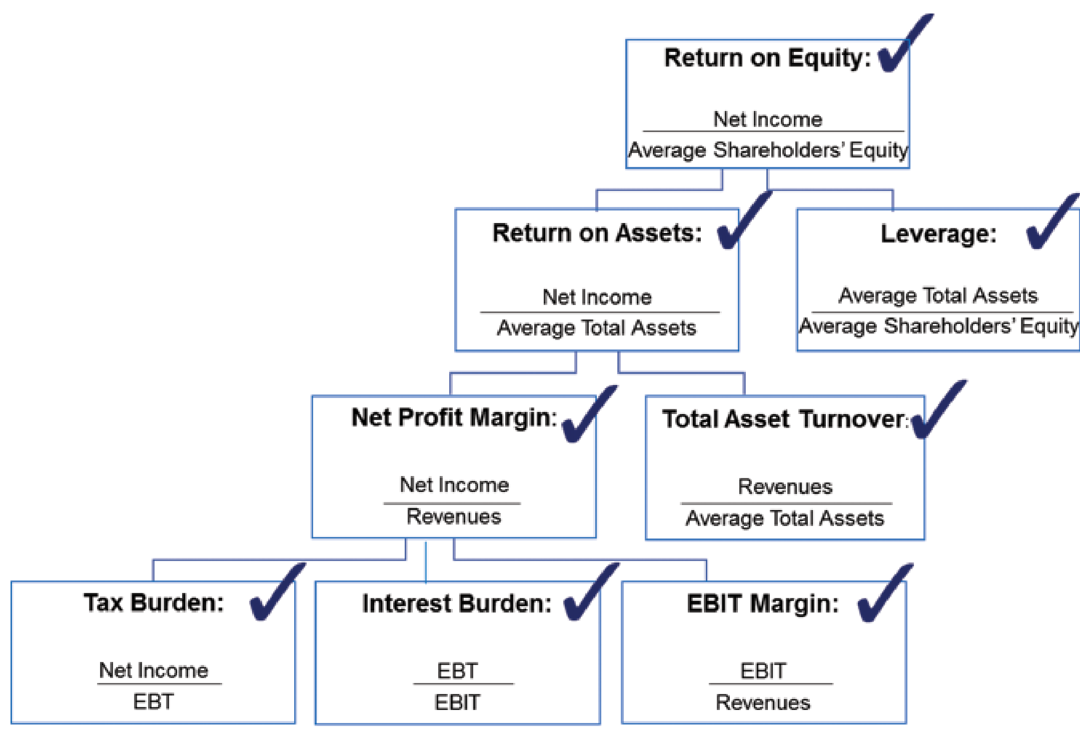

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FIGURE 9. PERFORMANCE RATIOS

Performance Ratios		
Cash Flow to Revenue	CFO / Revenue	✓
Cash Return on Assets	CFO / Average Total Assets	✓
Cash Return on Equity	CFO / Average Shareholders' Equity	✓
Cash to Income	CFO / Income Operating	✓
Cash Flow Per Share	CFO-Preferred Dividends / Number of Shares Outstanding	

FIGURE 10. COVERAGE RATIOS

Coverage Ratios	
Debt Coverage	CFO / Total Debt
Interest Coverage	CFO + Interest Paid + Taxes Paid / Interest Paid
Reinvestment	CFO / Cash Paid for Long-Term Assets
Debt Payment	CFO / Dividends Paid
Interest and Financing	CFO / Cash Flows for Investing and Financing Activities

Overall—Effective analysis encompasses both computation and interpretations. These ratios highlight the computations that may change, but analysts and investors should gain an understanding of which ratios they expect to change, and why some do or do not change, based on the change in the revenue recognition standard.

The change in the revenue recognition brought about by the change in the accounting standard will alter the top-line of a company's performance statement. Analysts and investors need to consider carefully the extent to which such changes alter other financial statement elements and corresponding ratios not only at the time of transition but on a continuing basis.

7. WILL CASH FLOW CHANGE?

Generally, no, cash flow will not change. The change in the revenue recognition standard, generally, should not change the cash collected from customers or the cash expended to acquire or fulfill the contract. Although the financial statement captions may change, the cash associated with such customer contracts will not change as a result of adoption of and transition to the standard.

Investors should review the statement of cash flows and understand whether the operating cash flows in the statement of cash flows have any changes. Net income may change, but these changes generally should be offset by changes in balance sheet accounts in the reconciliation of net income to operating cash flows on the statement of cash flows. For example, a review of General Dynamics' statement of cash flows finds that the total change in cash on the statement of cash flows did not change. Financing cash flows and operating cash flows changed by the same amount because of a reclassification related to another accounting change. Operating cash flows did not change because of the adoption of the new revenue standard.

That said, as it relates to income taxes, changes in the deferred income tax caption also fluctuate with changes in income before tax at the date of transition. To the extent that a company computes its current tax obligation based on US GAAP or IFRS earnings, future cash flows for current taxes, payable or recoverable, could change as a result of adopting the standard.

Accordingly, unless a company's current tax is affected as a result of the new revenue standard, a valuation based on discounted cash flows (DCFs) should not be affected by the accounting standard. Unless the rate used to discount the cash flows changes because of an increased perception of risk, a decrease in the quality of earnings, or a change in growth prospects, the valuation at the date of adoption is not likely to change.

Investors should be aware, however, that companies may have altered customer contracts in advance of adopting the new standard. To the extent that some of these contractual changes alter the amount or timing of cash flows, investors should understand the nature of such changes and their impact on the company's cash flows.

8. WILL VALUATION MULTIPLES CHANGE?

Whether valuation multiples will change depends on several factors. Obviously, if there is no financial statement effect as a result of adopting the new revenue standard, then EPS and book value will not change, and price-to-earnings (P/E) or price-to-book (P/B) ratios are unlikely to change as well. Furthermore, on a theoretical basis, if cash flows do not change, then valuation should not change when using a DCF model. As noted earlier, unless a change in the perception of risk alters the discount rate, there should not be a change in valuation.

If a DCF-model analysis would suggest no change, but EPS changes, then theoretically P/E multiples should change to offset the EPS changes, but such multiples can lack precision. Furthermore, if book value changes as a result of the change in the new revenue standard, one could argue that there should be a corresponding offset in the P/B ratio. Price-to-sales ratios would be similarly affected.

The real question to consider, however, may be whether the justified P/E or P/B ratios will change as a result of adopting the new standard (see formulas in **Figure 11**).

When considering the justified leading P/E ratio, the only input that changes directly as a result of the change in earnings is the dividend payout ratio, given that it is the numerator of the payout ratio. The required rate of return, another input, does not change because the risk-free rate and the beta of the stock do not change. That said, one's perception of the equity risk premium might change, for example, because of a perceived difference in the volatility of earnings. If that perception is true, then the required rate of return also might change. The dividend growth rate does not directly change as a result of the standard. So, the question would be whether the payout ratio changes sufficiently to offset the change in EPS.

Similarly, in the justified P/B ratio, ROE will change, but the other inputs (e.g., required rate or return and growth rate) will be subject to the same qualitative or indirect change as described in the justified P/E ratio.

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FIGURE 11. JUSTIFIED P/E AND P/B RATIOS

Justified P/E	
Trailing	$\frac{P_0}{E_1} = \frac{1-b}{r-g}$
Leading	$\frac{P_0}{E_0} = \frac{(1-b)(1+g)}{r-g}$
Justified P/B	
	$\frac{P_0}{B_0} = \frac{ROE-g}{r-g}$
$1-b$ = *Dividend Payout Ratio* $= D_0/E_0$	
r = *Required Rate of Return*	
g = *Dividend Growth Rate*	

Whatever the case, the central question for analysts will be: Should valuations change? Unless cash changes substantially because of the change in the standard or a new understanding of the company's business arrangements or estimation techniques, valuations should not change significantly at the date of adoption.

Although valuations should not change as a result of adoption, the question will be whether valuations change because investors' perceptions of earnings quality and future prospects change as a result of what they learn during the transition about the nature of the company's performance obligations, the transaction price allocated to those obligations, and the expectation that the company can earn such revenue going forward.

9. WILL THE COMPANY'S NON-GAAP MEASURES CHANGE?

Whether or not a company's non-GAAP measures will change will differ by industry and company. Every analyst and investor should observe this change and carefully consider it at the time of the new revenue standard's adoption.

Earnings Before Interest, Taxes, Depreciation, and Amortization—The most common non-GAAP[7] measure is EBITDA. If revenue and earnings change, EBITDA is likely to change. For investors who use

[7]GAAP used in this context refers to generally accepted accounting principles in the United States or accounting principles established under IFRS.

EBITDA as a proxy for cash flow, EBITDA may change, but cash flows may not. As such, investors should be mindful of this difference as they observe changes in EBITDA.

Other Non-GAAP Measures and Key Performance Indicators—Innumerable non-GAAP measures make adjustments from GAAP for a variety of reasons. Various research has shown that most non-GAAP measures provide a more favorable reflection of earnings than do GAAP. The new revenue recognition standard may result in changes to non-GAAP measures with several overarching themes that investors should be cognizant of.

1. *New Non-GAAP Measures and Key Performance Indicators*—The new revenue standard may give rise to newly developed non-GAAP measures or key performance indicators that management believes better explain the new method of recognizing revenue. Investors should be mindful of such new measures and whether, if a retrospective adoption method is not used, comparable metrics for prior periods exist. Investors should be discerning in their evaluation of such measures or metrics.

   The development of new non-GAAP measures may be especially prevalent as it relates to changes resulting from the accounting for contract costs. Investors may want to ask why the current deferral of costs reflects a better measure of earnings given that identical costs may have been recognized immediately in the past. Investors may want to adjust for such costs given that the deferral may decrease the relevance of measures like EBITDA in measuring cash flow, if such contract costs begin to be deferred.

2. *Non-GAAP Measures That Retain Historical Accounting Practices*—With changes in the revenue recognition pattern, some companies may believe that historical revenue recognition patterns more properly reflect the economics of the company. For example, one company in a recent submission to the IFRS Interpretations Committee noted that its preferred method of recognizing revenue over time would no longer be allowed. The company indicated that adoption of the revenue standard might necessitate the production of a separate set of non-GAAP measures to reflect what they believed was the more accurate revenue recognition process.

3. *Elimination of Non-GAAP Measures*—Microsoft has noted that its current practice of adding back the deferred revenue on its Windows 10 products for purposes of its non-GAAP measures will end with this change in the revenue standard. The new standard will allow it to recognize revenue at the time of billing for Windows 10 rather than over the period of time during which Windows 10 customers will receive future versions or upgrades at no additional charge.

Adjustments to Non-GAAP Measures—Overall, investors should be cognizant of any changes made to add or remove adjustments to non-GAAP measures during this conversion period as they may highlight earnings quality issues. Such changes likely require further investigation and additional discussion regarding customer contracts or the company's revenue recognition practices.

Furthermore, investors should ensure that the removal or the addition of adjustments to non-GAAP measures is consistent from period to period, especially if the modified retrospective approach is used and no previous periods are presented on a comparable basis.

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10. WILL ANY DISCLOSURES DESCRIBE REVENUE AND THE CHANGE IN REVENUE?

There are really three disclosures to consider with the adoption of the standard:

Prior to Adoption—Revenue disclosures prior to adoption have been minimal. As the year-end 2017 financial statements are issued and filed with the SEC in early 2018, more extensive disclosures regarding the expected impact should begin. If not, investors should ask management about the impact.

Related to Adoption and Transition—These disclosures depend on the method of adoption and transition chosen by the company.

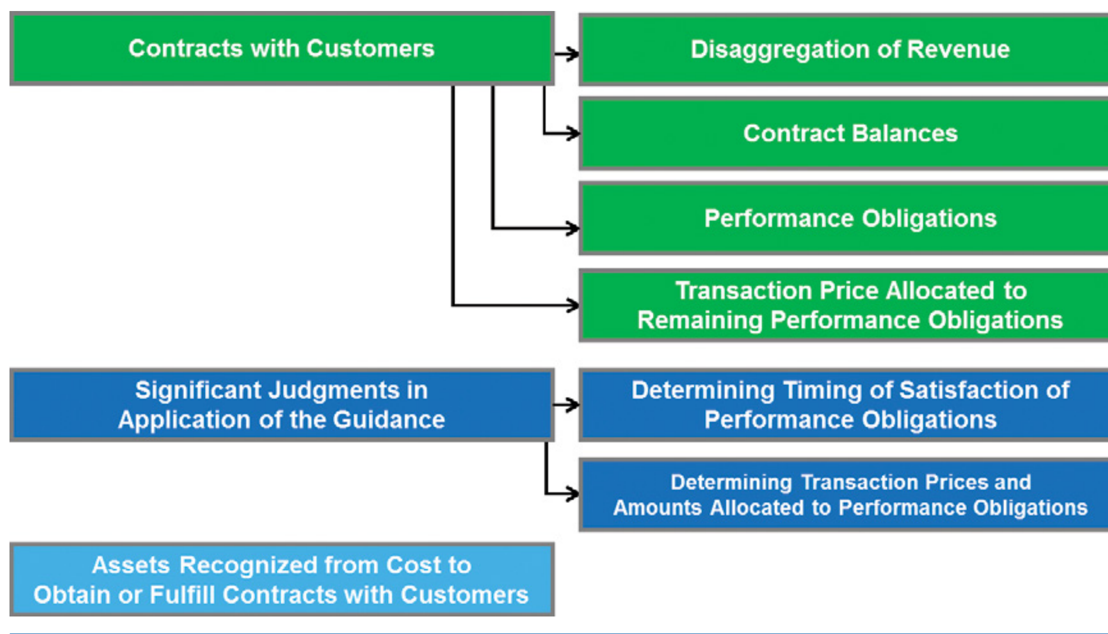
- *Retrospective Application*—If retrospective application is chosen as the transition method, then the prior periods should be recast using the new accounting principle and ongoing disclosures (described below) must be provided. Companies such as Rolls-Royce and Microsoft have gone further to disclose more detail—for example, in the case of Microsoft, the effects on the balance sheet accounts—although such disclosures are not required.
- *Modified Retrospective Application*—If a modified retrospective transition method is used, then the only disclosure requirement is that the current period be presented under the old method. Other disclosures regarding the change may be limited. As noted under the discussion of transition, investors should understand the composition of the change and the line items that would be affected had the adjustment been made on a retrospective basis. By gaining such an understanding, investors can better appreciate the potential implications on a future basis.

Irrespective of the adoption method chosen or the impact of adopting the new standard, additional disclosures will be made, as described next, which will provide additional insight to investors. These disclosures are not required at the time of the earnings press release during the period of adoption, but investors should request these disclosures at such time as they likely will provide insight into the recognition of revenue.

Ongoing Disclosure Requirements—US GAAP and IFRS disclosures with respect to revenue have been extremely limited. Many suggest the new disclosure requirements should provide many additional disclosures for investors. **Figure 12** illustrates the disclosures related to elements of customer contracts, significant judgments made in the application of this guidance, and assets recognized from costs to obtain or fulfill contracts with customers that will be required under the new standard. Details with respect to these specific disclosures are contained with the new standard.

Because CFA Institute believes disclosures are such an important part of the new revenue standard, it issued a separate comment letter specifically on the disclosures related to revenue during the exposure of the document. We are taking a wait-and-see approach with respect to the quality of the disclosures

FIGURE 12. DISCLOSURES RELATED TO CUSTOMER CONTRACTS



ultimately included in the final standard and the degree to which they will meaningfully improve analysis. That said, investors should be aware of the following observations with respect to the disclosures:

1. *Greater Disaggregation of Revenue Disclosures*—CFA Institute is a strong supporter of the new disclosure to require greater disaggregation of revenues. Even a company expecting a minimal impact from the adoption of the new revenue recognition standard will be required to provide these additional revenue disclosures. These disclosures are expected to be more disaggregated than within the segment disclosures and must be reconciled to these segment disclosures.

2. *Transparency Regarding Significant Estimates and Judgments*—The new standard has significant estimates and judgments related to the determination of what constitutes a performance obligation and how transaction price is allocated to such performance obligations, as well as the timing of satisfaction of the performance obligations (i.e., when revenue is recognized). Investors should seek insight into these judgments in evaluating the quality of earnings. We are concerned, however, that many of the disclosures will be highly qualitative and boilerplate.

3. *Connection of Disclosures to and Cohesiveness between Financial Statements*—CFA Institute advocated for roll-forwards, which would illustrate how disclosures connect to financial statement captions. These roll-forwards also would illustrate the interconnectedness or cohesiveness of the revenue balances between the balance sheet, income statement, and statement of cash flows. Unfortunately, these roll-forwards were not required. Only elements of the contract balances will be disclosed. This likely will make it challenging for investors to meaningfully connect these elements to the financial statements.

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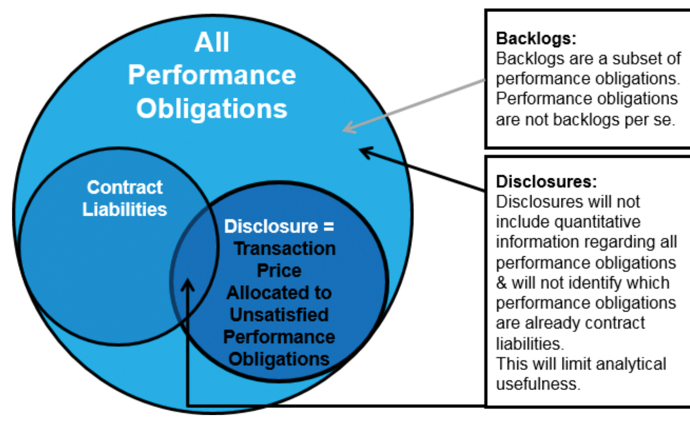
FIGURE 13. DISCLOSURE REQUIREMENTS



4. *Limited Contract Costs Disclosures*—Other than the disclosure of the balance of contract costs at the balance sheet date, there is no requirement to disclose the costs deferred or amortized each period. As such, the amounts affecting the income statement and their relation to cash will be difficult for investors to glean.

5. *Differences among Disclosed Performance Obligations, Contract Liabilities, and the SEC*—CFA Institute has been vocal in our concern that investors will not fully understand the difference between (a) contract liabilities and the performance obligations and backlogs that are disclosed under the standard and (b) the backlog disclosures required by the SEC disclosure requirements. Each is defined differently, as illustrated at **Figure 13**.

In the first year of adoption, best practice will be for companies to provide the disclosures at the time of the earnings release. This will ensure that investors have the full complement of disclosures at the time the market reacts to the earnings announcement. Disclosures included in filings after the earnings release are substantially less useful to investors.