

# In depth

A look at current financial reporting issues



## New revenue guidance Implementation in Industrial Products

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### What's inside:

Overview.....	1
Step 1: Identify the contract with the customer .....	2
Step 2: Identify performance obligations .....	4
Step 3: Determine transaction price.....	5
Step 4: Allocate transaction price.....	8
Step 5: Determine transfer of control and recognize revenue .....	9
Contract costs.....	13
Principal versus agent...15	
Warranties and other post-delivery obligations.....	16
Repurchase options.....	17

### At a glance

Public companies must adopt the new revenue standards in 2018. Almost all companies will be affected to some extent by the new guidance, though the effect will vary depending on industry and current accounting practices. Although originally issued as a converged standard under US GAAP and IFRS, the FASB and IASB have made slightly different amendments so the ultimate application of the guidance could differ under US GAAP and IFRS.

The Revenue Recognition Transition Resource Group (TRG) has discussed various implementation issues impacting companies across many industries. These discussions may provide helpful insight into application of the guidance, and the SEC expects registrants to consider these discussions in applying the new guidance.

This publication has been updated to reflect the implementation developments since the guidance was issued and highlight certain challenges specific to industrial companies and manufacturers. The content in this publication should be considered together with our [Revenue guide](#), available at [CFODirect.com](http://CFODirect.com).

### Overview

The FASB and IASB developed a single, comprehensive revenue recognition model for all contracts with customers to achieve greater consistency in the recognition and presentation of revenue across industries. While the new standards (ASC 606 and IFRS 15, *Revenue from Contracts with Customers*) include a number of specific factors to consider, they are principles-based. Accordingly, companies should ensure that revenue recognition is ultimately consistent with the substance of the arrangement. One of the key overall principles of the guidance is that revenue is recognized based on the satisfaction of performance obligations. This occurs when control of a good or service transfers to a customer.

This document is designed to explore the application of the new standards, broken down by step of the model, for companies in the industrial manufacturing, metals, chemicals, and forestry, paper and packaging sectors. We have issued a separate industry summary for the [transportation and logistics sector](#) and will issue summaries for the aerospace and defense and engineering and construction sectors at [www.cfodirect.com](http://www.cfodirect.com).

Recognizing the diverse nature of many industrial companies' product and service offerings, there are a number of common revenue recognition issues. However it is difficult to capture all of the relevant information in a single document so companies need to consider all aspects of the new standards to determine the impacts on their businesses.



## 1. Identify the contract with the customer

A company may enter into multiple contracts with the same customer at the same time. The contracts could also be affected by subsequent modifications (such as change orders).

New guidance	Current US GAAP	Current IFRS
<p><b>Contract combinations</b></p> <p>Contracts entered into at or near the same time with the same customer need to be combined if one or more of the following criteria are met:</p> <ul style="list-style-type: none"> <li>• The contracts are negotiated as a package with a single commercial objective.</li> <li>• The amount of consideration to be paid in one contract depends on the price or performance of the other contract.</li> <li>• The goods or services promised in the separate contracts are a single performance obligation.</li> </ul>	<p>Combining contracts is permitted, provided certain criteria are met. Combining is not required as long as the underlying economics of the transaction are fairly reflected.</p>	<p>Combining contracts is required when the economic substance of two or more contracts is clearly linked as a single project.</p>
<p><i>Potential impact – both US GAAP and IFRS</i></p> <p>Current guidance under both US GAAP and IFRS requires that the contract be the unit of account, except when the criteria for combining contracts are met. The new standards provide more clear guidance for combining contracts, although it is expected to result in similar accounting outcomes as existing guidance.</p>		
<p><b>Contract modifications</b></p> <p>A contract modification, including that resulting from a claim, exists when the parties to the contract approve a change that creates new enforceable rights and obligations or changes the enforceable rights and obligations of the parties. A modification only affects a contract once it is approved, which can be in writing, orally, or based on customary business practices.</p> <p>A contract modification is treated as a separate contract only if (1) it results in the addition of a distinct performance obligation and (2) the price is reflective of the standalone selling price of that additional performance obligation.</p>	<p>A change order is included in contract revenue when (1) it is probable that the customer will approve the change order, and (2) the amount of revenue can be reliably measured.</p> <p>US GAAP includes detailed revenue and cost guidance on the accounting for unpriced change orders (or those in which the work to be performed is defined, but the price is not).</p>	<p>Under IAS 11, <i>Construction Contracts</i>, a change order (known as a variation) is included in contract revenue when (1) it is probable that the customer will approve the change order, and (2) the amount of revenue can be reliably measured. IAS 18, <i>Revenue</i>, does not have any similar guidance.</p> <p>There is no detailed guidance on the accounting for unpriced change orders.</p>
<p><i>Potential impact – both US GAAP and IFRS</i></p> <p>The new standards provide more clear guidance on accounting for contract modifications, including change orders. Change orders are treated as separate contracts under the new standards if they add distinct performance obligations and are priced at standalone selling price. A good is distinct if the</p>		

New guidance	Current US GAAP	Current IFRS
<p>If these two criteria are not met, the contract modification is accounted for as an adjustment to the original contract, either through a cumulative catch-up adjustment to revenue (if no additional distinct goods or services are added or remain to be delivered) or a prospective adjustment to revenue as future performance obligations are satisfied (if distinct goods or services remain to be delivered or are added by the modification).</p> <p>A change to only the transaction price is treated like any other contract modification. As it does not result in a separate contract, the change in price is either accounted for prospectively or on a cumulative catch-up basis, depending on whether the remaining performance obligations are distinct.</p>	<p>customer can benefit from it on its own (or with other readily available resources) and the company's promise to transfer is separately identifiable from other promises in the contract.</p> <p>If the goods or services in the modification are distinct from those transferred before the modification, but the price of the additional goods or services is not the standalone selling price of those goods or services, the change is considered a modification of the initial contract and should be accounted for prospectively. A change order that affects a partially completed performance obligation is accounted for through a cumulative catch-up adjustment at the date of the contract modification.</p>	

### Example 1-1

**Facts:** Manufacturer enters into an arrangement with a customer to sell 120 widgets for \$12,000 (\$100 per widget). The individual widgets are distinct and are transferred to the customer over a six-month period. The parties modify the contract in the fourth month to add an additional 30 widgets for \$2,400 (\$80 per widget). Sixty widgets have been delivered at the time of the modification. The price of the additional widgets does not represent the standalone selling price on the modification date.

How should Manufacturer account for this modification?

**Analysis:** The modification is accounted for as if the original arrangement is terminated at that point and a new contract is created for the delivery of 90 widgets because the additional widgets are distinct but the price does not reflect their standalone selling price.

The remaining consideration of \$8,400 (60 units remaining from the original contract @ \$100 = \$6,000 plus 30 new units @ \$80 = \$2,400) would be allocated equally to all of the remaining widgets to be provided. Thus, Manufacturer recognizes \$93.33 per unit (\$8,400 / 90 units) prospectively. This may result in creation of contract assets and liabilities as the amount of revenue per unit will differ from the amounts invoiced (\$100 for the remaining 60 units and \$80 for the additional 30 units). When Manufacturer recognizes more revenue than consideration received, it would record a contract asset. Conversely, if consideration exceeds revenue, a contract liability would be recognized. See PwC's [Revenue guide](#) for further discussion of contract assets and liabilities.



## 2. Identify performance obligations

A company may enter into a contract with a customer that includes goods delivered to the customer and goods or services to be delivered directly to an end customer.

New guidance	Current US GAAP	Current IFRS
<p>Performance obligations are the unit of account for revenue under the new standards. A performance obligation is either a good or service that is distinct, or a series of distinct goods or services that are substantially the same and meet certain criteria.</p> <p>A good or service is distinct if both of the following criteria are met:</p> <ul style="list-style-type: none"> <li>The customer can benefit from the good or service either on its own or together with other resources that are readily available to the customer (i.e., capable of being distinct).</li> <li>The company’s promise to transfer the good or service is separately identifiable from other promises in the contract (i.e., distinct in the context of the contract).</li> </ul> <p>Promises to provide goods or services to the customer’s customer can be performance obligations if they are identified in the contract.</p>	<p>Arrangements with multiple deliverables not in the scope of construction accounting (SOP 81-1, <i>Accounting for Performance of Construction-Type and Certain Production-Type Contracts</i> / ASC 605-35, <i>Construction-Type and Production-Type Contracts</i>) are divided into separate units of account if the deliverables in the arrangement meet specific criteria. Separation is appropriate when (1) the delivered item(s) has value to the customer on a standalone basis, and (2) the delivery of the undelivered item(s) is probable and substantially within the control of the vendor.</p> <p>The unit of account for a revenue arrangement in the scope of construction accounting is typically the contract. A series of contracts may be combined or a contract may be segmented if the criteria for combining or segmenting contracts are met.</p>	<p>For transactions that contain separately-identifiable components, it is necessary to apply the revenue recognition criteria to each separately identifiable component of a single transaction to reflect the transaction’s substance.</p> <p>For transactions in the scope of construction accounting, there are certain specific criteria to combine or segment contracts.</p>
	<p><b>Potential impact – both US GAAP and IFRS</b></p> <p>Current US GAAP and IFRS each provide guidance on identifying and separately accounting for deliverables in an arrangement. The new guidance provides more detailed criteria that could result in the identification of more deliverables (performance obligations) than in the past.</p> <p>When a company sells goods to a distributor, and at the same time promises to provide additional goods or services directly to an end customer, the company needs to allocate some of the transaction price in the contract to the goods and or services that are provided to the end customer, even if they are provided by a third party. Revenue is recognized when those goods or services are delivered.</p>	



### 3. Determine transaction price

The transaction price is the consideration to which the vendor expects to be entitled in exchange for satisfying its performance obligations in an arrangement. Determining the transaction price may require judgment if the consideration contains an element of variable or contingent consideration—such as volume rebates, volume discounts, awards/incentive payments, claims—or a significant financing component.

Variable consideration is included in the transaction price only to the extent that it is probable [US GAAP] or highly probable [IFRS] that a significant reversal in the cumulative amount of revenue recognized will not occur in future periods if the estimates of variable consideration change. Thus, even if the total transaction price is variable (i.e., there is no fixed consideration), companies need to consider whether there is some minimum amount that is not subject to reversal.

In addition, companies may offer volume discounts when the price per good will decrease as sales volume increases. A volume discount may be (1) a form of variable consideration or (2) a customer option to purchase future products at a discount that could be considered a material right under the new standards.

New guidance	Current US GAAP	Current IFRS
<p><b>Volume rebates</b></p> <p>Volume rebates represent variable consideration and must be estimated and recognized as a reduction to revenue as performance obligations are satisfied. To ensure that revenue recognized would not be probable [US GAAP] or highly probable [IFRS] of a significant reversal, companies need to consider both qualitative and quantitative factors, including whether:</p> <ul style="list-style-type: none"> <li>• The amount of consideration is highly susceptible to factors outside the company’s influence.</li> <li>• The uncertainty about the amount of consideration is not expected to be resolved for a long period of time.</li> <li>• The company’s experience (or other evidence) with similar types of contracts is limited.</li> <li>• The contract has a large number and broad range of possible consideration amounts.</li> </ul>	<p>Volume rebates are recognized as a reduction to revenue as the customer earns the rebate.</p> <p>Volume discounts are typically recognized as a reduction to revenue when the volume meets the condition of the discount. If no reliable estimate can be made, revenue is reduced by the maximum potential rebate.</p>	<p>Volume rebates/discounts are systematically recognized as a reduction to revenue based on the best estimate of the amounts expected to be sold. The volume of sales needs to be estimated to develop the estimate. If no reliable estimate can be made, revenue is reduced by the maximum potential rebate.</p>
	<p><i>Potential impact – both US GAAP and IFRS</i></p> <p>A company needs to consider its experience with a customer or with similar customers, as well as other qualitative factors, to estimate total consideration inclusive of the rebate and ensure that revenue recognized does not include an amount that is probable [US GAAP] or highly probable [IFRS] of reversal. That is, it has to determine how much revenue should be deferred in anticipation of the rebate.</p> <p>The accounting for volume discounts may be different than under current US GAAP when volume discounts are recognized as they are earned. Under the new guidance, retrospective discounts should be accounted for as variable consideration (similar to rebates) because the transaction price is uncertain until the customer completes (or fails to complete) the specified volume of purchases, whereas discounts on prospective purchases represent an option that the customer receives in connection with a current purchase, which may represent a material right. If a customer obtains a material right in connection with a purchase, it needs to defer a portion of revenue from sales occurring earlier in the arrangement and recognize it in conjunction with discounted</p>	

New guidance	Current US GAAP	Current IFRS
<p><b>Volume discounts</b></p> <p>A volume discount may be (1) a form of variable consideration or (2) a customer option to purchase future products at a discount that could be considered a material right.</p> <p>Volume discounts that are retroactive to prior purchases are similar to rebates and should be accounted for as variable consideration.</p> <p>Discounts that apply only to future purchases after a certain threshold has been reached represent an option that the customer receives in connection with a current revenue transaction. Customer options are additional performance obligations in an arrangement if they provide the customer with a material right that it would not otherwise receive without entering into the arrangement.</p>	<p>sales in the future. Companies also need to consider how to determine the portion of the transaction price to allocate to the material right, and the impact on disclosures, particularly those on remaining performance obligations.</p> <p>Both volume discounts and volume rebates could result in the creation of contract assets and contract liabilities if revenue recognized does not equal billings.</p> <p>The accounting for volume rebates and discounts under the new standards is similar to existing IFRS guidance.</p>	
<p><b>Consideration payable to a customer</b></p> <p>Cash payments to a customer, unless paid for a distinct good or service provided by the customer, are accounted for as reductions of the transaction price (reductions to revenue).</p>	<p>Cash paid to a customer is recorded as a reduction of revenue unless the cash is for the purchase of an identifiable good or service from the customer that is separate from the goods or services being provided by the company.</p>	<p>Cash paid to a customer is recorded as a reduction of revenue unless the cash is for the purchase of an identifiable good or service from the customer that is separate from the goods or services being provided by the company.</p>
<p><i>Potential impact – both US GAAP and IFRS</i></p> <p>The accounting for cash paid to a customer is similar to today’s requirements.</p>		

### Example 3-1- Volume rebate

**Facts:** A chemical company has a one-year contract with a car manufacturer to deliver high performance plastics. The contract stipulates that the chemical company will give the car manufacturer a rebate when certain levels of future sales are reached, according to the following scheme:

Rebate	Sales volume
0%	0 - 10,000,000 lbs
5%	10,000,001 - 30,000,000 lbs
10%	30,000,001 lbs and above

The rebates are calculated based on gross sales in a calendar year and paid at the end of the first quarter of the following year. Based on its experience with similar contracts and forecasted sales to the car manufacturer for the year, management believes that the most likely rebate that it will have to pay is 5%.

How should the chemical company consider the volume rebate when recognizing revenue?

**Analysis:** Management defers 5% (the most likely rebate) of the per-unit price as goods are provided to the car manufacturer. Considering that experience and the forecasted usage by the car manufacturer for the year, management

recognizes revenue based on the amount of estimated rebate to the extent that revenue is probable [US GAAP] or highly probable [IFRS] of not reversing.

Management monitors this estimate at each reporting date and adjusts it, as necessary, using a cumulative catch-up approach.

### *Example 3-2- Prospective volume discount*

**Facts:** A chemical company has a three-year contract with a customer to deliver high performance plastics. The contract stipulates that the price per container will decrease as sales volume increases during the calendar year as follows:

<b>Price per container</b>	<b>Sales volume</b>
\$100	0 - 1,000,000 containers
\$90	1,000,001 - 3,000,000 containers
\$85	3,000,001 containers and above

Management believes that total sales volume for the year will be 2.5 million containers based on its experience with similar contracts and forecasted sales to the customer.

How should the chemical company consider the volume discount when recognizing revenue?

**Analysis:** The company should first determine whether the volume discount provides the customer with a material right that it would not otherwise receive without entering into the arrangement. The evaluation of whether an option provides a material right requires judgment; the company should consider whether the volume discount offered to its customers is incremental to the range of discounts typically given to the same class of customer.

Assuming the chemical company concludes that the volume discount is a material right, it would account for the option as a separate performance obligation. The company should allocate the transaction price to the goods (high performance plastics) and the material right (option for discounted future services) based on their relative standalone selling prices.

The estimate of the standalone selling price of the option should reflect the discount, adjusted for any discount that the customer could receive without the option (standard discount off of list price) and an expectation of the likelihood of exercise. However, the standards also provide a practical alternative if the material right is for the purchase of goods similar to the original goods. The practical alternative would allow the company to allocate the transaction price to the optional goods by reference to the goods expected to be provided and the corresponding expected consideration (i.e., the discounted price), rather than estimating the standalone selling price of the material right.

Assuming the company elects to apply the practical alternative in this case, the allocation of transaction price would be:

<b>Total consideration</b>	
\$100 per container * 1,000,000 containers	\$ 100,000,000
\$90 per container * 1,500,000 containers	\$ 135,000,000
<b>Total expected consideration</b>	<b>\$ 235,000,000</b>
Total volume of goods expected to be provided	2,500,000 containers
Transaction price allocated per container	\$ 94 per container (\$235,000,000 / 2,500,000)
Transaction price of first container allocated to material right	\$6 (\$100 - \$94)

Based on the allocation, the company would recognize revenue of \$94 for the first container, with \$6 (price paid by customer in excess of the transaction price allocated to a container) deferred as contract liability for the material right not yet satisfied. The contract liability accumulates until the discounted containers are delivered, at which time it will be recognized as revenue as the containers are delivered.

Management should update its estimate of the total sales volume at each reporting date.



#### 4. Allocate transaction price

Under the new revenue guidance, the transaction price in an arrangement is allocated to each separate performance obligation based on the relative standalone selling prices (SSP) of the goods or services being provided to the customer. That allocation may need to be adjusted if variable consideration or discounts apply exclusively to only certain performance obligations.

The best evidence of SSP is the price a company charges for that good or service when the company sells it separately. If a particular good or service is not sold separately, the SSP needs to be estimated or derived by other means. SSP for each performance obligation is determined at contract inception and is not reassessed.

New guidance	Current US GAAP	Current IFRS
<p>The transaction price is allocated to separate performance obligations in a contract based on relative standalone selling prices, as determined at contract inception.</p> <p>Variable consideration or discounts may relate only to one or more, but not all, performance obligations in the contract. Variable consideration is allocated to specific performance obligations if both of the following criteria are met:</p> <ul style="list-style-type: none"> <li>• The terms of the variable consideration relate specifically to the company’s efforts to satisfy the performance obligation or transfer the distinct good or service (or to a specific outcome from satisfying the performance obligation or transferring the distinct good or service)</li> <li>• The outcome is consistent with the allocation objective</li> </ul> <p>A discount is allocated to a specific performance obligation if all of the following criteria are met:</p> <ul style="list-style-type: none"> <li>• The company regularly sells each distinct good or service on a standalone basis</li> <li>• The company regularly sells, on a standalone basis, a bundle of some of those distinct goods or services at a discount</li> </ul>	<p>Arrangement consideration is allocated to each unit of accounting based on the relative selling price.</p>	<p>IFRS does not mandate how consideration is allocated. In practice, consideration is typically allocated to the separate components in the arrangement based on a relative fair value or cost plus a reasonable margin approach.</p>
<p><i>Potential impact – both US GAAP and IFRS</i></p> <p>A company should allocate the transaction price to all of the performance obligations in the arrangement based on standalone selling prices. This allocation is performed irrespective of whether additional goods or services need to be provided before the customer pays the consideration. This eliminates the contingent revenue cap in today’s accounting.</p> <p>The new revenue standards also provide allocation guidance for discounts and variable consideration to specific performance obligations if certain criteria are met.</p>		

New guidance	Current US GAAP	Current IFRS
<ul style="list-style-type: none"> <li>The discount attributable to the bundle of distinct goods or services is substantially the same as the discount in the contract, and observable evidence supports the discount belonging to that performance obligation</li> </ul>		



## 5. Determine transfer of control and recognize revenue

Many companies have contracts that include long-term manufacturing processes and may include a service (installation or customization) along with the sale of products. The products and services may be delivered over a period ranging from several months to several years.

New guidance	Current US GAAP	Current IFRS
<p><b>Transfer of control</b></p> <p>Revenue is recognized upon the satisfaction of performance obligations, which occurs when control of the good or service transfers to the customer. Control can transfer at a point in time or over time.</p> <p>A performance obligation is satisfied over time if any one of the following criteria is met:</p> <ul style="list-style-type: none"> <li>The customer receives and consumes the benefits of the company's performance as the company performs (e.g., a service)</li> <li>The company's performance creates or enhances an asset that the customer controls (e.g., a major refurbishment of customer-owned equipment)</li> <li>The company's performance does not create an asset with alternative use to the company <u>and</u> the company has an enforceable right to payment (cost plus profit) for performance completed to date</li> </ul>	<p>Revenue is recognized for transactions not in the scope of the contract accounting guidance once the following conditions are satisfied:</p> <ul style="list-style-type: none"> <li>Persuasive evidence of an arrangement exists</li> <li>Delivery has occurred or services have been rendered</li> <li>The seller's price to the buyer is fixed or determinable</li> <li>Collectibility is reasonably assured</li> </ul> <p>Service revenue from transactions not specifically in the scope of contract accounting is recognized by applying either the proportional performance model or the completed contract model.</p> <p>For transactions in the scope of construction-type and production-type contract guidance (ASC 605-35):</p> <ul style="list-style-type: none"> <li>Revenue is recognized using the percentage-of-completion method when reliable estimates are available.</li> </ul>	<p>Revenue is recognized upon the sale of goods (outside the scope of the construction contract accounting guidance) once the following conditions are satisfied:</p> <ul style="list-style-type: none"> <li>The risk and rewards of ownership have transferred</li> <li>The seller does not retain managerial involvement to the degree usually associated with ownership nor retain effective control</li> <li>The amount of revenue can be reliably measured</li> <li>It is probable that the economic benefit will flow to the company</li> <li>The costs incurred can be measured reliably</li> </ul> <p>For the sale of services and transactions in the scope of construction contract accounting:</p> <ul style="list-style-type: none"> <li>Revenue is recognized using the percentage-of-completion method when reliable estimates are available.</li> </ul>

New guidance	Current US GAAP	Current IFRS
<p>A performance obligation is satisfied at a point in time if it does not meet one of these criteria.</p> <p>Determining the point in time when control transfers will require judgment. Indicators to consider in determining whether the customer has obtained control of a good include:</p> <ul style="list-style-type: none"> <li>• The company has a right to payment (not necessarily the same as the right to invoice)</li> <li>• The customer has legal title</li> <li>• The customer has physical possession</li> <li>• The customer has the significant risks and rewards of ownership</li> <li>• The customer has accepted the asset</li> </ul>	<ul style="list-style-type: none"> <li>• When reliable estimates cannot be made, but there is assurance that no loss will be incurred on a contract (e.g., when the scope of the contract is ill-defined, but the contractor is protected from an overall loss), the percentage-of-completion method based on a zero profit margin is used until more precise estimates can be made.</li> <li>• The completed-contract method is required when reliable estimates cannot be made.</li> </ul>	<ul style="list-style-type: none"> <li>• When reliable estimates cannot be made, but it is probable that no loss will be incurred on a contract, the percentage-of-completion method based on a zero profit margin is used until more-precise estimates can be made.</li> <li>• The completed contract method is not permitted.</li> </ul>
	<p><i>Potential impact – both US GAAP and IFRS</i></p> <p>Management needs to assess the criteria for whether performance obligations are satisfied over time, especially whether assets have an alternative use and whether the company has a right to payment for performance completed to date. Depending on facts and circumstances, companies that are recognizing revenue using the percentage-of-completion method based on construction contract accounting guidance may have to recognize revenue at a point in time.</p> <p>Manufacturers of goods produced to a customer’s specification (i.e., contract manufacturers) could meet the criteria for recognition over time if (1) the goods have no alternative use either because they are highly customized or if they contractually cannot be redirected to another party, and (2) the payment terms provide that the customer will reimburse costs incurred plus a reasonable profit margin for both completed units and those in production at any point of time. This could result in revenue being recognized earlier than under current guidance.</p>	
<p><b>Measuring progress for performance obligations satisfied over time</b></p> <p>Methods for recognizing revenue when control transfers over time include:</p> <ul style="list-style-type: none"> <li>• input methods that recognize revenue based on cost incurred, labor hours expended, time lapsed, or machine hours used; and</li> <li>• output methods that recognize revenue based on units produced or delivered, contract milestones, or surveys of work performed.</li> </ul> <p>Outputs used to measure progress may not be directly observable and the information to apply an output</p>	<p>The use of a proportional performance model based upon cost incurred in relation to total estimated cost is generally not appropriate for transactions outside the scope of contract accounting.</p> <p>Companies applying contract accounting use either an input method (e.g., cost incurred, labor hours, labor cost, machine hours, material quantities), an output method (e.g., physical progress, units produced, units delivered, contract milestones), or the passage of time to measure progress towards completion.</p>	<p>Service revenue from transactions not in the scope of construction contract accounting is recognized based on the stage of completion if the transaction’s outcome can be estimated reliably.</p> <p>Companies applying construction contract accounting can use either an input method (e.g., cost incurred, labor hours, labor cost, machine hours, material quantities), an output method (e.g., physical progress, units produced, units delivered, contract milestones), or the passage of time to measure progress towards completion.</p>

New guidance	Current US GAAP	Current IFRS
<p>model may not be available without undue cost. In such cases, an input method may be necessary.</p> <p>For contract manufacturers or companies that produce a large number of similar items, output methods such as "units produced" or "units delivered" may not faithfully depict a company's performance if at the end of the reporting period the value of work-in-progress or finished goods that are controlled by the customer is material. In addition, for contracts that provide both design and production services, output methods based on units delivered may not appropriately reflect performance because each item produced may not transfer an equal amount of value to the customer. In such cases, an input measure may be more appropriate.</p>	<p>Once a percentage complete is determined (using the appropriate measure of progress), there are two different approaches for determining revenue, costs of revenue, and gross profit: (1) the revenue method (ASC 605-35-25-83) or (2) the gross profit method (ASC 605-35-25-84).</p>	<p>Once a percentage complete is determined (using the appropriate measure of progress), IFRS requires the use of the revenue method to determine revenue, costs of revenue, and gross profit. The gross profit method is not permitted.</p>
<p><i>Potential impact – both US GAAP and IFRS</i></p> <p>The new standards allow both input and output methods for recognizing revenue for performance obligations that are satisfied over time. Management should select the method that best depicts the transfer of control of goods and services to the customer. Input methods should represent the transfer of control of the asset or service to the customer and should therefore exclude the costs of any activities that do not depict the transfer of control (e.g., abnormal amounts of wasted labor or materials). In addition, the new standards prohibit the use of a measure of progress that results in a material (in relation to the contract) amount of work-in-process inventory at the end of a reporting period.</p> <p>Companies manufacturing products that meet the criteria for performance obligations satisfied over time will be required to recognize revenue as production activities occur rather than when the goods are delivered to the customers. This could be the case for certain contract manufacturers depending on the terms of the arrangements.</p> <p>Under the new standards, revenue is recognized based on the measure of progress selected. The “gross profit method” of calculating revenue under ASC 605-35 will no longer be available under the new standards. That is, revenue is determined directly rather than by reference to cost plus profit. Methods used under current IFRS are likely to be acceptable under the new standards.</p>		

### Example 5-1

**Facts:** A vendor enters into a contract to produce a significantly-customized product for a customer. Management has determined that the contract is a single performance obligation. The contract has the following characteristics:

- The customization is significant and the customer's specifications may be changed at the customer's request during the contract term.
- Nonrefundable, interim progress payments (cost plus margin) are required to finance the contract. The progress payments are scheduled to reflect the progress to date on the product, such that there is a right to payment for work performed to date.
- The customer can cancel the contract at any time (with a termination penalty) and any work in process has no alternative use to the vendor.
- Physical possession and title do not pass until completion of the contract.

How should the vendor recognize revenue?

**Analysis:** The terms of the contract, in particular the customer specifications (and ability to change the specifications), indicate that the work in process has no alternative use to the vendor, and the nonrefundable progress payments that include a profit element indicate that the vendor has the right to payment for work performed. Thus, control of the product is being transferred over the contract term. Revenue is therefore recognized over time as the products are produced. Management needs to select the most appropriate measurement model (either an input or output method) to measure the revenue arising from the transfer of control of the product over time.

### **Example 5-2**

**Facts:** A vendor enters into a contract to construct several significantly-customized products for a customer. Management has determined that the contract is a single performance obligation. The contract has the following characteristics:

- The majority of the payments are due after the products have been installed.
- The customer can cancel the contract at any time (with a termination fee representing reimbursement for only the vendor's costs) and any work in process remains the property of the vendor.
- Due to the level of customization, the work in process cannot be sold to another customer.
- Physical possession and title do not pass until completion of the contract.

How should the vendor recognize revenue?

**Analysis:** Although the products are significantly customized, the vendor is only entitled to payment for costs incurred in the event of termination, so the vendor should recognize revenue at a point in time, when control of the products transfers to the customer.

### **Example 5-3**

**Facts:** A vendor enters into a contract to manufacture ten products for a customer. Management has determined that the contract is a single performance obligation satisfied over time. Each product takes a few weeks to be manufactured, and during production, the company has significant work in process.

How should the vendor measure progress on the contract?

**Analysis:** The vendor should apply a method of measuring progress that depicts the company's performance to date. The measure selected should not result in the recognition by the vendor of a material amount of inventory. Since the work in process is always significant, using a units-of-delivery or a units-of-production method would exclude from the measure of progress the work in process that belongs to the customer. Therefore, an input method, such as ratio of cost incurred to total estimated cost (cost-to-cost), is likely to better depict the vendor's performance.

### **Bill-and-hold arrangements**

Industrial companies may have bill-and-hold arrangements with their customers in which the company bills the customer for a product, but does not ship the product until a later date. Current US GAAP and IFRS each contain specific criteria that must be met for a company to recognize revenue prior to physical delivery in these arrangements.

The new revenue standards focus on when control of the goods transfers to the customer to determine when revenue is recognized. For a customer to have obtained control of a product in a bill-and-hold arrangement, the following criteria must be met:

- 1) the reason for the arrangement is substantive,
- 2) the product has been identified separately as belonging to the customer,
- 3) the product is ready for delivery in accordance with the terms of the arrangement, and
- 4) the company does not have the ability to use the product or sell the product to another customer.

Companies will need to consider the circumstances of their arrangements to determine whether control of the product has transferred to the customer prior to delivery. The requirement to have a fixed delivery schedule often precludes revenue recognition for bill-and-hold arrangements under current US GAAP; however, this requirement is not included in the new revenue standards or under current IFRS.

### **Synthetic FOB destination**

Many companies have a customary practice of replacing or crediting the customer for lost or damaged goods even when sales contracts contain "free on board" (FOB) shipping point terms (i.e., the customer obtains control with title passage at the time of shipment). In such instances, the customer is in the same position as if the shipping terms were FOB destination. Under today's guidance, in those cases, revenue is generally recognized when the product is received by the customer because the risks and rewards of ownership have not been substantively transferred to the customer at the point of shipment. The timing of revenue recognition might change under the new standards' control-based model.

New guidance	Current US GAAP	Current IFRS
<p>Revenue is recognized when control of a good or service is transferred to the customer. A customer obtains control of a good or service if it (1) has the ability to direct the use of and (2) receive the benefit from the good or service. In determining whether the customer has obtained control, the standards provide several indicators.</p> <p>A company may transfer control of a good but still have a contractual obligation to transport it to the customer. In that case, the obligation for delivery could be an additional performance obligation that has not yet been fulfilled.</p> <p>US GAAP includes an accounting policy election that permits companies to account for shipping and handling activities that occur after the customer has obtained control of a good as a fulfillment cost, rather than as an additional promised service. Companies that make this election recognize revenue when control of the good transfers to the customer. A portion of the transaction price would not be allocated to the shipping service; however, the costs of shipping and handling should be accrued when the related revenue is recognized. IFRS does not include a similar accounting policy election.</p>	<p>Revenue from the sale of a good is not recognized until the seller has substantially accomplished what it must do pursuant to the terms of the arrangement, which usually occurs upon delivery.</p> <p>The risks and rewards of ownership need to substantively transfer to the customer. Revenue is deferred until the goods have been delivered to the end customer if the vendor has established a practice of covering risk of loss in transit.</p> <p><i>Potential impact – both US GAAP and IFRS</i></p> <p>The timing of revenue recognition could change under the new revenue standards as the focus shifts from transfer of risks and rewards to the transfer of control of the goods, considering the indicators in ASC 606-10-25-30 or IFRS 15.38. For example, a good may be shipped FOB destination but control may transfer upon shipment if the customer has the ability to sell the good and redirect delivery to its own customers while in transit.</p> <p>Management also needs to assess whether the shipping terms create an additional performance obligation when control transfers upon shipment. Control of the underlying goods could be transferred and revenue recognized when the product leaves the seller's location, based on legal title transfer, the company's right to receive payment, or the customer's ability to redirect and sell the goods, but there might be a second performance obligation for shipping and in-transit risk of loss. If a company reports under IFRS or reports under US GAAP and does not elect the accounting policy to treat shipping and handling activities as a fulfillment cost, management needs to allocate the transaction price to each of the performance obligations, and recognize revenue when each performance obligation is satisfied, which might be at different times. The US GAAP policy election must be applied consistently to similar transactions and disclosed, if material, in accordance with ASC 235, <i>Notes to Financial Statements</i>.</p>	<p>A contract for the sale of goods normally gives rise to revenue recognition at the time of delivery, when the significant risks and rewards of ownership have been transferred.</p> <p>Revenue is typically recognized once the goods reach the buyer when there are synthetic FOB destination terms, as risks and rewards of ownership typically transfer at that time.</p>



### Contract costs

The new standards distinguish between costs to obtain a contract and costs to fulfill a contract. Costs to obtain a contract may include engineering set-up costs, pre-contract planning and design costs, and sales commissions. Costs to fulfill a contract are those costs directly associated with satisfying performance obligations that are not subject to other GAAP (e.g., inventory, fixed assets).

New guidance	Current US GAAP	Current IFRS
<p><i>Costs to obtain a contract</i></p> <p>Incremental costs of obtaining a contract are costs that the company would not have incurred if the contract had not been obtained (e.g., sales commissions). They can include costs incurred before the contract is obtained if those costs relate to an anticipated contract that the company can specifically identify. Incremental costs to obtain a contract are recognized as an asset if they are expected to be recovered.</p> <p>A company is permitted to expense contract acquisition costs as incurred as a practical expedient for contracts with a duration of one year or less.</p>	<p>There is detailed guidance on the accounting for contract costs, including pre-contract costs for construction-type and production-type contract under ASC 605-35.</p> <p>Pre-contract costs that are incurred for a specific anticipated contract may be deferred only if the costs can be directly associated with a specific anticipated contract and if their recoverability from that contract is probable.</p> <p>Outside of contract accounting, there is limited guidance on the treatment of costs associated with revenue transactions. Certain types of costs incurred prior to revenue recognition may be capitalized if they meet the definition of an asset.</p>	<p>There is detailed guidance on the accounting for contract costs in construction contract accounting (IAS 11).</p> <p>Costs that relate directly to a contract and are incurred in securing it are included as part of contract costs that can be capitalized if they can be separately identified, measured reliably, and it is probable that the contract will be obtained.</p> <p>Costs associated with transactions that are not in the scope of construction contract accounting are capitalized if such costs are within the scope of other asset standards (e.g., inventory, PP&amp;E or intangible assets) or meet the definition of an asset in the Conceptual Framework.</p>
<p><i>Costs to fulfill a contract</i></p> <p>Direct costs incurred to fulfill a contract are first assessed to determine if they are within the scope of other standards (e.g., inventory, intangibles, fixed assets), in which case the company should account for such costs in accordance with those standards (either capitalize or expense). If they are not in the scope of other guidance, they should be evaluated under the revenue standards. A company recognizes an asset only if the costs (1) relate directly to a contract, (2) generate or enhance resources that relate to future performance, and (3) are expected to be recovered. Costs related to inefficiencies (e.g., abnormal costs of materials, labor, or other costs to fulfill) should be expensed as incurred.</p> <p>Incremental costs to obtain a contract and fulfillment costs are amortized in a manner consistent with the pattern of transfer of the goods or services to which the asset relates.</p>	<p><i>Potential impact – both US GAAP and IFRS</i></p> <p>Sales commissions, set-up costs for service providers, and costs incurred in the design phase of construction projects, among others, are likely to be in the scope of the new cost guidance. The most pervasive impact is likely to be the requirement to capitalize and amortize sales commissions, except when companies can use the practical expedient that allows companies to expense costs to obtain a contract with a duration of one year or less.</p> <p>Companies that currently expense all contract fulfillment costs as incurred may be impacted by the revenue standards since fulfillment costs are required to be capitalized when the criteria are met.</p>	

## Principal versus agent

Companies may involve third parties when providing goods and services to their customers. Management needs to assess whether the company is acting as the principal or an agent in such arrangements. The assessment drives whether revenue is recorded on a gross or a net basis, and therefore, it significantly affects the amount of revenue recognized.

New guidance	Current US GAAP	Current IFRS
<p>A company is a principal in an arrangement if it obtains control of a good or service before transferring it to a customer. Obtaining title momentarily before transferring a good or service to a customer does not necessarily constitute control.</p> <p>A company is an agent if its obligation is to arrange for another party to provide goods or services.</p> <p>Factors that may indicate that a company is an agent, and therefore, that it does not control a good or service before transferring to a customer include:</p> <ul style="list-style-type: none"> <li>• Another company is responsible for fulfilling the contract</li> <li>• The company does not have inventory risk</li> <li>• The company does not have pricing latitude</li> </ul>	<p>The determination of whether a company is a principal or an agent is based on the following factors:</p> <ul style="list-style-type: none"> <li>• Is the company the primary obligor in the arrangement?</li> <li>• Does the company have general inventory risk?</li> <li>• Does the company have latitude in establishing pricing?</li> <li>• Does the company change the good or service?</li> <li>• Is the company involved in supplier selection?</li> <li>• Is the company involved in determining product specifications?</li> <li>• Does the company have physical inventory risk?</li> <li>• Does the company have credit risk?</li> </ul> <p>The first three factors are considered to be weighted more heavily than the others.</p>	<p>A company is a principal if it is exposed to risks and rewards when selling goods or providing services.</p> <p>Indicators that a company is acting as a principal in an arrangement are:</p> <ul style="list-style-type: none"> <li>• The company is the primary obligor</li> <li>• The company has inventory risk</li> <li>• The company has pricing latitude</li> <li>• The company has credit risk</li> </ul> <p>An indicator that a company is an agent is if the company earns a predetermined fee.</p>
<p><b>Potential impact – both US GAAP and IFRS</b></p> <p>Although the indicators of a principal or agent relationship in the revenue standards are fairly similar to the current guidance in US GAAP and IFRS, the purpose of the indicators under the new standards is to determine if the company obtained control of a good or service before transferring to the customer. Because the focus has shifted from risk and rewards to control, there could be a difference between existing accounting and the application of the new revenue standards. As compared to US GAAP, the standards have fewer criteria and no longer weigh some factors more than others.</p>		

## Warranties and other post-delivery obligations

Promises in a contract can be explicit or implicit if the promises create a valid expectation that the company will provide a good or service based on the company's customary business practices, published policies, or specific statements. It is therefore important to understand a company's policies and practices, representations made during contract negotiations, marketing materials, and business strategies when identifying the promises in an arrangement.

Companies should understand any post-delivery obligations that are provided as such obligations could represent separate performance obligations that could change the timing of revenue. Post-delivery obligations could include training, installation and warranties. Many manufacturing companies provide standard warranties with their products that can be effective for a number of years. A standard warranty is given to all customers and protects against defects for a specific time period. Many companies also offer extended warranties or sell warranties separately that provide for coverage beyond the standard warranty period.

New guidance	Current US GAAP	Current IFRS
<p>A company accounts for a warranty as a separate performance obligation if the customer has the option to purchase the warranty separately.</p> <p>A company accounts for a warranty as a cost accrual if it is not sold separately, unless the warranty provides the customer with a distinct service in addition to assurance that the product complies with agreed-upon specifications.</p> <p>If part of a warranty provides a customer with a service in addition to the assurance that the product complies with agreed-upon specifications, the company accounts for that part of the warranty as a performance obligation. A warranty that provides both assurance and services is accounted for as a service if the company is unable to distinguish the assurance portion from the service portion.</p>	<p>Companies typically account for standard warranties protecting against latent defects in accordance with existing loss contingency guidance. They recognize revenue and concurrently accrue any expected costs for these warranty repairs.</p> <p>Separately-priced extended warranties result in the deferral of revenue based on the contractual price of the extended warranty. The value deferred is amortized to revenue over the extended warranty period.</p>	<p>Companies typically account for standard warranties protecting against latent defects in accordance with existing provisions guidance. They recognize revenue and concurrently accrue any expected cost for these warranty repairs.</p> <p>Revenue from the sale of extended warranties is deferred and recognized over the period covered by the warranty.</p>
	<p><b>Potential impact – both US GAAP and IFRS</b></p> <p>A company needs to evaluate the nature of their warranty arrangements that are not separately sold, considering contract terms and their usual business practice. Based on this analysis, a company may conclude that the otherwise standard warranty provides a service in addition to general product assurance.</p> <p>Warranties that are sold separately are separate performance obligations for which revenue is recognized over the warranty period, similar to the accounting treatment under existing guidance. Under US GAAP, the value ascribed to warranties that are separately priced may be affected because the arrangement consideration is allocated on a relative standalone selling price basis rather than at the contractual price under current guidance. The allocation should be consistent with the current practice under IFRS, unless the residual method of allocation was used previously.</p>	

### Example 6-1

**Facts:** A company sells a product with a 90-day standard warranty. The company replaces defective components of the product under the standard warranty. The warranty does not provide an additional service to the customer. How does the company account for such a warranty?

**Analysis:** The company should account for the warranty as a cost accrual, similar to today's guidance.

## Example 6-2

**Facts:** A company sells equipment with a one-year standard warranty. The customer does not purchase an extended warranty, but in addition to the standard warranty, the company has a business practice of providing maintenance and repairs for performance issues, including customer-inflicted damages or wear and tear, to keep its customers satisfied. How does the company account for the warranty?

**Analysis:** This arrangement includes the following goods or services: (1) the equipment; (2) product assurance warranty; and (3) an extended service warranty.

The company accounts for the product warranty (for manufacturing defects) in accordance with other guidance on product warranties, and records an expense and liability for expected repair or replacement costs related to this obligation. The company accounts for the extended service-type warranty (maintenance and repair services) as a separate performance obligation, with revenue recognized as that obligation is satisfied.

If the company cannot reasonably separate the product warranty and service-type warranty, it should account for the two warranties together as a single performance obligation. Separating the product warranty from the service-type warranty may be challenging given that the service-type warranty obligation is an implied performance obligation.

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## Repurchase options

Manufacturers of equipment or machinery may sell products with repurchase rights or options. Repurchase rights could be included within the sales contract, or in a separate arrangement with the customer. Two common scenarios include:

1. A company sells machinery to a customer but the arrangement includes a call option that gives the company the right to repurchase the machinery at a guaranteed price after a specified period of time has passed.
2. A company sells machinery to a customer, but the arrangement includes a put option in which the customer can request that the company repurchase the machinery at a guaranteed price after a specified period of time has passed. The company could overhaul the machinery, sell the refurbished equipment to a customer, and receive a significant margin on the refurbished goods.

If the company can require the customer to return the product (i.e., it has a call right), control has not transferred to the customer; therefore, revenue is only recognized when the products are sold to an end customer. The company would continue to recognize the product as inventory and account for any payments received from the customer as a financial liability.

When the right or obligation to repurchase goods is present, the arrangement is accounted for as either (1) a lease transaction if the repurchase price is less than the original selling price, or (2) as a financing agreement if the repurchase price is equal to or greater than the original selling price.

The accounting for an arrangement with a put option depends on (1) the amount that the company must pay when the customer exercises the put option, and (2) whether the customer has a significant economic incentive to exercise its right.

- If the repurchase price is (1) equal to or more than the original sales price and (2) more than the expected market value of the asset, it is treated as a financing arrangement.
- When the repurchase price is less than the original sales price and the customer has a significant economic incentive to exercise that right, the arrangement is treated as a lease. (The arrangement is treated as a sale of a product with a right of return in the alternative circumstances.)

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