INSIGHTS FROM THE BDO MANUFACTURING PRACTICE

REVENUE FROM CONTRACTS WITH CUSTOMERS – MANUFACTURING INDUSTRY

OVERVIEW

Companies have started gearing up to implement Accounting Standards Codification (ASC) Topic 606, *Revenue from Contracts with Customers*.[1]

> Public entities[2] must apply the new revenue recognition rules for annual periods beginning after December 15, 2017, including interim periods therein. Therefore, a calendar year-end public entity would reflect the new standard in its first quarterly report for the period ending March 31, 2018, as well as for the entire year ending December 31, 2018. Nonpublic entities have an additional year to adopt. The new standard applies for annual periods beginning after December 15, 2018, and for interim periods within annual periods that begin one year later. Therefore, a calendar year-end nonpublic entity would first apply the new standard for the year ending December 31, 2019. If it also prepares interim financial statements, the new standard would first take effect for those interim periods in 2020. All entities are permitted to early-adopt the new standard.[3]

ASC 606 establishes comprehensive accounting and disclosure guidance for revenue recognition and will replace substantially all existing U.S. GAAP on this topic. The new guidelines will be substantially converged with IFRS 15, the comparable new standard issued by the International Accounting Standards Board (IASB).

MANUFACTURING INDUSTRY CONSIDERATIONS

The core principle of the new revenue recognition guidance is focused on the contract between a vendor and a customer for the provision of goods and services. Revenue is recognized when control over a good or service is transferred to the customer, and is based on the consideration to which the vendor is entitled. To accomplish this objective, the standard requires five basic steps:

1. Identify the contract with the customer,
2. Identify the performance obligations in the contract,
3. Determine the transaction price,
4. Allocate the transaction price to the performance obligations in the contract, and
5. Recognize revenue when (or as) the entity satisfies a performance obligation.

1 As promulgated in Accounting Standards Update (ASU) 2014-09, *Revenue from Contracts with Customers*. Over the past three years, the Financial Accounting Standards Board (FASB) has issued various amendments to ASU 2014-09 based on operational issues raised by the FASB/IASB Joint Transition Resource Group and other practitioners. This publication reflects FASB amendments issued through December 31, 2017.

2 A "public entity" is one that meets the definition of a "public business entity" in the ASC Master Glossary, as defined in ASU 2013-12, *Definition of a Public Business Entity*. Under ASU 2014-09, "not-for-profit" entities that have issued (or are conduit bond obligors for) certain securities will apply the same effective date as public business entities. Employee benefit plans that file or furnish financial statements with the SEC are also considered public. Many other entities are considered "nonpublic" under the new revenue recognition standard. Please see https://www.bdo.com/insights/assurance/sec/sec-flash-report-july-2017-(2)

3 Early adoption is permitted for annual reporting periods beginning after December 15, 2016. Public companies that elect early adoption must also apply the new standard to interim periods within the annual period of adoption. Nonpublic companies electing early adoption may apply the new standard to interim periods within the annual period of adoption, or to interim periods beginning one year later.

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Many entities adopting the new standard will experience changes in the timing and manner of revenue recognition. For some transactions, the changes could be significant and will require careful planning.

The following examples demonstrate how the new guidelines may affect companies in the manufacturing industry. We encourage you to read these examples in connection with ASC 606 itself, and our publication **BDO Knows FASB: Topic 606 Revenue from Contracts with Customers**, which describes the requirements of the new standard in more detail.

The examples and interpretations contained within this publication could continue to evolve. As we continue to study the new standard and monitor implementation efforts, we may update our guidance within this publication.

Revenue Recognition Over Time or at Point in Time

Under existing U.S. GAAP, companies that produce certain customized products built to the customer's specifications apply contract accounting in ASC 605-35, *Construction-Type and Production-Type Contracts*. Such companies are likely recognizing revenue using a percentage of completion method based on either:

- Input measures, such as the cost-to-cost method, or
- Output measures, including the units of production method.

Other companies may produce goods that do not fall within the scope of ASC 605–35. Revenues from these types of arrangements generally were recognized at a point in time, once substantially all of the risks and rewards ownership transferred to the customer.

Under ASC 606, all contract manufacturers will need to evaluate whether the performance obligations should be recognized over time, or at a point in time. This evaluation is required regardless of whether the manufacturer had been previously applying contract accounting under ASC 605–35. It is possible that some contract manufacturers that currently recognize revenue using a cost-to-cost method under legacy U.S. GAAP—i.e., recognizing revenue over time—will change to recognizing revenue at a point in time under ASC 606. Conversely, some manufacturers that currently record revenue at a point in time under legacy accounting rules may be required to recognize revenue over time under ASC 606.

Point-in-time revenue recognition means that the manufacturer would recognize revenues once control over the finished products has transferred to the customer. Over-time revenue recognition means that the manufacturer would record revenues during and throughout the manufacturing process, even prior to delivering the completed products to the customer.

ASC 606 requires over-time revenue recognition in any of the following three situations:

1. The customer simultaneously receives and consumes the benefits provided by the manufacturer as it performs.

2. The manufacturer's performance creates or enhances an asset (for example, work in process) that the customer controls as the asset is created or enhanced.

3. The manufacturer's performance does not create an asset with an alternative use to the manufacturer, and the manufacturer has an enforceable right to payment for performance completed to date.

For most manufacturers, only the second and third criteria above will be potentially applicable. For the second criterion, this requirement was included to address situations in which is it clear the customer controls the asset. One example is the integration of one customer-owned product into an additional component produced by the manufacturer, while another might be a contractual requirement for the customer to own and pay for all work in process. In determining whether the second criterion is met, manufacturers should consider the indicators of control in paragraph 606-10-25-30. It may be generally clear that the product is controlled by the customer, but if it is unclear, the third criterion is applied.

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This third item contains two components, which are described further in the following table:

Manufacturer's performance does not create an asset with an alternative use to the manufacturer	Manufacturer has an enforceable right to payment for performance completed to date
A manufacturer could create an asset that has no alternative use in one of two ways: ▶ The customer contract or laws/regulations prevent the manufacturer from selling the asset to another customer. ▶ There are no contractual or legal restrictions preventing the manufacturer from selling the asset to another customer, but the manufacturer is pragmatically limited in its ability to sell the asset to a different customer. This could be because the asset is highly unique or customized, and the manufacturer either would incur significant costs to rework the asset or would only be able to sell it at a significant loss.	A manufacturer has a right to payment for performance completed to date if the manufacturer would be entitled to an amount that at least compensates it for its performance completed to date if the customer terminates the contract for reasons other than the manufacturer's failure to perform as promised. An amount that would compensate for performance completed to date includes both recovery of the costs incurred by the manufacturer in satisfying the performance obligation through the cancellation date, plus a reasonable profit margin on those costs.[4]

To demonstrate, assume that Red, Inc. manufactures a branded product for a customer. Under legacy GAAP, revenue is recognized on delivery to the customer (i.e., the customer contract is not within the scope of ASC 605-35). Red determines that each unit ordered is a separate performance obligation or "accounting unit."

Each manufactured product is packaged in boxes prominently displaying the customer's logo and, contractually, the product can only be sold to the specified customer. The customer contract contains an enforceable right to payment for performance completed to date. Such payment would not only cover Red's costs incurred at any point in time throughout production of the branded product, but would also allow the manufacturer to generate a reasonable profit margin. Further, the contract contains a provision whereby the customer would take immediate ownership of work in process in the event the contract is cancelled.

Under the new revenue guidance (but unlike legacy GAAP), Red would recognize revenues for each manufactured unit over time (i.e., as each unit is being constructed). This arrangement meets both the second and third criteria requiring over-time revenue recognition. That is, the customer effectively controls work in process because it can take possession in the event of cancellation (criterion 2), and the contractual restriction precludes Red from selling a unit to another customer while Red has an enforceable right to payment throughout the term of the contract (criterion 3). Red determines that work in process is a material amount at the end of each reporting period. Accordingly, Red would recognize some revenue for in-process and completed units which have not yet been delivered to the customer as of the period's end.

Red will have to select an appropriate method of measuring progress toward satisfying the performance obligation. Appropriate methods of measuring progress include:

- Output methods (e.g., units delivered or produced)
- Input methods (e.g., actual costs incurred relative to total estimated costs to satisfy the performance obligation).

Selecting the measure of progress is not a free choice. ASC 606 requires that the measure of progress be based on the nature of the goods and services that are being transferred to the customer. From our earlier example, Red would likely use a cost-to-cost method or another appropriate input measure to recognize revenue for each unit upon adoption of ASC 606.

Today, some contract manufacturers applying ASC 605-35 may recognize revenue using the units-of-delivery method or based on the achievement of certain milestones. Under ASC 606, these methods may no longer be appropriate—particularly when control over a product is effectively transferring to the customer throughout the manufacturing process.

4 In some circumstances, a manufacturer may price a contract at a loss, usually in anticipation of additional future orders. The fact that the contract is priced at a loss does not preclude the manufacturer from concluding that the revenue should be recognized over time, as long as the terms of the contract provide for a pro-rata payment for work performed to date upon termination, assuming the product has no alternative use. Note, the guidance on accrual of costs related to loss contracts was not superceded by ASC 606, and continues to be applicable.

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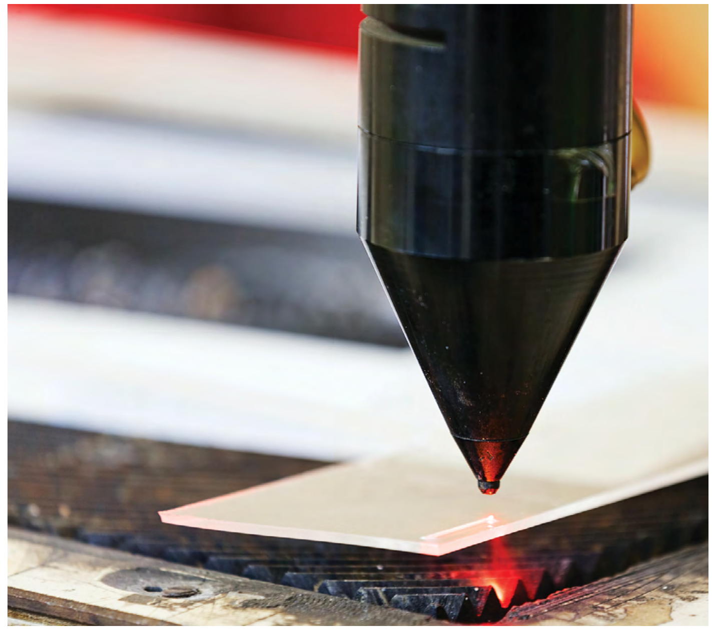
BDO OBSERVATION: It is possible that a manufacturer that is currently recognizing revenue using a percentage of completion method under ASC 605-35 may shift to a point-in-time revenue recognition methodology under ASC 606.

For example, assume that an aircraft engine manufacturer currently recognizes revenue using a cost-to-cost method under ASC 605-35. This is because the engines represent "complex aerospace or electronic equipment" built to a customer's specification.[5]

However, the engines could theoretically be sold to another customer—for instance, as spares directly to airlines. Therefore, management's performance under a contract to produce engines for a customer does not in fact create an asset with an alternative use to the manufacturer. Thus, the manufacturer may not meet the criteria in ASC 606 to recognize revenue over time if the customer does not otherwise obtain control of the product as it is being manufactured.



Elimination of the Sell-through Method

Under existing U.S. GAAP, manufacturing companies that sell to distributors might be required to use the so-called sell-through method to recognize revenue. Under the sell-through method, a manufacturer does not recognize revenue when products are delivered to distributors. Instead, the manufacturer waits to record revenue until the distributors resell the products to the end-users.

The sell-through method is sometimes required when a manufacturer provides its customers (i.e., the distributors) with general rights of return, price protection, or other rights. These rights could result in the selling price not being "fixed or determinable," which is a required condition to recognize revenue under the existing U.S. GAAP guidelines in SAB Topic 13 (ASC 605-10-S99).

The new revenue recognition rules do not require the price to be fixed and determinable to recognize revenue. The potential price concessions are considered variable consideration subject to the constraint. Therefore, manufacturers presently using the sell-through method because there is a significant risk of providing price concessions to distributors might be able to recognize revenue earlier under ASC 606, if the only uncertainty is the variability in the pricing and control of the products has transferred to the distributors. The standard provides five indicators that a customer (e.g., the distributor, in this case) has obtained control of an asset, including a) the entity has a present right to payment, b) the customer has legal title, c) the customer has physical possession, d) the customer has significant risks and rewards of ownership and e) the customer has accepted the asset.

When measuring the amount of revenue to recognize, the manufacturer must determine the "transaction price"—that is, the amount that it believes it is entitled to receive in exchange for transferring goods and services to its customer (i.e., the distributor). In determining the transaction price, a manufacturer must estimate ***variable consideration*** and review factors that could cause the transaction price to vary upwards or downwards. The estimate may be based on a most likely amount or an expected value, considering probability-weighted assumptions. The transaction price will then be limited to an estimate of variable consideration for which it is probable[6] that a significant reversal in the amount of cumulative revenue recognized will not occur when the uncertainty is subsequently resolved. In this way, the amount of variable consideration included in the transaction price is "constrained" to an amount that is not likely to be reversed in the future.

To demonstrate, assume that XDrive, Inc. sells 2,000 disk drives to a distributor for $50 per unit, but XDrive provides the distributor with generous return rights and will refund any price differential if XDrive sells the same product to another customer at a lower amount. Because of the number of possible outcomes that XDrive has experienced in historical transactions, XDrive has estimated the variable consideration using an expected value method, as shown in the table below.

5 See ASC 605-25-15-3(c), which indicates this type of contract is within the scope of ASC 605-35.

6 The ASC Master Glossary defines probable as the future event or events are likely to occur.

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Consideration for all 2,000 Disk Drives	Individual Estimated Probability of Occurrence	Cumulative Probability of Occurrence	Extended Value
$ 100,000	20%	20%	$ 20,000
$ 99,000	10%	30%	$ 9,900
$ 98,000	10%	40%	$ 9,800
$ 97,000	5%	45%	$ 4,850
$ 96,000	5%	50%	$ 4,800
$ 95,000	7%	57%	$ 6,650
$ 90,000	7%	64%	$ 6,300
$ 85,000	5%	69%	$ 4,250
$ 75,000	12%	81%	$ 9,000
$ 70,000	15%	96%	$ 10,500
$ –	4%	100%	$ –
			$ 86,050

The table indicates that the weighted-average expected transaction price would be $86,050, but XDrive would likely constrain the amount of revenue recognized to $75,000. Using a transaction price of $85,000 results in a 31% chance (100%-69% cumulative probability) that the ultimate transaction price will be less than this amount, and the amount of potential revenue reversal could be significant (anywhere from $10,000 up to $85,000). Using a transaction price of $75,000 reduces the risk of a significant revenue reversal in future periods when the uncertainties around any price protection payments or returns are subsequently resolved. At this transaction price, it is probable that a significant reversal of revenues will not occur as the likelihood of a $5,000 revenue reversal is 19%, and the probability of a $75,000 revenue reversal is just 4%.

In many cases, the number of possible outcomes will be fewer than shown in this illustrative example. Furthermore, it may not be necessary to quantify probabilities for all possible scenarios if a reasonable estimate of the distribution of possible outcomes can be determined with a smaller number of scenarios.

Efficiencies and Learning Curve Costs

Similar to existing guidelines in ASC 605-25, the new revenue rules require manufacturers to identify the "units of account" in a customer contract. Separate accounting units are known as distinct performance obligations(s) under ASC 606. A good or service within a customer contract is a distinct performance obligation—and a separate accounting unit—if:

- 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., the good or service is capable of being distinct)
- The manufacturer's promise to transfer the good or service to the customer is separately identifiable from other promises in the contract (that is, the promise to transfer the good or service is distinct within the context of the contract).

In applying ASC 606, manufacturers will assess whether orders requesting multiple products (or services) should be considered a single performance obligation, or whether each item within the order would be considered its own accounting unit.

For example, assume that HighQual, Inc. receives an order for 100 heat shrouds. HighQual will charge $50 per shroud, which is consistent with the pricing offered to other customers. Each shroud takes about two days to manufacture. Usually, there are normal learning curve costs when the first 8-12 shrouds are produced. Eventually, as production ramps up, the per-unit manufacturing cost declines.

Assume that as of year-end, 10 shrouds have been manufactured and control of these products has transferred to the customer. Depending on HighQual's determination of the number of distinct performance obligations in the customer contract, different revenue and cost recognition patterns will result:

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- If HighQual concludes that each shroud is a separate unit of account and that revenue should be recognized at a point in time, the company would record revenue for the 10 delivered shrouds as of year-end ($50 x 10 shrouds or $500). Moreover, HighQual would recognize as cost of goods sold the actual costs associated with producing those 10 shrouds. On a per-unit basis, such costs would be higher than the anticipated costs of producing the remaining 90 shrouds in the order. Accordingly, HighQual will record ***lower margins*** on the first 10 shrouds produced and transferred to the customer, and would likely show higher margins when the remaining order is fulfilled.

BDO OBSERVATION: In some cases, it is possible that a manufacturer might recognize a loss on the first few items delivered, but larger profits on the final items transferred under the contract.

- Conversely, in some situations it might be more appropriate to determine that the entire order represents a single performance obligation. For instance, this could occur if the customer requests a new design for the shrouds, such that the development of the manufacturing process and the production of the shrouds are interdependent. HighQual would then need to evaluate whether the single performance obligation should be recognized at a point in time, or over time (as described earlier in this publication). If revenue from the single performance obligation is recognized at a point in time, then any production cost would be recorded in inventory, and charged to cost of goods sold in the period in which control over all 100 shrouds is transferred to the customer and revenues are recognized. However, if revenue should be recognized over time, then HighQual must select a suitable measure of the progress toward completion, and recognize revenue based on that measure. To demonstrate, assume that HighQual believes the entire 100-unit order will cost $2,000 to produce, and the first 10 units actually cost $400 to manufacture. Assuming that a cost-to-cost approach is an appropriate measure of progress, HighQual would recognize $1,000 of revenues [($50 x 100 shrouds) x ($400 / $2,000)] at year-end. Provided there are no changes in estimated or actual costs to fulfill the order, HighQual would recognize a ***consistent profit margin percentage*** over the entire contract period.

BDO OBSERVATION: Under ASC 606, significant inefficiencies that were not reflected in the price of the contract (such as the costs of unexpected amounts of wasted materials, labor, or other resources that were incurred to satisfy the performance obligation) should be expensed as incurred and excluded from a cost-based measure of progress.

Optional Purchases and Volume Discounts

Sometimes, manufacturing and supply contracts include customer incentives to entice future optional purchases. For example, assume that Tinto, Inc., a manufacturer of sunglasses, enters into a contract with a new customer to sell 10,000 sunglasses at $15 each. Moreover, Tinto provides the customer with the option to purchase up to 100,000 additional sunglasses for $10 each. The offer expires in two months' time.

Upon entering into a customer contract, Tinto should assess whether any customer incentives provide a material right to the customer that it would not have received without entering into that contract.

- A material right represents an option to purchase future goods and services at a discount that is incremental to the range of discounts typically given for those goods or services to that class of customer in that geographical area or market.
- If the contract provides a material right to the customer, the customer in effect pays in advance for future goods or services. Under ASC 606, this means that a material right is a separate performance obligation at inception of the contract. Part of the transaction price is allocated to the material right and this revenue is recognized when those future goods or services are transferred or when the option expires.

Returning to the earlier example, assume Tinto normally offers a 20% discount for large purchases—i.e., it would typically price a 100,000-unit bulk order at $12 per unit. Since Tinto has agreed to provide a $10 per unit price, the customer has received a significant discount that it would not have obtained without entering into the initial contract. At inception of the arrangement, Tinto would establish separate performance obligations for the current order and the material right.

Typically, Tinto would allocate the transaction price using a relative standalone selling price methodology, which would involve making an estimate of the price at which Tinto would "sell" the material right on a standalone basis. However, in this fact pattern, Tinto may employ the practical expedient in ASC 606-10-55-45. This practical alternative is available when the optional goods or services are both (1) similar to the original goods and

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services in the contract and (2) provided in accordance with the terms of the original contract. Under the practical expedient, Tinto determines the total transaction price it expects to receive to be $1,150,000 (i.e., 10,000 units at $15 per unit and 100,000 at $10 per unit). The amount allocated to the goods or services that Tinto is ***required*** to transfer is $104,545 (i.e., $1,150,000 divided by 110,000 units x 10,000 units) and $45,455 is allocated to the material right ($150,000 transaction price, less the revenue allocated to the goods and services required to be transferred of $104,545). If the option is exercised, the amount allocated to the material right would be combined with the $1,000,000 transaction price from the contract renewal and recognized as revenue when control of the underlying units is transferred. Alternatively, if the option is not exercised, the revenue allocated to the material right would be recognized when the option expires.

Had Tinto estimated that the customer would have only ordered 75,000 additional sunglasses at the discounted price of $10, then the total price would be $900,000 (i.e., 10,000 units at $15 per unit and 75,000 at $10 per unit). Approximately $105,882 of revenue would have been allocated to the original 10,000 sunglasses (i.e., $900,000 divided by 85,000 units x 10,000 units) and $44,118 of revenue would have been allocated to the material right ($150,000 transaction price, less the revenue allocated to the goods and services required to be transferred of $105,882).

BDO OBSERVATION: If the price offered to the customer for the optional goods represented their standalone selling price ($12 per unit based on the volume), the option would not be a material right, even if it could only be exercised by entering into the previous contract. Instead, the option would be ignored until and unless it was exercised. Upon exercise, the option would be accounted for as a contract modification. Contract modifications are described in more depth later in this publication.

Volume rebates, in which a customer is offered a rebate if a certain amount of cumulative purchases are made, are not considered a material right. Instead, the rebate is a form of variable consideration which a manufacturer would consider in estimating the transaction price. For instance, assume that Tinto offers a promotion—if a customer purchases 100,000 units over a two-month period, the customer will receive a $1-per-unit rebate. At the time each unit is shipped, Tinto invoices the customer $15 per unit. Nonetheless, Tinto may conclude that it should recognize revenue at $14 per unit after considering the likelihood that the customer will meet the performance target, as well as considering the notion of the constraint.

Price Deflation

Under the new revenue recognition rules, the transaction price is allocated to each performance obligation on a relative standalone selling price basis. If, in a manufacturing arrangement, the unit price varies over the duration of the contract, the manufacturer will need to consider whether the change in price is substantive and linked to changes in the entity's cost to fulfill the obligation or value provided to the customer.

To demonstrate, manufacturers may sometimes agree to plan price deflation in contracts with customers. For instance, assume CM Co. agrees to sell an electronic component to a customer for $100 per unit; however, the price per unit will decline by 2% each quarter over the remaining 18-month term of the contract. The price decreases are designed to correspond with savings that CM will achieve from efficiencies and productivity gains as they garner more experience in manufacturing the components.

Presuming that each component is a distinct performance obligation, CM Co. should ***not*** try to "levelize" the transaction price when allocating it across all of the components to be delivered under the contract—that is, CM should ***not*** use a straight-line methodology to ensure that every unit sold under the contract is recognized at the same exact transaction price. Instead, CM should recognize revenue based on standalone selling price adjusted for planned price deflation. This is because the changes in price are substantive and linked to changes in CM's cost to fulfill the obligation or value provided to the customer.

Note that this same conclusion would result if the pricing reset mechanism was based on market terms (e.g., the contract price is benchmarked to a market price or relevant index).

BDO OBSERVATION: As described in the prior example, attributing a declining price to units to be delivered in a customer contract may be consistent with the standalone selling price allocation principle in ASC 606 so long as the reasons for the planned price decreases are substantive (e.g., to pass along anticipated cost savings and manufacturing efficiencies to the customer).

In contrast, if the reasons for the planned price deflation are not substantive, it is not appropriate to allocate declining prices to future units in a customer contract. For example, a manufacturer should not allocate higher prices to the first units delivered when the customer contract includes planned price reductions simply in an attempt to recognize more revenue sooner.

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Warranties

ASC 606 differentiates between assurance warranties and service warranties:

- Warranties that only provide a customer with the assurance that the product will function in accordance with agreed-upon specifications are accounted for in accordance with existing guidance on product warranties.[7]

- In contrast, some warranties actually provide the customer with a service. For instance, a customer could purchase an extended warranty that requires the original equipment manufacturer to repair the good if it stops working after the standard warranty period expires.

If a customer has the option to purchase a warranty separately, it represents a service warranty that should be accounted for as a separate performance obligation. Even if a warranty is not sold separately, a manufacturer should evaluate whether it contains a service component in addition to an assurance component. In assessing whether a contract contains a service warranty (in addition to assurance that the product complies with agreed-upon specifications), manufacturers should consider factors such as the length of the warranty coverage period and the nature of the tasks that the vendor promises to perform.

To demonstrate, assume that Valises, Inc. manufactures high-end, designer computer carrying cases. Each computer case comes with a lifetime warranty on parts and labor. The warranty covers any type of damage to the case, no matter the cause.

Each customer contract likely has both an assurance and service warranty due to the length of time covered by the warranty and the fact that it covers damage beyond manufacturing defects. Valises would have to devise an accounting policy, controls, and processes to:

- Identify the implicit assurance warranty period, as well as the likely period of time customers will benefit from the service warranty,

- Determine what portion of the transaction price is allocable to the service warranty, and [8]

- Recognize the amount of revenue allocated to the service warranty over the anticipated period that customers will benefit from the implied service warranty. Revenue recognition on the service warranty should commence starting with the end of the assurance warranty period.

BDO OBSERVATION: Under existing GAAP, a separately priced extended warranty is accounted for as a separate accounting unit for which revenue is recognized over the extended warranty period, similar to the approach under ASC 606.

However, under ASC 606, the amount of transaction price allocated to a separately priced extended warranty contract is determined using a standalone selling price methodology, rather than simply using its stated contractual price as is the case under current U.S. GAAP.

Conversely, under current guidance, a warranty that is not separately priced is generally not accounted for separately, while under ASC 606, it will need to be assessed to determine whether a portion of the warranty represents a service warranty that must be accounted for separately. To note, companies will still be required to accrue costs related to the assurance warranty as required under ASC 460.

Contract Modifications

A contract modification is a change in the scope and/or price of a contract that is approved by the parties to that contract. Existing U.S. GAAP provides limited guidance on accounting for contract modifications. In contrast, the new revenue recognition rules contain a robust framework under which all contract modifications should be evaluated.

Under ASC 606, a contract modification is accounted for as a separate contract—and does not affect the original contract in any way—if both:

- The scope of the contract changes due to the addition of promised goods or services that are distinct, and

- The price of the contract increases by an amount of consideration that reflects the vendor's standalone selling price of the additional promised goods or services, and any appropriate adjustments to that price to reflect the circumstances of the particular contract.

If these criteria are not met, the accounting for the modification will depend on whether the remaining goods or services yet to be transferred from the original contract are distinct from any new goods or services arising from the contract modification.

- If the remaining goods and services are distinct, the contract modification is accounted for as a replacement of the original

7 See, for example, paragraphs 5-7 of ASC 460-10-25.

8 Note ASC 606-10-55-34 indicates If an entity promises both an assurance-type warranty and a service-type warranty but cannot reasonably account for them separately, the entity should account for both of the warranties together as a single performance obligation.

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contract with a new contract. Any revenue and cost remaining to be recognized under the original contract, plus revenues and costs from the contract modification, are combined into a "new contract" and the combined arrangement is accounted for prospectively.

- If the remaining goods and services are not distinct, the contract modification is accounted for as part of the original contract. This will likely result in an adjustment to revenue recognized to date (i.e., a cumulative catch-up adjustment as of the contract modification date).

To demonstrate, assume FlyBy, Inc. is a manufacturer of drones. FlyBy entered into a contract with a customer to sell 1,000 drones for $250 per unit. FlyBy has determined that each individual unit is a distinct performance obligation. After 500 units have been delivered and $125,000 of revenue has been recognized, the contract is modified to require the delivery of an additional 250 units at price of $270 per unit. This is lower than the current standalone selling price of each drone, which is now $300 per unit due to an increase in the price of a key raw material. FlyBy agreed to a discounted price in order to maintain good customer relations.

FlyBy determines that the contract modification adds additional units that are distinct, but the negotiated price of $270 per unit does not reflect the standalone selling price of the additional products. Accordingly, FlyBy accounts for the modification as a termination and replacement of the original contract with a new contract. FlyBy would use a blended price of $256.67 per drone as the transaction price of the new contract {[($250 × 500 products not yet transferred under the original contract) + ($270 × 250 products to be transferred under the contract modification)] ÷ 750 remaining total products to be transferred to the customer}. Note that revenues and costs associated with the 500 units delivered under the original contract terms are not adjusted in any way.

Alternatively, consider a situation in which FlyBy is engaged to design a custom drone for the U.S. military. As part of the contract, FlyBy must develop a prototype of the drone, prove that it meets the military's specifications, design and build a manufacturing process, and then produce 1,000 drones. Given the interrelatedness of the various stages, FlyBy concludes that there is only one performance obligation, for which revenue is recognized over time. After beginning work on the project, the military requests a change to one of the key specifications, which results in incremental costs and billings. This change order represents a modification of the contract. Because the remaining goods and services to be provided under the contract are not distinct from the previous efforts, the modification is accounted for as part of the original contract. Revenues recognized to date are revised to reflect the new estimates of total revenues and total costs to be incurred under the revised contract.

Tooling and Set-Up Activities

Manufacturers often incur significant costs at inception of a contract for tooling, equipment and engineering start-up activities. Manufacturers will need to consider whether these pre-production activities are a promised good or service or if they are fulfillment activities. This will require judgment and consideration of the facts and circumstances. If a manufacturer has difficulty in determining whether a pre-production activity is a promised good or service in a contract, it should consider whether control of that good or service is transferred to the customer (e.g., the customer will own the results of these activities even if the contract is terminated). If so, this may indicate that the pre-production activity is a promised good or service.

Assume that API Productions, Inc. (API) manufactures parts for the car industry and has entered into a contract with a customer to supply pistons. Each piston is determined to be a distinct performance obligation. To fulfill the contract, API must purchase an additional diamond-core cutting machine costing $500,000 and tooling costing $200,000. Furthermore, API will incur engineering costs of $100,000 to configure the production line. API will receive $1,000,000 from the customer at inception of the contract to compensate for the set-up costs, as well as $10 per piston. API retains title to the equipment, tooling and any intellectual property (e.g., patents) that results from the engineering activities. API is also responsible for maintaining and directing the use of the tooling and equipment.

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Based on these facts, API determines that the pre-production activities do not result in control of goods or services being transferred to the customer. Therefore, the pre-production activities are not a promised good or service and cannot be a separate performance obligation within the contract. API would include the upfront $1,000,000 payment within the transaction price, initially recording the amount as a contract liability (deferred revenue). A portion of the contract liability would be derecognized and credited to revenues as control over each piston is transferred to the customer (presuming the contract consists of multiple performance obligations —i.e., each piston is a separate performance obligation).

BDO OBSERVATION: If pre-production activities do not represent a separate performance obligation and are related to a performance obligation for which revenue is recognized ***over time*** (instead of a point in time, as is the case in this example), the pre-production activities would not be considered when measuring progress toward completion of that performance obligation because they do not result in control of a good or service being passed to the customer. In other words, the manufacturer would not recognize any revenue just by incurring any of the $800,000 of pre-production activities. Instead, the costs would be treated as costs to fulfill a contract. See the next section for further information on costs of contracts.

In contrast, if the pre-production activities were determined to be a promised good or service, a portion of the transaction price would be allocated to that good or service, as either a single performance obligation or as part of a combined performance obligation that includes the pre-production activities along with other goods and services.

BDO OBSERVATION: Under existing GAAP, there has been diversity in practice in accounting for pre-production costs associated with long-term supply contracts.

ASC 340-10 provides guidance on accounting for the costs of designing and developing "molds, dies, and other tools that will be used in producing" products under a long-term supply agreement. ASC 606 did not amend or supersede the guidance provided on pre-production costs in ASC 340-10. Manufacturers that concluded that its pre-production costs were within the scope of ASC 340-10 should continue to follow that guidance. Companies that analogized to ASC 340-10 in accounting for similar types of costs should consider whether changes are necessary. Refer to the next section of this publication for further details.

In addition, under existing GAAP, manufacturers have presented monies received from customers related to pre-production activities as either revenue or a reimbursement of cost. Companies should evaluate whether their accounting policies continue to be appropriate under ASC 606. We understand that if a public company believes that it should switch from an expense reimbursement presentation to revenue following adoption of ASC 606, it should consult (either formally or informally) with the SEC.

Cost of Contracts with Customers

Existing GAAP does not contain explicit guidance on the accounting for costs of obtaining and fulfilling a customer contract.

ASC 340-40, *Other Assets and Deferred Costs – Contracts with Customers*, was issued concurrently with ASC 606 and provides specific guidance on the accounting for both the incremental costs of obtaining and the costs incurred in fulfilling a contract.

Before applying ASC 340-40, manufacturers should first evaluate whether costs are within the scope of existing U.S. GAAP, such as ASC 330, *Inventory*, ASC 360, *Property, Plant, and Equipment*, or ASC 350-40, *Internal Use Software*. If no other U.S. GAAP applies, manufacturers should apply ASC 340-40, which requires the following:

- *Incremental costs of obtaining a contract* that the entity expects to recover should be deferred and amortized on a systematic basis consistent with the pattern in which revenue related to the contract is being recognized. As a practical expedient, a manufacturer may recognize the incremental costs of obtaining a contract as a period expense if the amortization period would have been one year or less. ASC

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340-40 defines the *incremental costs of obtaining a contract* as those costs that an entity incurs to obtain a contract with a customer that it would not have incurred if the contract had not been obtained (for example, a sales commission).

- *Costs incurred in fulfilling a contract* are those that meet the following criteria:
  - The costs relate directly to a performance obligation under a contract or anticipated contract;
  - The costs generate or enhance resources of the vendor that will be used to satisfy performance obligations in future; and
  - The costs are expected to be recovered through future sales.

Costs incurred to fulfill a contract should be accounted for similar to incremental costs of obtaining a contract; however, there is no practical expedient to immediately expense costs incurred in fulfilling a contract, even if the related contract will conclude in one year or less.

To demonstrate, assume that Rays, Inc., a manufacturer of solar panels, enters into a contract to sell 10,000 units at $500 per unit to a new customer. Rays used an external sales agent to facilitate the sale and owes the agent a sales commission of 0.5% of the contract price, payable upon signing the contract. Rays incurred legal costs of $5,000 for drafting the customer contract and $2,000 for checking the customer's creditworthiness. Once the contract was signed, Rays purchased tooling for $25,000 and incurred engineering costs of $100,000 to facilitate production of the solar panels. The tooling and engineering activities do not represent a good or service which is transferred to the customer (Rays retains title and control of the tooling and owns and controls all intellectual property arising from the activities).

Rays first determines if any of the costs are within the scope of any existing U.S. GAAP.

- The tooling would be equipment purchased by Rays accounted for in accordance with ASC 360, *Property, Plant and Equipment*.
- Rays determines that the engineering activities are within the scope of ASC 730, *Research and Development*, and the costs should be expensed as incurred. This is because the costs meet the definition of development activities, and are not specific to the customer contract. That is, the intellectual property resulting from the engineering efforts can be used by Rays to fulfill other future customer orders.

Rays would then apply the provisions of ASC 340-40. The commissions of $25,000 (0.5% x $500 x 10,000) would not have been incurred except for the fact that Rays obtained the new contract, and Rays expects to recover the costs through revenue obtained under the new contract. These costs would be deferred under ASC 340-40 and amortized proportionally in the same pattern that revenues from the contract will be recognized.

The legal ($5,000) and credit review ($2,000) costs would be expensed as incurred, as they are not incremental costs of obtaining a contract. Simply, these costs would have been incurred even had the contract not been signed.

BDO OBSERVATION: In certain instances, commissions paid at inception of a customer contract exceed those paid upon contract renewal, if any. In these situations, careful consideration should be given on whether the manufacturer may apply the practical expedient of immediately recording the incremental payments as a period expense. That is, the manufacturer should evaluate whether the amortization period is actually one year or less.

Specifically, the amortization period for the initial commissions would be one year or less if (a) the commissions paid at contract renewal are ***commensurate*** with (b) the commissions paid at contract signing.

To demonstrate, assume BitPart, Inc. enters into a one-year, $100,000 renewable maintenance contract with a customer. BitPart pays a 5% commission on contract signing to its sales agent, and will pay that same individual a smaller 1% commission upon contract renewal. The difference in the renewal rates stems from BitPart's belief that the level of effort necessary to obtain a renewal is far less than initially entering into a new contract.

The FASB staff indicated that the "level of effort" to obtain a contract or renewal should not factor into determining whether the commission paid on a contract renewal is commensurate with the initial commission. Instead, a renewal commission is commensurate with an initial commission if the two commissions are reasonably proportionate to the respective contract values (e.g., both are 2% of the amounts invoiced to customers). Therefore, if a contract does not contain commensurate commissions, the initial commission may relate to a contract period beyond the initial term.

Returning to our example, the initial and renewal commissions are not commensurate. Accordingly, BitPart would not qualify for the practical expedient and instead would defer and amortize the initial commissions over a period that considers both the initial contract term and any expected renewals. If the customer is expected to renew the contract four times, BitPart would:

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- Consider the guidance in ASC 340-40-25-1 that requires deferred costs to be amortized "on a systematic basis that is consistent with the transfer to the customer of the goods or services to which the asset relates." As revenues from the contract will be recognized in a consistent amount of $100,000 per year, BitPart determines that any deferred costs should be recognized on a similar straight-line basis.
- In aggregate, BitPart anticipates paying commissions of $9,000 [$5,000 initial commission + (4 years x $1,000 renewal commissions)]. Accordingly, BitPart would record $1,800 of commission expense per annum ($9,000 / year anticipated amortization period). Specifically, BitPart would record the initial $5,000 commission payment as a deferred cost, and would amortize $1,800 of that deferred cost in the first year of the contract. BitPart would then amortize $800 of the remaining deferred cost per year in each of the next four years; that amount, added to the $1,000 of commissions paid in each renewal period, would result in a total $1,800 of commission expense each year. It may also be acceptable for BitPart to amortize the $5,000 over the five years of expected contract life, and subsequently expense each $1,000 renewal commission in the year to which it relates, as long as BitPart applies one approach consistently to all similar contracts.

TRANSITION METHODS

Both public and nonpublic entities may adopt ASC 606 using a full retrospective approach whereby all prior periods presented are restated. When using this transition method, certain practical expedients are permitted, as described below:

- Contracts that begin and end in the same annual reporting period would not need to be considered under ASC 606.
- Entities can use hindsight in accounting for contracts that contain variable consideration. That is, entities may use the final transaction price at the date the contract was actually completed, rather than estimating the variable consideration at inception and at each comparative reporting period.
- Entities can elect to reflect the aggregate effect of all modifications that occur before the beginning of the earliest period presented when identifying the satisfied and unsatisfied performance obligations, determining the transaction price, and allocating the transaction price to the satisfied and unsatisfied performance obligations.
- Entities are not required to disclose the amount of a contract's transaction price that was allocated to the remaining performance obligations or an explanation of when those obligations are expected to be recognized as revenue for reporting periods presented before the date of initial application (e.g., January 1, 2018, for a calendar year-end public entity).

Alternatively, entities can elect to adopt ASC 606 using a "cumulative effect" approach. Under this approach, an entity would apply the new revenue standard only to contracts that are incomplete under legacy U.S. GAAP at the date of initial application (e.g., January 1, 2018, for a calendar year-end public company) and recognize the cumulative effect of the new standard as an adjustment to the opening balance of retained earnings. That is, prior years would not be restated.; however, additional disclosures would be required to enable users of the financial statements to understand the impact of adopting the new standard in the current year compared to prior years that are presented under legacy U.S. GAAP.

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Many companies might assume that the cumulative effect transition approach would be easiest to implement. This may not be the case, however, for some types of organizations, including:

- **Companies that have longer-term contracts.** The cumulative effect transition approach applies to contracts that are incomplete at the date of initial application (e.g., January 1, 2018, for a calendar year-end public company). For companies with longer-term contracts—such as enterprises that offer multi-year maintenance and support contacts—calculating the adjustment to opening retained earnings may require substantial effort, including analysis spanning back many reporting periods.
- **SEC registrants.** Under the cumulative effect transition approach, companies will not restate prior periods. Therefore, it may be challenging for public companies to craft Management's Discussion and Analysis (MD&A) in their SEC filings, especially when comparing the results of operations for periods immediately before and after the adoption of the new revenue guidelines.
- **Companies whose financial systems are limited.** In the year of adoption, companies electing the cumulative effect transition approach must disclose how their financial statements would have looked had existing accounting rules continued to be applied during that year. Such companies will need to keep two sets of accounting records in the initial year of adoption, which may be difficult for businesses whose financial systems are not equipped to do so.

In addition, using a cumulative effect transition approach may result in unusual trends for some companies, including revenues that may seemingly disappear. To demonstrate, assume Cool, Inc., a calendar year-end public business entity, manufactures electric fans that are sold through distributors. Under existing U.S. GAAP, Cool recognizes revenue using the sell-through method. As at December 31, 2017, Cool has shipped 1,000,000 units to distributors for which revenue has been deferred.

Under ASC 606, Cool determines that control of each unit transfers upon delivery to the distributor. The associated transaction price of these units, adjusted for an estimate of future discounts and constrained to the amount which is not probable of being reversed estimates, is $5,000,000.

If Cool applies a cumulative effect transition approach, $5,000,000 of revenues associated with the units already shipped to the distributor would never appear in any income statements. This is because prior periods are not restated under the cumulative effect method of transition. Hence, the 2017 comparative financial statements would not reflect the revenues from transferring the units based on the accounting rules in place at that time. Similarly, these revenues would not be reported in the 2018 financial statements because they would have been recognized on December 31, 2017, under ASC 606. In effect, the $5,000,000 of revenues disappear, ending up as part of the adjustment to opening retained earnings on January 1, 2018.

In sum, management should carefully evaluate which method of adopting the new standard is appropriate for its circumstances. It will not always be the case that applying the cumulative effect transition approach will involve the least effort, or best reflect a company's financial trends across all periods presented in the financial statements.

For additional discussion of transition methods, refer to BDO Knows Topic 606: *Exploring Transition Methods*.

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NEXT STEPS FOR MANAGEMENT

Assess the impact. Management should continue evaluating the potential impact of the new standard on each specific revenue stream of the entity. To complement this process, management should provide ongoing training on the new standard to financial reporting professionals.

Select a transition method. Management should select its transition method. Conversations with the company's financial statement users and also peer companies may be useful for this purpose. Note that the SEC staff has provided relief for companies that apply a retrospective transition approach. Specifically, the Division of Corporation Finance's Financial Reporting Manual states that registrants that select a full retrospective approach are not required to apply the new revenue standard when reporting selected financial data to periods prior to those presented in its retroactively-adjusted financial statements. That is, a company would be required to reflect the accounting change in selected financial data only for the years for which it presents full financial statements elsewhere in the filing. Companies will be required to provide the disclosures regarding comparability of the data presented.

Update SAB 74 disclosures. SEC registrants should continue to make disclosures under Staff Accounting Bulletin No. 74 (codified in SAB Topic 11-M) in their interim and annual filings. SAB 74 addresses disclosure of the impact that recently issued accounting standards will have on the financial statements of the registrant when adopted in a future period. The SEC staff has indicated that it expects these disclosures to evolve over time as companies begin to better understand how the standard will impact their financial statements. Moreover, ASU 2017-03 codifies the SEC's views that a registrant should disclose "a description of the effect of the accounting policies that the registrant expects to apply [under ASC 606], if determined, and a comparison to the registrant's current accounting policies." Also, a registrant should "describe the status of its process to implement ASC 606 and the significant implementation matters yet to be addressed."

Review internal controls. Management, particularly of public companies, will likely need to revise documented processes and controls to ensure they are sufficient to prevent or detect material misstatements under the new guidance. Further, public entities must report changes in the entity's internal controls in the period they occur. The SEC's Chief Accountant reminded registrants[9] that "companies will need to design and implement internal controls to evaluate the application of the standard to a company's specific facts and circumstances." In addition, the Chief Accountant noted that "the preparation of the transition disclosures under SAB 74 should be subject to effective internal control over financial reporting and disclosure controls and procedures."

Deploy investor communications. Management and boards should estimate the effect on earnings to set expectations for investors, lenders, analysts, and other stakeholders.

Assess debt covenants. Management may need to discuss similar changes with lenders to revise debt covenants that are impacted by revenue, such as EBITDA and times-interest-earned ratios.

Adjust contract terms. Management may consider possible changes to its standard contracts.

Consider income taxes. The changes in timing of revenue recognition may result in changes in current taxable income since many entities use U.S. GAAP to determine revenue recognition for income tax purposes. The new standard may also impact an entity's deferred taxes. Since an entity's income tax accounting depends on specific facts and circumstances, consultation with a tax advisor may be useful. Refer to **BDO's Alert** on tax implications of the new standard, and keep in mind that the tax reforms that President Trump signed into law on December 22, 2017, could also impact your organization's tax strategy. Read our **alert** for analysis on the specific provisions that will have the greatest impact on the manufacturing industry.

Consider compensation and other revenue-based metrics. Management may consider possible changes to compensation arrangements that are driven by revenue if the timing or pattern of the entity's revenue recognition changes under the new guidance.

Evaluate IT systems. Management should consider whether changes are required to accounting or other IT systems. Changes in systems may take time to implement, and a manual solution with appropriate internal controls may be required in the short term.

Update judgments and estimates. In some situations, management will be required to make more estimates and use more judgment than under current guidance, such as estimates related to variable consideration discussed above. Those matters will be highlighted for users through increased disclosure requirements.

9 Remarks before the 35th Annual SEC and Financial Reporting Institute Conference by Wesley R. Bricker, Deputy Chief Accountant on June 9, 2016.

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