



Hot Topic: Coronavirus

Potential impacts on the accounting for arrangements with customers

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KPMG highlights potential effects of COVID-19 on the accounting for revenue, inventory and other related costs.



Background

The COVID-19 outbreak is having a significant impact on global markets driven by supply chain and production disruptions, workforce restrictions, travel restrictions, reduced consumer spending and sentiment, among other factors. The effects of COVID-19 will negatively impact companies' financial performance and revenue projections.

As part of the overall analysis of the financial reporting impacts of COVID-19, companies will need to evaluate a number of different estimates and judgments to account for their revenue arrangements and related costs (including inventory) in this environment of rapidly changing customer demand and behavior. Companies may also apply certain aspects of the revenue guidance that they had not, or less frequently, applied in the past. This Hot Topic provides reminders about some of the potential impacts that COVID-19 may have on the accounting for revenue (Topic 606), related costs and inventory, including:

- variable consideration;
- customer credit risk;
- contract modifications;
- stand-alone selling prices;
- inventory;
- contract costs;
- other customer incentives and estimates;
- disclosures; and
- subsequent events.



Variable consideration

Estimates of variable consideration will require evaluation and adjustment due to rapidly changing and unpredictable customer behavior and demand, as well as supply chain and workforce disruption.

Topic 606 requires that variable consideration be estimated and constrained to an amount that is not probable of significant reversal when the uncertainty is subsequently resolved. Variable consideration takes many forms and can be explicit or implicit and is estimated at contract inception and updated each subsequent reporting period until the uncertain amount is known.

There are a number of different ways the impact of COVID-19 could affect a company's accounting for variable consideration in its contracts with customers, including the following.

Service level agreements and liquidated damages

Customer contracts that may include fixed price consideration may also include service level guarantees that require the company to provide credits or refunds to the customer as a penalty for not meeting the specified service levels. The current disruption to business and the workforce may cause companies to be unable to meet the service levels they promised to their customers. The supply chain disruptions may also cause delays in projects that could subject the company to liquidated damages. Companies should consult legal counsel to determine whether force majeure clauses in a customer or subcontractor contract would permit non-performance without incurring a penalty based on the specific facts and circumstances and legal jurisdiction.

Performance bonuses or fees

Companies may be entitled to additional consideration contingent on future events (e.g. investment returns, performance metrics). Companies will need to reevaluate whether any estimated variable consideration of this nature is required to be constrained. This will include evaluating the likelihood of a downward adjustment in the estimate of these fees and the magnitude of the potential reversal. Constraints on company or subcontractor performance as a result of work shortage and supply chain issues creates a higher likelihood of revenue reversal for performance fees. A company's experience with similar types of contracts may not be predictive in the current environment. The degree of uncertainty in the current environment may require applying a full constraint (i.e. no related revenue recognized) in many situations (e.g. investment performance fees based on market returns).

Price concessions

Companies may offer, or customers may expect, price concessions in response to a decrease in customer demand. These concessions can be implied from past business practices, published policies or specific statements. Companies need to evaluate their intentions to provide concessions and consider their business practices in past economic recessionary environments. If a company grants a price concession when there is no previous pattern of such concessions, the company accounts for that price concession as a contract modification affecting price only. We expect the accounting for price concessions as modifications will be relatively infrequent because a history of providing concessions can be created with relatively few instances of such price concessions. Some of the types of variable consideration noted below may represent price concessions.

Return rights

Companies that provide customers with the right to return goods should monitor returns for changes in customer behavior. Companies could experience higher returns than a historical lag analysis may indicate if customers begin returning items in response to their unexpected cash flow and liquidity needs. Estimates will also need to be adjusted for changes in company policy or practice. Companies may also be willing to take returns that were not accepted under the original terms of the customer agreement or they may waive certain restrictions on returns or extend return periods. Accounting policies that rely on a returns lag analysis to estimate future returns may need to be reconsidered and adjusted to ensure the estimates reflect current expectations based on potentially rapidly changing or unprecedented trends in customer behavior.

Trailing commissions

Trailing commissions often occur when an agent brokers a sale to an end customer on behalf of a principal entity (the agent's customer) and receives subsequent payments from the principal entity based on factors outside of the agent's control – e.g. each time the customer renews the good or service. When the selling agent has no further obligations after initial sale, the trailing commissions are recognized based on the application of the variable consideration guidance. Companies with these types of arrangements will need to consider how the current environment and a further economic recession may affect renewal rates and their estimated revenue.

Price protection clauses

Companies may have arrangements with end customers or resellers where they agree to provide a rebate or a credit for a portion of the arrangement fee in the event the company reduces the price for the company's products. This may include reseller scenarios where the reseller has not yet sold the products to end customers. These clauses may also apply to services or usage-based fees. If a price protection clause is applied retrospectively (i.e. changes the price for goods or service already transferred or partially transferred), the transaction price includes variable consideration. Price protection clauses may be triggered more often as companies reduce prices in an effort to increase customer purchases. Companies may also provide price protection in arrangements they had not previously.

Rebates, credits and coupons

Companies that provide volume rebates or discounts and credits that are applied retrospectively to goods or services already provided will need to evaluate whether their previous expectations about their customers' volume of purchases should be revised. Changes to volume rebate targets or coupon and discount plans will require changes to previous estimates (e.g. companies may lower volume targets or increase discounts to attempt to incentivize purchases).

See sections 5.2, 5.3 and 5.4 of KPMG's Handbook, [Revenue recognition](#), for further guidance on the accounting for variable consideration.



Customer credit risk

Customer credit risk could increase significantly and quickly as economic activity declines abruptly, continues to deteriorate and unemployment or underemployment rises. This will have an effect on receivables and contract assets, as well as potentially the timing and amount of revenue to be recognized in the future.

Receivables and contract assets

A company assesses both receivables and contract assets for impairment in accordance with either Topic 310 or Topic 326 (if adopted). Bad debt and credit loss reserves may increase significantly during this time of economic disruption. A company that has adopted Topic 326 may have previously determined that due to the relatively short duration of trade receivables, future changes in economic conditions will not have a significant effect on the estimate of expected credit losses. However, given the magnitude of economic disruption in Q1 2020, this assumption may need to be revisited. Determining the extent of the adjustments to credit loss allowances in Q1 will be especially challenging because a company may not have historical loss information for a period of similar economic decline. See KPMG's Hot Topic, [COVID-19 impacts on the accounting for financial instruments](#).

Contract existence

Credit risk is also a factor in determining whether a customer contract exists under Topic 606 and therefore may have an effect on revenue to be recognized in the future. Recall that for a contract with a customer to exist, it must be probable that the company will collect substantially all of the consideration to which it expects to be entitled in exchange for the goods or services that will be transferred (the collectibility criterion). This requires evaluating the customer's ability (i.e. their financial capacity) and intent to pay the promised consideration. Given the uncertain economic conditions, customers who ordinarily have the ability and the intent to pay may be in financial distress or change their behaviors and intentions to pay.

The collectibility criterion is applied to the amount to which the company expects to be entitled in exchange for the goods and services that will be transferred to the customer. This amount may not be the stated contract price and the company may need to determine the transaction price before assessing the collectibility criterion. This includes an estimate of any potential price concessions, which would be recognized as reductions of revenue rather than bad debt expense.

If a company expects to provide a price concession, it includes the estimate of the concession in the amount of consideration to which it ultimately expects to be entitled. It then applies the collectibility criterion to this estimated amount. For example, assume in response to the economic disruption that a company intends to provide a 20% discount on all customer orders, including existing customer contracts. The company's intention changes the amounts to which it expects to be entitled and, as a result, the price concession is recorded as a reduction to transaction price (revenue) rather than bad debt expense. See section 3.4 of KPMG's Handbook, [Revenue recognition](#), for guidance on evaluating price concessions in the context of the collectibility criterion.

When a contract exists, a company evaluates whether the failure to collect is an implicit price concession before recognizing bad debt expense. Determining whether a failure to collect is variable consideration and therefore a reduction of revenue or bad debt expense requires judgment.

If the collectibility criterion is not met at contract inception or on contract reassessment, the company cannot apply Topic 606's general revenue model. In this case, a company follows the alternative recognition model, which is a deposit model that does not allow for revenue to be recognized unless the company receives nonrefundable consideration and one of three events has occurred. A company cannot record revenue based on collections unless the criteria under this deposit model are met, and therefore the accounting is not the same as 'cash basis' or 'installment' accounting.

A company does not reassess the collectibility criterion for contracts previously determined to exist unless there is a significant change in facts and circumstances that results in a significant deterioration in the customer's creditworthiness. Companies need to evaluate whether significant changes in credit risk have occurred and, if so, reevaluate the collectibility criterion for existing contracts. If a company determines on reassessment that collectibility is no longer probable, it discontinues using the general revenue model and follows the alternative (deposit) model. However, the company does not reverse revenue previously recognized.

Under the alternative model, a company cannot recognize revenue when it has a remaining obligation to transfer goods or services to the customer or it chooses to continue to transfer goods or services to a customer when substantially all of the consideration to which it is entitled has not been received. There are limited scenarios in which a company can continue to transfer goods or services under a contract, determine collectibility is not probable, and still recognize some revenue. When the collectibility criterion is not met, we believe it would not be appropriate to record a receivable based on the premise that the contract is not substantive when collectibility is not probable and therefore the legal right to consideration is also not substantive for accounting purposes.

See sections 3.3 through 3.6 of KPMG's Handbook, [Revenue recognition](#), for further guidance on how credit risk is evaluated under Topic 606.

Contract modifications

Companies may experience an increase in cancellations or other contract modifications. It's important to remember that when determining transaction price, a company assumes that the goods or services will be transferred to the customer based on the enforceable rights and obligations in the contract.

Therefore, a company does not consider the possibility of the contract being canceled, renewed or modified. For example, if a company has an enforceable contract which it now expects the customer to cancel and pay a termination penalty, it does not include that termination fee in its estimate of transaction price, but rather accounts for the cancellation when it is approved. However, a company must distinguish between changes in transaction price that are the result of the resolution of variable consideration (see variable consideration discussion above) and those that represent a contract modification that changes the existing enforceable rights and obligations in the contract.

All modifications are accounted for when they are approved. A contract modification is accounted for on a cumulative catch-up basis or prospectively depending on the type of modification to the contract. If the contract does not promise additional distinct goods or services, the modification will generally be accounted for on a cumulative catch-up basis. If the modification adds additional distinct goods or services to the arrangement, the modification will generally be accounted for prospectively, with a reallocation of remaining revenue under the original contract if the goods or services are not priced at their stand-alone selling prices.

Aspects of the accounting for contract modifications may be more challenging in the current environment, particularly if a company changes the prices at which it is willing to sell its goods or services. The accounting for contract modifications on a prospective basis depends on the stand-alone selling prices of the distinct goods or services at the time of the contract modification. Frequent, inconsistent or rapidly changing prices will make it difficult to determine the stand-alone selling price. It may be important to focus on whether there is a past performance issue when the price in the modification is lower than price in the original contract.

See chapter 11 in KPMG's Handbook, [Revenue recognition](#), for further guidance on the accounting for contract modifications.

Stand-alone selling prices

As companies seek ways to incentivize their customers, the prices at which they are willing to sell their goods or services may change. This will affect the allocation of consideration in contracts as stand-alone selling prices will need to be revised.

The stand-alone selling price for a previously allocated arrangement is not revised even if the price changes after contract inception. However, in the case of a contract modification that is not accounted for as a separate contract, the company uses stand-alone selling prices at the date of the modification.

The stand-alone selling price is determined for each performance obligation at contract inception and should reflect currently available information, including shifts in pricing and customer base. Depending on the facts and circumstances, some companies may have reasonably concluded that stand-alone selling prices established on a quarterly or annual basis reflect the stand-alone pricing for that entire period. These conclusions will likely need to be revisited given the sudden economic shock and rapidly changing conditions.

The stand-alone selling price for options incorporates the likelihood that the customer will exercise the option. Customer behavior with respect to exercise of options (including renewals) may change in this environment as well. Topic 606 provides an alternative approach to estimating the stand-alone selling price of a customer option when certain criteria are met. This alternative method typically applies when a renewal option is considered to be a material right. Under this alternative, the allocation of transaction price is based on the goods or services a company expects to provide during the initial and renewal periods. Expectations about the likelihood of renewals and other options being exercised may need to be revised.



Inventory

Inventory values may be affected by changes in customer demand and product pricing as well as the disruption COVID-19 has caused to manufacturing, workforce and supply chain capabilities.

Inventory writedowns

Inventory measured using a method other than LIFO or the retail method

Inventory measured using any method other than last-in, first-out (LIFO) or the retail inventory method (e.g. inventory measured using first-in, first-out (FIFO) or average cost) is required to be written down to the lower of cost or net realizable value unless there is substantial evidence that market prices will recover before the inventory is sold (e.g. seasonal price fluctuations). In the current environment, it may be difficult to obtain substantial evidence related to market price recoveries. Unless that particular condition exists, companies should not defer inventory losses from market declines beyond the interim period in which the decline occurs.

For inventory, net realizable value is the estimated selling price of the inventory in the ordinary course of business less reasonably predictable costs of completion, disposal and transportation. Typical losses may be due to damage, physical deterioration, obsolescence, changes in price levels or other causes. The economic disruption caused by COVID-19 may cause further decreases in the net realizability of inventory. Significant or abrupt changes in demand may cause losses to inventory, in particular those inventories with a short life (e.g. perishable inventory) or inventories with a significant stock on hand that surpasses current demand expectations. Companies may need to lower their selling prices in an effort to increase customer demand, and supply chain, manufacturing and transportation disruptions may increase the costs to complete and transport inventories. All of these effects likely will reduce the net realizability of inventory.

Inventory measured using LIFO or the retail inventory method

Inventory measured using LIFO or the retail inventory method is written down and a loss recognized when the utility of goods is impaired by damage, deterioration, obsolescence, changes in price levels or other causes. The utility of goods accounted for using LIFO or retail inventory method is likely affected by the same COVID-19 economic disruptions that may cause losses to inventories measured using other methods (noted above). However, the measurement of such losses for LIFO and retail method inventories is based on the lower of cost or market.

Market is generally the current replacement cost of the goods obtained by purchase or reproduction. Determining the replacement cost may present challenges in the current environment with supply chain, manufacturing and workplace disruptions, as well as changing prices. It would not be appropriate to use replacement or reproduction prices as the measure of utility when the net realizable value (estimated sales value less the costs of completion and disposal) is lower. In that case, net realizable value should be used.

Purchase commitments

Declines in market demand could cause losses from firm, uncancelable and unhedged commitments for the future purchase of inventory. A company that enters into purchase commitments with suppliers will need to evaluate whether it has incurred a loss on purchase commitments and, if so, accrue that loss. No loss is recorded if there are firm sales contracts for the future inventory. However, companies with sales contracts will need to consider the enforceability of those contracts in the current environment and whether price concessions are likely to be granted to customers.

Idle plant capacity, abnormal manufacturing overhead costs and price variances

Production overheads are allocated to inventory based on the normal capacity of the production facilities. Normal capacity reflects planned maintenance and some variation in production levels from period to period and will vary depending on the business and industry.

Overhead costs associated with abnormally low production levels are not allocated to inventory and are instead recognized as an expense in the period in which they are incurred. Other items such as abnormal freight, handling costs and amounts of wasted materials (spoilage) are also accounted for as current period cost of goods sold rather than capitalized as part of inventory cost.

For some companies, it will be clear that this crisis has created abnormally low production levels due to significantly reduced demand, labor and material shortages, and unplanned facility or equipment downtime. For other companies, judgment may be required to make that assessment.

There may also be companies in certain industries where the actual level of production is abnormally high (e.g. health and medical supplies). In these cases, companies may need to reduce the amount of fixed overhead allocated to inventories to ensure they are not measured above cost.

Companies that use standard cost accounting systems for determining inventory and product costs should evaluate their purchase price, wage rate, usage or efficiency variances. Variances that are planned and expected to be absorbed by the end of the annual period are ordinarily deferred at interim reporting dates. However, the effects of unplanned or unanticipated purchase price or volume variances should be recorded in the period incurred.

Temporary LIFO liquidation

Some companies with supply chain issues may encounter potential liquidations of one or more LIFO layers in an interim period. If those LIFO layers are expected to be replaced by the end of the annual period, the inventory at the interim reporting date does not reflect the LIFO liquidation, and cost of sales for the interim reporting period includes the expected cost of replacement of the liquidated LIFO base. Significant judgment may be required to evaluate replacement costs and LIFO layers for a business whose supply chain has been significantly disrupted and where uncertainty remains.

US GAAP does not specify how to report the deferral of the liquidation of a base layer on the balance sheet, but AICPA guidance is generally to report it as a deferred credit or as a credit to inventory.



Contract costs

Contract cost asset impairment

Contract cost assets related to costs to obtain a contract or costs to fulfill a contract are evaluated for impairment. While Subtopic 340-40 does not specify how often a company should assess its contract cost assets for impairment, we believe companies should evaluate whether impairment has occurred

whenever events or changes in circumstances indicate that the carrying amount of a contract cost asset may not be recoverable. Such events or changes in circumstances may include the following:

- contract modifications, including changes in price, contract terminations and scope changes;
- changes in expectations as to whether customers will renew/extend existing contracts, or specific goods or services within a contract, to which contract cost assets relate;
- changes in estimates of expected costs to fulfill one or more performance obligations in a contract; and/or
- changes in estimates of the amount of consideration that the company expects to receive from the customer (e.g. collectibility).

Impairment losses are recognized to the extent the carrying amount of the asset exceeds its recoverable amount. The recoverable amount is based on the amount of consideration expected to be received in exchange for the goods or services to which the contract cost asset relates less the costs that relate directly to providing those goods or services. To determine the expected consideration, a company uses the principles for determining the transaction price with two key differences: 1) it does not constrain any estimate of variable consideration, and 2) it adjusts the amount to reflect the effects of the customer's credit risk. The expected consideration also includes amounts the company has received related to those cost assets but which it has not recognized as revenue (i.e. contract liabilities).

The specific contract cost asset impairment guidance in Subtopic 340-40 is applied after existing asset-specific impairment guidance, such as Topic 330 for inventory, but before applying the impairment guidance applicable to long-lived identifiable assets and goodwill. See also KPMG's coronavirus-related Hot Topic, [Increased risk of impairment of goodwill and long-lived assets](#).

Amortization

Companies may also need to evaluate both the period and pattern of amortization to determine whether changes in amortization for contract cost assets are necessary. The amortization period for contract cost assets includes anticipated renewals and therefore declines in anticipated renewals may result in an acceleration of amortization cost. The amortization pattern is consistent with the transfer to the customer of the goods or services to which the asset relates. To the extent customer behavior or business disruption is changing the timing of transfer, the pattern of amortization would also change.

Loss contracts

Topic 606 did not provide incremental or general guidance on the accounting for loss contracts. Instead a company must evaluate whether its contracts are in scope of other legacy US GAAP topics that contain requirements for the accrual of a loss on a contract. A company should not accrue losses on contracts outside the scope of this guidance by analogizing to the guidance. If a contract is not in scope of industry or transaction specific loss guidance, a loss on the contract is not recognized. As a result, certain companies may have contracts with customers where an accrual for a loss is required and others will not be allowed to accrue an anticipated loss.

See chapter 13 of KPMG's Handbook, [Revenue recognition](#), for further guidance.



Other customer incentives and estimates to consider

Customer incentives

In response to customer demand, companies may provide their customers with a variety of incentives. Customer incentives are accounted for differently under Topic 606 depending on their nature. Many of the types of customer incentives that may impact transaction price are discussed above in *Variable consideration*. Customer incentives, in addition to those noted previously may include (not exhaustive):

- free goods or services;
- options that may convey material rights (e.g. loyalty points, future discounts or coupons);
- extension of payment terms;
- payment of financing fees or interest for customer financing; or
- other consideration payable to a customer (e.g. up-front cash payments to sign a contract).

In this rapidly changing environment, these incentives could be made outside the normal channels (e.g. senior leadership discussions with key customers). Companies will need to be aware of any promises outside of written contracts, because verbal promises can create implied performance obligations or affect transaction price.

Estimates

The economic disruption caused by COVID-19 could have an effect on a number of different estimates, many of which are discussed above. Other estimates to consider include:

- **Measures of progress.** Supply chain and workforce disruption may cause changes in expected costs or project delays, which will affect certain measures of progress.
- **Breakage estimates.** As customers begin to deal with liquidity challenges, changes in their behavior may occur. For example, customers may redeem more loyalty points than a company previously expected or a company may experience less breakage on the usage of gift cards.
- **Significant financing components.** The extension of payment terms could create significant financing components for which discount rates, estimated timing of payment and performance would need to be estimated.
- **Portfolio approach or portfolios of data.** When companies apply the portfolio approach or use portfolios of data to make estimates, they will need to consider the effect the economic disruption may have on their portfolios. Portfolios and estimates based on customers' past behavior may not indicate their behavior in the current uncertain environment. The economic conditions may affect varying types of customers or contracts in different ways, which may result in the need to stratify portfolios and data in different ways.



Disclosures

The disclosure objective in Topic 606 is for a company to provide financial statement users with sufficient information to understand the nature, amount, timing and uncertainty of revenue and cash flows arising from contracts with customers. The uncertainty in the current environment will give rise to potential changes in a number of disclosures, including but not limited to:

- credit losses recorded on any receivables or contract assets;
- explanations of significant changes in contract balances (including qualitative and quantitative information);
- information about performance obligations including significant payment terms, obligations for returns, refunds, and other similar obligations;
- revenue recognized in the reporting period from performance obligations satisfied (or partially satisfied) in previous periods (e.g. changes in transaction price); and
- the aggregate amount of the remaining transaction price and an explanation of when the company expects to recognize the amounts as revenue.

Companies should evaluate their disclosures to ensure they accurately reflect the current uncertainty and meet the disclosure objective of Topic 606.



Subsequent events

The World Health Organization did not announce the coronavirus as a global health emergency until the end of January 2020, and no significant measures were taken by any governments until early 2020. Further, the effects of the COVID-19 outbreak did not have a significant impact on global markets until February 2020.

Therefore, in following the subsequent events guidance in Topic 855 in the context of revenue-related estimates, contract cost asset or inventory impairment testing, an event related specifically to the COVID-19 outbreak would not generally be accounted for as a recognized subsequent event for companies with fiscal years ended December 31, 2019. However, companies should ensure that they properly distinguish COVID-19 related events from other possible events or changes that could represent the culmination of conditions that existed over a long period of time or prior to the reporting date, in which case they may be recognized subsequent events. This may require significant judgment in subsequent reporting periods when making estimates related to collectibility and variable consideration.

For calendar-year companies that have not yet reported for the year ended December 31, 2019, who conclude that an impairment loss, change in an estimate or other significant change is a nonrecognized subsequent event, disclosures will be required. These include the nature of the event and an estimate of its financial effect or a statement that such an estimate cannot be made. In addition, Topic 275 requires broad disclosures about risks and uncertainties, including disclosures about estimates that may change in the near future. Further, Topic 606 requires disclosures about significant judgments and the changes in the judgments made in applying the guidance in Topic 606 and Subtopic 340-40 to those contracts.

For companies whose fiscal year is other than the calendar year, and calendar-year companies reporting in Q1 2020, the COVID-19 outbreak is a current period event that will require ongoing evaluation to determine the extent to which developments after the respective reporting date should be recognized in that reporting period.

Evolving information

The potential global and economic impacts of the coronavirus continue to evolve rapidly, and companies should monitor the situation. Companies are encouraged to maintain close communications with their board of directors, external auditors, legal counsel and other service providers as the circumstances progress. Stay informed at read.kpmg.us/coronavirus

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