

Revenue Recognition

The Honors Program
Senior Capstone Project
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ABSTRACT

Users of financial statements consider revenue to be a key indicator of financial performance. Thus, proper revenue recognition is important. This paper provides a discussion of revenue recognition principles and practices. A discussion is provided of the Financial Accounting Standards Board's (FASB) conceptual framework as it applies to revenue recognition. In addition, a discussion is provided on SEC guidance and specific applications of revenue recognition. According to the FASB, there are over 200 pieces of "ad hoc" guidance for revenue recognition. Because of inconsistencies in this guidance, the FASB and the International Accounting Standards Board (IASB) have engaged in a project to create a single revenue-recognition standard. The current status of this project, which began in 2002, is analyzed in the final section of this paper.

INTRODUCTION

Revenue is a crucial component in the valuation of a company. In a recent study, it was found that the ratio used most frequently by securities analysts is the price to earnings ratio. (Demirakos et al., 2004). Because revenue is a critical component of earnings, it follows that proper recognition of revenue is needed for an accurate analysis. This paper will focus on the concepts behind proper revenue recognition, and possible future recognition procedures to solve current issues with how entities recognize revenue.

Under United States Generally Accepted Accounting Principles (GAAP), revenue recognition procedures are established by the Financial Accounting Standards Board (FASB). In establishing this guidance, the FASB relies on its conceptual framework. Included in the conceptual framework are the two key qualitative characteristics of accounting information, relevance and reliability. The trade-offs between relevance and reliability is incorporated into this paper. One question this paper will try to answer is does GAAP value reliability over relevance in recognizing revenue, or is relevance valued more than reliability

In the next section, this paper will focus on the conceptual framework. The qualitative characteristics of accounting information will be discussed. Also discussed is how revenue is defined, and how revenue is recognized, both of which are a part of the FASB's conceptual framework.

In the third section of this paper, SEC regulations will be discussed. All security trading in the United States is subject to the Securities and Exchange Commission (SEC). The SEC has recognized reporting issues with previous fraud or unintentional misstatements in revenue. The SEC has come up with its own revenue recognition regulations that entities must follow.

In the fourth section of this paper revenue recognition for different transaction scenarios will be discussed. The discussion will include a sale of a manufactured product, sale of a service, long-term service contracts, long-term construction projects and revenue recognition for leases. To illustrate a revenue-recognition fraud Xerox's fraudulent reporting of lease revenue

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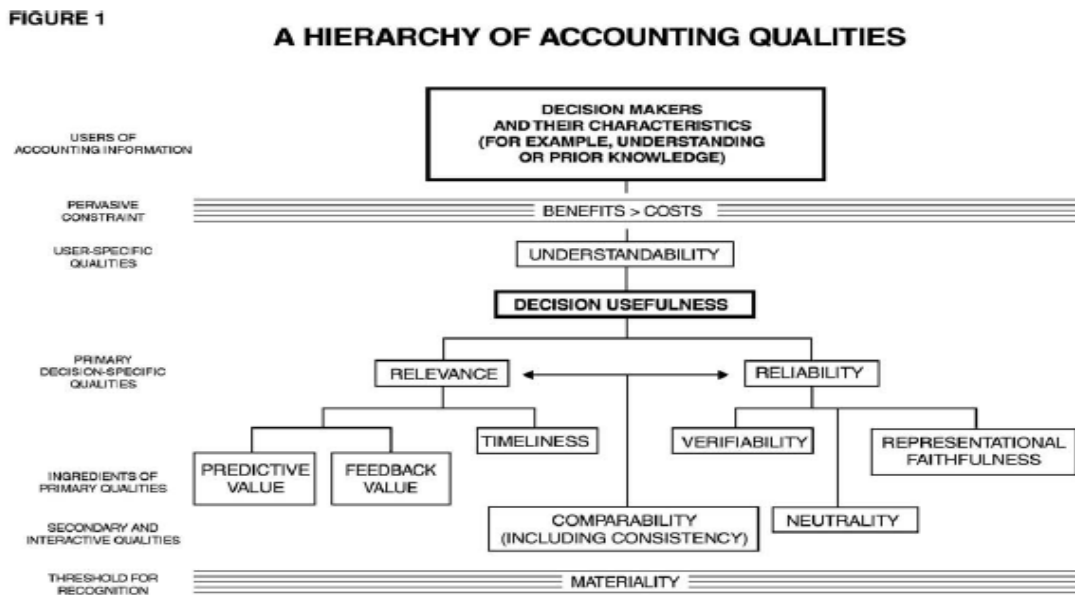
recognition will be presented. Additionally proper revenue recognition for the film industry is examined.

Finally, this paper will discuss the current project on revenue recognition being worked on by the FASB and the International Accounting Standards Board (IASB). Specifically, a new measurement model will be examined and compared to current practice.

CONCEPTUAL OVERVIEW AND GENERAL GUIDANCE

Conceptual Framework: Qualitative Characteristics

To assist in the development of GAAP, the FASB established a conceptual framework. In order to enhance the usefulness of financial accounting information provided by reporting entities, the FASB issued Statement of Financial Accounting Concepts (SFAC) No. 2, *Qualitative Characteristics of Accounting Information* (FASB, 1980). The two key qualitative characteristics provided in the conceptual framework are relevance and reliability. Figure 1, obtained from SFAC No. 2, provides a summary of relevance and reliability.



(FASB, SFAC 2, pg. 20)

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Relevance

Accounting information that can make a difference to users in their decision-making process is deemed relevant. Relevance has three key components: the information must have predictive value, feedback value, and be available to users in a timely manner. Predictive value is “the quality of information that helps users to increase the likelihood of correctly forecasting the outcomes of past and present events.”(FASB, SFAC 2, pg. 10). For example, if revenue in a given quarter is \$20 million, a user may incorporate this information in predicting future revenue. Feedback value “enables users to confirm or correct prior expectations”. (FASB, SFAC 2, pg. 10). Now that the user already knows revenue in the quarter was \$20 million, in the next quarter they may expect revenue to be around \$20 million or more, but if revenue for the next quarter is only \$17 million, the entity performed worse than the users’ expectations.

Users need accounting information in a timely manner, otherwise the information will not be applicable to their current decision making. Accordingly, timeliness is the third element of relevance, and is a key constraint to financial reporting. It would be too costly and time consuming for a company to report daily, and for users to analyze such information on a daily basis. Thus, an arbitrary period is selected as to what is timely reporting and why public companies on U.S. stock exchanges are only required to file financial statements quarterly and annually.

Reliability, the other key qualitative characteristic, can sometimes conflict with the timeliness component of relevance. Ideally, each quarterly and annual report would be reported as soon as the quarter is over, for instance if the quarter ends today, the report would be filed tomorrow. For a multi-million dollar company this ideal setting would be impossible, because information on the quarter’s sales from multiple divisions, outlets, stores, contracts, or any other type of transaction takes time to be collected, analyzed, and properly recorded under GAAP.

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Reliability

Relevance is important in accounting information; however, the information will have no value to users unless the accounting information is reliable. The FASB defines reliability as “the quality of information that assures that information is reasonably free from error and bias and faithfully represents what it purports to represent.” (FASB, SFAC 2, pg. 10). To be reliable, information must be verifiable, have representational faithfulness, and be neutral.

Verifiability is defined as "the ability through consensus among measurers to ensure that information represents what it purports to represent or that the chosen method of measurement has been used without error or bias." (FASB, SFAC 2, pg. 11). The first component is the ability to actually verify that the assertion by management is correct. The second component is the ability to verify that the method management used to reach its assertion was the correct method to use. The key to verifiability is the ability for measurers to reach a consensus on both the assertion, and the method they used to reach that assertion.

Representational faithfulness, simply stated, requires that the assertions made in the financial statements reflect the economic resources or transactions the assertions purport to represent. The FASB uses the example of a bottle of pills and the label on the bottle. If the bottle is mislabeled, the pills won't heal the patient, and could perhaps make the patient worse, or even kill the patient. Similarly, the number of pills listed on the bottle as being included in the bottle should actually be equal to the number of pills in the bottle. In short, what is stated on the financial statements should represent what actually occurred or the actual position of an entity.

Neutrality is the final component of reliability; both verifiability and representational faithfulness contribute to this component. Financial statements should be free from bias. “To be neutral, accounting information must report economic activity as faithfully as possible, without coloring the image it communicates for the purpose of influencing behavior in some particular direction.” (FASB, SFAC 2, par.100). Financial statements should provide an unbiased picture of the reporting entity, so that decision makers can make decisions based on

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a clear picture of the reporting entity. Financial statements should not favor one set of users over another.

An example of financial statements favoring one set of users over another could be an overstatement of revenue by management which would enable them to collect a bonus. Management of many publicly-traded firms are paid bonuses based on the performance of their firms. Unscrupulous management may overstate revenue in order to meet a specific revenue goal allowing management to obtain bonuses.

Another situation could be a company like Microsoft where it may be overly conservative in its accounting for revenue, or fail to recognize some revenue for the period. Microsoft has recently had trouble with looking too much like a monopoly, and Microsoft management may wish to understate its revenue. In the first situation, the financial reports would favor management, while putting all the other users, including the general investing public, at a disadvantage by providing a false representation of the company. In the second situation, the financial reports favor the company by actually understating revenue. By understating revenue, the financial report puts both the investing public and regulators at a disadvantage. The investing public might have wanted to invest if revenues were reported higher, whereas regulators might have wanted to punish Microsoft if it seemed too much like a monopoly.

Tradeoffs Between Relevance and Reliability

It is almost impossible for accounting information to be both completely relevant and reliable. As suggested in Figure 1, there is a tradeoff between relevance and reliability. An example of this tradeoff would be recognizing revenue from credit sale transactions. When sales are made on credit, there is no guarantee that the customers will actually pay for the sale, so the company will create an allowance for doubtful accounts, estimating how much of credit sales will be uncollectible. The allowance account is an estimate, and less reliable than waiting for actual collections. By using the allowance account, and recognizing what a company believes it will be able to collect, users are provided relevant accounting information.

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What is revenue?

Revenue is an element of the financial statements. The FASB issued in 1985: SFAC No. 6 *Elements of Financial Statements* (FASB, 1985). Elements of financial statements are the “classes of items that the financial statements comprise. Elements refers to broad classes, such as assets, liabilities, revenues, and expense.” (FASB, SFAC 6, par. 5). Currently revenue is defined as “revenues are inflows or other enhancements of assets of an entity or settlements of its liabilities (or a combination of both) from delivering or producing goods, rendering services, or other activities that constitute the entity's ongoing major or central operations.” (FASB, SFAC 6, par. 78).

Recognition in General

There are four key elements for information to be recognized in the financial statements.

These four key elements are:

1. The information must meet the definition of an element of the financial statements.
2. The information must be measurable.
3. The information must be reliable.
4. The information must be relevant.

(SFAC No. 5, *Recognition and Measurement in Financial Statements of Business Enterprises* (FASB, 1984) par. 63).

Information that meets the definition of revenue provided in the previous section meets the first requirement. Revenue is measurable by measuring sales by dollars, meeting the second criteria. The two main qualitative characteristics of accounting information are the final two elements: information must be relevant and reliable.

Revenue Recognition's Golden Rule

There are two key characteristics to recognizing revenue, or what might be called revenue recognition's “Golden Rule”. Before revenue is recognized, it must be “realized” or “realizable” and earned. Realized means that payment has been received for the transaction,

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while realizable means that the company has a right to payment. Revenue is earned when “the entity has substantially accomplished what it must do to be entitled to the benefits represented by revenues”. (FASB, SFAC 5, par. 83).

The FASB states that further guidance beyond realized and earned is necessary in the application of recognition criteria, because of the “widely acknowledged importance of information about earnings and its components as a primary measure of performance for the period.” (FASB, SFAC 5, par. 79). The additional guidance is intended to “provide an acceptable level of assurance of the existence and amounts of revenues...before they are recognized.”(FASB, SFAC 5, par. 83). Analysts and investors alike rely heavily on revenue information in the valuation of companies, and the FASB acknowledges this, specifically stating that additional guidance is necessary, due to the reliance on revenue figures.

Revenue is recognized when realized.

The first characteristic of revenue recognition is that revenue is not recognized until it is realized or realizable. Revenue is realized if payment has been received. Realizable is when payment has yet to occur, but the entity has a right to payment. Revenues are also realized when assets received in payment are readily convertible to cash or claims to cash. Realization may also occur when common currency is not used, but something of value is given to the seller as payment instead of cash. (FASB, SFAC 5, par. 83).

The FASB defines readily convertible assets as “interchangeable units and quoted prices available in an active market that can rapidly absorb the quantity held by the entity without significantly affecting the price.” (FASB, SFAC 5, par. 83a). An example of this would be a customer paying for a product with stock certificates of a publicly traded firm. The firm that sold the product can then convert those certificates to cash by selling them on the open market.

Revenue is recognized when earned.

Revenue is not recognized until earned. The FASB states:

An entity’s revenue-earning activities involve delivering or producing goods, rendering services or other activities that constitutes its ongoing major or

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central operations, and revenues are considered to have been earned when the entity has substantially accomplished what it must do to be entitled to the benefits represented by the revenues. (FASB, SFAC No. 5, par. 83b).

The key to the above paragraph is that an entity has to substantially accomplish whatever it set out to provide or perform for the customer. There also must be some sort of delivery or production of goods, or rendering of services.

What is acceptable in meeting the realized and earned conditions?

Since business entities and their transactions are complex, it is sometimes difficult to apply revenue-recognition principles. The FASB, recognizing this complexity would be a problem in revenue recognition, developed some acceptable approaches for revenue recognition. These approaches, from Concept Statement 5, Paragraph 84, are:

- a. Generally revenue can be recognized at the time of sale, with the producer delivering the produced product, and the buyer paying the producer.
- b. If the sale and or the receipt of cash from the buyer is done before the product is produced and delivered, recognition will not occur until after the product is produced and delivered.
- c. If the product is contracted for before production, a business may use a percentage of completion method.
- d. If a company provides a service or the right to use an asset over a period of time, and if there is a contract in place as to how the buyer will pay for these services or use of assets, the company may recognize revenue as time passes. A common example of this would be a lease.
- e. While highly unusual, if a product's price is readily determinable, and the product is readily "salable" (easily sold at a determinable price), a company may recognize revenue upon the completion of production. In short, the FASB allows recognition of revenue on a product that was just produced, but before the actual sale of that product, if the product will definitely be sold at a price that is readily determinable at the time production is finished. The FASB believes this situation could be applied to some agricultural products.

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- f. If payment is not in the form that can be readily exchanged for cash, the FASB allows revenues to be recognized if a reasonable fair value can be ascertained for the payment.
- g. Finally, if collectability of payment is uncertain, revenues cannot be recognized until payment is received.

THE SEC AND REVENUE RECOGNITION

The Securities and Exchange Commission (SEC) has issued guidance on revenue recognition in the form of Staff Accounting Bulletin (SAB) 101, and SAB 104. SAB 104 is a revision to SAB 101; accordingly, the focus will be on SAB 104. The purpose of a SAB is to provide an interpretation of GAAP. These interpretations are used by the Chief Accountants Office as well as the Division of Corporation Finance in administering the disclosure requirements of the federal securities laws. For a publicly traded firm, these bulletins are essentially legal requirements to be followed in order to be viewed by the SEC as properly following United States GAAP.

Staff Accounting Bulletin 104

Staff Accounting Bulletin 104 was based on the American Institute of Certified Public Accountants' (AICPA) Statement of Position (SOP) 97-2, *Software Revenue Recognition*. The staff at the SEC used concepts from that statement to change its position on revenue recognition. There are four key elements to SAB 104. All four elements directly relate to SFAC No. 5, and also expand on the concept statement.

The four key elements in recognizing revenue, according to SAB 104, are:

1. Persuasive evidence of an arrangement exists;
2. Delivery has occurred or services have been rendered;
3. The seller's price to the buyer is fixed or determinable; and
4. Collectability is reasonably assured. (SEC, SAB-104, p. 11).

Except for persuasive evidence of an arrangement existing, the elements are similar to SFAC No. 5 guidance. They add to SFAC No. 5 by discussion of what the staff at the SEC believes

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each element means. Unless there is industry specific authoritative guidance about recognizing revenue under GAAP, then publicly traded entities should use these interpretations of the basic concepts of revenue recognition. Even if there is further guidance for a particular industry in which an entity operates, these interpretations should still be considered.

1. Persuasive Evidence of an Arrangement

The SEC wants to ensure that the sale of a product or service actually took place. The key here is that documentation of the transaction exists, and the documentation is complete and unambiguous. SAB 104 provides an example of a contract that is signed by the seller, but the buyer has yet to sign, due to the purchasing department's need for upper management approval. All indications are that the purchasing department will receive approval, but persuasive evidence does not exist until the contract is signed by the appropriate individual at the purchasing company.

Another key component of persuasive evidence is the type of evidence required. Each entity has business practices relating to how and when they recognize revenue. Those practices should coincide with industry-wide practices. If an industry generally has sales arrangements through written contracts, an entity should also practice using written contracts. Verbal contracts are still allowed, but only if it is customary within the industry.

The staff does acknowledge that sometimes companies may differ from customary industry practice. There also may be differences between transactions within a company, to meet with different customers' needs. As long as there is a valid reason for this difference that can be verified, the practice can be used. If the practice is different from the rest of the industry, especially if most or all entities within the industry use the same revenue-recognition practice, the commission probably will not accept the differing practice.

2. Delivery

Before an entity can recognize revenue, delivery must have occurred. Delivery, in its simplest form happens at a cash register, when a product is received by a customer at the completion of the transaction; but, sometimes products have to be shipped to customers. If a product is

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shipped with the terms free on board (FOB) shipping point, title transfers to the buyer at the shipping point and revenue can be recognized. If a product at that time is shipped with the terms FOB destination, revenue must be deferred until the product reaches the destination. SAB 104 describes other transactions that relate to the delivery requirement.

Acceptance:

As part of delivery and performance, the SEC believes that a customer must accept a product. It is not enough just to deliver the product. If there is uncertainty that the customer will accept the product, revenue should not be recognized until the customer accepts the product. Part of acceptance could be the actual set up and testing of the product at the customer's location. For example, assume American Airlines is in the process of purchasing a new plane. The airplane manufacturer will not be able to recognize the sale of the airplane until American Airlines has tested the plane and the plane has passed all required tests.

Bill and Hold Sales:

A type of transaction that SAB 104 specifically mentions is bill and hold sales. Bill and hold sales are generally not allowed to be recognized as part of revenue. Bill and hold sales occur when title has transferred and payment received, but the seller still has possession of the product. In order for delivery to occur title must pass to the customer along with the risks of ownership. Also, there is an emphasis that the customer must be the one to request the transaction be on a bill and hold basis. The SEC provides the following criteria to be met in order for revenue to be recognized if delivery has yet to occur:

1. The risks of ownership must have passed to the buyer;
2. The customer must have made a fixed commitment to purchase the goods, preferably in written documentation;
3. The buyer, not the seller, must request that the transaction be on a bill and hold basis. The buyer must have a substantial business purpose for ordering the goods on a bill and hold basis;

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4. There must be a fixed schedule for delivery of the goods. The date for delivery must be reasonable and must be consistent with the buyer's business purpose (e.g., storage periods are customary in the industry);
5. The seller must not have retained any specific performance obligations such that the earning process is not complete;
6. The ordered goods must have been segregated from the seller's inventory and not be subject to being used to fill other orders; and
7. The equipment [product] must be complete and ready for shipment.

(SEC, SAB 104, p. 21-22).

Consignment Sales:

A consignment sale, where the business transfers a product to a consignee, but doesn't transfer title until the consignee sells the product to a third party, is a common practice in the United States. The staff at the SEC provided some specific guidance on consignment sales, specifically stating that revenue is not recognized by the consigner, until the consignee sells the product for the consigner. One of the reasons behind this could be that the price the consignee will pay to the consigner will depend on the price the consignee is able to sell the product for.

Inconsequential performance obligations:

According to SAB 104, delivery may have occurred even if the entity still has an obligation to the customer. Revenue recognition cannot take place until the service or product provided is substantially accomplished. Under GAAP, the SEC allows revenue recognition in full if the only unperformed performance obligations are considered inconsequential. The SEC has defined this test as follows:

A remaining performance obligation is not inconsequential or perfunctory if it is essential to the functionality of the delivered products or services. In addition, remaining activities are not inconsequential or perfunctory if failure to complete the activities would result in the customer receiving a full or partial refund or rejecting (or a right to a refund or to reject) the products delivered or services performed to date. (SEC, SAB 104, p. 36).

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The key element to the test is to determine if the obligation is important to the function of the product. If so, a significant performance obligation still exists and revenue cannot be recognized. The same is true if the buyer would be eligible for any refund due to the non performance of the obligation. Note that this is not about warranties for the product, but the right to return the product or receive back most or a portion of the purchase price due to the seller's failure to meet important conditions to acceptance.

3. Price

Before revenue is recognized the price of a product or service must have a fixed or determinable price. This requirement directly relates back to the requirement that in order for information to be recognized in the financial statements, the information must be measurable. If a sale of a product was to take place, but no price was agreed upon, and there is no way to determine the price, then the sale cannot be recognized in the financial statements. In a simple transaction, such as a customer buying food from a grocery store, the price is already established. There are other types of transactions, such as consignment sales, where the price is not as easily established.

4. Collectability of Payment

The final key element for revenue recognition is that collectability of payment is reasonably assured. If the entity believes it could fail to collect payment for a transaction, revenue must be deferred until the payment is collected. There are two common methods to recognize revenue when collectability of payment is not reasonably assured. The first method is the installment method¹. The second method is the cost-recovery method.

Installment Method & Cost-Recovery Method

The installment method allows revenue to be recognized as payment is received. As payment is received, gross profit will be recognized in proportion to the total amount of the deferred

¹This is not the same as an installment sale. In an installment sale revenue may be recognized upfront as long as collectability is reasonably assured.

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revenue for the sale. For example, assume an entity receives a \$100 payment for a sale that was accounted for under the installment method due to a collectability issue. The product that was purchased cost the entity \$750, and was sold for \$1,000. Since gross profit is 25% of the sale, the entity would recognize 25% of the payment as realized gross profit: \$25 would be recognized as revenue in terms of gross profit, the other \$75 would be recognized as revenue to cover the cost of goods sold. Under the cost-recovery method, until the entire cost of the product sold is recovered, no gross profit can be recognized.

These two methods essentially provide a switch from accrual-based accounting to cash-basis accounting. Instead of recognizing revenue when the sale is made, revenue is recognized in the period that payment is received. In both the installment and cost-recovery method, relevance is sacrificed for more reliable accounting information. Since revenue is recognized in the period payment is received, the information fails to meet the timeliness criteria for relevance. Having revenue recognized at the time of payment does have the advantage of being more reliable, because collection of payment has occurred.

Other Transactions Specified in SAB 104

The SEC staff defined other type of arrangements where revenue must either be deferred, or can never be recognized. The following five situations include a focus on the buyer, where the buyer has the right to return the product and:

- (a) The buyer does not pay the seller at the time of sale, and the buyer is not obligated to pay the seller at a specified date or dates.
- (b) the buyer does not pay the seller at the time of sale but rather is obligated to pay at a specified date or dates, and the buyer's obligation to pay is contractually or implicitly excused until the buyer resells the product or subsequently consumes or uses the product,
- (c) The buyer's obligation to the seller would be changed (e.g., the seller would forgive the obligation or grant a refund) in the event of theft or physical destruction or damage of the product,

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- (d) The buyer acquiring the product for resale does not have economic substance apart from that provided by the seller, or
- (e) The seller has significant obligations for future performance to directly bring about resale of the product by the buyer. (SEC, SAB 104, p.15-16).

Another situation focuses on the seller. If a seller has some sort of obligation to repurchase the product, revenue should not be recognized from the original sale. The last type situation is when a product is delivered for demonstration purposes. No revenue recognition should take place for that delivered product. (SEC, SAB 104, p. 16-18).

REVENUE RECOGNITION SCENARIOS AND METHODS

Various revenue-recognition scenarios are presented in the following discussion. These transactions include: sale of a product or service, long-term service and construction contracts, revenue recognition for leases, and revenue recognition for multiple deliverables. Additionally, industry-specific revenue recognition practices will be examined.

Sale of a Manufactured Product

When an entity transfers a product to a consumer, and the consumer transfers payment or the entity has a right to future payment, the entity should recognize revenue. The reason revenue recognition for a sale of a manufactured product becomes complex is due to many issues, such as different delivery arrangements, payment arrangements, collectability of payment, and the fact that an entity generally reports on thousands of revenue related transactions in any given reporting period. Auditors are particularly concerned about accelerating revenue towards the end of a reporting period. Oftentimes management will accelerate revenue at the end of the period to manage earnings in order for the financial statements to be favorable to management. Examples of this could be transactions that are recognized as revenue in this period, but were shipped FOB destination point, and have yet to reach the destination by the end of the period. In this case delivery has yet to occur, and the entity has yet to earn the revenue.

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Sale of Service

Service transactions are more complex than manufacturing transactions, due primarily to the product not being a physical good, but a process that adds value. In order for revenue to be recognized, it must be earned, but in a service transaction there is no transfer of title or physical goods, so it is hard to measure whether or not the entity has earned the revenue. Because a sale of a service does not consist of a transfer of a physical product, the need for persuasive evidence of an arrangement before an entity can recognize revenue. Evidence generally can be found in some form of a written contract, but sometimes an oral contract is all that is required. The contract generally would include a description of what an entity must accomplish in order to earn the revenue from the contract.

When a child goes to the doctor with a cold, the doctor may not be able to do anything for the child except to make sure the child has nothing more than a cold. The doctor provided his service as a medical expert, but the child gets no physical product from the doctor. The doctor added value with the diagnosis of a cold and some rest, and a transaction did take place. Though there was no written contract, the appointment the parents made with the doctor generally provides enough evidence to recognize revenue. The doctor should recognize the revenue after seeing the patient, since revenue was earned, and either payment was received, or the doctor has the right to receive payment.

Long-Term Service Contracts

There are two methods to recognize revenue for long-term service contracts. The first is the proportional-service method, in which revenue is recognized as service is rendered. The second method is the completed-performance method in which revenue recognition is deferred until the completion of the service contract. There is no approved standard for these types of contracts, but the FASB did issue an invitation to comment on a proposed standard called *Accounting for Certain Service Transactions* (FASB, 1978, par. 10-19).

Proportional-Service Method

The proportional-service method is used when there is a long-term service contract, which requires more than one specific act of an entity. If all the acts are similar, revenue should be

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recognized in proportion to the total amount of acts required by the contract. For example, assume an individual contracted with a landscaping company to mow his or her lawn each week for an entire year for \$520. Each week the company should recognize \$10 of revenue. Notice that there are 52 acts the landscaping company must complete, but since they are the same act, the amount of revenue that should be recognized must be the same amount each week. With this method revenue is reported on a timely basis, and can affect a user's decision, making the information relevant. The method also leads to reliable information, since it is free from bias.

If the acts are dissimilar, revenue is still recognized at the completion of each act, but the amount of revenue that should be recognized at completion of each act is calculated using the following formula:

$$\frac{\text{direct cost of individual act}}{\text{estimated total direct costs of the contract}} \times \text{total revenue from the contract}$$

At times, it is not possible to estimate direct costs, and the invitation to comment suggests using a straight-line method, which recognizes revenue equally throughout the time period of the contract. Reliability is compromised to a greater extent than in the previous example. In the previous example revenue was measured based on expenses related to the revenue. In this latter situation, revenue is measured based on the passage of time. What if the majority of revenue generating activities occur at the beginning of the contract? Revenue would be misallocated, because amounts earned at the beginning of a contract are deferred to a later period. (FASB, *Accounting for Certain Service Transactions*, par. 10-19).

Completed-Performance Method

With the completed-performance method revenue is recognized only when a contract is completed. It is used when there are multiple acts to be performed, and the final act is significant enough that without the performance of the final act, the entity's performance would be viewed as if nothing within the contract had been performed. Use of this method, sacrifices the timely reporting of information. The revenue that is recognized at the end of the

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contract does have greater reliability, since no estimate is being made. (FASB, *Accounting for Certain Service Transactions*, par. 10-19).

Accounting For Long-Term Construction Projects

There are two ways to account for long-term construction projects. The percentage of completion method allows revenue recognition based on the ratio of costs incurred in completing the project, to the estimated total cost of the project. The second-method is the completed contract method. With the latter method revenue is deferred until the construction contract is complete. American Institute of Certified Public Accountants (AICPA) Statement of Position (SOP) 81-1 (AICPA, 1981) requires construction companies to use the percentage of completion method if all of the following are met:

1. The company can make reasonably dependable estimates of the extent of progress towards completion, contract revenues, and contract costs.
2. The contract clearly specifies the enforceable rights regarding goods or services to be provided and received by both the company and the buyer, the consideration to be exchanged, and the manner and terms of settlement.
3. The buyer can be expected to satisfy its obligations under the contract.
4. The company expects to perform its contractual obligations.

(AICPA SOP 81-1, par. 22).

The AICPA's position directly relates to the trade-off between relevance and reliability. The position requires entities to recognize revenue using the percentage of completion method if, among other things, reliable estimates can be made. Requiring companies to use the percentage of completion method, the AICPA is emphasizing relevance over reliability, because the percentage of completion method allows revenue to be recognized in a more timely manner.

Percentage of Completion Method vs. Completed Contract Method

Under the percentage of completion method an entity recognizes revenue in proportion to the percentage of completion of the contract. The percentage can be determined in various ways,

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such as:

costs to date
estimated total project cost

Other input measures include focusing on specific costs such as labor hours, machine hours, total material used, or on the output of the project. The latter measure could be things like number of floors completed, or different phases of construction being completed. Once a particular measurement is chosen, the measure should be used consistently throughout the project. (AICPA, SOP 81-1, par. 44-51, 79).

With the completed-contract method revenue must be deferred until the contract is completed. As with the completed performance method for service contracts, the revenue recognized has a higher degree of reliability, but because the entity must defer revenue until the contract is completed, relevance is compromised.

Example:

The following example illustrates the differences between the percentage of completion method and the completed-contract method. Assume an entity has a \$500 million dollar construction contract. The contract will take three years to complete, and the estimated cost of the project is \$400 million dollars. Under the percentage of completion method, the estimated cost of the project will change in year two to \$425 million. Expenses of \$150 million occurred in years one and two, but in year three expenses for the project were only \$125 million. The following table shows how the entity would account for the project under both the percentage of completion method and the completed-contract method.

Year	Percent Complete	Revenue Recognized using the Percentage of Completion Method in Millions	Revenue Recognized using the Completed Contract Method in Millions
Y1	(\$150/\$400) 37.5%	500 x 37.5% = \$187.5	\$0
Y2	(\$300/\$425) 70.5%	500 x (70.5% - 37.5%) = \$165	\$0
Y3	(\$425/\$425) 100%	500 x (100% - 70.5%) = \$147.5	\$500
Total		\$500	\$500

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It can be seen from the table above that both methods recognize the full \$500 million in revenue, but that the percentage of completion method allows an entity to recognize revenue before the contract is completed, providing more relevant information to users. The table also illustrates that the completed contract method is more reliable. In year one the entity estimated that the total project would cost \$400 million dollars. In year two the entity revised that estimate to \$425 million showing that the year one percentage was based off of an incorrect estimate. The entity recognized more revenue than it should have in year one, forcing the entity to recognize less revenue in year two. The scenario demonstrated using the percentage of completion method allowed the entity to report more relevant information, but the information was less reliable than the information reported if the entity used the completed contract method.

Revenue Recognition for Leases

SFAS No. 13 *Accounting for Leases* (FASB, 1976) defines lease classifications and how to account for leases. From the lessor perspective, the entity granting the lease and collecting payment for the lease, there are three different classifications. A sales-type and direct-financing lease are considered capital leases which affect both the balance sheet and the income statement. The third type, an operating lease, only affects the income statement.

Capital Leases

A sales-type lease is a lease that gives rise to a manufacturer's or dealer's profit (or loss) to the lessor and that meet one of the following criteria:

1. The lease terms include a transfer of ownership.
2. The lease terms contain a bargain purchase option (the ability of the lessee to buy the asset being leased either during or at the completion of the lease period at a bargain price).
3. The lease term is equal or greater than 75% of the leased asset's life.
4. The present value of the minimum lease payments is equal to 90% of the fair value of the leased asset.

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A sales-type lease must also meet the following two criteria in order to be classified as a sales-type lease.

1. The collectability of the minimum lease payments is reasonably assured.
2. No important uncertainties surround the amount of unreimbursable costs yet to be incurred by the lessor under the lease. (FASB, SFAS 13, par. 6-9)

If the lease meets the above requirements, it is accounted for as a sales-type lease, and revenue is recognized as if a sale occurred. When a sales-type lease is initiated, an entity will recognize sales revenue equal to the fair value of the property leased. The difference between the face value of future lease payments and the present value of the lease payments is the amount of unearned interest revenue to be earned during the period of the lease. (FASB, SFAS 13, par. 17).

A direct-financing lease has the same classification requirements as a sales-type lease, except that the fair value of the leased property is equal to the cost of the asset to the lessor. When a direct-financing type lease is initiated, there is no recognition of revenue. The only revenue that will be recognized from the lease is the interest that is earned during the lease period. (FASB, SFAS 13, par. 18).

Example of Revenue Recognition for a Sales-Type Lease

Xerox Corporation leases a copier to the local university. The lease is for a term of five years, which is also the remaining economic life of the copier. The cost of the copier to Xerox is \$12,000, and the fair market value of the copier is \$20,849. The lease is paid on an annual basis, with initial payment due at inception. The interest rate Xerox charges is 10%, with the lessee paying in five equal installments of \$5,000.

Revenue to be recognized at the inception of the lease: \$20,849

(The fair value of the leased asset)

Revenue to be recognized as interest revenue over the 5 year term of the lease:

Face value of future lease payments	\$25,000
- The fair value of the leased asset	\$20,849
= The interest to be recognized over the term of the lease	\$4,151

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Example of Revenue Recognition for Direct Financing Lease

Use the same example from above, except for the fact that Xerox does not make a profit from this particular lease. With Xerox failing to make a profit, it must classify the lease as a direct-financing lease. Instead of recognizing the \$20,849 at the inception of the lease, the only revenue Xerox can recognize is the \$4,151 in interest over the period of the lease.

Revenue Recognition for Operating Leases

If the terms of the lease fail to meet the capital lease criteria, the lease must be classified as an operating lease. As payments become receivable, the entity should recognize revenue in the amount of the payment to be received. (FASB, SFAS 13, par.19). Taking the same example as used previously, each time the payment of \$5,000 is due, Xerox recognizes \$5,000 in lease revenue. Total revenue that would be recognized from the lease is \$25,000.

Conceptual view of revenue recognition of leases

The reliability of sales revenue recognized at the inception of a lease can be compromised if fair value is estimated. This is one of the reasons GAAP requires significant note disclosures for leases. (FASB, SFAS 13, par. 23). The fair value can be manipulated by the entity, when it is estimated. In a sales-type lease the amount of interest revenue recognized, which is the difference between the fair value of the asset and the face value of future lease payments, is affected by estimates.

Xerox's Fraudulent Revenue Recognition Model Leases

In 2002 Xerox paid what was then considered the largest fine ever levied by the SEC in the amount of \$10 million. The fine was for the use of improper accounting procedures, which enabled Xerox to manage its earnings. Part of what Xerox did to manage its earnings was through manipulation of its sales-type lease accounts. "From the mid-1990s to the present, Xerox repeatedly and improperly changed the manner in which it accounted for lease revenue. These accounting changes pulled forward nearly \$3.1 billion in equipment revenue and pre-tax earnings of \$717 million from 1997 through 2000."(SEC, Complaint Release 17465, par. 35). Xerox agreed to the fine, and also to restate financial results for the periods of 1997-2000. "When Xerox finally restated its financial results for the 1997-2000, it restated \$6.1

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billion in equipment revenues and \$1.9 billion in pre-tax earnings---the largest restatement in U.S. history to that time”. (SEC, Complaint Release 18389, par. 21).

As mentioned above, Xerox managed earnings through manipulation of its sales-type leases. When Xerox leases a copier it normally includes a service contract with the lease. At the inception of the lease, SFAS 13 allows revenue to be recognized in sales-type lease equal to the amount of the fair value of the asset being leased. When Xerox wanted to accelerate revenue, it would include the value of the service as part of the fair value of the equipment. This violated SFAS 13, and allowed Xerox to recognize revenue before it was earned.

Revenue Recognition for Multiple Deliverables

Companies may often sell products bundled with other products or services. These bundles are commonly called multiple deliverables. EITF Issue No. 00-21 (FASB, 2000) provides guidance on how to recognize revenue for multiple deliverables. The following three principles are discussed in EITF Issue No. 00-21.

1. Multiple deliverable arrangements are divided into separate units of accounting if they meet certain criteria.
2. Relative fair values are used to allocate multiple deliverable arrangements revenue to the separate units of accounting.
3. The revenue-recognition criteria to be applied are determined separately for each unit of accounting.

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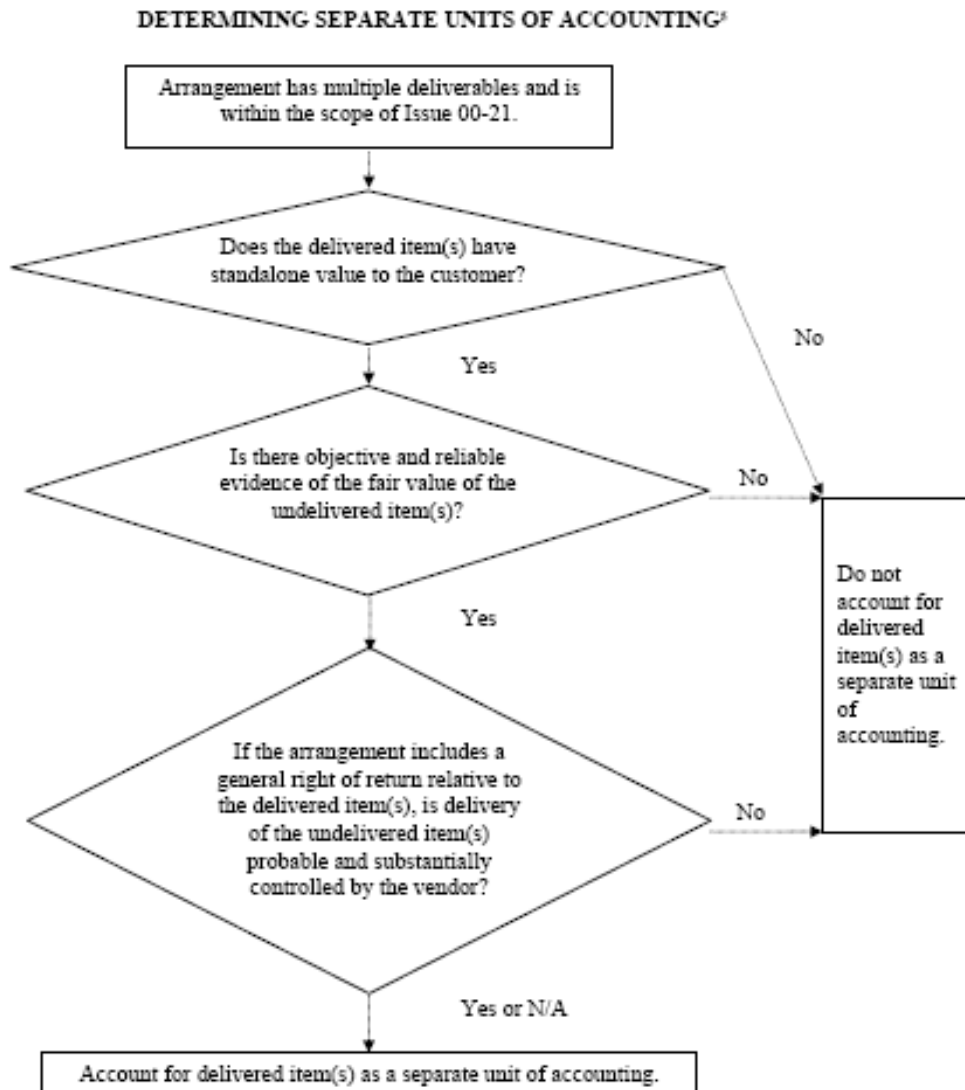
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Separate Units of Accounting

The first principle discussed is dividing the deliverables into separate units of accounting.

The criteria to separate them are presented in the following figure:

Figure 2:



(FASB, EITF Issue No. 00-02, pg.15).

Having a standalone value to the customer is needed for revenue recognition, because without value to the customer, the entity has failed to earn anything. Fair value of the yet to be delivered items is needed, because in order for revenue to be recognized it must be measurable.

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Relative Fair Value

Once an item, product, or service is determined to be a separate unit of accounting, the separate unit of accounting must be measured. The way to measure each unit, is the fair value of each unit relative to the other units in the contract. If a fair-value can not be determined for the delivered items, a reverse fair value method may be used. In this method, the difference between the fair-value of the units yet to be delivered and the total contract price would be the assigned fair value of the units that have been delivered. The opposite of the reverse fair value method to measure the fair value of the units yet to be delivered is not allowed.

(EITF Issue No. 00-21, par. 12).

Breaking a contract down into different accounting units can reduce reliability. Because a contract is for all the items within a contract, unless each item has a contractual price already within the contract, there is nothing that stipulates the actual price or even units within the contract, compromising verifiability. The use of fair values, relative fair values, and the reverse fair value method, all compromise reliability to an even greater extent than the separation of items into accounting units. Fair value is defined as “the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.” (FASB, SFAS 157, *Fair Value Measurements*, par. 5). The key to that statement is “would be received”. In other words, fair value is often an estimate, because it is about what could happen, and not what actually did happen. Any estimate sacrifices some degree of reliability.

Recognition Criteria Applied Different For Each Accounting Unit

Once an accounting unit is determined, the unit is subject to the revenue-recognition rules as if the unit were its own product. The unit would be measured under revenue-recognition standards for the type of product that the individual unit is. If the unit is a manufactured product, it should follow revenue-recognition conventions for a manufactured product. The same would hold true for any other type of product or service that becomes an accounting unit. There are some multiple deliverable arrangements within certain industries that do not fall within the scope of EITF Issue No. 00-21, because of other guidance provided by the FASB in standards higher in the GAAP hierarchy.

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Example of a multiple deliverable:

Assume Xerox sells a copier to customer A. Along with the sale of the copier, Xerox includes a one-year service contract. The copier sells without the service contract at \$500. With the service contract the copier sells at \$600. A one year service contract when sold separately is \$150. The copier and the contract both qualify as separate accounting units. At the inception of the sale Xerox can recognize \$461.54 in revenue.² The remainder must be recognized over the year of the service contract.

Revenue Recognition for Film

Revenue recognition guidance for films includes both motion picture, and television shows. The guidance is found in AICPA SOP 00-2 *Accounting by Producers or Distributors of Film* (AICPA, 2000). The key element in recognizing revenue for film is the timing of the recognition. The guidance for accounting for revenue for film products is essentially an expansion on how to follow SEC SAB 104 for film products.

Films are sold as licenses to exhibit the product. Licenses come in two different types, the first of which is a fixed-fee license, where the terms of the amount of proceeds the producers will receive is fixed. The other type of license is one where the producer will receive a percentage of the revenue the licensee receives in connection with exhibition of the producer's film. In the second type of license, there can be a clause guaranteeing a certain minimum amount of revenue, which must be paid regardless of the amount received by the licensee. Licenses can also be granted for multiple films as part of a single exhibition license.

There are five criteria that must be met for revenue to be recognized from a film.

1. Persuasive evidence of a sale or licensing agreement with a customer exists.

² Take the total contract price and multiply it by the amount of the copier sold by itself divided by the total of the copier and service contract priced separately.

$$600 \times \frac{500}{500 + 150}$$

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2. The film is complete and, in accordance with the terms of the arrangement, has been delivered or is available for immediate and unconditional delivery.
3. The license period of the arrangement has begun **and the customer can begin its exploitation, exhibition, or sale.**
4. The arrangement fee is fixed or determinable.
5. Collection of the arrangement fee is reasonably assured. (AICPA, SOP 00-2, par. 7).

Notice that the criteria are almost exactly the same as the criteria from SAB 104. Guidance from SOP 00-2 is expanded on the issue of delivery.

SOP 00-2 provides further guidance on the issue of completion of the film. Before a producer can recognize revenue, the film must be complete. Completion in accordance with SOP 00-2 means that no significant changes are required from the customer once the film is made available to the customer. A significant change is defined as “those changes that are additive to a film; that is, an arrangement requires an entity to try to create new or additional content after the film is initially made available to the customer” (AICPA, SOP 00-2, par. 13). Significant changes do not include things like dubbing, reformatting the film to broadcasters screen dimensions or time frame, or insertion of additional footage already shot. (AICPA, SOP 00-2, par. 13).

Availability

A key revenue-recognition criterion that is different from recognizing revenues from products other than film, is that a customer must have the ability to exhibit or sell the film before producers are allowed to recognize any revenue from the film (AICPA, SOP 00-2, par. 14). For example, assume the newest installment of the Harry Potter series was shipped to theaters on September 1, and theatres are not allowed to exhibit the film until September 7. Producers will not be able to recognize any revenue from the film until September 7. The same rules apply to a DVD release, or with television that has an original air date for an episode or motion picture.

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One of the largest producers of film is The Walt Disney Company. According to its 2007 10-K filing, revenue for film is “Revenues from the theatrical distribution of motion pictures are recognized when motion pictures are exhibited. Revenues from video and video game sales, net of anticipated returns and customer incentives, are recognized on the date that video units are made available for sale by retailers. Revenues from the licensing of feature films and television programming are recorded when the material is available for telecasting by the licensee and when certain other conditions are met” (The Walt Disney Company, 2007 10-K, pg. 77). Notice that directly in its accounting policies section the company specifically points out the availability criteria.

Examples of Revenue Recognition for Film

As stated previously, licenses to exhibit or distribute film come in two types: fixed or non-fixed fees. The following are different examples of how revenue recognition is applied to film. The first example is a fixed fee license, and the second is a non-fixed fee license with a guaranteed minimum payment. Assume in these examples that the fiscal year-end for the producer is December 31. Also assume that unless stated otherwise, the following criteria have already taken place: persuasive evidence of an arrangement exists, the arrangement fee is fixed or determinable, and the fee is reasonably believed to be collectable.

Example 1:

Producer A enters into a licensing agreement with Company E to exhibit movie 1. The movie has a release date of January 1, 2009 but an agreement is entered into on January 1, 2008. The agreement includes three fixed payments of \$10,000 annually, starting with initial payment at inception of the agreement. Producer A has an interest rate of 10%. The agreement expires December 31, 2010. The following table shows how the producer would recognize revenue in the above circumstances.

Revenue to be recognized in the fiscal period ending:	Revenue	Payments Received
December 31, 2008	\$0	\$10,000
December 31, 2009	\$30,000	\$10,000
December 31, 2010	\$0	\$10,000

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Note that even though the first payment is made in 2008, Producer A does not recognize revenue from the film until the film can be exhibited. Because an agreement was made, Producer A can recognize the entire amount of payment from the agreement on January 1, 2009.

Example 2:

Producer B agreed to an arrangement with Company F with a 20% variable fee on Company F's revenue from the film. To insure that they receive a profit from the arrangement, Producer B requires a minimum guaranteed payment of \$20,000 against the variable fee. The terms of the license agreement were for three years. Company F made \$10,000 in 2008, \$200,000 in 2009, and \$90,000 in 2010. The following table is an example of how Producer B would recognize revenue under the conditions laid out in this example.

Revenue to be recognized in the fiscal period ending:	Revenue	Calculation
December 31, 2008	\$20,000	$\$10,000 \times 20\% < \$20,000$
December 31, 2009	\$22,000	$[\$10,000 + 200,000] \times 20\% - \$20,000$
December 31, 2010	\$18,000	$[\$10,000 + 200,000 + 90,000] \times 20\% - \$42,000$

It is important to note that no revenue except for the minimum payment can be recognized, until the Producer knows the amount of revenue the customer made from the movie. In 2008, Company F made less than the minimum required payment, so Producer B should only recognize the minimum required payment. In 2009, Company F made \$200,000, and because the minimum payment was already made, the total revenue that should be recognized in 2009 is 20% of the amount Company F made to date minus the previous amount of revenue recorded. A similar calculation is used in 2010.

Relevance and Reliability Tradeoffs in Revenue Recognition of Film

As compared to other revenue-recognition procedures mentioned in this paper, reliability is emphasized over relevance in film transactions. The inclusion of the availability clause as part of the criteria for recognizing revenue from a film strengthens reliability, and not relevance. Notice in example one, that in the first year of the license, no revenue recognition takes place.

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This sacrifices relevance, because information is not reported on a timely basis. An agreement is in place, physical delivery of the product has occurred, yet revenue is not recognized until year two. With the addition of the availability clause, the process of earning revenue has been lengthened to when the customer can expect revenue of its own. Example two shows that reliability is once again emphasized over relevance. As pointed out previously, in order for the producer to recognize revenue, the entity must know the amount of its customer's revenue.

THE FUTURE OF REVENUE RECOGNITION

According to a FASB presentation to the Financial Accounting Standards Advisory Council there are over 200 pieces of "ad hoc" guidance for revenue recognition (FASB, June 21, 2005). With the amount of guidance for revenue recognition, some guidance may conflict with other guidance. Another problem with current guidance is that there is little guidance for service transactions, even though the United States is a service-based economy.

Currently the FASB and the International Accounting Standards Board (IASB) are working on a joint project focusing on creating a single standard for revenue recognition. There are multiple reasons both boards decided to tackle this issue. The FASB has six goals for the new standard project:

1. Converging U.S. and international standards on revenue recognition
2. Eliminating inconsistencies in the existing conceptual guidance on revenue recognition
3. Providing conceptual guidance that would be useful in addressing future revenue recognition issues
4. Eliminating inconsistencies in existing standards-level authoritative literature and accepted practices
5. Filling voids in revenue recognition guidance that have developed over time
6. Establishing a single, comprehensive standard on revenue recognition.

(FASB, Revenue Recognition, http://www.fasb.org/project/revenue_recognition.shtml).

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The FASB has found inconsistencies between recognition criteria discussed in SFAC 5, and the definition of revenue as described in SFAC 6. In SFAC 6, it states that revenue results from “inflows or other enhancements of assets of an entity or settlements of its liabilities from delivering or producing goods, rendering services, or other activities that constitute the entity’s ongoing major or central operations” (par. 78). On the other hand, SFAC 5 states revenue is recognized when realized and earned. Under a multiple-deliverable situation, a deliverable that does not constitute a separate accounting unit would still be recognized under SFAC 6 since a deliverable was delivered and payment may have resulted. Using the same situation under SFAC 5, recognition would not take place because revenue has yet to be earned.

In creating a new revenue-recognition standard, both the FASB and the IASB are focused on an asset/liability approach instead of focusing on realization and the earning process. Because revenue is defined as increases in assets or decreases in liabilities under Concept Statement 6, the asset/liability approach makes sense. The proposed new standard argues that an arrangement or contract between an entity and its customer creates what they term as a contract asset and contract liability.

FASB Memo # 107 *Accounting for Contracts with Customers* (FASB, 2008), is a draft of chapter two of the discussion paper due out on revenue recognition. According to the draft, a contract asset or liability initially occurs “when an entity enters into a contract or arrangement with a customer, the contract conveys rights to the entity to receive consideration from the customer and imposes obligations on the entity to transfer economic resources (in the form of goods or services)” (FASB, Memo #107, par. 32). The two are netted or combined to form either a contract asset or liability. A contract asset would arise when an entity’s remaining rights in the contract exceed its remaining obligations. A contract liability would arise when an entity’s remaining obligations in the contract, exceed its rights (FASB, Memo #107, par. 32).

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The measurement of contract assets or liabilities has been an issue the two boards have yet to solve, instead coming up with two different models to do so. The first model is called the measurement model, and will be the focus of the upcoming section. The second model is called the customer -consideration model, which simply allocates the amount of total consideration for the contract (rights), to the obligations of the entity. As the entity performs the obligations, revenue is recognized.

Measurement Model

The measurement model is based on the concept of an exit price. “The contract asset or liability is measured at its current exit price. This is the price that a market participant would pay (or require) to obtain (or assume) the remaining rights and obligations in the contract” (FASB, *Financial Accounting Standards Advisory Council Revenue Recognition Meeting*, Attachment C-1, par. 2, December 6, 2007). Exit prices apply to both contract assets and liabilities. An exit price for a liability is the price an entity would be charged by a market participant to complete the contract for the original entity. In essence it is the contract’s fair value. For example, if Company X were contracted to pave a parking lot, the exit price at inception of the contract would be the amount Company X would have to pay another market participant to pave the parking lot. Once Company X paved a portion of the parking lot, the exit price would decrease, because a market participant’s obligation has decreased.

The above example illustrates how to measure a contract liability. Before Company X performs any of the contracted work, the exit price is high. That exit price would be the initial contract liability, because it measures what a third party would charge to complete the contract. As work is performed, and the exit price decreases, that decrease in exit price is revenue to be recognized.

The measurement model is completely predicated on the exit price or the fair value of the contract on a particular date. Under the measurement model revenue is defined as:

Revenue is an increase in a contract asset or a decrease in a contract liability
(or some combination of the two) that results from (a) obtaining an enforceable

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contract with a customer to provide goods and services and (b) providing those goods and services to the customer. (FASB, *Financial Accounting Standards Advisory Council Revenue Recognition meeting*, Attachment C-1, par. 6, December 6, 2007).

It is important to note that in order for revenue to be recognized, delivery is required. Because in the above example, the entity is paving on the customer's property, delivery is occurring as the parking lot is being paved.

The following states what should occur in the measurement model after contract inception.

The preference of proponents of the measurement model is that after contract inception, revenues should reflect the current value of the goods and services that have been provided to the customer in the period. Under this view, revenue would reflect the change in the exit price of the contract asset or liability from providing goods and services to the customer. Changes in the exit price of the contract asset or liability for reasons other than the entity providing goods and services to the customer (eg, as a result of a price change) would be reported outside of revenue. (FASB, *Memo #99 Revenue Recognition: Measurement Model- reporting changes in the exit price of the contract asset or liability in profit or loss*, November 13, 2007).

The boards have yet to determine exactly how these changes would be reported, some have suggested reporting them on the income statement under a category called contract gains and losses.

Example of the Measurement Model and How it Compares to Current Practice

In order to better explain the concepts of the measurement model and how it differs from current practice, an example will be used. The following example will ignore the time value of money. Because the boards have yet to decide on how to recognize changes to the exit price, a discussion of how an entity would report revenue as the model currently stands is included. The example also includes how an entity would report revenue if there was no delivery requirement in order to recognize revenue. The example will also show how revenue would be recognized in current practice.

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Example:

Country A enters into a contract with Boeing Corporation to construct a new troop transport plane. Under current US GAAP Boeing uses the percentage of completion method. Payment is agreed upon in the amount of \$1,020,000 that will be paid when the plane is complete.

Management estimates that the exit price at the inception of the contract amounts to \$1,000,000. The contract is signed at the beginning of Boeing's 1st quarter, and is completed at the end of Boeing's 4th quarter of the current year. At the beginning of the contract, costs are estimated at \$800,000, which proves to be accurate at the end of the contract and the estimate stays the same throughout the contract. Title transfer and physical delivery of the product to the customer take place as soon as the plane is completed, which in this example is the 4th quarter.

Key Measurements:

	Reporting Date 1 st Quarter	Reporting Date 2 nd Quarter	Reporting Date 3 rd Quarter	Reporting Date 4 th Quarter
Exit price as estimated by management	\$1,000,000	\$750,000	\$300,000	\$0
Costs of construction to date	\$0	\$200,000	\$600,000	\$800,000

Note that the exit price decreases as time passes. This decrease occurs because of the work completed by Boeing. When Boeing completes part of the plane, a market participant would require a decreased amount to complete the plane.

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Actual Report Using the Measurement Model as it Currently Stands

	Reporting Date 1 st Quarter	Reporting Date 2 nd Quarter	Reporting Date 3 rd Quarter	Reporting Date 4 th Quarter
Revenue	\$20,000 ³	\$0 ⁴	\$0 ⁵	\$1,000,000 ⁶
Net Contract Asset / Liability	Asset \$20,000 ³	Asset \$250,000 ⁴	Asset \$700,000 ⁵	Asset \$1,000,000 ⁶

Measurement Model Without Delivery Criteria

Revenue	\$20,000 ⁷	\$250,000 ⁸	\$450,000 ⁹	\$300,000 ¹⁰
Net Contract Asset / Liability	Asset \$20,000 ⁷	Asset \$250,000 ⁸	Asset \$450,000 ⁹	Asset \$300,000 ¹⁰

3 Contract Assets= \$1,020,000, Contract Liabilities= \$1,000,000 exit price therefore there is a net contract asset of \$20,000. The asset is recognized, and \$20,000 can be recognized as revenue (further discussion will be provided)

4 No revenue is recognized since delivery has yet to occur. Contract Asset=\$1,000,000(\$1,020,000-20,000 previously recognized as revenue) Contract Liabilities= \$750,000 the exit price as of the date of reporting. This results in a net contract asset of \$250,000.

5 No revenue is recognized since delivery has yet to occur. Contract Asset=\$1,000,000(\$1,020,000-20,000 previously recognized as revenue) Contract Liabilities= \$300,000 the exit price as of the date of reporting. This results in a net contract asset of \$700,000.

6 Revenue may be recognized since delivery occurred during this period. Contract Asset=\$1,000,000(\$1,020,000-20,000 previously recognized as revenue) Contract Liabilities= \$0 the exit price as of the date of reporting. This results in a net contract asset of \$1,000,000. The net contract asset of \$1,000,000 would be recognized as revenue.

7 See footnote 3.

8 Revenue would be recognized based on the increase in net contract asset. Contract Asset=\$1,000,000(\$1,020,000-20,000 previously recognized as revenue) Contract Liabilities= \$750,000 the exit price as of the date of reporting. This results in a net contract asset of \$250,000.

9 Revenue would be recognized based on the increase in net contract asset. Contract Asset=\$750,000(\$1,020,000-270,000 previously recognized as revenue) Contract Liabilities= \$300,000 the exit price as of the date of reporting. This results in a net contract asset of \$450,000.

10 Revenue would be recognized based on the increase in net contract asset. Contract Asset=\$300,000(\$1,020,000-720,000 previously recognized as revenue) Contract Liabilities=\$0 the exit price as of the date of reporting. This results in a net contract asset of \$300,000.

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Current GAAP

Revenue	\$0 ¹¹	\$255,000 ¹²	\$510,000 ¹³	\$255,000 ¹⁴
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During a contract other events besides the entity's performance of the contract may change the exit price of the contract. For example, the price of a raw material may increase, which would lead to a higher exit price, since a market participant would require a higher price to complete the contract. Modifying the example as above to illustrate this concept, everything remains the same except for the following:

	Reporting Date 1 st Quarter	Reporting Date 2 nd Quarter	Reporting Date 3 rd Quarter	Reporting Date 4 th Quarter
Exit price as estimated by management	\$1,000,000	\$1,200,000	\$500,000	\$0

The reason behind the increase in the estimated exit price is the increase in the cost of copper, which is used in the wiring of airplanes. Under the current model the following would occur:

11 Under the percentage of completion method which in this case will use costs incurred to measure the percentage the project is complete. Since no costs were expensed in relation to this contract in the first quarter, no revenue can be recognized.

12 Cost incurred: \$200,000, Estimated Total Project Cost: \$800,000, Total Contract: \$1,020,000:
 $200,000/800,000 = 25\%$ times 1,020,000 minus previously recognized revenue: \$0 = revenue to be recognized this quarter of \$255,000.

13 Cost incurred: \$600,000, Estimated Total Project Cost: \$800,000, Total Contract: \$1,020,000:
 $600,000/800,000 = 75\%$ times 1,020,000 minus previously recognized revenue: \$255,000 = revenue to be recognized this quarter of \$510,000.

14 Cost incurred: \$800,000, Estimated Total Project Cost: \$800,000, Total Contract: \$1,020,000:
 $800,000/800,000 = 100\%$ times 1,020,000 minus previously recognized revenue: \$765,000 = revenue to be recognized this quarter of \$255,000.

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	Reporting Date 1 st Quarter	Reporting Date 2 nd Quarter	Reporting Date 3 rd Quarter	Reporting Date 4 th Quarter
Revenue	\$20,000 ¹⁵	\$0 ¹⁶	\$0 ¹⁷	\$1,000,000 ¹⁸
Net Contract Asset / Liability	Asset \$20,000 ¹⁵	Liability \$200,000 ¹⁶	Asset \$500,000 ¹⁷	Asset \$1,000,000 ¹⁸

Conceptual Analysis

The proposed measurement model emphasizes relevance over reliability. Revenue is recognized immediately at inception, since the contract asset is greater than the contract liability. In this example the reason behind revenue at the inception of the contract is due to a premium Boeing receives for name recognition.

Contract liability at inception is the initial exit price, which is based on management estimates. Those estimates are hard to verify because “the exit price will not typically be observable” (FASB, Memo #107, par. 21). Though the information may be more relevant to users, reliability is sacrificed to a degree. After contract inception revenue can not be recognized until delivery has occurred. This revenue-recognition concept enhances the reliability of the information reported, but since revenue won’t be recognized until the product is delivered, timely reporting is sacrificed, as is relevance.

In the second model, where delivery is not required, relevance is emphasized over reliability. Since revenue is allowed to be recognized throughout the contract, and the entity uses the exit price throughout the contract to calculate revenue, reliability is sacrificed for more timely

15 See footnote 3.

16 No revenue is recognized since delivery has yet to occur. Contract Asset=\$1,000,000(\$1,020,000-20,000 previously recognized as revenue) Contract Liabilities= \$1,200,000 the exit price as of the date of reporting. This results in a net contract liability of \$200,000.

17 No revenue is recognized since delivery has yet to occur. Contract Asset=\$1,000,000(\$1,020,000-20,000 previously recognized as revenue) Contract Liabilities= \$500,000 the exit price as of the date of reporting. This results in a net contract asset of \$500,000.

18 Revenue may be recognized since delivery occurred during this period. Contract Asset=\$1,000,000(\$1,020,000-20,000 previously recognized as revenue) Contract Liabilities= \$0 the exit price as of the date of reporting. This results in a net contract asset of \$1,000,000. The net contract asset of \$1,000,000 would be recognized as revenue.

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information. Compared to the third model, where revenue is recognized based on the percentage of completion method, the percentage of completion method is generally more reliable than the measurement model where delivery isn't required. Note that the exit price is not observable, but the amount a company has expensed in connection with the contract is. Since the input of the estimate of the percentage the contract is complete has the quality of being observable, it would be easier to verify, which increases reliability.

In the example where the price of copper increased, resulting in an increase in the exit price, a contract liability was created. The contract liability would lead to a contract loss. That loss would be an additional disclosure by the entity, since under current GAAP there is no contract loss, which increases relevance to the user. Relevance is favored slightly over reliability since the exit price is still an estimate by management.

CONCLUSION

As mentioned earlier, there is a multitude of guidance on revenue recognition from the FASB, the SEC, and the AICPA. It is unclear whether the joint project of the FASB and IASB will eliminate the inconsistencies in current revenue-recognition practice. What is clear is the FASB and IASB are leaning towards an assets/liabilities approach to revenue recognition, potentially with an emphasis on relevance over reliability.

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