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9.0 Chapter Introduction

This chapter examines the application of financial analysis to contracting decisions.

Government Financial Analysis (FAR 9.104-1, 28.103-2(3), and 32.006-4(d)(3)). In Government contracting, financial analysis involves analysis of the:

- Financial capability of potential contractors. Decisions on contractor responsibility must consider whether the offeror has adequate financial resources or the ability to obtain them.
- Effect that Government financing decisions will have on contractor financial management. Decisions on Government financing and progress payments must consider the contractor's financial condition.
- Need for Government protection from performance problems that may result from contractor financial problems. Decisions on whether to require performance bonds for contracts other than construction or subordination agreements should consider the financial risk associated with Government progress payments.

Analysis Responsibility. Whether you must perform the analysis yourself or interpret the analysis of specialists (e.g., auditors, financial analysts, price/cost analysis), you must understand the basic concepts of financial analysis. Financial analysis typically provides information, not clear-cut answers. To do your job effectively, you must be able to ask the right questions and make the right decision. If challenged by the contractor or others involved in the acquisition process, you must be able to defend that decision. Keep in mind your objective when performing financial analysis is to determine whether weak finances will inhibit contract performance.

Relationship Between Assets, Liabilities, and Owner's Equity. To effectively perform a financial analysis, you must understand the relationship between assets, liabilities, and owner's equity. Assets are the economic resources of the firm which are capable of giving service benefits to future operations which can be measured objectively in monetary terms. The sources of these assets are the liabilities of the firm and owner's equity.

Assets = Liabilities + Owner's Equity

Liabilities are the claims by parties outside the firm against the assets of the firm. Owner's equity is the owner's (sole proprietor's, partners', or stockholders') financial claim against the assets of the firm.

For example: Two people each invest $10,000 in a business partnership. At that point in time, the firm's assets are $20,000; liabilities are zero; and owner's equity is $20,000. The next day they borrow $5,000 and purchase new equipment for $25,000. Now, the firm's assets are $25,000; liabilities are $5,000; and owner's equity is $20,000. Note that the firm's assets always equal the firm's liabilities plus owner's equity.

Tangible and Intangible Assets. Assets are the economic resources that are either tangible or intangible:

- **Tangible Assets.** Most assets are tangible -- their value comes from the use of their physical substance. Examples include: land, buildings, and equipment.
- **Intangible Assets.** Other assets are **intangible**-their value comes from a legal claim or excess earning power

caused by a business transaction (e.g., goodwill, patents, or trademarks).

Current and Long-Term Assets. For financial analysis, assets are most often classified as current or long-term:

- **Current Assets.** These are assets that can be converted into cash within one year. They include:
  - **Cash** in the bank and on hand. However, only unrestricted cash that is freely available for withdrawal to meet company liabilities shall be classified as a current asset.
  - **Marketable securities** listed for trade through a licensed brokerage firm. They may include U.S. Government obligations, State and Municipal obligations, Corporate Securities, and Money Market Instruments.
  - **Accounts receivable** from sales made and billed to customers on credit terms. Only customer accounts receivable arising from the sale of company products shall be classified as a current asset.
  - **Inventory** that is good and salable.
  - A merchandising company typically only has one class of inventory, items purchased from suppliers that are awaiting resale.
  - Service companies also typically have one class of inventory, production supplies.
  - Manufacturers typically show three different classes of inventory: raw materials, work-in-process, and finished goods.
  - **Other Current Assets**, which typically include prepaid insurance, taxes, rent, and interest. Normally, this category is not large in relation to other balance sheet items.
- **Long-Term Assets.** These are items that a business cannot easily turn into cash and are not consumed within one year. They include:
  - **Fixed assets**, the materials, goods, services, and land used in production.
  - Examples include: real estate, buildings, plant equipment, tools and machinery, furniture, fixtures, office or store equipment, and transportation equipment.
  - The book value of all fixed assets, except for land, is depreciated (reduced) annually to consider the reduction in value over the asset's useful life.

    - **Other long-term assets,** including:
    - Marketable securities not listed for trade through a licensed brokerage firm.
    - Land, equipment, or buildings not used to produce customer goods or services.
    - Investment in subsidiary companies.
    - Intangible assets or assets usually not available for payment of the debts of a going concern (e.g., goodwill, patents, copyrights, mailing lists, catalogues, trademarks, organization expense, drawings, dies, cuts, patterns, and stock expenses)
    - Amounts due from officers or stockholders.
    - Mortgages and real estate contracts held by the contractor.
    - Claims and miscellaneous accounts.

Current and Long-Term Liabilities. Most liabilities require the payment of a specific sum of money to a particular party at a specified time in the future. However, some liabilities may be indefinite; the debt may be settled by some means other than the payment of money; the creditor may not be known; or the due date may be uncertain.

- **Current Liabilities.** Current liabilities are obligations that a business must pay within a year. Generally, they are obligations that are due by a specific date (usually within 30 to 90 days). However, trade practices may permit the exclusion of certain accounts such as customer's deposits and deferred income, provided the firm's records include an appropriate explanation. Current liabilities include:
    - **Notes payable**, including notes payable to banks, notes payable to officers or stockholders of affiliated companies, notes payable to the trade, and notes payable to others.
    - **Accounts payable** for merchandise or material requirements purchased on credit terms and not paid.
    - **Accrued expenses** including: reserve for taxes; amounts due officers, stockholders, etc.; amounts due affiliated companies; dividends unpaid; and funded current debt.
    - **Currently due portion of long-term liabilities.**
- **Long -Term Liabilities.** Long-term liabilities are liabilities that will mature in excess of one year

from the balance sheet date. Normally, items in this area are retired in annual installments. Long-term liabilities include:
  - **Funded debt** including serial bonds; notes on mortgage installments, mortgages; and other funded debts due after one year. This is the most common type of long-term debt.
  - **Miscellaneous deferred liabilities** including such accounts as reserves for insurance and reserves for contingencies.
  - **Deferred credit** such as unearned income carried as a liability until the related product is completed and delivered.

Owners' Equity. Owners' equity is often referred to as **net worth,** because it is the net difference between the total assets and the total liabilities of the firm. It represents the owners' claims against the assets of the firm, but it is not a claim against a specific asset (e.g., cash). There are two sources:

- **Owner's Contribution.** These contributions, sometimes referred to as capital stock, include cash or other assets.
- **Retained Earnings.** These are the accumulated profits in excess of losses and payments to the owners. Earnings are retained by the firm to finance operations and growth.

9.1 Identifying Sources Of Financial Information

Analysis Comparisons. Analysis of the financial strength of a particular firm always involves comparison.

- **Comparisons To Consider.** The most common are comparisons with the:
  - Same company over time to identify trends in financial capability. Normally, you should consider trends in a firm's financial capabilities over a period of at least three years.
  - Industry to see how the firm compares with industry averages.
- **Comparisons Not To Consider.** Do not make comparisons between:

    - Individual companies.
    - Two firms being compared may both be financially unsound. In that case, you might judge them to be equally sound and capable of performing the contract. Instead, neither should be considered for award.
    - One of the firms being compared may the strongest firm in industry. A second firm might look poor by comparison but still be one of the soundest firms in the industry.
    - A company and averages for firms in a different industry or averages for all firms in all industries. Different industries require different financial structures. For example, you would not expect an engineering services firm to have the investment and assets required of a firm involved in the manufacture of heavy equipment.

Sources of Data on Individual Firms. To perform a financial analysis, you must obtain financial data concerning the firm under analysis. Key sources of information include:

- **The Firm.** The firm that you are about to analyze should be your primary source of information.
    - Publicly traded corporations must prepare annual reports. These reports include several items of information that will be useful in performing a financial analysis:
    - Balance sheets that identify major categories of assets, liabilities, and owner's equity.
    - Profit and loss statements for the fiscal year.
    - Other information concerning problems encountered during the just-completed fiscal year and plans for the future.
    - Sole proprietorships and partnerships are not required to prepare annual reports. Normally, you should require these firms to submit balance sheets and profit and loss statements certified by a Certified Public Accountant. Because these entities are not legally separate from the owners of the firm, these documents will include personal as well as business assets.
- **Securities and Exchange Commission (SEC) reports.** These reports include:
    - A complete description of all business lines,

    - Description of any significant developments in the corporation that could impact earning,
    - List of major debt holders and when debt is due,
    - Executive compensation, and
    - A statement from the firm's public accounts on reliability of the information provided.
- **Financial Publications.** There are many excellent publications that can provide you with a range of information about specific firms. These include:
    - Moody's Investor Services, a Dun & Bradstreet subsidiary, publishes financial data for a wide variety of companies:
    - Industrial Manual-provides information on all corporations listed on the New York Stock Exchange plus over 500 corporations listed on regional exchanges.
    - OTC Manual-provides information on over 3,200 companies traded over-the-counter.
    - Transportation Manual-provides information on all US. companies in every phase of transportation.
    - OTC Unlisted Manual-provides information on 2,000 companies classified as unlisted OTC companies.
    - International Manual-provides information on over 5,000 international companies.
    - Reference Book of Dun and Bradstreet, Inc.-provides a quarterly report on the estimated financial strength and the "composite credit appraisal" of companies in the United States. Its information is arranged by cities.
    - Federal Reserve Bank Credit Reports. Contractors who apply for guaranteed loans on Government contracts submit to a thorough credit investigation by the Federal Reserve Bank. The reports of these investigations are available to the contracting officer.
    - Macmillan Directory Division publishes information on both domestic and international companies.
    - Directory of Leading Private Companies-provides reports on 7,000 companies.
    - International Directory of Corporate Affiliations-provides reports on 1,550 foreign corporations, their 40,000 United States and foreign holdings, 1,550 US corporations and their 14,000 overseas affiliates.
    - Securities and Exchange Commission (US Government Printing Office, Washington, DC) annually

publishes a directory of companies required to file Annual Reports with the Securities and Exchange Commission.
    - Standard and Poor (McGraw-Hill subsidiary)
        - Corporate Records-provides information on over 12,000 corporations.
        - Stock Reports-provides information on over 4,000 corporations.
    - Thomas Register, Company Profiles (Volumes 17 and 18) defines the range of company tangible asset value. For example, a company with tangible assets of $30 mil would be assigned to the range of over $25 million but not over $50 million.
    - The Value Line Investment Survey-provides a loose-leaf analysis of approximately 1,700 companies. It contains historical data on earnings, dividends, sales, working capital, and appraisals of the future prospects for the company. Although mainly a manual for investors, it includes valuable general information for financial analysis.
- **Financial Services.** There are many excellent services that can provide you with a range of information about specific firms. Dun and Bradstreet -- one of the most popular -- provides individual reports on current developments concerning size, credit, etc., for many United States and Canadian companies.

Sources of Data on Specific Industries. To determine how the firm that you are analyzing compares with industry averages, you must also have information on different industries. Key sources of information include:

- Dun & Bradstreet provides information on major industries in three different formats:
    - Industry Norms and Key Business Ratios, Three Year Edition-provides industry information for the most recently completed 3-year period. Available in directory and diskette versions.
    - Industry Norms and Key Business Ratios, One Year Edition-provides industry information for the most recently completed year. Available in directory and diskette versions.
    - Key Business Ratios, One Year Edition-provides ratios only for the most recently completed year. Available in directory versions only.

- Robert Morris Associates Annual Statement Studies- provides composite financial data on manufacturing, wholesaling, retailing, service, and contracting lines of business. Financial statement on each industry are shown in common size form, and are accompanied by widely used ratios.
- Almanac of Business and Industrial Financial Ratios. Published annually by Prentice Hall, this book provides industry financial information and ratios.

9.2 Identifying Key Financial Indicators

Financial Ratios. Most financial analysis involves the use of ratios. There are numerous ratios that you can calculate to support financial analysis. You should determine which ratios provide you with the type of information that you need to support your analysis. This section examines common examples of four types of ratios: short-term solvency ratios; long-term solvency ratios; efficiency ratios; and profitability ratios. In addition, this section also delineates a model that combines the results of several ratios to predict bankruptcy.

Use Caution in Financial Analysis. Use caution in financial analysis:

- Changes in accounting practices may make it difficult to compare financial ratios calculated in different time periods. For example, if material costs are increasing, a change from first-in-first-out (FIFO) to last-in-first-out (LIFO) inventory accounting could substantially decrease inventory value with no change in the actual units in inventory. That will affect every ratio that includes inventory value. One source of information about accounting system changes is the corporate financial report. Another is the cognizant Government auditor.
- Financial statements represent only one source of financial information concerning a firm and its environment. Other information (i.e. changes in costs or market demand) not disclosed in financial statements may have an impact on the evaluation of financial capabilities.
- Most financial statements are not adjusted either for changes in market values or in the general price

level. This may seriously affect comparability between firms and industry averages.

- As ratio analysis has increased in popularity, there has sometimes been a tendency to develop ratios which have little or no significance. A meaningful ratio can be developed only from items which have a logical relationship.

Short-Term Solvency Ratios (FAR 9.106-4(a) and 53.301-1407). In most financial analyses, you will primarily be concerned with the contractor's ability to meet its current obligations, because most contracts take less than one year to complete. Solvency, or liquidity, ratios provide you with measures of the contractor's ability to meet current obligations. Any preaward survey of an offeror's financial capability should consider both the acid test ratio and the current assets to current liabilities ratio in every analysis of contractor financial responsibility.

- **Acid Test Ratio.** Also known as the quick ratio, this ratio is used to determine how well the firm's current liabilities can be satisfied by the firm's current assets less inventory.

$$\text{Acid Test Ratio} = \frac{\text{Cash- Current Inventory}}{\text{Current Liabilities}}$$

A high ratio in comparison with industry averages indicates a greater ability to satisfy current liabilities. However, too high a ratio may signify management inefficiency, because too large a share of the firm's assets is being held as nonproductive assets.

- **Current Assets to Current Liabilities Ratio**. Also known as the current ratio, this is the ratio of current assets to current liabilities. Normally, the biggest difference between this ratio and the acid test ratio is the addition of the value of inventories to the numerator.

$$\text{Current Assets to Current Liabilities Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilites}}$$

As with the acid test ratio, a high current ratio in comparison with other firms in the industry indicates a greater ability to satisfy current liabilities. However, a ratio that is too high may signify management inefficiency,

because too large a proportion of the firm's assets is being held as nonproductive assets. Also, be careful when inventory is a large portion of current assets. Values may be inflated by obsolete inventory that has a high book value, but no value in the marketplace.

Long-Term Solvency Ratios (FAR 9.106-4(a) and 53.301-1407). A firm with long-term solvency problems, may find it difficult to obtain financing for short-term operations. Long-term solvency is particularly important for contracts and programs extending beyond one year.

Long-term solvency ratios, also known as leverage ratios, measure the firm's long-term capability to meet its financial obligations. Consider the Total Liabilities to Net Worth Ratio in every preaward survey of contractor financial responsibility. You may also wish to consider the Debt Ratio.

- **Total Liabilities to Net Worth Ratio.** Also known as the Debt to Equity Ratio, this ratio measures the relative shares of debt and owner's equity used to finance the operations of the firm. Depending on the source, you may find this ratio expressed either as a decimal or a percentage.

$$\text{Total Liabilities to Net Worth Ratio} = \frac{\text{Total Liabilities}}{\text{Net Worth}}$$

Or written another way:

$$\text{Debt to Equity Ratio} = \frac{\text{Total Debt}}{\text{Owner's Equity}}$$

A ratio that is lower than industry averages indicates a relatively lower reliance on debt as a source of funds. This would normally place the firm in a relatively favorable position to borrow money. However, a higher ratio may be desirable at times, especially when a firm is expanding operations. Expanding operations might require increased production and expanded inventories. Debt may be the best source of funds. As operations stabilize at the higher level, cash flow should improve -- permitting reduced reliance on debt as a source of funds.

- **Debt Ratio.** This ratio measures the percentage of total assets supplied by creditors.

$$\text{Debt Ratio} = \frac{\text{Total Liabilities}}{\text{Total Assets}}$$

This ratio is a different way of looking at the same facts considered in the Total Liabilities to Net Worth Ratio. A Debt ratio of .50 would mean that half the funds required to finance total assets came from debt. A Total Liabilities to Net Worth Ratio of 1.00 would have the same meaning. A Debt Ratio that is low when compared to other firms in the industry indicates that the firm has less reliance on debt as a source of funds. That also indicates lower risk and greater financial stability.

Efficiency Ratios. Efficiency or operating ratios are measures of the firm's intensity of asset use. The principle efficiency ratios are measures of asset turnover, the average length of time required for assets to be consumed or replaced. The ratios provide measures on the length of time required to turn various assets into cash. The less time required, the more efficiently the firm is operating. Higher efficiency normally indicates higher profitability. High efficiency also indicates it is better able to turn its assets into cash to meet current liabilities.

Contractor trends over time are particularly important. A contractor that is becoming less efficient in using its assets will likely face declining profits and an increasing reliance on borrowing as a source of funds. Declining ratios may also indicate that the contractor is not reacting to a changing market place (e.g., a failure to reduce inventories even though sales are declining).

- **Inventory Turnover Ratio.** This ratio provides an indication of the time required to turn inventories into cash.

$$\text{Inventory Turnover Ratio} = \frac{\text{Cost of Goods Sold}}{\text{Average Inventory}}$$

A ratio that is lower than the industry average may indicate that too much cash has been invested in inventory. Excessive inventories tie up funds that could be used elsewhere in operations. They also increase operating costs associated with holding inventory. A ratio that is higher than other firms in the industry may indicate that the firm has insufficient inventories to meet demand. However, it

may also indicate that the firm has developed more efficient inventory management methods.

- **Sales to Assets Ratio.** This ratio, also known as the asset turnover ratio, measures the intensity with which assets are used to produce sales revenues.

$$\text{Sales to Assets Ratio} = \frac{\text{Net Sales}}{\text{Average Total Assets}}$$

Average total assets are calculated by adding beginning total assets plus ending total assets and dividing the sum by two. The higher the ratio the more sales dollars are produced by each asset dollar and the more efficiently the firm is operating.

Profitability Ratios. Profitability ratios examine management's overall effectiveness in earning profits. Profitable companies are generating additional funds that can be used to finance company operations.

Gross profit is the difference between net sales and the cost of sales, which is the sum of the expenses required to manufacture, purchase, or service customers.

Net profit is gross profit less all expenses directly related to the firm's operations, including income taxes. Net profit after taxes is the basic measure of a firm's operating success. It is net profit that is added to retained earnings or distributed to shareholders as dividends. When a loss occurs (a negative net profit), the loss is charged against net worth as a reduction to the equity account.

- **Gross Profit on Net Sales Ratio.** This ratio, also known as the gross margin ratio, calculates the average profit margin on sales. It can help identify trends in a firm's credit policy, purchasing, and general merchandising.

$$\text{Gross Profit on Net Sales Ratio} = \frac{\text{Net Sales - Cost of Goods Sold}}{\text{Net Sales}}$$

It may vary widely among firms in the same industry, according to sales, location, size, and competition. Firms with a higher ratio are generally more attractive to potential creditors and investors.

- **Rate of Return.** This ratio quantifies the company's return on investment.

$$\text{Rate of Return} = \frac{\text{Gross Profit}}{\text{Fixed Assets} + \text{Net Working Capital}}$$

This ratio is commonly used to compare both companies and potential investments within a single company. A higher ratio indicates a relatively more profitable use of assets.

Failure Prediction Model (DCAM 14-304a). In addition to your analysis of the ratios delineated above, you should consider the failure prediction model developed by Edward I. Altman. This model employs the sum of five weighted financial ratios to calculate a Z-Score which is used to predict the possibility of future bankruptcy and indicate the need for further analysis. Although, you should not rely exclusively on the Z-Score to form an opinion about contractor financial capability, it does provide an initial alert of financial problems.

- **Ratios Used In Z-Score Calculation.** The ratios used in Z-Score calculation provide a broad view of the firm's financial health.

$$A = \text{Working Capital to Total Assets Ratio} = \frac{\text{Net Working Capital}}{\text{Total Assets}}$$

Net working capital is current assets less current liabilities. This ratio measures a firm's ability to pay off its short-term liabilities.

$$B = \text{Retained Earnings Total Assets Ratio} = \frac{\text{Retained Earnings}}{\text{Total Assets}}$$

This ratio measures a firm's use of its total asset base to generate earnings. However, manipulated retained earnings data can distort the numerical results.

$$C = \text{EBIT to Total Assets Ratio} = \frac{\text{EBIT}}{\text{Total Assets}}$$

The earnings before interest and taxes (EBIT) to total assets ratio, or the rate of return on assets, measures the productivity of a firm's assets.

$$D = \text{Equity to Debt Ratio} = \frac{\text{Market Value of Common Stock} + \text{Preferred Stock}}{\text{Total Current Debt} + \text{Long-Term Debt}}$$

This is the inverse of the Debt to Equity ratio. It shows the amount a firm's assets can decline in value before liabilities exceed assets.

$$E = \text{Sales to Total Assets Ratio} = \frac{\text{Total Sales}}{\text{Total Assets}}$$

This ratio is a measure of the firm's ability to generate sales.

- **Weights Assigned Each Ratio In Z-Score Calculation.** Because of differences in financing and other factors, the weight assigned each ratio in Z-Score calculation should vary based on the type of firm under analysis. DCAA-recommended weights are presented in the following table:

Ratio Weights For Z-Score Calculation			
Ratio	**Publicly Traded Manufacturing Firm**	**Privately Held Manufacturing Firm**	**Other Firm**
A	1.2	.717	6.56
B	1.4	.847	3.26
C	3.3	3.107	6.72
D	.6	.420	1.05
E	1.0	1.000	N/A

- Z-Score Analysis. Examine the current Z-Score, changes over time (3 to 5 completed fiscal years), and other available information to develop Z-Score projections for the contract period. Use the following table to interpret historical and projected Z-Scores:

Prediction Based On Z-Score	
If the Z-Score is ...	**Then there is...**
3.00 or more	Little chance of bankruptcy.
1.81 to 2.99	Some chance of bankruptcy.

1.80 or less	Large chance of bankruptcy.

- **Z-Score Data From DCAA.** For many publicly held corporations, the DCAA Technical Audit Services Center (OTS), Special Programs Branch can provide Z-Score information for recently completed and prior fiscal years (usually up to five years). The Z-Scores are calculated using financial data provided by Standard and Poor's Compustat Services, Inc. DCAA will provide Z-Scores for both the company under review and the average of companies in the related industry.

9.3 Applying Financial Indicators To Responsibility Decisions

Responsibility Standard (FAR 9.104-1 and 9.105-1). The general FAR standards for contractor responsibility, include the requirement that the prospective contractor have adequate financial resources to perform the contract or the ability to obtain them.

Before making a determination of offeror responsibility, you must possess or obtain information sufficient to satisfy you that the prospective contractor meets this standard and the other FAR standards for contractor responsibility.

- Normally, the contracting officer must obtain this information, including preaward surveys, promptly after bid opening or receipt of offers. Limit requests for information to the low bidder or those offerors in range for award.
- However, in negotiated contracting (especially when research and development is involved), the contracting officer may obtain this information prior to issuing the request for proposals.

Preaward Survey (FAR 9.106-1(a)). Generally, you should obtain a preaward survey, including analysis of financial capability, when the information on hand or readily available is not sufficient for making a determination regarding responsibility. However, unless circumstances justify its cost, you should not request a preaward survey for:

- Fixed-price contracts at or below the simplified acquisition threshold, or
- Contracts involving the acquisition of commercial items.

Contract Financing (FAR 32.107). If the contractor or offeror meets the standards prescribed for a responsible prospective contractor, do not treat the contractor's need for contract financing as a handicap for a contract award (e.g., a responsibility factor or an evaluation criterion). Do not disqualify a contractor from contract financing because the contractor failed to indicate a need for contract financing before the contract was awarded.

Financial Capability Requirements (FAR 53.301-1407). The Standard Form (SF) 1407, Preaward Survey of Prospective Contractor Financial Capability, provides insight into some of the areas that you should consider in evaluating a firm's financial capability.

- Current financial position from the latest balance sheet.
- Current assets to current liabilities ratio.
- Acid test ratio.
- Total liabilities to net worth ratio.
- Current and projected sales.
- Latest profit and loss statement.
- Working capital.
- Most recent credit rating.
- Business and financial reputation.

Current Financial Position Analysis. The balance sheet of the firm will provide you information on the firm's current financial position. The balance sheet is a report that summarizes the firm's assets and liabilities, as well as its net worth (owner's equity). The report is known as a balance sheet because the sum of all assets must equal (balance) the sum of liabilities and net worth.

For example, Lloyd's Manufacturing has provided you with the following information for the years 19X6 to 19X8:

Lloyd's Manufacturing Financial Position			
Accounts	**19X6**	**19X7**	**19X8**
Cash	$82,000	$80,000	$85,000
Accounts Receivable	$190,000	$200,000	$180,000

Inventory	$65,000	$55,000	$60,400
Other Current Assets	$0	$0	$0
Fixed Assets	$970,200	$975,500	$976,000
Total Assets	$1,307,200	$1,310,500	$1,301,400
Current Liabilities	$125,000	$120,500	$101,600
Long-Term Liabilities	$275,400	$295,800	$300,000
Total Liabilities	$400,400	$416,300	$401,600
Net Worth	$906,800	$894,200	$899,800

Taken alone, the balance sheets provide little insight into the firm's financial capabilities. You must analyze the data presented.

The SF 1407 identifies three key ratios for analysis: the Current Assets to Current Liabilities (Current) Ratio, the Acid Test Ratio (Quick) Ratio, and the Total Liabilities to Net Worth Ratio.

In making your analysis, you should consider the 3-year trend in the ratios and a comparison between the ratios and the industry averages.

If analysis of these ratios raises a question or the use of other ratios seems appropriate, you should calculate the appropriate ratios and perform any additional analysis required.

Current Assets to Current Liabilities Ratio Analysis. As described earlier in the chapter, the current assets to current liabilities (current) ratio is calculated as follows:

$$\text{Current Ratio} = \frac{\text{Current Asset}}{\text{Current Liabilities}}$$

For example: Using the data from the Lloyd's Manufacturing financial position presented above:

- **Calculate 19X8 current assets.** For Lloyd's Manufacturing, current assets will be the sum of cash ($85,000), accounts receivable ($180,000), inventories ($60,400), and other current assets ($0). That sum is $325,400.
- **Calculate 19X8 current liabilities.** For Lloyd's Manufacturing, current liabilities are $101,600.

- **Calculate the 19X8 current ratio.**

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}} = \frac{\$325{,}400}{\$101{,}600} = 3.2$$

- **Compare with Industry Averages and Related Information.** To evaluate Lloyd's Manufacturing 19X8 Current Assets to Current Liabilities Ratio, you should compare it with the industry. One source of industry averages is *Industry Norms and Key Business Ratios*, published by Dun & Bradstreet, Inc. That book indicates that the upper quartile of manufacturing firms in Lloyd's industry have an average current ratio of 2.8. The middle half have a current ratio of 1.3 and the lower quartile a ratio of .8. Lloyd's ratio of 3.2 appears to indicate that it is more financially secure than most of the firms in its industry.

Acid Test Ratio Analysis. As described earlier in the chapter, the acid test ratio is calculated as follows:

$$\text{Acid Test Ratio} = \frac{\text{Current Assets} - \text{Inventory}}{\text{Current Liabilities}}$$

For example: Using the data from the Lloyd's Manufacturing financial position presented above:

- **Calculate 19X8 Sum of Cash, Marketable Securities, and Net Accounts Receivable.** For Lloyd's Manufacturing, current assets are $325,400. Inventory is $60,400 of that total.
- **Calculate 19X8 Current Liabilities.** For Lloyd's Manufacturing, current liabilities are $101,600.
- **Calculate the 19X8 Ratio.**

$$\text{Acid Test Ratio} = \frac{\text{Current Assets} - \text{Inventory}}{\text{Current Liabilities}} = \frac{\$325{,}400 - \$60{,}400}{\$101{,}600} = \frac{\$265{,}000}{\$101{,}600} = 2.61$$

- **Compare with Industry Averages and Related Information.** Industry statistics indicate that the upper quartile of manufacturing firms in Lloyd's industry have an average Acid Test ratio of 2.7. The middle half have an acid test ratio of 1.0 and the lower quartile a ratio of .5. Again, Lloyd's 19X8 ratio of 2.61 appears to indicate that it is as financially secure as the most secure firms in its industry.

Total Liabilities to Net Worth Ratio Analysis. One way to improve the current and acid test ratios is long-term borrowing. For example, long-term borrowing could increase cash without increasing current liabilities. However, too much long-term borrowing could jeopardize the long-term survival of the firm. The Total Liabilities to Net Worth Ratio compares total liabilities to owner's equity as a source of funds. It provides insight into the firm's ability to cover debt and, if necessary, borrow additional funds.

$$\text{Total Liabilities to Net Worth Ratio} = \frac{\text{Total Liabilities}}{\text{Tangible Net Worth}}$$

For example: Using the data from the Lloyd's Manufacturing financial position presented above:

- **Calculate 19X8 Total Liabilities.** Total liabilities are the sum of current ($101,600) and long-term liabilities ($300,000). The sum is $401,600.
- **Calculate 19X8 Net Worth.** Net worth has already been calculated as $899,800.
- **Calculate the Ratio.**

$$\begin{aligned}\text{Total Liabilities to Net Worth Ratio} &= \frac{\text{Total Liabilities}}{\text{Tangible Net Worth}} \\ &= \frac{\$401,600}{\$899,800} \\ &= .446\end{aligned}$$

- **Compare with Industry Averages and Related Information.** Industry statistics indicate that the upper quartile of manufacturing firms in Lloyd's industry have a Total Liabilities to Net Worth Ratio of .195 (19.5 percent). The middle half have a total liabilities to net worth ratio of 66.9 percent and the

lower quartile a ratio of 1.470 (147.0 percent). While Lloyd's ratio is not among the lowest in the industry, it is lower than the average.

Analysis of Ratios for Possible Trends. After you have calculated the appropriate ratios for the most recent year, examine data for earlier years for a possible trend. You should normally consider at least three years of data.

For example: Using the data from the Lloyd's Manufacturing financial position presented above:

Lloyd's Manufacturing Financial Position			
Ratio	**19X6**	**19X7**	**19X8**
Current Assets to Current Liabilities	2.70	2.78	3.20
Acid Test	2.18	2.32	2.61
Total Liabilities to Net Worth	0.442	0.466	0.446

For Lloyd's Manufacturing, analysis reveals that the Current Assets to Current Liabilities and the Acid Test Ratios have been improving over the last three years. Examination of the Total Liabilities to Net Worth Ratio does not reveal a trend.

Current and Projected Sales Analysis. The ratios above provide an insight into the firms current financial status. Analysis of sales data for the current period and past two periods can provide insight into the circumstances affecting the firm's financial position. For example, as a firm increases sales, current liabilities may increase as the firm borrows money to finance additional inventories and accounts receivable. As sales decrease, inventories and material purchases may decrease reducing current assets and current liabilities.

In addition, the size of the proposed contract relative to current and recent sales provides insight into the firm's need for additional funds to support the proposed contract. For example, a firm proposing on a contract that is much larger than current annual sales would likely be a greater financial risk than a firm proposing on a contract that is only a small fraction of current sales.

Profit/Loss Statement Analysis. Profits are essential to a firm's long-term survival. Profits can be retained to finance operations. In addition, a profitable company is a more desirable investment for both potential owners and lenders. Continuing losses will lead to a deteriorating financial position and liabilities will likely increase relative to owner's equity to finance current operations. It will also become increasingly difficult for a firm to obtain additional funds because investors will be unwilling to invest in the firm and lenders less likely to loan money.

Working Capital Analysis. Net working capital is calculated by subtracting current liabilities from current assets. Working capital therefore represents assets funded by long-term debt and owner's equity, sources that do not require near-term repayment. The greater the working capital, the greater the assurance that short-term debts will be paid when due. A large amount of working capital (relative to the size of the contract) should increase the likelihood that the firm will be able to obtain any cash needed to finance contract operations. A small amount of working capital may raise serious questions about the firm's ability to obtain any additional funds necessary to complete the contract.

Credit Rating Analysis. Credit ratings are an important indicator of a firm's financial health. One of the first steps a struggling firm will take to remain in business is to delay paying its creditors.

Credit ratings are available from a number of commercial services. Typically, these ratings use codes (e.g., "AAA" or "AA") to compare the financial strength of a company against the financial strength of all other companies rated.

To use a financial rating, you must consider several questions:

- ***What does the rating mean?***

For example a rating of "A" may seem impressive, but it may mean that the firm's financial rating is only a little better than average for the firms rated.

- ***How does the rating compare with the norm for the industry?***

The rating systems are designed to compare the financial strength of firms across industries. However, various business factors may have depressed the credit ratings of all firms in a particular industry. In other words, a firm's rating could be weak compared with all industries, but relatively strong for a firm in its industry.

- ***How is the rating changing over time?***

The current credit rating is a single evaluation at a particular point of time. Examine how the rating has changed over the past three years. Given the same current rating, a firm with a history of declining ratings is probably a greater risk than a firm with increasing ratings.

Business and Financial Reputation Analysis. Any other pertinent data that is uncovered in examining the firm's financial position should also be considered. Examples of additional data that may provide valuable insight include:

- Additional financial ratios highlighting information that is particularly relevant to firms in the industry
- Information indicating an anticipated loss on the proposed contract or other contracts.
- Information indicating a financial restructuring such as the sale or acquisition of facilities.

Analysis Conclusion. When you complete your analysis you must make a clear determination on contractor responsibility based on your findings:

- Responsible.
- Responsible with Government contract financing.
- Nonresponsible

For example: Examination of the three ratios above indicates that Lloyd's is in a strong financial position. All three ratios are better than the average firms in the industry. The Current Assets to Current Liabilities and the Acid Test Ratios have improved over the last three years. Unless other data about the firm revealed very negative information, it appears that Lloyd's is financially responsible.

9.4 Applying Financial Indicators To Contract Financing Decisions

This section examines some of the points that you should consider when evaluating the need to finance an acquisition.

- 9.4.1 - Commercial-Item Financing
- 9.4.2 - Noncommercial-Item Financing

Tailor Contract Financing (FAR 32.202-1(c)). Tailor contract financing to the product and contracting selection.

Over the years, the Government has developed financing practices to meet its unique needs in acquiring non-commercial items. These practices work well for noncommercial items, but do not always correspond with the practices used in commercial trade.

When Government financing is required for a commercial-item contract, carefully analyze current commercial-market practices. Study the contracting environment and commonly-used commercial methods of contract financing. Tailor contract financing based on the results of your analysis.

Commercial Item Identification (FAR 2.101). A commercial item is:

1. Any item, other than real property, that is of a type customarily used for nongovernmental purposes and that has been sold, leased, or licensed to the general public; or, offered for sale, lease, or license to the general public;
2. performance and that is not yet available in the commercial marketplace, but will be available in the commercial marketplace in time to satisfy the delivery requirements under a Government solicitation;
3. Any item that would satisfy a criterion expressed in Paragraphs 1 or 2 of this definition, but for:
    - Modifications of a type customarily available in the commercial marketplace; or
    - Minor modifications of a type not customarily available in the commercial marketplace made to

meet Government requirements. A "minor" modification is any modification that does not significantly alter the nongovernmental function or essential physical characteristics of an item or component, or change the purpose of a process. When you determine whether a modification is minor consider the value and size of the modification and the comparative value and size of the final product. Use dollar values and percentages as guideposts, but they are not conclusive evidence that a modification is minor;

4. Any combination of items meeting the requirements of Paragraphs 1, 2, 3, or 5 of this definition that are of a type customarily combined and sold in combination to the general public;

5. Installation services, maintenance services, repair services, training services, and other services if such services are procured for support of an item referred to in Paragraphs 1, 2, 3, or 4 above, and if the source of such services:

    - Offers such services to the general public and the Government contemporaneously and under similar terms and conditions; and
    - Offers to use the same work force for providing the Government with such services as the source uses for providing such services to the general public;

6. Services of a type offered and sold competitively in substantial quantities in the commercial marketplace based on established catalog or market prices for specific tasks performed under standard commercial terms and conditions. This does not include services that are sold based on hourly rates without an established catalog or market price for a specific service performed;
7. Any item, combination of items, or service referred to in Paragraphs 1 through 6, notwithstanding the fact that the item, combination of items, or service is transferred between or among separate divisions, subsidiaries, or affiliates of a contractor; or
8. A nondevelopmental item, if the procuring agency determines the item was developed exclusively at private expense and sold in substantial quantities, on

a competitive basis, to multiple State and local governments.

Nondevelopmental Item Identification (FAR 2.101). A nondevelopmental item is:

1. Any previously developed item of supply used exclusively for governmental purposes by a Federal agency, a State or local government, or a foreign government with which the United States has a mutual defense cooperation agreement;

2. Any item described in Paragraph 1 of this definition that requires only minor modification or modifications of a type customarily available in the commercial marketplace in order to meet the requirements of the procuring department or agency; or

3. Any item of supply being produced that does not meet the requirements of Paragraph 1 or 2 solely because the item is not yet in use.

9.4.1 Commercial-Item Financing

Commercial Financing Situations (FAR 32.202-1 and 32.206(f)). For purchases of commercial supplies or services, financing is normally the contractor's responsibility. However, in some markets, buyers commonly finance commercial-item contracts. In these markets, the contracting officer may specify commercial financing terms in the solicitation or permit each offeror to propose its own financing terms.

Only consider commercial-item contract financing when all of the following requirements are met:

- The contract item financed is a commercial supply or service.
- The contract price exceeds the simplified acquisition threshold.
- The contracting officer determines that financing is appropriate or customary in the commercial marketplace.
- The particular form of financing under consideration is in the best interest of the Government.
- Adequate financial security is obtained.

- Aggregate commercial advance payments will not exceed 15 percent of the contract price.
- The contract is awarded competitively, or if only one offer is solicited, adequate consideration is obtained if the financing is expected to be substantially more advantageous to the offeror than the offeror's normal method or customer financing.
- The payment office concurs with the contract liquidation provisions.
    - Liquidation of contract financing payments must be made on the same basis as the computation of financing payments (e.g., financing payment computed on a whole contract basis must be liquidated on a whole contract basis, financing payment computed on a line item basis must be liquidated against that line item).
    - Liquidation on a whole contract basis must use a uniform liquidation percentage as the liquidation method, unless:
    - The cognizant payment office agrees that proposed liquidation provisions can be executed by that office, or
    - Agency regulations provide alternative liquidation methods.

Types of Commercial Payments (FAR 32.202-2 and 32.206(g)). There are four types of payments for commercial-item purchases:

- **Commercial Advance Payments.** These payments:
    - Are made before there is any performance of work under the contract.
    - In aggregate, must not exceed 15 percent of the contract price.
    - Are contract financing for prompt payment purposes (e.g., not subject to interest payments under the Prompt Payment Act).
    - Are not subject to FAR requirements related to advance payments for noncommercial items.
- **Commercial Interim Payments.** These payments:
    - Are made after some work has been accomplished but before final delivery and acceptance.
    - Are contract financing for prompt payment purposes (e.g., not subject to interest payments under the Prompt Payment Act).
    - May be made:

    - Based on the achievement or occurrence of specified events,
    - Based on the passage of time, or
    - At specified times prior to delivery dates.
- **Installment Payments.** This form of financing is payment to a contractor of a fixed number or equal interim financing payments prior to delivery and acceptance of a contract item.
    - The installment payment arrangement is designed to reduce administrative costs .
    - However, if a contract will have a large number of deliveries, the administrative costs may increase to the point where installment payments are not in the best interest of the Government.
    - The sum of all installment payments must not exceed 70 percent of the price of the unit(s) financed.
- **Delivery Payment.** This is payment for accepted supplies or services (including partial deliveries). Financing payments (advance, interim, or installment) are liquidated by deducting the amounts previously paid for an item from the item delivery payment.

Market Research on Commercial Financing (FAR 32.202-3). If you are considering the use of commercial financing, make commercial financing a part of your market research. Consider:

- The extent to which other buyers provide contract financing for products in the market involved;
- The overall level of financing normally provided;
- The amount or percentages of any payments equivalent to commercial advance payments,
- The basis for any payments equivalent to interim payments, as well as the frequency, and amounts or percentages; and
- Methods of contract financing payment liquidation and any special or unusual payment terms applicable to delivery payments.

Security for Commercial Financing (FAR 32.202-4). By law, you must obtain adequate security for Government financing. Accordingly, you must specify acceptable types of security in the solicitation. If more than one type of security is acceptable, require each offeror to specify the security that it will provide and assure that security is identified in the final contract.

- Require security that is at least equivalent to the maximum unliquidated amount of contract financing payments to be made to the contractor. The contracting officer may adjust the required security value periodically during contract performance, as long as it is always equal to or greater than the amount of unliquidated financing.
- Consider the offeror's financial condition as security. Subject to agency regulations, the contracting officer may determine that the offeror's financial condition is adequate security, provided the offeror agrees to provide additional security should its financial condition become inadequate security.
    - Consider both net worth and liquidity in assessing the offeror's financial condition.
    - Require additional security if the offeror's financial condition is not adequate security.
- Consider other types of security including the following:
    - Paramount lien. A lien is the legal claim by one person (in this case the Government) over the property of another for the payment of a debt or the settlement of an obligation.
    - Statutes specify that any liens provided as security for Government financing are paramount over all other liens in effect over contractor property. This right is effective with the first payment to the contractor, and requires no filing, notice, or other action by the Government.
    - The contract must specify what assets are subject to the lien (e.g., work in progress, the plant, inventory), and give the Government the right to verify the existence and value of those assets.
    - Financing must be conditioned upon a contractor certification that the assets subject to the lien are free from any prior encumbrances.
    - United States bonds or notes.
    - Currency, certified or cashier's checks, bank drafts, or money orders.
    - Irrevocable letter of credit.
    - A bond from a surety.
    - A guarantee of repayment from a person or corporation of demonstrated liquid net worth, connected by significant ownership to the contractor.

    - Title to identified contractor assets of adequate worth.
- Consider the risks associated with requiring security.
    - Identify the risks to the Government of providing very high amounts of Government financing early in the contract (front-end loading).
    - Analyze security requirements and the amounts and timing of financing payments to determine whether a particular financing arrangement is in the Government's best interest.

Contracting Officer- Specified Commercial Contract Financing (FAR 32.203 and 32.204). When market research provides sufficient information to identify the customary financing terms in the relevant industry, you may specify the appropriate terms in the solicitation. If you do:

- Assure that contract financing is not used as a factor to evaluate competing offers for contract award.
- Assure that no proposal offering alternative financing is accepted.
- Do not permit an offeror's decision not to use Government-specified financing to alter the Government's evaluation of the offer. That decision does not render the offer nonresponsive or otherwise unacceptable.
- If you make award to an offeror that declined the Government-specified financing, assure that contract financing provisions are not included in the resulting contract.
- Do not accept contract financing as a basis for adjusting an offeror's proposed prices, because the effect of contract financing is reflected in each offeror's prices.

Offeror-Proposed Commercial Contract Financing (FAR 32.205 and OMB Circular A-94). Market research may permit the contracting officer to determine that commercial-item financing is appropriate, but not which financing terms are in the best interest of the Government. In this situation, the solicitation should permit each offeror to propose financing terms. The contracting officer must then determine which offer is in the best interests of the Government. If you take this approach:

- Assure that the solicitation

    - Includes the FAR provision, Invitation to Propose Financing Terms.
    - Specifies the delivery payment (invoice) dates and interest rate that will be used in financing proposal evaluation.
- Evaluate the total cost to the Government for each proposal by adjusting each proposed price to reflect the costs of providing the proposed financing. For each financing payment:
    - The amount financed is the proposed financing payment under the offeror's proposal.
    - The financing period is the time (in years) between the date of the proposed financing payment and the date that the amount would be paid as a delivery payment.
    - The interest rate is the Nominal Discount Rate identified in Appendix C of OMB Circular A-94, Benefit-Cost Analysis of Federal Programs; Guidelines and Discounts.

9.4.2 Noncommercial-Item Financing

General Policy on Providing Noncommercial Item Financing (FAR 32.104(a)). Prudent noncommercial-item contract financing can be a useful tool for Government acquisition, but you must limit the use of this tool to situations where it is needed for prompt and efficient contract performance. When used:

- Administer it in a way that aids the acquisition.
- Avoid any undue risk of Government monetary loss.
- Monitor the contractor's use of the financing provided.

Dollar Limitations on Noncommercial Item Financing (FAR 32.104(d)). Consider contract financing for contracts with:

- Small business concerns, when the contract price will be greater than the simplified acquisition threshold, or
- Other than small business concerns, when:
    - The contract price will be $1 million or more, or

    - A group of contracts, whose prices are greater than the simplified acquisition threshold, total $1 million or more.

Need for Contract Financing Not a Deterrent (FAR 32.107). If the contractor or offeror meets the standards prescribed for contractor responsibility, never allow the contractor's need for contract financing to affect the contract award decision (e.g., as a responsibility factor or evaluation criterion.). After award, you should not disqualify a contractor from contract financing solely because the contractor failed to indicate a need for contract financing before contract award.

Uses of Noncommercial Contract Financing (FAR 32.105). Noncommercial contract financing methods are intended to be self-liquidating through contract performance. Accordingly, you must normally limit their use to financing contractor working capital and not for financing expansion of contractor-owned facilities or the acquisition of fixed assets. However, under loan guarantees, exceptions can be made for:

- Facilities expansion of a minor or incidental nature, if a relatively small part of the guaranteed loan is used for the expansion and the contractor's repayment would not be delayed or impaired; or
- Other instances of facilities expansion for which contract financing is appropriate under agency procedures.

Order of Financing Preference (FAR 32.102, 32.106, and 32.113). When a contractor requests contract financing, consider the following order of preference (unless an exception would be in the Government's best interest):

- Private financing without Government guarantee. However, you should not require the contractor to obtain private financing at unreasonable terms or from other agencies.
- Partial payments;
- Customary contract financing, including:
    - Progress payments based on the percentage or stage of completion;
    - Performance-based payments; or
    - Customary progress payments based on costs.
- Loan guarantees.

- Unusual contract financing -- any contract financing arrangement that deviates from those found in the FAR -- including unusual progress payments based on costs. Use of unusual contract financing must be approved by the head of the agency or as provided for in agency regulations.
- Advance Payments

Partial Payments (FAR 32.102(d), 32.903(f)(2), and OMB Prompt Payment Regulations at 5 CFR ¶1315). OMB Prompt Payment regulations require agencies to pay for partial delivery of supplies or partial performance of services unless specifically prohibited by the contract. Although partial payments are generally treated as a method of payment, not a method of contract financing, using partial payments can assist contractors to participate in Government contracts without, or with minimal, contract financing.

- When appropriate, design contract statements of work and pricing arrangements to permit acceptance and payment for discrete portions of work, as soon as it is accepted.
- Unless specifically prohibited by the contract, the contractor is entitled to payment for accepted partial deliveries of supplies or partial performance of services that comply with all applicable contract requirements and for which prices can be calculated from the contract terms.

Progress Payments Based on Percentage or Stage of Completion (FAR 32.102(e), 52.232-5, and DFARS 232.102(e)(2)).

You may use progress payments based on the percentage or stage of contract completion following agency procedures. The most common application of this financing method is construction. Other applications include: shipbuilding and ship conversion, alteration, or repair.

Under construction contracts:

- Progress payments are typically made monthly as work proceeds, based on estimates of work accomplished which meets the standards of quality established in the contract.

- If the contracting officer finds that satisfactory progress was made during the period covered by the progress payment invoice, the contracting officer must authorize payment in full for the work accomplished under a definitized contract. Progress payments must not exceed 80 percent on work accomplished on an undefinitized contract action.
- If progress was not satisfactory, the contracting officer may retain 10 percent of the amount until satisfactory progress is achieved.
- When work is substantially complete, the contracting officer may retain from previously withheld funds and future progress payments an amount adequate to protect the Government's best interests.
- On completion and acceptance of each separate building, public work, or other separately-priced division of the contract, payment must be made for the completed work without retention of a percentage.

Customary Progress Payments Based on Costs (FAR 32.501-1, 32.502-1, 32.502-2, and DFARS 232.501-1).

Customary progress payments are those made using the customary progress payment rate, cost base, and frequency of payment established in the FAR Progress Payments clause. Any other progress payments are considered unusual.

The current FAR customary progress payment rate is 80%, applicable to the total cost of performing the contract. For small business concerns, the rate is 85%. Rates vary from time to time and from agency to agency. For example, the DoD has established customary rates for DoD contracts at 75% for large businesses, 90% for small businesses and 95% for small disadvantaged businesses.

When considering the use of progress payments based on cost, the contracting officer:

- May provide for customary progress payments, if:
    - The contractor:
    - Will not be able to bill for the first delivery of products, or other performance milestones, for a substantial time after work must begin (normally four months or more for a small business; six months or more for others) and
    - Will make expenditures for contract performance during the predelivery period that have a

significant impact on the contractor's working capital; or
    - The contractor (particularly if the contractor is a small supplier) demonstrates actual financial need or unavailability of private financing.
- Must not provide for progress payments for contracts of less than $1,000,000 unless:
    - The contractor is a small business and the contract will be equal to or greater than the simplified acquisition threshold;
    - The contractor will perform a group of small contracts at the same time and the total impact on working capital is equivalent to a single contract of $1,000,000 or more; or
    - Agency regulations provide for such progress payments.
- Must decide whether to provide for progress payments when a series of orders are awarded (e.g., under an indefinite delivery contract), based on:
    - An estimate of the total work to be done, and
    - The probable impact on working capital of the predelivery expenditures and production lead times of the majority of the individual orders.
- Must obtain contract finance office or other agency-designated approval before providing progress payments to a contractor:
    - Whose financial condition is in doubt;
    - Who has had an advance payment request or loan guarantee denied (or approved but withdrawn or lapsed) within the previous 12 months; or
    - Who is named in the consolidated list of contractors indebted to the United States (the "Hold-Up List").

Performance-Based Payments (FAR 32.102(f), 32.1000, 32.1001, 32.1002, 32.1003, and 32.1004).

Performance-based payments are noncommercial contract financing based on contractor achievement of performance goals established in the contract. They are the preferred financing method, when the contracting officer finds them practical and the contractor agrees to use them.

The contracting officer:

- Must not apply performance-based payment to cost-reimbursement contracts.

- Must not apply performance-based payment to contracts:
  - For architect-engineer services or construction;
  - For shipbuilding or ship conversion, alteration, or repair, when the contracts provide for progress payments based upon a percentage or stage of completion;
  - For research and development;
  - Awarded through sealed bidding or competitive negotiation;
- Must assure that the following conditions are met before using performance-based payments:
  - The contracting officer and the offeror agree on the performance-based payment terms.
  - The contract is a definitized fixed-price contract. However, an undefinitized contract may include the FAR Performance-Based clause with the provision that the clause is not effective until the contract is definitized and the performance-based schedule is included in the contract.
  - The contract does not provide for other methods of contract financing, except advance payments or guaranteed loans.
- May provide for payments based on any of the following:
  - Performance measured by objective and quantifiable methods,
  - Accomplishment of defined events, or
  - Other quantifiable measures of results.
- May provide for performance-based payments to be made on a:
  - Whole contract, or
  - Deliverable line item (e.g., a single line item with 10 units priced at $1,000,000 each has 10 deliverable items, but a line item for a lot of 10 units priced at $10,000,000 has one deliverable item -- the lot).
- May base performance-based payments on either specifically described events (e.g., milestones) or some measurable performance criterion.
  - Each event or performance criterion used to trigger a finance payment:
  - Must be an integral and necessary part of contract performance, and
  - Must be identified in the contract, along with a description of what constitutes successful performance of the event or attainment of the performance criterion.

    - The signing of contracts or modifications, the exercise of options, or other such action must not be events or criteria for performance-based payments.
    - An event need not be a critical event in order to trigger a payment, but successful performance of each identified event or performance criterion must be readily verifiable.
    - Events or criterion may be either severable or cumulative:
    - The successful completion of a severable event or criterion is independent of the accomplishment of any other event or criterion.
    - The successful completion of a cumulative event or criterion is dependent upon the previous accomplishment of another event.
- Must assure that the contract:
    - Does not permit payment for a cumulative event or criterion until each dependent event or criterion has been successfully completed.
    - Specifically identifies severable events or performance criterion that will trigger payments.
    - Identifies which events or criteria are preconditions for the successful achievement of each cumulative event or criterion.
    - When performance-based payments are made on a deliverable item basis, identifies trigger events or performance criteria that are:
    - Part of the performance necessary for that item, and
    - Specifically identified with that item or subline item.
    - Identifies the dollar payment (or percentage of contract/item price) associated with each trigger event or criterion. Amounts may be established on any rational basis, including:
    - Engineering estimates of stages of completion;
    - Engineering estimates of hours or other measures of effort to be expended in performance of an event or achievement of a performance criterion; or
    - The estimated cost of performance of particular events.
    - Does not provide for performance-based payments exceeding:
    - 90 percent of contract price if payments are based on the whole contract, or

    - 90 percent of the delivery item price if payments are based on delivery items.
    - Specifies a liquidation rate or dollar amount for the delivery item or whole contract depending on which is used for performance-based payments.

Loan Guarantees for Defense Production (FAR 32.302, 32.303, 32.304-1, and 32.304-2).

A guaranteed loan is a loan, revolving credit fund, or other financial arrangement made pursuant to Regulation V of the Federal Reserve Board. Under this regulation, the guaranteeing agency is obligated, on demand of the lender, to purchase a stated percentage of the loan and to share any losses in the amount of the guaranteed percentage. The guaranteeing agency is any agency that the President has authorized to guarantee loans, through Federal Reserve Banks, to expedite national defense production. These include: the Departments of Defense, Energy, Commerce, Interior, Agriculture; the General Services Administration; and the National Aeronautics and Space Administration.

- The process begins with the guaranteed loan application:
    - A contractor, subcontractor, or supplier that needs operating funds to perform a contract related to national defense may apply to a financing institution for a loan.
    - If the financing institution is willing to extend credit, but considers a Government guarantee necessary, the institution may apply to the Federal Reserve Bank of its district for the guarantee.
    - The Federal Reserve Bank will:
    - Send a copy of the application to the Federal Reserve Board and the Board will transmit the application and a list of related contracts to the interested guaranteeing agency to assist in determining the eligibility of the contractor.
    - While eligibility is being determined, make any necessary credit investigation in order to expedite necessary defense financing and protect the Government against monetary loss.
    - Send the results of the credit investigation and its recommendation to the Federal Reserve Board and the Board will transmit them to the interested guaranteeing agency.

- The contracting officer must:
  - Prepare a certificate of eligibility for a contract that the contracting officer believes to be of material consequence when:
  - The agency contract financing office requests it.
  - Another interested agency requests it.
  - The application for a loan guarantee relates to a contract or subcontract within the contracting officer's cognizance.
  - Assure that the certificate of eligibility includes the following determinations:
  - The supplies or services to be acquired are essential to the national defense.
  - The contractor has the facilities and the technical and management ability required for contract performance.
  - There is no practicable alternate source for the acquisition without prejudice to the national defense. (Never include this statement if the firm is a small business.) In making this determination, consider the factors identified in the FAR.
  - Must attach sufficient data to support the determination, including:
  - The contractor's past performance;
  - The relationship of the contractor's operations to performance schedules; and
  - Other appropriate factors.
- The guaranteeing agency must:
  - Evaluate the relevant data, including:
  - The certificate of eligibility,
  - The accompanying data, and
  - Any other relevant information on the contractor's financial status and performance.
  - Determine whether authorization of a loan guarantee would be in the Government's interest.
  - Complete a standard form of authorization as prescribed by the Federal Reserve Board, if
  - A loan guarantee is found to be in the Government's interest, and
  - The terms and conditions of the proposed guarantee are considered appropriate.
  - Assure that the guarantee is less than 100 percent of the loan, unless the agency determines that all of the following conditions exist:
  - The circumstances are exceptional.

    - The operations of the contractor are vital to the national defense.
    - No other means of financing are available.
    - Normally limit guarantees made primarily for working capital purposes, using an asset formula, to a specified percentage (usually 90 percent or less) of the contractor's investment.
    - Transmit the authorization through the Federal Reserve Board to the Federal Reserve Bank.
- The Bank is authorized to execute and deliver to the financing institution a guarantee agreement.
- The financing institution will then make the loan.

Unusual Progress Payments Based on Costs (FAR 32.501-2 and 32.502-2). Unusual progress payments are any progress payments made using other than the customary progress payment rate, cost base, and frequency of payment established in the Progress Payments clause.

When considering the use of progress payments with unusual terms, the contracting officer:

- May only provide such progress payments if the following conditions are met:
    - The contract necessitates predelivery expenditures that are large in relation to contract price and in relation to the contractor's working capital and credit.
    - The contractor fully documents an actual need to supplement any private financing available, including guaranteed loans.
    - The contractor's request is approved by the head of the contracting activity or a designee.
- Must obtain contract finance office or other agency-designated approval before taking any of the following actions:
    - Providing a progress payment rate higher than the customary rate;
    - Deviating from the progress payment terms prescribed in the FAR; or
    - Providing progress payments to a contractor:
    - Whose financial condition is in doubt;
    - Who has had an advance payment request or loan guarantee denied (or approved but withdrawn or lapsed) within the previous 12 months;

    - Who is named in the consolidated list of contractors indebted to the United States (the "Hold-Up List").
- Should assure that the difference between the unusual progress payment rate and the customary rate is the smallest difference possible under the circumstances.
- Should not consider progress payment terms unusual merely because they are being used on a letter contract or a definitive contract that superseded a letter contract.

Advance Payments for Noncommercial Items (FAR 32.402, 32.403, 32.404, 32.408, 32.409-1, and 32.409-2).

Advance payments for noncommercial items may be authorized for any type of contract, however they are generally the least preferred method of contract financing and should not be authorized if other types of financing are reasonably available. Loans and credit at excessive interest rates or other exorbitant charges are not considered reasonably available financing.

- You are authorized by law to make advance payments for the following items and the general preference against advance payments does not apply:
    - Rent;
    - Tuition;
    - Insurance premiums;
    - Expenses of investigations in foreign countries;
    - Extension or connection of public utilities for Government buildings or installations;
    - Subscriptions to publications;
    - Purchases of supplies and services in foreign countries, if:
    - The purchase price does not exceed $10,000; and
    - The advance payment is required by the laws or government regulations of the foreign country concerned;
    - Enforcement of the customs or narcotics laws; or
    - Other transactions authorized by agency procedures under statutory authority.
- You may also find advance payments useful and appropriate for the following:
    - Contracts for experimental, research, or development work with nonprofit educational or research institutions;

    - Contracts solely for the management and operation of Government-owned plants;
    - Contracts for acquisition at cost of facilities for Government ownership;
    - Contracts of such highly classified nature that the agency considers it undesirable for national security to permit assignment of claims under the contract;
    - Contracts entered into with financially weak contractors whose technical ability is considered essential to the agency;
    - Contracts for which a loan by a private financial institution is not practicable, whether or not a loan guarantee is issued.
    - Contracts with small business concerns under circumstances which make advance payments appropriate.
    - Contracts under which exceptional circumstances make advance payments the most advantageous contract financing method for both Government and the contractor.
- A contractor may apply for advance payments before or after contract award. The contractor must submit any advance payment request to the contracting officer and generally must provide the information below. (Specific requirements may vary for experimental, research, or development contracts with nonprofit educational or research institutions or management and operation contracts for Government-owned plants.)
    - Reference to the contract or solicitation for which advance payment is requested.
    - A cash flow forecast showing estimated disbursements and receipts for the period of contract performance.
    - The proposed total amount of the advance payments.
    - The name and address of the bank at which the contractor expects to establish a special account as a depository for the advance payments.
    - A description of the contractor's efforts to obtain unguaranteed private financing of a guaranteed loan.
    - Other information appropriate to an understanding of the:
    - Contractor's financial condition and need;
    - Contractor's ability to perform the contract without loss to the Government; and

    - Financial safeguards to protect the Government's interest.
- After analysis of the contractor's request, the contracting officer must provide a recommendation to the agency's approving authority.
    - For both approval and disapproval you must transmit the following:
    - Contract related data;
    - The contractor's request and supporting information;
    - A report of the contractor's past performance, responsibility, technical ability, and plant capacity.
    - For a disapproval recommendation, provide the reason for that decision.
    - For an approval recommendation, provide:
    - Comments on the contractor's need for advance payments and potential Government benefits from contract performance;
    - Proposed advance payment contract terms, including proposed security requirements.
    - The findings, determination, and authorization following the FAR-required format.
    - A recommendation for approval of the request.
    - Justification for any proposal for waiver of interest charges.

9.5 Applying Financial Indicators To Performance Bond Decisions

Performance Bond (FAR 28.001). A performance bond is a written instrument executed by the contractor (the principal) and a second party (the surety or sureties) to assure fulfillment of the contractor's obligations under the contract. If the contractor's obligations are not met, the bond assures payment, to the extent stipulated, of any loss sustained by the Government.

Requirement for Construction Contracts (FAR 13.005(a)(2), 28.102-1, 28.204-1, and 28.204-2).

The Miller Act requires the Government to obtain a performance bond for any construction contract exceeding the simplified acquisition threshold, except that the requirement may be waived:

- By the contracting officer for work performed in a foreign country upon finding that it is impracticable for the contractor to furnish a performance bond, or
- As otherwise authorized by law.

For construction contracts greater than $25,000 but not greater than the simplified acquisition threshold, you must provide contractors two or more of the payment protection alternatives outlined below. The contractor may then select from the alternatives.

- Payment bond.
- An irrevocable letter of credit (ILC). The FAR requires that you give particular consideration to including this as one of the alternatives.
- A tripartite escrow agreement.
    - The prime contractor establishes an escrow account in a Federally insured financial institution and enters into a tripartite escrow agreement with:
    - The financial institution, as escrow agent, and
    - All of the labor and material suppliers.
    - The escrow agreement establishes the terms of payment under the contract and of resolution of disputes among the parties.
    - The Government makes payments to the contractor's escrow account, and the escrow agent distributes the payments in accordance with the agreement, or triggers the disputes resolution procedures if required.
- Certificates of deposit. The contractor deposits certificates of deposit from a Federally-insured financial institution with the contracting officer.
- Security deposit in the form of:
    - United States bonds or notes in an amount equal to the amount of the contract; or
    - Certified or cashier's check, bank draft, Post Office money order, or currency in the amount of the contract.

Requirement for Other Contracts (FAR 28.103-1 and 28.103-2). Generally, you must not require performance bonds for contracts other than construction contracts. However, you may require performance bonds for contracts exceeding the simplified acquisition threshold when necessary to protect the Government's interest. The following situations may warrant a performance bond:

- Government property or funds are to be provided to the contractor for use in performing the contract or as partial compensation
- A contractor sells assets to or merges with another concern, and the Government, after recognizing the latter concern as successor in interest, desires to assure that it is financially capable
- Substantial progress payments are made before delivery of end item starts.
- Contracts for dismantling, demolition, or removal of improvements.

Contractor Financial Responsibility (FAR 28.103-2(c)). Concerns about contractor financial responsibility may affect your decision on whether or not to require a performance bond.

However, you must remember that requiring a performance bond does not relieve you from the requirement to assure that a prospective contractor is responsible before making contract award. Also remember, that you must never assume that a contractor is financially responsible, simply because the firm can obtain a performance bond.

Bond Amount (FAR 28.102-2). When the contract requires a performance bond:

- The original penal amount of the bond must be 100 percent of the original contract price, unless the contracting officer determines that a lesser amount will protect the Government's interest.
- You may require additional performance bond protection when a contract price is increased.
  - The increase in protection generally must equal 100 percent of the increase in contract price.
  - Secure the additional protection by directing the contractor to increase the penal amount of the existing bond or by obtaining an additional bond.

9.6 Applying Financial Indicators To Progress Payment Administration

This section examines some of the points that you should consider in progress payment administration.

- 9.6.1 - Government Rights In Adjustment Situations
- 9.6.2 - Adjustment For Loss Contracts
- 9.6.3 - Liquidation Rate Adjustment

9.6.1 Government Rights In Adjustment Situations

Government Right to Adjust Progress Payments (FAR 32.503-6 and 52.232-16). The FAR Progress Payments clause provides the Government the right to reduce or suspend progress payments, or to increase the liquidation rate, under specific conditions. Only take action:

- In accordance with the contract terms and never precipitately or arbitrarily.
- After:
  - Notifying the contractor of the intended action and providing an opportunity for discussion.
  - Evaluating the effect of the action on the contractor's operations. In your evaluation, consider the contractor's financial condition, projected cash requirements, and existing or available credit arrangements.
  - Considering the general equities of the particular situation.
- Immediately and unilaterally if warranted by circumstances such as overpayments or unsatisfactory contract performance.
- Fairly and reasonably.
  - Base your decisions on substantial evidence.
  - Document the contract file.
  - Findings supporting the need for the change must be in writing.

Adjustment Situations (FAR 32.503-6 and 52.232-16(c)). You may reduce or suspend progress payments, increase the liquidation rate, or take a combination of these actions, after finding on substantial evidence any of the conditions outlined in the table below.

Situation	**If...**	**Then...**
Contractor Noncompliance	The contractor's accounting system or controls are deemed inadequate	Suspend progress payments or suspend the progress payments associated with the

		unacceptable portion of the accounting system until necessary changes are made.
	The contractor fails to comply with contract requirements without fault or negligence	Take no action other than to correct overpayments and collect amounts due from the contractor.
Unsatisfactory Financial Condition	The contracting officer finds that contract performance (including liquidation of progress payments) is endangered by the contractor's financial condition, or by a failure to make progress	Require the contractor to make additional operating or financial arrangements adequate for completing the contract without loss to the Government.
	The contracting officer concludes that further progress payments would increase the probable loss to the Government	Suspend progress payments and all other payments until the unliquidated balance of progress payments is eliminated.
Excessive Inventory	The inventory allocated to the contract exceeds reasonable requirements (including a reasonable accumulation of inventory for continuing operations)	Require the transfer of excessive inventory from the contract and take one or more of the following actions: • Eliminate the costs of excessive inventory from the costs of eligible progress payments, with appropriate reduction in progress payments outstanding.

		• Apply additional deductions to billings for deliveries (increase liquidation)
Delinquency in Payment of Performance Costs	The contractor is delinquent in paying the costs of contract performance in the ordinary course of business	Evaluate whether the delinquency is caused by an unsatisfactory financial condition. • If it is, see Unsatisfactory Financial Condition above. • If it is not, do not deny progress payments if the contractor agrees to: cure the payment deficiencies; avoid further delinquencies; and make additional arrangements to complete the contract without loss to the Government.
	The contractor has in good faith, disputed amounts claimed by subcontractors, suppliers or others	Do not consider the payments delinquent until the amounts due are established by the parties through litigation or arbitration. However, exclude the amounts from costs eligible for progress payments so long as they are disputed.
	The contractor may be delinquent	Assure that accrued costs are paid in

	in making contributions under employee pension, profit sharing, or stock ownership plans	accordance with the Progress Payments clause.
Fair Value of Undelivered Work	The unliquidated progress payments exceed the fair value of undelivered work	Take appropriate action, considering the: • Degree of contract completion. • Quality and amount of work performed on the undelivered portion of the contract. • Amount of work remaining to be done and the estimated cost of completion. • Amount remaining unpaid under the contract.
Loss Contracts	The total costs incurred under the contract plus the estimated cost to complete are likely to exceed the contract price	Compute a loss ratio factor and adjust future progress payments to exclude the element of loss.

9.6.2 Adjustment For Loss Contracts

Supplementary Analysis for Loss Contracts (FAR 32.503-6(g)). Whenever you receive a Contractor Request for Progress Payment, SF 1443, carefully review the figures provided by the contractor. In particular, review Items 5, 12a, and 12b. If the sum of the total costs incurred to date under the contract (SF 1443, Item 12a) plus the estimated additional cost to complete the contract (SF 1443, Item 12b) exceed the contract price (SF 1443, Item

5), perform a supplementary analysis of the progress payment request.

The purpose of the supplementary analysis is to exclude the estimated loss from future progress payments. In your analysis, use the procedure outlined in the following example:

Supplementary Progress Payment Analysis		
Section I -- Calculate Revised Contract Price		
Contract price (SF 1443, Item 5)		$950,000
Pending change orders and unpriced orders (to extent fund obligated)		+ $70,000
Revised contract price (including change orders and unpriced orders)		$1,020,000
Section II -- Calculate Alternate Amount To Be Used For Progress Payments		
Step 1	Total costs incurred to date (SF 1443, Item 12a)	$900,000
	Add estimated additional cost to complete the contract	+ $300,000
	Total cost to complete	$1,200,000
Step 2	$\text{Calculate loss ratio factor} = \frac{\text{Revised Contract Price}}{\text{Total Cost to Complete}} = \frac{\$1,020,000}{\$1,200,000} = 85.0\%$	
Step 3	Total costs eligible for progress payments (SF 1443, Item 11) (Note that this figure assumes that all incurred costs are eligible)	$900,000
	Multiply total costs eligible by the loss ratio factor	x 85.0%
	Recognized costs for progress payments (replaces total costs eligible for progress payments in progress payment calculations)	$765,000
Step 4	Multiply recognized costs by the progress payment rate	x 80.0%
	Alternate amount to be used for progress payments	$612,000
Section III -- Calculate Recognized Costs Applicable To Undelivered Items		
Factored costs of items delivered (same as contract price of items delivered)		$250,000
Recognized costs applicable to undelivered		$515,000

items ($765,000 - $250,000)	

The following comparison demonstrates how the summary analysis will affect the amount due the contractor under progress payments.

Comparison Before And After Supplementary Analysis			
Contractor Proposed		**Supplementary Analysis**	
Total cost eligible for progress payments	$900,000	Recognized costs for progress payments	$765,000
Progress payment rate	80.0%	Progress payment rate	80.0%
Total amount eligible for progress payment	$720,000	Total amount eligible for progress payment	$612,000
Less previous progress payments	-$500,000	Previous progress payments	-$500,000
Maximum balance eligible for progress payment	$220,000	Maximum balance eligible for progress payment	$112,000

9.6.3 Liquidation Rate Adjustment

Progress Payment Liquidation (FAR 32.508-8 and 32.508-9). The Government recoups progress payments through the deduction of liquidations from payments that would otherwise be due to the contractor for completed work. To determine the liquidation amount, you must apply a liquidation rate to the contract price of contract items delivered and accepted. This section will examine both the ordinary and alternate methods of liquidation rate application.

Ordinary Method of Liquidation (FAR 32.508-8). Under the ordinary method the liquidation rate is the same as the progress payment rate. This is the only method that you may use at the beginning of a contract.

For Example: Suppose that you have an $11 million dollar firm fixed-price contract with four line items priced at $2.75 million each. The table below depicts the ordinary method of progress payment liquidation throughout the

contract when the progress payment and liquidation rates are both 80 percent. In this example, estimated cost is $10 million and actual cost is equal to estimated cost.

Progress Payment Liquidation									
Month	Monthly Contract Cost	Progress Payment Rate	Monthly Progress Payments	Price Of Items Delivered	Liquid. Rate	Progress Payment Liquidation	Price Of Delivered Items Less Liquidation	Total Paid	Unliquidated Progress Payment
1	$100,000	80.0%	$80,000		80.0%	$0	$0	$80,000	$80,000
2	$250,000	80.0%	$200,000		80.0%	$0	$0	$280,000	$280,000
3	$250,000	80.0%	$200,000		80.0%	$0	$0	$480,000	$480,000
4	$400,000	80.0%	$320,000		80.0%	$0	$0	$800,000	$800,000
5	$550,000	80.0%	$440,000		80.0%	$0	$0	$1,240,000	$1,240,000
6	$600,000	80.0%	$480,000		80.0%	$0	$0	$1,720,000	$1,720,000
7	$700,000	80.0%	$560,000		80.0%	$0	$0	$2,280,000	$2,280,000
8	$650,000	80.0%	$520,000		80.0%	$0	$0	$2,800,000	$2,800,000
9	$725,000	80.0%	$580,000		80.0%	$0	$0	$3,380,000	$3,380,000
10	$850,000	80.0%	$680,000		80.0%	$0	$0	$4,060,000	$4,060,000
11	$600,000	80.0%	$480,000		80.0%	$0	$0	$4,540,000	$4,540,000
12	$950,000	80.0%	$760,000	$2,750,000	80.0%	$2,200,000	$550,000	$5,850,000	$3,100,000
13	$825,000	80.0%	$660,000		80.0%	$0	$0	$6,510,000	$3,760,000
14	$925,000	80.0%	$740,000	$2,750,000	80.0%	$2,200,000	$550,000	$7,800,000	$2,300,000
15	$550,000	80.0%	$440,000		80.0%	$0	$0	$8,240,000	$2,740,000
16	$450,000	80.0%	$360,000	$2,750,000	80.0%	$2,200,000	$550,000	$9,150,000	$900,000
17	$375,000	80.0%	$300,000		80.0%	$0	$0	$9,450,000	$1,200,000
18	$250,000	80.0%	$200,000	$2,750,000	*	$1,400,000	$1,350,000	$11,000,000	$0
Total	$10,000,000		$8,000,000	$11,000,000		$8,000,000	$3,000,000		

* Remaining unliquidated progress payments.

Limitation on G&A Expense for Progress Payments (FAR 32.503-7 and App A, 9904.410). A firm not subject to Cost Accounting Standards Board Cost Accounting Standards (CAS) may use cost of sales as a base for allocation of general and administrative (G&A) expense. A firm subject to full CAS coverage must comply with CAS 410, Allocation of Business Unit General and Administrative Expenses to Final Cost Objectives. That Standard requires the contractor to allocate G&A using a cost input allocation base (e.g., cost of goods manufactured).

- CAS 410 Appendix A describes use of an inventory suspense account to transition from a cost of sales allocation base to a cost input allocation base. In this account:

    - G&A for new contracts is absorbed using a cost input allocation base. New contracts are the contracts subject to CAS 410 requirements.
    - G&A for old contracts is absorbed using the pre-CAS cost of sales allocation base. Old contracts are those not subject to CAS 410 requirements.
- If the contractor established an inventory suspense account under Appendix A of CAS 410 and the account is $5 million or more, the following limitations apply to progress payments:
    - Do not include G&A in progress payments until the value of work in process inventories under new contracts exceeds that under the old.
    - The amount of G&A eligible for progress payments under the contract shall be the contractor's pro rata share of G&A calculated in compliance with CAS 410.
    - Calculate the G&A dollars allocable to the CAS-covered contract using the rate calculated in compliance with CAS 410.
    - Reduce the G&A dollars allocated based on the percentage of G&A costs still allocated using the cost of sales allocation base. For example, $119,000 in G&A expense would be included in progress payments under a CAS-covered contract using the CAS-compliant rate. However, 40 percent of all G&A dollars are still being allocated to other contracts using the pre-CAS rate, so the progress-payment amount must be reduced by 40 percent. The amount allocated to the contract must be reduced by $47,600 ($119,000 x .40).
    - Coordinate your analysis with the cognizant Government auditor to assure proper progress payment calculation.

Liquidation Rate Adjustment for G&A Expense Limitation (FAR 32.503-8 and FAR App A, 9904.410).

Calculate the percentage of contract price that cannot be included as progress payments under the CAS-compliant contract. Divide the dollars that cannot be allowed as progress payments under the CAS-compliant contract by the contract price. For example, if the contract price for the above example is $1,100,000 the percentage would be 4.33 percent ($47,600/$1,100,000).

- Calculate the adjustment in the liquidation rate that would permit the contractor to recover the G&A expense dollars not included in progress payments. For example, if the ordinary liquidation rate is 80 percent, the reduction for unbilled G&A would be 3.46 percent (4.33 x 80.00 percent).
- To calculate the adjusted liquidation rate, subtract the effect of the reduction from the ordinary rate. In the example above, the revised rate would be 76.54 percent (80.00 percent - 3.46 percent).
- Coordinate your analysis with the cognizant Government auditor to assure proper calculation of the revised liquidation rate.

Situations to Consider the Alternate Method of Liquidation (FAR 32.503-9(a)). Use the ordinary method throughout the contract, unless the contracting officer adjusts the liquidation method. The alternate method permits the contractor to retain the earned profit element of the contract prices for completed items in the liquidation process.

- The contracting officer **MAY** reduce the liquidation rate (increasing contractor working capital) if **ALL** of the following requirements are met:

    1. The contractor requests a reduction in rate.
    2. The liquidation rate has not been reduced in the preceding 12 months.
    3. The contract delivery schedule extends at least 18 months from the contract award date.
    4. Actual cost data are available:

        - For products delivered, or
        - If no products have been delivered, for a performance period of at least 12 months

    5. The reduced liquidation rate would result in the Government recouping under each invoice the full extent of the progress payments applicable to the costs allocable to that invoice.
    6. The contractor would not be paid for more than the costs of items delivered and accepted (less allocable progress payments) and the earned profit on those items.

7. The unliquidated progress payments would not exceed the limit prescribed in Paragraph (a)(4) of the Progress Payments clause.
8. The parties agree on an appropriate rate.
9. The contractor agrees to certify annually, or more often if requested, that the alternate rate continues to meet the three liquidation requirements in 5, 6, and 7 above. The certificate must be accompanied by adequate supporting information.

- The contracting officer **MUST** adjust the liquidation rate in the following situations:

1. Increase the rate for both previous and subsequent transactions, if the contractor experiences a lower profit rate than the rate anticipated at the time the liquidation rate was associated with contract items already delivered, as well as subsequent progress payments.

2. Increase or decrease the rate in keeping with the successive changes to the contract price or target profit when:

  - The target profit rate is changed under a fixed-price incentive contract with successive targets, or
  - A redetermined price involves a change in the profit element under a contract with prospective price redetermination at stated intervals.

Minimum Alternate Liquidation Rate (FAR 32.503-7, 32.503-10, and FAR App, 9904.410, App A).

The minimum liquidation rate is the amount of expected progress payments divided by the contract price. Written as an equation, the relationship would be:

$$\text{Minimum Liquidation Rate} = \frac{\text{Total Estimated Cost} \times \text{Progress Payment Rate}}{\text{Estimated Contract Price}}$$

Where:

Total Estimated Cost = Total estimated cost for the contract.

  - When appropriate, adjust:

- As described above to exclude G&A that cannot be included in progress payments when the contractor is involved with the implementation of CAS 410.
- To include the estimated value of any work authorized but not yet priced. However, the adjusted cost must not exceed the price of all authorized work or the funds or the funds obligated for the contract.

Estimated Contract Price = The price of an FFP contract or the sstimated price for other fixed-price contracts.

- When appropriate, adjust to include the estimated price of any work authorized but not yet priced and any projected economic adjustments. However the cost must not exceed the Government estimate of the price of all authorized work or the funds obligated for the contract.

For example: If the progress payment rate is 80 percent, the total estimated cost eligible for progress payments is $10 million, and the estimated contract price is $11 million, the rate would be calculated as follows:

$$\text{Minimum Liquidation Rate} = \frac{\$10{,}000{,}000 \times 80\%}{\$11{,}000{,}000} = 72.8\%$$

(Always round up to the next highest tenth of a percent. Rounding down would produce a rate below the minimum rate calculated.)

Assuming that you adopted the alternate liquidation rate calculated above in the thirteenth month of contract performance and contract costs and deliveries are the same as in the ordinary method calculations above, the payment pattern would be revised as shown in the table below. Note that the alternate liquidation rate substantially increases the total amount paid to the contractor prior to final delivery.

Progress Payment Liquidation									
Month	Monthly Contract Cost	Progress Payment Rate	Monthly Progress Payments	Price Of Items Delivered	Liquid. Rate	Progress Payment Liquidation	Price Of Delivered Items Less Liquidation	Total Paid	Unliquidated Progress Payment
1	$100,000	80.0%	$80,000		80.0%	$0	$0	$80,000	$80,000
2	$250,000	80.0%	$200,000		80.0%	$0	$0	$280,000	$280,000

3	$250,000	80.0%	$200,000		80.0%	$0	$0	$480,000	$480,000
4	$400,000	80.0%	$320,000		80.0%	$0	$0	$800,000	$800,000
5	$550,000	80.0%	$440,000		80.0%	$0	$0	$1,240,000	$1,240,000
6	$600,000	80.0%	$480,000		80.0%	$0	$0	$1,720,000	$1,720,000
7	$700,000	80.0%	$560,000		80.0%	$0	$0	$2,280,000	$2,280,000
8	$650,000	80.0%	$520,000		80.0%	$0	$0	$2,800,000	$2,800,000
9	$725,000	80.0%	$580,000		80.0%	$0	$0	$3,380,000	$3,380,000
10	$850,000	80.0%	$680,000		80.0%	$0	$0	$4,060,000	$4,060,000
11	$600,000	80.0%	$480,000		80.0%	$0	$0	$4,540,000	$4,540,000
12	$950,000	80.0%	$760,000	$2,750,000	80.0%	$2,200,000	$550,000	$5,850,000	$3,100,000
13	$825,000	80.0%	$660,000		72.8%	($198,000)	$198,000	$6,708,000	$3,958,000
14	$925,000	80.0%	$740,000	$2,750,000	72.8%	$2,002,000	$748,000	$8,196,000	$2,696,000
15	$550,000	80.0%	$440,000		72.8%	$0	$0	$8,636,000	$3,136,000
16	$450,000	80.0%	$360,000	$2,750,000	72.8%	$2,002,000	$748,000	$9,744,000	$1,494,000
17	$375,000	80.0%	$300,000		72.8%	$0	$0	$10,044,000	$1,794,000
18	$250,000	80.0%	$200,000	$2,750,000	*	$1,994,000	$756,000	$11,000,000	$0
Total	$10,000,000		$8,000,000	$11,000,000		$8,000,000	$3,000,000		

* Remaining unliquidated progress payments.

Contract Modification (FAR 32.503-9(c)). Whenever the liquidation rate is changed, the contracting officer must issue a contract modification changing the liquidation rate in the Progress Payments clause. Adequate consideration for these modifications is included in the initial contract. The parties must promptly make the payment or liquidation required by the change.

9.7 Applying Financial Indicators To Subordination Agreement Need Decisions

Subordination Agreement. A subordination agreement is an agreement whereby a contractor's creditor subordinates its security interest in contractor-held property to the security interest held by the Government. In other words, the creditor agrees to relinquish its claim to any property properly claimed by the Government under the agreement.

For example: A creditor has a lien on a contractor's inventory. Before approving progress payments for material acquisition, the contracting officer insists on assurances that the creditor will not claim the material as part of the contractor's inventory subject to the lien. The contractor obtains a formal written agreement from the

creditor, whereby the creditor agrees to subordinate its claim to the inventory.

Possible Situations for Agreement (FAR 32.304-6(e), 32.409-3(d)(3), and 32.501-5(b)). Consider requiring the contractor to provide appropriate subordination agreement(s) when necessary to protect the Government's rights when the Government:

- Guarantees a contractor loan from a private financial institution;
- Makes agency-approved advance payments; or
- Makes progress payments based on costs.

Points to Consider in Agreement Decision. Determine the need for a subordination agreement after consultation with your organization's legal counsel. As you make your determination, consider:

- Other available financial guarantees;
- The contractor's present financial position and projections for the future;
- The type of contract and the nature of the work being done under the contract;
- The contractor's production capabilities and projections for contract completion of the contract in the required time and in accordance with contract requirements; and
- The adequacy of the contractor's accounting system (e.g., its ability to segregate of Government inventory from the general inventory).

-

Agreement Timing. Obtain the subordination agreement as soon as you identify the need for the agreement. Do not delay until the contractor's financial problems imperil contract performance. It is more difficult to protect the Government's interest when the contractor is really in financial difficulty.

Obtaining a Subordination Agreement. Do not attempt to obtain a subordination agreement directly from the contractor's creditor. Require the contractor to obtain the agreement.

Remember that the Government contract is with the contractor, not the creditor.

- If you believe that the creditor might be unnecessarily alarmed by a Government request for subordination, consider meeting with both the creditor and the contractor to clarify the situation.
- If the creditor refuses to execute an agreement, that may indicate that the contractor has serious financial problems. Inquire into the reasons surrounding the creditor's refusal, to determine if the contractor's financial position warrants more drastic action (e.g., a finding of nonresponsibility for a proposed contractor or the suspension of progress payments for an existing contractor).

Security in Support of a Subordination Agreement (FAR 52.232-23). Normally, a creditor will require some form of security before agreeing to the subordination agreement. Assure that any security offered by the contractor complies with the terms of the contract.

For example: One common form of security is an assignment of claims. Under an assignment of claims, the contractor transfers to a bank, trust company, or other financing institution, its right to payment for contract performance. However, the Assignment of Claims clause establishes restrictions for contractor assignment of claims.

Subordination Agreement Format. The FAR does not prescribe a format for a subordination agreement. The example on the next page is the body of an agreement format developed by the Defense Contract Management Command for corporate creditors and property associated with progress payments.

- Consult with your legal counsel to assure that any format you use meets the needs of your particular contracting situation.
- Assure that the person signing the agreement has the authority to bind the creditor to such an agreement.

SUBORDINATION AGREEMENT

_____, a corporation of _____, hereinafter called the Debtor, has entered into Contract Numbers _____ with the United

States of America, hereinafter called the Government, for the furnishing of defense supplies and expects to enter into future contracts with the Government for the furnishing of defense supplies. Said contracts include the Progress Payments clause. Pursuant thereto, the Debtor has requested the Government to provide progress payments, which request the Government is willing to grant in accordance with the terms of said clause and upon condition that _____, hereinafter referred to as the Creditor, agrees to subordinate to the rights of the Government under or arising out of said contracts and future contracts, any and all present and future recorded or perfectible liens under the Uniform Commercial Code or other liens or interest of the Creditor with respect to any parts, material, inventory or work in process, and other property to which the Government has title pursuant to paragraph (d) of said Progress Payments clause. In consideration of the making of progress payments to the Debtor by the Government, the undersigns agrees as follows:

Any and all present and future recorded or perfectible liens under the Uniform Commercial Code or other liens or interest of the undersigned Creditor with respect to any of the parts, material, inventory or work in process, and other property to which the Government has title pursuant to paragraph (d) of said Progress Payments clause, are fully subordinated to the rights and interests of the Government under or arising out of the aforementioned contracts and future contracts.

If any person, firm, corporation or entity other than the Debtor becomes obligated to perform said contracts or any part thereof, whether by operation of law or otherwise, any and all present and future rights of the Creditor shall remain fully subordinated to the rights of the Government.

The Subordination Agreement shall not be

affected by any action extending the time of performance of said contracts or by making of any amendment or modification authorized by the terms of said contracts.

The Creditor hereby certifies that it has not given or executed any prior Subordination Agreement with respect to its claims against the Debtor except as follows:
_____.

The Creditor hereby agrees to direct the Debtor (a) to mark its records in accordance with this Subordination Agreement and (b) to confirm receipt of notice by signing in the place indicated below.

This Agreement shall inure to the benefit of and may be enforced by the United States.