
I.0 Chapter Introduction

Contract Pricing Environment. An important part of your job as a contract specialist is to conduct the price analyses necessary to ensure that the Government purchases supplies and services from responsible sources at fair and reasonable prices. To begin your study of contract pricing, we will examine the pricing environment, including:

- Definitions of price;
- Seller pricing objectives and approaches;
- The Government pricing objective;
- Government approaches to contract pricing; and
- Potential participants in the acquisition process

Definitions of Price. From both work and personal business dealings, most people think of price as the amount of money that a buyer pays a seller for the delivery of a product or the performance of a service. The FAR definition of price (FAR 15.401) emphasizes its components: Cost plus any fee or profit applicable to the contract type.

Both definitions of price are important. Primarily, price is defined as the amount the buyer pays for a product or service. However, it is important to remember that, if prices do not cover supplier costs and provide a profit, losses will occur. When a contract is priced below cost, performance risk increases. The contractor must finance contract performance with funds from other sources (e.g., profits from other contracts, financial reserves, or overpriced contract modifications). If contractor efforts to control costs result in unsatisfactory performance, contractor default is a real possibility.

I.1 - Identifying The Seller's Pricing Objectives And Approaches   This section covers the following topics:

Pricing Perspectives. Buyers and sellers look at the same price from different perspectives. Each party to a sales transaction has unique pricing objectives. As a contract specialist, you should be aware that:

- Sellers in different markets often have different approaches to contract pricing.
- Different sellers in the same market may have different pricing objectives and approaches.
- A single firm may have different objectives and approaches in different contracting situations.

I.1.1 - Identify Seller's Pricing Objectives

Pricing Objectives. To sellers, contract pricing has two primary, related objectives:

- To cover costs; and
- To contribute to attaining corporate operational objectives.

Cover Costs. Many firms would have us believe that they lose money on every unit they sell, but make up for it in volume. Unfortunately, business does not work that way. A seller may accept a loss on a particular contract or group of contracts, but a firm that consistently fails to cover its costs cannot survive.

Operational Objectives. All firms have several operational objectives that serve as benchmarks for business decisions. In the best firms, they are usually clearly defined and tailored to the market decisions. In other firms, they may be less clear.

Common objectives include:

- Short-term and/or long-term profitability;
- Market share;
- Long-term survival;
- Product quality;
- Technological leadership; and
- High productivity.

To attain its operational objectives, a firm must cover its costs and earn an overall profit. Some products may sell for less than cost, but if they do, other products must make sufficient profit to compensate for those losses. Profits are essential for:

- Investment;
- Product Development;
- Productivity Improvement;
- Retirement of Debt Principal; and
- Rewarding Investors.

I.1.2 Identify Seller's Approaches To Pricing

Seller's Pricing Approaches. In product pricing, sellers commonly use one of two basic approaches -- cost-based pricing or market-based pricing. The following are common strategies associated with each approach:

Cost-based pricing:

- Mark-up pricing
- Margin on direct cost
- Rate-of-return pricing

Market-based pricing:

- Profit-maximization pricing
- Market-share pricing
- Market skimming

- Current-revenue pricing
- Promotional pricing
- Demand-differential pricing
- Market-competition pricing

I.1.3 Review Seller's Cost-Based Pricing Strategies

This subsection covers the following topics:

General Approach. The cost-based pricing approach to pricing involves an analysis of a firm's cost to produce a product, and the addition of a reasonable profit to determine the selling price.

Seller cost will depend on many factors including production methods and product sales volume.

The seller's definition of a reasonable profit will also depend on many factors, including:

- Competition;
- Objectives of the firm;
- Necessary investment; and
- Risk involved.

Cost-based Pricing Strategies. How is profit calculated and applied? There are three basic strategies:

- Mark-up pricing;
- Margin pricing; and
- Rate-of-return Pricing.

I.1.3.1 Mark-up Pricing

Definition. Mark-up pricing is the establishment of prices based on estimated direct cost or total cost plus a percentage mark-up. If the base is direct cost, the mark-up covers profit plus indirect costs (i.e., overhead and general and administrative costs). If the base is total cost, the mark-up only covers profit.

Procedure. To understand mark-up pricing, you must understand the steps followed by a firm when using the technique:

- Estimate the sales volume.
- Estimate product unit cost at the estimated sales volume.
- Determine the mark-up rate to be used.
- Calculate unit selling price by applying the mark-up rate to the product cost.

Example. Price the following product using straight mark-up pricing:

Given:

Estimated Sales Volume = 1,000 units
Estimated Unit Cost = $80
Mark-up Rate = 20%

Calculate Unit Selling Price:

Unit Selling Price = Cost + (Mark-Up Rate x Cost)
= $80 + (0.20 x $80)
= $80 + $16
= $96

Strategy Implications for Buyers Profit is set using a mark-up rate that is simply a percentage of direct or total cost. That rate depends on:

- Market Factors. The product line, tradition, competition, and other market factors will affect the mark-up rate. Investment required to produce the product is not normally one of the factors considered in setting a mark-up rate. Similar products are typically priced using similar mark-up rates. However, a new state-of-the-art product will typically be priced using a higher mark-up rate than a similar older product that has been on the market for a long time.

- Cost Base Used in Applying the Rate.
    - Mark-Up on Direct Cost. A firm that bases its mark-up on direct cost will have a higher mark-up than the firm that bases the mark-up on full cost. 0 Why? Because a mark-up based on direct cost must cover overhead costs, as well as profit. A mark-up rate of 100 percent or more may be quite reasonable.
    - Mark-Up on Total Cost. A firm that bases its mark-up on full costs should have a lower mark-up rate than the firm that bases the mark-up on direct cost only. A mark-up rate of 100 percent on full cost would normally be considered excessive.

The use of mark-up pricing varies by:

- Industry. Mark-up pricing is particularly common in industries where customers are expected to negotiate sales price (e.g., automobiles). The profit represented in the mark-up is set high enough to provide the seller with room to compromise. Hence, a good buyer should be aware of relevant industry mark-up practices. Knowledge of prevailing mark-ups can be a tremendous advantage in negotiating reasonable prices.
- Product. Mark-up pricing is particularly common for unique items or services provided for a single customer or a small group of customers. The mark-up will commonly vary based on the type of work and risk involved.

I.1.3.2 Margin Pricing

Definition. Margin pricing is similar to mark-up pricing in that price is based on the relationship between cost and profit. Margin pricing based on direct costs must cover both indirect cost and profit. Margin pricing based on total cost must only provide for profit.

Instead of adding a mark-up based on a percentage of cost, margin pricing uses cost to calculate a price that will provide a profit margin that is an established percentage of price. Many commercial firms use this technique because it matches their accounting reports where costs and profits are reported as a percentage of sales.

Procedure. Use the following steps to calculate price based on the margin on direct cost pricing technique:

- Estimate the sales volume.
- Estimate cost at the estimated sales volume.
- Determine the margin rate to be used.
- Calculate the selling price by applying the margin rate to the product cost.

Example. Price the following product using margin pricing:

Given:

Estimated Sales Volume = 1,000 units
Estimated Unit Cost = $81
Margin Rate = 40%

Calculate Unit Selling Price:

$$\text{Unit Selling Price} = \frac{\text{Cost}}{(1 - \text{Margin Rate})}$$

$$= \frac{\$80}{(1 - .40)}$$

$$= \frac{\$80}{.60}$$

= $133

Strategy Implications for Buyers. Like mark-up rates, margin rates depend on the product line, tradition, and competition. Similar products are priced using similar mark-up rates. A firm's management is often rated by the margin rate that they can obtain.

You should be aware of relevant industry mark-up practices. Knowledge of prevailing margins can be a tremendous advantage in negotiating reasonable prices, especially when buying in commercial markets.

I.1.3.3 Rate-Of-Return Pricing

Definition. Rate-of-return pricing is similar to mark-up pricing in that profit dollars are added to estimated costs. However, profit dollars are not calculated based on the cost of labor and material required to provide the product. Instead, profit is calculated based on the financial investment required to provide the product, the return needed to attract that investment, and estimated sales volume.

Procedure. Follow these steps to determine profit using rate-of-return pricing:

- Determine desired rate of return on investment.
- Estimate investment required.
- Estimate level of sales.
- Estimate unit cost at the projected sales level.
- Calculate desired unit profit.
- Calculate unit selling price (estimated cost + desired profit).

Price the following product using rate-of-return pricing:

Given:

Desired Rate of Return = 15%
Estimated Investment Required = $600,000
Estimated Sales = 5,000 units
Estimated Unit Total Cost = $80

Calculate Unit Selling Price:

Calculate Desired Unit Profit = $\frac{15\% \text{ of } \$600{,}000}{5{,}000 \text{ units}}$

= $\frac{90{,}000}{5{,}000 \text{ units}}$

= $18 per unit
Calculate Unit Selling Price = $80 + $18
(Unit Cost + Unit Profit) = $98

Strategy Implications for Buyers. Firms that use this method of pricing are probably more sensitive to changes in overall sales volume than firms using the other cost-based pricing methods. They are concerned about the rate of return, not just a mark-up or margin rate. A lower item price coupled with a higher sales volume can actually increase the rate of return. On the other hand, a higher item price coupled with a lower sales volume can decrease the rate of return.

You should be aware of the investment required to make different products. Any action that enables the seller to reduce its investment or spread that investment over more products should reduce the profit that must be earned on any one product to maintain a required rate of return on investment.

I.1.4 - Review Seller's Market-based Pricing Strategies

In a competitive market, the seller must consider the four "P"s of marketing: price, product, place, and promotion. Firms must develop pricing strategies to accomplish overall marketing objectives based on their assessment of market conditions (e.g., forecasts of supply and demand) and the economic condition of the business entity. This section covers the following market-based pricing strategies which can be used in various market conditions:

I.1.4.1 Profit-Maximization Pricing

Definition. In profit-maximization pricing, the seller assumes that demand falls as prices increase and grows as prices decrease. A firm using this strategy carefully analyzes the market to find the combination of price per unit and quantity of sales that maximizes profit.

Strategy. When employing this strategy, the seller considers the following questions:

- Is demand sensitive to price changes?
    - As price increases, does demand decrease?
    - As price decreases, does demand increase?
- What is the point of profit maximization?
    - This is determined through analysis of the relationship between price and demand.

This pricing strategy is:

- **Most effective** in situations where:
    - Price is an important marketing factor affecting demand.
    - Competitors react relatively slowly to price changes.
    - Actual relationships between price and customer demand can be effectively estimated.
- **Least effective** when competitors react rapidly to price changes.

Strategy Implications for the Buyer Be aware of the relationship between price and quantity in the marketplace. Working with users to take advantage of price breaks can save the Government substantial sums of money.

In Government contracting, the purchase quantity estimates are generally fixed, based on the needs of the Government. No matter how low the offeror's price, the quantity acquired by the Government does not change. Thus there is no advantage to the offeror to offer a price lower than that necessary to win the contract.

Prices for multiple-award Federal Supply Schedules are a possible exception. Another possible exception are prices for inventory items, when the amounts ordered by inventory managers vary from one period to the next based in part on price/quantity tradeoffs.

I.1.4.2 Market-Share Pricing

Definition. Market-share pricing is based on the assumption that long-run profitability is associated with market share. When using this strategy, the goal is to dominate the market through market penetration. Firms set prices relatively low to win customers and discourage competition. Early losses may occur, but as volume increases, cost per unit decreases and long-term profits are achieved.

Strategy. When employing this strategy, the seller normally attempts to:

- Build efficient operations;
- Set price at or below competitors' prices to win market share; and
- Lower prices as costs fall.

Strategy Implications for the Buyer. As a buyer, you should encourage mass production efficiencies that may reduce contractor costs and provide a reasonable profit. The Model T Ford is one example of a situation where a firm's use of this strategy generally benefited customers. Ford drove down prices to reach more customers. Other competitors were forced to reduce prices or offer product improvements to stay in the market.

You should discourage a contractor **"buy-in,"** (i.e., bid below cost to win a contract and exclude others from the market) when there is evidence that the contractor may jeopardize contract performance because the contract price will not cover costs. You should be particularly concerned when sellers:

- Have limited financial resources, or
- Are apparently gambling on capturing a larger share of the market (and of unit sales) than they are likely to achieve."

I.1.4.3 Market Skimming

Definition. In market skimming, prices are set to achieve a high profit on each unit by selling to buyers who are willing to pay a higher price for a product of perceived higher value. After the demand of these buyers is satisfied, or competitors produce similar products at lower prices, prices may be reduced to increase volume and maintain overall profitability.

Strategy. When employing this strategy, the seller considers the following points:

- Establish a high price to achieve a high profit margin at relatively low volume.
- Decrease price over time to attract buyers not willing to pay the price premium.

IBM and Apple Macintosh personal computers are good examples of this strategy:

- Prices remained relatively high for years;
- Firms catered to buyers willing to "pay for the best"; and
- As quality competition increased, prices began to decrease.

Strategy Implications for the Buyer. As a buyer, you should resist user attempts to "pay for the best" when the "best" is more than the Government needs or the perception of quality is based more on superior marketing than on a superior product.

Remember the "best product" is not always the best value. To be the best value, the perceived benefits of a higher-priced product must merit the higher price. For example, a stainless steel screw may be the best product, but the quality does not justify the higher price when the screw will be used in constructing a wooden cabinet.

You should encourage attempts at source development to increase competition and control prices.

I.1.4.4 Current-Revenue Pricing

Definition. In current-revenue pricing, the emphasis is on maximization of current revenue rather than profit or long-term revenue. Firms using this strategy are typically concerned about long-term market uncertainty or the firm's financial instability. To them, a sure dollar today is much more important than the possibility of more dollars tomorrow.

Strategy. When employing this strategy, the seller must determine the price/quantity combination that maximizes revenue.

Strategy Implications for the Buyer. You need to be aware that this strategy predominates when risk is high. Action to reduce risk will likely be rewarded with lower prices and a more stable business environment.

Consider long-term demand for the product. Firms pricing product crazes, like the "hula hoop," are likely to consider current-revenue pricing.

- Demand is high one day, but may disappear the next.
- Near-term cash recovery is more important than long-term profitability.

Assure that all contractors are responsible. Firms with limited financial resources may employ this strategy.

- If near-term cash needs are not met, there will be no long term for the firm.
- Unfortunately, concentration on the near-term may also jeopardize the long-term future of the firm.

I.1.4.5 Promotional Pricing

Definition. In promotional pricing, products are priced to enhance the sales of the overall product line rather than to assure the profitability of each product.

Strategy. When employing this strategy, the seller considers the following points:

- Determine whether selling a product at a loss (a loss leader) will increase the sale of related products and increase profit.
- Determine whether selling a product at a high (prestige) price will improve the product-line quality image and increase profit.

Strategy Implications for the Buyer. This strategy can be used for pricing a wide range of consumer and industrial products, from groceries to electronics and services. Government personnel evaluating offers for a delivery-order or task-order contract with multiple line items should be particularly alert to offers prepared using this strategy.

Promotional contracting can take many forms:

- Bait and switch pricing can be particularly attractive to a firm preparing an offer for a delivery-order contract with multiple line items. An offeror using this strategy lures the buyer using a low-priced item (e.g., a low labor rate for a particular labor category) and then switches the buyer to a "better" item (e.g., a higher-priced category of labor) during the sale.
- Loss-leader can be attractive in situations where many items are commonly bought from the same source. An offeror using this strategy reduces the price of one, or a group of items, to near cost, or even below. Customers are attracted to buy the low-priced items and buy other related items at the same time (e.g., set the price of a system low and the price of supplies for the system high).
- Prestige pricing uses a high-quality, high-priced item to enhance the image of an entire product line and attract more buyers. For example, many consultants feel that buyers are reluctant to buy from firms that do not charge enough. In other words, it can be almost impossible to evaluate qualifications so high price equals high quality.

I.1.4.6 Demand-Differential Pricing

Definition. In demand-differential pricing, products or services sold in different market segments are priced in a way that is not consistent with the marginal costs related to segment differences.

Strategy. When employing this strategy, the seller considers the following points:

- Identify the segmentation factors that may affect pricing:
    - Customer;
    - Product Form;
    - Place; and
    - Time.

- Determine the demand intensity in each segment.
- Identify actual and potential competitors.
- Assure that demand-differential will not breed customer resentment.

Strategy Implications for the Buyer. You need to be aware of the effect of the various segmentation factors on different products.

- Customers may pay different prices based on buying power or negotiation skills-for example, automobile purchases. In addition, different classes of customers (e.g., wholesalers, retailers, and governments) may pay different prices.
- Product-form (e.g., electronic component assembly) may warrant a price higher than the price of the components plus assembly.
- Location of the sales transaction may affect price. The price of an item sold in New York may be substantially greater than the price of the item in Ohio plus the shipping charge to New York.
- Time may affect pricing, particularly in industries that have substantial fixed investment and identifiable peaks in demand. Utilities, for example, offer lower prices for service during "off- peak" hours.

I.1.4.7 Market-Competition Pricing

Definition. In market-competition pricing, emphasis is on competitive action/ reaction to pricing actions that competitors have taken or are expected to take. Firms following this pricing strategy in relatively homogeneous markets establish prices based on what the competition charges or what they think the competition is going to charge.

Strategy. You may find that different companies may set prices at a level that keeps pace with competitor's prices. When employing this strategy, the seller considers the following points:

- Determine competitor prices and/or anticipated prices.
- Set price to keep pace with competitor prices.

Major strategy applications include sealed-bid and going-rate pricing.

- Sealed-bid pricing forces the seller to:
    - Estimate what competitors will bid
    - Determine what the seller can profitably bid
    - Submit the bid knowing that it will be accepted or rejected without further discussion
- Going-rate pricing requires the seller to:
    - Determine what competitors are charging
    - Establish product price within an established range of the competition.

Strategy Implications for the Buyer. Government policy on competition and market pricing is designed to encourage sellers to establish prices using market-competition pricing. You need to remember that this is only one method of market pricing. Many firms are reluctant to compete in a market where success is achieved by low price alone.

I.2 Identifying Government's Pricing Objectives

This section covers the following topics:

- I.2.1 - Pay A Fair And Reasonable Price
- I.2.2 - Price Each Contract Separately
- I.2.3 - Exclude Contingencies

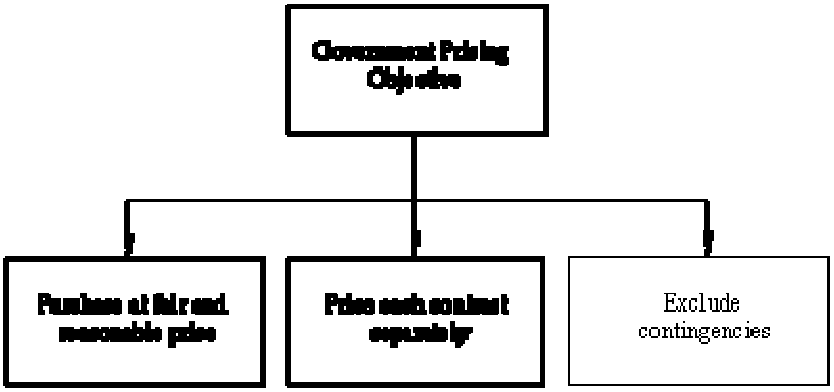
Government Pricing Objectives. When buying for the Government, your primary pricing objective for all contact actions is to acquire supplies and services from responsible sources at **fair and reasonable** prices.

When awarding contracts through the negotiated procedures of FAR Part 15, you must also (see FAR 15.402(a), (b), and (c)):

- Price each contract separately and independently and not
  (1) use proposed price reductions under other contracts as an evaluation factor, or (2) consider losses or profits realized or anticipated under other contracts.
- Not include in a contract price any amount for a specified contingency to the extent that the contract

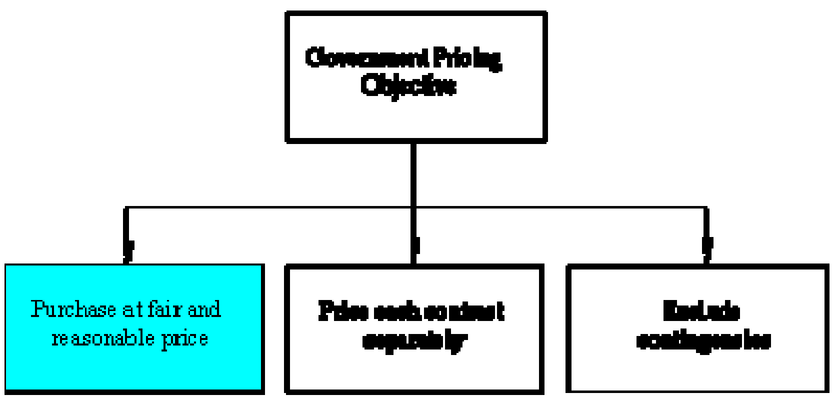
provides for price adjustment based upon the occurrence of that contingency.

The figure below graphically depicts how these three elements form the foundation of the Government's pricing objectives.



I.2.1 - Pay A Fair And Reasonable Price

Understand Fair and Reasonable. The first element of the Government pricing objective requires that contract prices be **fair and reasonable.**



Under the FAR, the contracting officer's primary objective in pricing a contract is to balance the contract type, cost, and profit or fee negotiated to achieve a total result -- a price that is fair and reasonable to both the Government and the contractor.

The FAR does NOT define the term "fair and reasonable price," but it implies two tests:

- What is fair?
- What is reasonable?

What Is Fair? Buyers and sellers may have different perceptions on what price is fair.

1. Fair to the Buyer. To be fair to the buyer, a price must be in line with (or below) either of the following:

- The fair market value of the contract deliverable (if that can be ascertained through price analysis). Expect to pay the fair market value, given the prices of market transactions between informed buyers and sellers under similar competitive market conditions for deliverables with similar product, quality, and quantity requirements.
- The (1) total allowable cost of providing the contract deliverable that would have been incurred by a *well managed, responsible firm using reasonably efficient and economical methods* of performance plus (2) a reasonable profit.

As a buyer, you should consider a price that is TOO HIGH to be unfair. What happens if you agree to a price that is too high?

- You will have failed to fulfill your most basic responsibility as a Government contracting officer or contract specialist.
- You will waste scarce Government funds.
- Since you are publicly accountable as a Federal employee for your decisions, you may have to answer to management, the Inspector General, the General Accounting Office, a Congressional committee, or the public at large.

2. Fair to the Seller. To be fair to the seller a price must be realistic in terms of the seller's ability to satisfy the terms and conditions of the contract.

- **Risk of Prices Unfair to the Seller.** Why should you care if a low offer is unrealistic? Because an unrealistic price puts both parties at risk. The risk

to the Government is that the firm -- to cut its losses -- might:
    - Cut corners on product quality;
    - Deliver late;
    - Default, forcing a time-consuming reprocurement; or
    - Refuse to deal with the Government in the future or be forced out of business entirely.

Situations for Special Consideration. Fairness to the seller can be a concern in both competitive and noncompetitive situations.

- **Below-Cost Prices.** Below-cost prices are NOT necessarily unfair to the seller. A bidder, for various reasons, in its business judgment may decide to submit a below-cost bid; such a bid is not invalid. Whether the awardee can perform the contract at the price offered is a matter of responsibility.
- On the other hand, be on guard against the practice of buying-in -- submitting offers below anticipated costs, expecting to:
    - Increase the contract amount after award (e.g., through unnecessary or excessively priced change orders); or
    - Receive follow-on contracts at artificially high prices to recover losses incurred on the buy-in contract.
    - FAR 3.501 presents a number of techniques to prevent a contractor from recovering buy-in losses. It also refers you to FAR 15.405 for guidance on treatment of unreasonable price quotations. That portion of the FAR (among other things) advises contracting officers to consider risks to the Government represented by the proposed contract type and price.
- **Mistakes.** The offered price may be unexpectedly low because the seller has made gross mistakes in estimating costs or is otherwise nonresponsible.
- The award of a contract to a supplier based on lowest evaluated price alone can be false economy if there is subsequent default, late deliveries, or other unsatisfactory performance resulting in additional contractual or administrative costs. While it is important that Government purchases be made at the lowest price, this does not require an award to a supplier solely because that supplier submits the

lowest offer. A prospective contractor must affirmatively demonstrate its responsibility, including, when necessary, the responsibility of its proposed subcontractors.
- If a vendor offers a price that is far below other offered prices or your estimate of the probable price, treat the offer as a potential mistake. In such cases, both FAR Part 14 and Part 15 authorize fact-finding to determine whether the offeror understands the work and can perform at the offered price.
- **Single-Source Procurements.** Do NOT force a below-cost price on the offeror even if you believe that the offeror has the financial ability to absorb the probable loss. Instead, negotiate a contract of a type and a price that is likely to cover all allowable costs of performance, assuming reasonable economy and efficiency, and provide a reasonable profit (consistent with FAR profit policies). Even your opening position in non-competitive negotiations should NOT be a "below cost" number. Rather, your opening position should be based on a more optimistic reading of the potential production improvements, risks, and costs of providing the contract deliverable than that of the target position on price.

What Is Reasonable? A **reasonable price** is a price that a prudent and competent buyer would be willing to pay, given available data on:

- Market Conditions. Economic forces such as supply, demand, general economic conditions, and competition change constantly. Hence, a price that is reasonable today may not be reasonable tomorrow.
  - **Supply and Demand.** The forces of supply and demand can have a significant effect on product prices:
  - If demand is constant, decreasing supply usually results in higher prices, while increasing supply usually results in lower prices.
  - If supply is constant, decreasing demand usually results in lower prices, while increasing demand usually results in higher prices.
  - **General Economic Conditions.** General economic conditions affect the prices of all products, but the effect will NOT be the same for every product. Inflation and deflation affect the value

of the dollar. Boom, recession, and depression affect available production capacity.
  - **Competition.** When competition does not exist, the forces of supply and demand may not work effectively. The buyer or seller may have an advantage in the pricing decision process.
- Markets can be defined by considering: the number of buyers, the number of sellers, product homogeneity, and ease of market entry and exit.
- The buyer's relative pricing power compared with that of sellers changes in different market situations. The table below examines the relative pricing in each situation:

Level	Buyers	Sellers	Market Entry/Exit	Relative Pricing Power
Perfect Competition	Many independent	Many independent	Relatively easy	Pricing balance between buyers and sellers
Effective Competition	Limited independent	Limited independent	Relatively easy	Relative pricing balance between buyers and sellers
Oligopoly	Many independent	Few independent	Restrictions	Relatively greater pricing advantage to sellers
Oligopsony	Few independent	Many independent	Relatively easy	Relatively greater pricing power to buyers
Monopoly	Many independent	One	Restrictions	Considerable pricing power to sellers
Monopsony	One	Many independent	Relatively easy	Considerable pricing power to buyers
Bilateral Monopoly	One	One	Restrictions	Pricing power established by negotiation (as in sole source Government

negotiation)

Alternatives for Meeting the Requirement. In making any acquisition, you should consider the alternatives. In a competitive acquisition, you should first consider how an offered price compares with competitive offers. However, your analysis should NOT end there. You should also consider other alternatives for acquiring the product or service. For example, sealed bidding procedures permit the agency head to cancel a solicitation when otherwise acceptable bids are at unreasonable prices (FAR 15.404-1(c)) and negotiation procedures permit the source selection authority to reject all proposals if doing so is in the best interest of the Government (FAR 15.305(b)).

Price-Related Evaluation Factors. A prudent buyer will consider differences in the cost of acquiring and owning a deliverable that are not covered by the contract price. To consider these price-related factors in a competitive acquisition, the solicitation must provide for such consideration. For example:

- **Direct Costs Not Included in The Contract Price.** The solicitation allowed offers to submit offers either for f.o.b. destination or f.o.b. origin. FAR requires that offer evaluation criteria provide for consideration of the shipping costs from f.o.b. origin points to destination.
- **Costs of Ownership Not Included in The Contract Price.** Your market research indicates that several products could satisfy your requirement. However, the products differ substantially in maintenance and repair costs. Offer evaluation criteria should provide for consideration of the related costs to the Government.
- **Costs of Contract Award and Administration.** In a competitive contracting situation, you may solicit line item prices and an aggregate price for all solicitation line items. The contracting officer could split the line items among five offerors, or award all line items to the single firm that offered the lowest aggregate price. To determine which method of award would provide the best value to the Government, offer evaluation criteria must provide for consideration of cost to the Government for awarding and administering multiple contracts (e.g., see FAR 14.201-6(q)).

Noncompetitive Acquisitions. In a noncompetitive acquisition, you should be alert to potential risks and costs NOT covered in the offered price. A price that seems reasonable on the surface may be unreasonable if proposed terms and conditions shift costs to the Government. For instance, an offered price may seem reasonable until you discover that the proposed terms and conditions have shifted responsibility for furnishing the necessary tooling from the firm (per the RFP) to the Government (per the proposal). Likewise, a contractor's proposed price, regardless of amount, might be unreasonable if conditioned on the use of a cost-reimbursement contract that transfers an inappropriate portion of the risk of cost growth to the Government.

Non-Price Evaluation Factors. In some acquisitions, the test of reasonableness requires a trade-off analysis between price, price-related factors, and non-price factors such as past performance and relative technical capabilities of the competing firms (see FAR 15.101-1). In particular, do NOT compete cost-reimbursement contracts primarily on the basis of lowest proposed costs. That would only encourage offerors to submit unrealistically low estimates and increase the likelihood of cost overruns (see FAR 15.404-1(d)).

Applying Judgment to the Determination.
Your determination of whether an offer is **fair and reasonable** is a matter of judgment. There is no simple formula in which you can just plug in a few values and receive a firm answer of **fair and reasonable.** Determining what is **fair and reasonable** depends on market conditions, your alternatives for meeting the requirement, price-related factors, and the non-price evaluation factors that relate to each procurement. It also depends on what price you can negotiate with an offeror. FAR 15.405(a) states that:

> *A fair and reasonable price does not require that agreement be reached on every element of cost, nor is it mandatory that the agreed price be within the contracting officer's initial negotiation position. Taking into consideration the advisory recommendations, reports of contributing specialists, and the current status of the contractor's purchasing system, the contracting officer is responsible for*

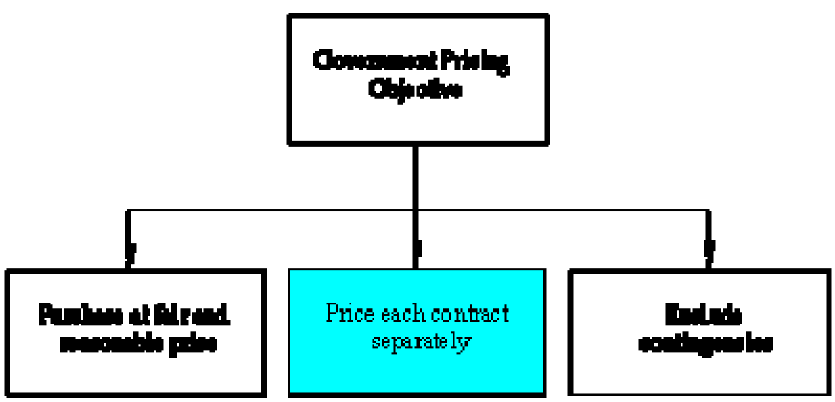
> *exercising the requisite judgment needed to reach a negotiated settlement with the offeror and is solely responsible for the final price agreement.*

There may be times when you find it impossible to reach agreement on a price that you consider fair and reasonable. If that happens, follow the FAR guidance at FAR 15.405(d).

If, however, the contractor insists on a price or demands a profit or fee that the contracting officer considers unreasonable, and the contracting officer has taken all authorized actions (including determining the feasibility of developing an alternative source) without success, the contracting officer shall refer the contract action to a level above the contracting officer. Disposition of the action should be documented.

I.2.2 Price Each Contract Separately

The second element of the Government pricing objective requires that contracts be priced separately. FAR 15.402(b).



Perspective. It is human nature to try to balance one contract against another in terms of financial results.

- A seller's position might be that the firm lost money on the last contract; therefore, an effort should be made to make up for that loss on the next contract.
- A buyer's position might be that the contractor made too much profit on the last contract; therefore, the

next contract should be structured to restrict profit.

Government Contracting. While these attitudes may be understandable in a personal sense, they are not valid in Government contracting.

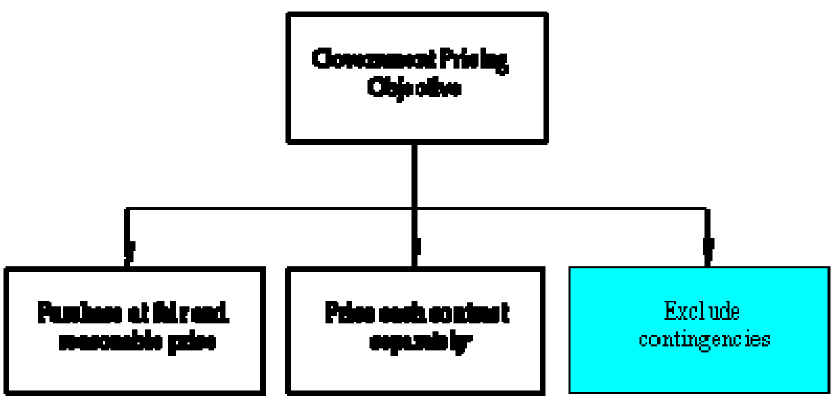
Government contracting is very complex because:

- Buyers and sellers do not have perfect knowledge of all transactions between a contractor and the Government.
- The market forces of competition, supply, and demand change.
- Business conditions change.

Thus, you must price each contract separately and independently to ensure that all proposed prices are fair and reasonable to all involved parties.

I.2.3 Exclude Contingencies

The third element of the Government pricing objective requires that contracts exclude contingencies that CANNOT be reasonably estimated at the time of award FAR 15.402(b).



Contingency Definition. A **contingency** is a possible future event or condition arising from presently known or unknown causes, the outcome of which is not determinable at the present time.

Types of Contingencies. (see FAR 31.205-7) You should know that there are two types of contingencies that are important in Government contracting:

- Contingencies that may arise from presently known and existing conditions, the effects of which are foreseeable within reasonable limits of accuracy; and
- Contingencies that may arise from presently known or unknown conditions, the effects of which CANNOT be measured so precisely as to provide equitable results to the contractor and the Government

Pricing Decision. The following table shows you how to handle each type of contingency in terms of the contract price:

Contingency	Examples	Contract Price
Foreseeable within reasonable limits of accuracy	• Cost of rejects • Cost of defective work	Contingencies of this type should be included in contract cost estimates to make those estimates as accurate as possible.
CANNOT be measured so precisely as to provide equitable results to the contractor and to the Government	• Results of pending litigation • Costs of volatile material price changes	Contingencies of this type should be excluded from the cost estimates under the several items of cost, but should be disclosed separately (including the basis on which the contingency is computed) to facilitate the negotiation of appropriate contract coverage.

For example, if you have extensive production experience with a given product, the contractor and the Government can likely agree on the amount of scrap that can reasonably be expected during production. This type of contingency should be included in contract cost estimates.

On the other hand, in times of volatile material price changes, it would be unreasonable to both parties for an offeror to include a contingency to cover significant price increases when none may occur. In this situation, you should consider use of a contract type (e.g. fixed-price economic price adjustment) that provides for separate consideration of volatile price changes. Separate consideration will provide for better contract pricing and more effective competition.

I.3 Identifying Government Approaches To Contract Pricing

This section covers the following topics:

- I.3.1 - Identify Price Analysis Considerations
- I.3.2 - Identify Cost Analysis Considerations
- I.3.3 - Identify Cost Realism Analysis Considerations

Approaches to Determine Fair and Reasonable Prices (FAR 15.402)

As a contract specialist, your primary objective as a Government buyer is to acquire supplies and services from responsible sources as **fair and reasonable** prices. You can use three basic approaches to attain this objective:

- Price analysis;
- Cost analysis; and
- Cost realism analysis.

In this section, you will learn about each of these approaches, how it is defined, when it is used, and key elements to consider.

I.3.1 Identify Price Analysis Considerations

Definition of Price Analysis. Price analysis is the process of examining and evaluating a proposed price to determine if it is fair and reasonable, without evaluating its separate cost elements and proposed profit.

When to Use Price Analysis. When an offeror is not required to provide cost or pricing data, you must use price analysis to ensure that the overall price is fair and reasonable.

When an offeror is required to provide cost or pricing data, use cost analysis to evaluate the reasonableness of individual cost elements. Use price analysis to verify that the overall price offered is fair and reasonable.

Bases for Price Analysis. Price analysis **always** involves some form of comparison with other prices. As the contracting officer, you are responsible for selecting the bases for comparison that you will use in determining if a price is fair and reasonable, such as:

- Proposed prices received in response to the solicitation;
- Commercial prices including competitive published price lists, published commodity market prices, similar indexes, and discount or rebate arrangements;
- Previously-proposed prices and contract prices for the same or similar end items, if you can establish both the validity of the comparison and the reasonableness of the proposed price;
- Parametric estimates or estimates developed using rough yardsticks;
- Independent Government Estimates; or
- Prices obtained through market research for the same or similar items (Because market research can span commercial prices, previously-proposed prices, contract prices, parametric or rough yardstick estimates, and Independent Government Estimates, this base for price analysis will not be considered separately in the remainder of this text.)

The order in which the bases for price analysis are presented on this list represents the general order of desirability. However, the order is NOT set in concrete. For example:

- Comparisons with commercial catalog, market, or regulated prices can be just as desirable as comparisons with competitive offers. After all, the prices of commercial products are defined by commercial market competition.
- Independent Government estimates are normally considered to be the least desirable comparison base for price analysis. However, in cases (e.g., construction) where estimates are based on extensive detailed analysis of requirements and the market, the Government estimate can be one of the best bases for price analysis.

Moreover, you should use all bases for which you have recent, reliable, and valid data. For instance, you would be well advised to consider the last price paid in addition to current competitive prices -- especially if the prior contract was awarded at a reasonable price last month.

Buyer Evaluation and Documentation. Price analysis is a subjective evaluation. For any given procurement, different bases for price analysis may give you a different view of price reasonableness. Even given the same information, different buyers/contracting officers might make different decisions about price reasonableness.

It is the cognizant contracting officer who must be satisfied that the price is fair and reasonable.

You must document the file concerning the rationale used in making the pricing decision. Otherwise, the individuals who may review your file later may not know or understand the factors that affected your decision.

I.3.2 Identify Cost Analysis Considerations

Definition of Cost Analysis. **Cost analysis** is the review and evaluation of the separate cost elements and proposed profit/fee of:

- An offeror's or contractor's cost or pricing data or information other than cost or pricing data and
- The judgmental factors applied in projecting from the data to the estimated costs.

The purpose of the evaluation is to form an opinion on the degree to which the proposed costs represent what the cost of the contract should be, assuming reasonable economy and efficiency.

When to Use Cost Analysis. Perform cost analysis in **either** of the following situations:

- When you require an offeror to submit cost or pricing data. In this situation, the offeror must provide complete, accurate, and current data to support all proposed costs and profit/fee.

- When you require an offeror to submit cost information other than cost or pricing data to support your decision on price reasonableness or cost realism. In this situation, require only the information necessary to determine price reasonableness or cost realism.

Definition of Contract Cost. **Contract cost** is the sum of the allowable **direct and indirect costs** allocable to a particular contract, incurred or to be incurred, less any allocable credits, plus any allocable cost of money.

Direct cost is any cost that can be identified specifically with a final cost objective, such as a contract.

Indirect cost is any cost that CANNOT be directly identified with a single, final cost objective, but is identified with two or more final cost objectives or an intermediate cost objective.

For reasons of practicality, any direct cost of minor dollar amount may be treated as an indirect cost if the accounting treatment is consistently applied to all cost objectives and the treatment produces substantially the same results as treating the cost as a direct cost.

Definition of Profit/Fee. Profit/fee is the dollar amount **over and above allowable costs** paid to the contractor to motivate contractor performance. Together contract cost and contract profit/fee total contract price. Thus contract profit is an important element of contract price and must be considered in cost analysis. Each agency must establish a structured approach for analysis of proposed profit/fee.

Identifying Contract Costs. Not all contract costs are cash expenditures during the contract period. Major contract costs can fall in the following categories:

- Cash expenditures-the actual outlay of dollars in exchange for goods or services
- **Expense accrual**-expenses are recorded for accounting purposes when the obligation is incurred, regardless of when cash is paid out for the goods or services.
- **Draw down of inventory**-the use of goods purchased and held in stock for production and/or direct sale to customers. The term refers to both the number of units and the dollar amount of items drawn out of inventory.

For example, both direct and indirect costs can result from a draw down of inventory and many indirect costs are accrual expenses.

Type of Contract Cost	**Example**
Cash expenditure	Payment by cash, check, or electronic funds transfer to a vendor for raw materials.
Expense accrual	Incurring of an obligation in the current year to pay an employee a retirement pension at some point in the future.
Draw down of inventory	Electronic components purchased in large volume against anticipated total demand and held in inventory until drawn out to fill a specific order. While the components were paid for in the past, the drawing out of a component to meet a contract need is a reduction of the assets of the firm and therefore a cost to the contract.

Cost Analysis Supplements Price Analysis. Cost analysis is not a substitute for effective price analysis. Cost analysis should provide insight into what it will cost the firm to complete the contract using the methods proposed. However, cost analysis does not necessarily provide a picture of what the market is willing to pay for the product involved. For that you need price analysis.

For example, suppose that you wanted to procure a custom-made automobile identical to a Pontiac Trans Am. At your request, your neighborhood mechanic agrees to build you such a car. In building the car, the mechanic gets competitive quotes on all the necessary parts and tooling, pays laborers only the minimum wage, and asks only a very small profit.

How do you think the final price will compare to a car off an assembly line? Probably at least ten times more expensive. Parts alone may be five times more expensive. The entire cost of tooling will be charged to one car. Labor, although cheaper, will likely not be as efficient as assembly-line labor. Is the price reasonable? That decision can only be made through price analysis.

I.3.3 Identify Cost Realism Analysis Considerations

Definition of Cost Realism Analysis. Cost realism analysis is the process of independently reviewing and evaluating specific elements of each offeror's proposed cost estimate to determine whether the estimated proposed cost elements:

- Are realistic for the work to be performed;
- Reflect a clear understanding of the requirements; and
- Are consistent with the unique methods of performance and materials described in the offeror's technical proposal.

When to Use Cost Realism Analysis. Perform a cost realism analysis of each cost-reimbursement contract offer to determine the probable cost of contract performance and use that estimate in your evaluation of the best value to the Government.

- The probable contract cost related to a cost-reimbursement contract offer may differ substantially from the proposed cost. Your most probable cost estimate should reflect your best estimate of the cost of any contract that is most likely to result from the offeror's proposal.
- Determine the probable cost for each offer by adjusting the proposed cost, and fee when appropriate, to reflect any additions or reductions in cost elements to realistic levels based on the results of the cost realism analysis.

You may also use cost realism analysis in evaluating competitive offers for fixed-price incentive contracts or, in exceptional cases, on other competitive fixed-price contracts.

- Give special consideration to using cost realism analysis to evaluate offers for fixed-price contracts when:

  - New requirements may not be fully understood by competing offerors;
  - There are quality concerns, or
  - Past experience indicates that contractors' proposed costs have resulted in quality or service shortfalls.
- When using cost realism analysis to evaluate offers for a fixed-price contract, you may use the results of your analysis in performance risk assessments and responsibility determinations. However, proposals must be evaluated using the criteria in the solicitation, and the offered prices must not be adjusted as a result of the analysis.

I.4 Identifying Potential Acquisition Team Members

The Acquisition Team includes everyone involved in the acquisition -- beginning with the customer and ending with the contractor providing the product or service. This text refers to Government participants in the acquisition process as the Government Acquisition Team.

The Government is committed to providing training, professional development, and other resources necessary for maintaining and improving the knowledge, skills, and abilities of all Government Acquisition Team participants. This commitment applies both to the individual's particular area of expertise within the Government and the individual's role as a Team member.

Potential Team Members For most contracts, the Government Acquisition Team will be relatively small. The following will typically play a key role in contract pricing:

- Contracting officer or contract specialist;
- Requirements manager (i.e., program or project manager);
- End user; and
- Commodity specialist.

You might also obtain assistance from one or more of the following:

- Inventory manager;
- Auditor;

- Technical specialist;
- Transportation, property, or logistics managers;
- Legal counsel;
- Competition advocate;
- Administrative contracting officer or administration specialist; or
- Cost/price analyst.

This table summarizes the role that potential Government Acquisition Team members might play in making or supporting the contract pricing decision.

Potential Members	Typical Role in Contract Pricing
Contracting Officer	The contracting officer is the person with authority to enter into, administer, and/or terminate contracts and make related determinations and findings. The term includes certain authorized representatives of the contracting officer operating within the limits of their authority as delegated by the contracting officer.
Contract Specialist	A contract specialist may be responsible for performing a wide variety of contracting activities under the authority of the contracting officer assigned to the contract. In this capacity, a contract specialist will likely provide key input to the pricing decision, but the ultimate decision on price reasonableness rests with the contracting officer.
Requirements Manager	Requirements managers initiate acquisitions by preparing purchase requests. Purchase requests specify the requirement and generally include an Independent Government Estimate. After you receive of the purchase request, requirements managers often can help: • Review alternatives for improving the solicitation, • Identify potential price-related factors for award,

- Account for significant discrepancies between different comparison bases used in price analysis, and
- Provide advice and information for price-related decisions.

End User	The end user may or may not be the requirements manager. If the requirements manager is not the end user, you may find it useful to consult the end user when building the solicitation and making price-related decisions. In addition, the end user may be more knowledgeable about the product and a better source for an Independent Government Estimate than the requirements manager.
Commodity Specialist	Some organizations have dedicated commodity specialists who, among other things, heavily research the markets for their respective commodities.
Inventory Manager	Inventory managers keep track of large stocks of products in Government warehouses and other such facilities. Among other things, inventory managers generate purchase requests for replacement supplies as users draw on the Government stocks. They tend to be especially concerned about the solicitation/contract, in terms of its potential impact on delivery, inventory levels, and inventory costs.
Auditor	Auditors are accountants with specialized training and experience in examining and analyzing cost or pricing data provided by offerors and contractor records (particularly accounting records). Their support can be invaluable in cost proposal analysis. In the Department of Defense, contract auditors are assigned to the Defense Contract Audit Agency (DCAA). In other agencies, auditors are typically assigned to the agency Inspector General.
Technical Specialist	These specialists generally write specifications or statements of work and technical evaluation factors and evaluate technical proposals. In many acquisitions, the requirements manager acts as the technical specialist. Larger acquisitions,

	however, may involve teams or panels of technical experts (who, depending on the specific deliverable, may be engineers, scientists, or other similar professionals). From a pricing standpoint, technical specialists may have a good understanding of the costs necessary to build a deliverable and also of the types and sources of commercial products that may be available to satisfy a requirement.
Transportation, Property, or Logistics Managers	These specialists can help you select and apply price-related factors that involve transportation costs, Government-furnished property, and ownership costs. All may be involved if you plan to solicit based on a full life-cycle cost model.
Legal Counsel	Lawyers may play a role in clearing contracts and reviewing justifications for such price-related decisions as cancellation of an IFB after opening. Look to them for advice on the solicitation and on making the price-related decisions.
Competition Advocate	Competition advocates review acquisition plans and analyze specifications to identify and, where possible, remove "barriers" to full and open competition. They also review justifications for other than full and open competition. From a pricing standpoint, they can be valuable allies in maximizing price competition.
Administrative Contracting Officers and Administration Specialist	Some Federal agencies have dedicated contract administration offices. These offices are often involved in preaward reviews of contract pricing proposals because contract administrators have more complete information on the production and pricing practices of specific offerors. Administrative contacting officers may also be responsible for pricing certain kinds of contract modifications.
Cost/Price Analyst	Some contracting activities have dedicated cost/price analysts who can assist in performing the tasks described in this book. However, such analysts are typically only available for higher dollar, more complex

procurements.