

**Office of the
Secretary of Defense
Acquisition, Technology, and Logistics
(Acquisition Initiatives)**



Department of Defense Guidebook for Acquiring Commercial Items

PART B: PRICING COMMERCIAL ITEMS

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Overview

Commercial items are not subject to the Truthful Cost or Pricing Data Act, formerly known as TINA, because the commercial marketplace is presumed to be a competitive environment and should drive a fair and reasonable price. When determining a fair and reasonable price, market research should be conducted in order to compare the proposed price to comparable market pricing. Determining a fair and reasonable price is usually a more straight-forward process when acquiring commercially available off-the-shelf (COTS) items. On the other hand, determining a fair and reasonable price is challenging when the commercial market does not exist for a specific item or when market price data is not readily available. Ultimately, the effectiveness of price analysis will depend on what meaningful data the Government successfully obtains to conduct the pricing analysis.

VISION FORWARD: THE COMPETITIVE MINDSET

Department of Defense (DoD) Guidebook for Acquiring Commercial Items, [Part A](#): Commercial Item Determination, highlights the importance of competition; maintaining a competitive mindset throughout the pricing evaluation is critical! Government acquisition professionals should always explore the potential for competition as a critical consideration for not only prime contracts, but also for how they can encourage competition at the subcontract level.

In general, when firms compete for business there is a competitive pressure to put forth their best price to ensure they win the award.

Generally, competition in most commercial markets is the norm and not the exception. Theoretically, there should be limited circumstances in which or prime contractors are buying commercial items from a sole source without some benefit from the competitive commercial marketplace; however, the fact is DoD must acquire a significant amount of “sole source” items and services that meet the commercial item definition. Frequently, DoD ends up in commercial sole source situations for reasons other than there only being one qualified firm that can provide the product or service. One common reason is the nonrecurring cost and time investment spent by the Government and commercial supplier to tailor their commercial item to meet a military purpose. While this is a hurdle it should not preclude contracting officers, prime contractors, and program managers from exploring options. We should, like industry, have a long-term view of affordability and savings rather than a short-term view based solely on immediate cost-avoidance, schedule, and funding limitations.

CONTRACTOR ROLE IN SUPPORTING PRICE REASONABLE DETERMINATIONS

We often hear the acquisition process described as a “team sport.” The same can be said for commercial item determinations (CIDs) and the pricing of commercial items. In the event that information from the offeror is requested by the contracting officer, it is the role of the contractor to be responsive to those requests. If, for some reason, the offeror declines to submit the requested information to support CIDs or price reasonableness determinations, contracting officer contracting officers should request the offeror to assert its position in writing along with associated rationale for not providing the requested information. At the end of the day, we should not be buying items or services at prices that we do not consider to be fair and reasonable. While it is our responsibility to perform adequate price analysis of commercial items,

that responsibility does not relieve the offeror of its obligation to support the reasonableness of its proposed prices if it chooses to supply goods and services to DoD.

DEFINITIONS

Pricing Data

Pricing data are all facts, exclusive of separate cost elements or profit, which prudent buyers and sellers would reasonably expect to affect price negotiations significantly.¹ Examples of pricing data include established catalog or market prices, or any form of data on sales to commercial and Governmental end users.

Cost Data

Cost data are any facts, other than prices, that prudent buyers and sellers would reasonably expect to affect price negotiations significantly.² Cost data should help you understand what the item *did cost*, *will cost*, or *should cost*.

While the objective is to reach agreement on a fair and reasonable price without ever having to request cost data, “did cost,” “will cost,” and “should cost” data should be available from the offeror and may be available from sources other than the offeror. These concepts are not foreign to world class commercial firms who buy and sell complex commercial systems. Use the wide spectrum of resources available to you, but be careful to follow the Federal Acquisition Regulation (FAR) 15.402 order of preference and Defense Federal Acquisition Regulation Supplement (DFARS) 212.209 hierarchy, discussed in the [Market Research](#) section of this Guide. Conducting a cost analysis and requesting cost information from the offeror should be the last resort when performing a fair and reasonable analysis for commercial goods and services.



NOTE: Per Title 10, United States Code (U.S.C.) 2306a(b), submission of certified cost or pricing data shall not be required for any contract, subcontract, or modification of a contract or subcontract involving:

- Adequate price competition or prices set by law or regulations; and
- Acquisition of an item that meets the definition of a commercial item.

Sales Data

Sales data includes records of sales for both the proposed item and similar items where the record should include order data, such as customer name, product number, serial number, product description, sales order number, date of sale, quantity sold, and price.

¹ FAR 2.101, definition of “cost or pricing data.”

² Ibid.

Market Research to Establish Price Reasonableness

[Part A](#) of this Guide addresses market research and techniques as related to making a CID. Part B of this Guide addresses market research and techniques as related to establishing price reasonableness determination. Leveraging existing market research data and proposal submission information is a critical starting point. It is also important to understand your role in conducting market research. If during your market research efforts you identify concerns that should be addressed elsewhere in the acquisition, it is important to relay that information to the appropriate acquisition team member. Communication between buying activities, technical/functional specialists, and other members of the acquisition team is an important component of a successful acquisition.

RECENT CHANGES TO MARKET RESEARCH REQUIREMENTS

DFARS 212.209, Determination of Price Reasonableness, provides that market research shall be used, where appropriate, to inform price reasonableness determinations. The phrase “where appropriate” allows the contracting team flexibility in determining when and to what extent to conduct market research. However, the contracting team should perform market research to the extent possible to ensure the Government employs the necessary rationale and knowledge for effective negotiations.

The hierarchy and types of data requests are further discussed under the [Price Analysis](#) section of this Guide.

INFORMATION SOURCES

This section addresses where you might find information during your pricing review. The contracting officer must obtain and consider all information necessary when making a determination concerning whether the price is fair and reasonable.³ This information can be anything that helps you understand what you are buying and how much it is worth. When data other than certified cost or pricing data is required, contracting officers must follow the order of preference in FAR 15.402, which looks first to price-related data and, secondarily, to cost data. With the order of preference in mind, you should start with Government resources, move to public resources, and only obtain additional information from the offeror as the last resort.

1. First Source: Government Resources

When evaluating the proposed price of a commercial item, start with Government resources, which include databases, reports, publications, experts, etc. It is important to note that obtaining information from within the Government is not limited to obtaining prices historically paid by the Government. Any time you are conducting market research for commercial items, you should be gathering as many relevant data points as you can in terms of prices paid by the Government and by commercial buyers. This is especially critical for sole source items. The fact that a previously paid price is included in a Government database or report does not automatically mean that price is fair and reasonable in the context of your acquisition, or that the previously paid price was adequately supported at the time it was paid. Please note

³ FAR 15.403-3(a)

that the external sources listed in the guidebook are not endorsed by DoD, but provided as potential market research sources.

Government Databases and Reports. There are a number of Government databases available to help you. Most of these are dependent on collecting timely, accurate inputs to maintain a repository of useful information.

- Contractor Business Analysis Repository (CBAR) – <http://www.dcmamail.com/WBT/CBAR/> - is protected, negotiation-sensitive information that is maintained by the Defense Contract Management Agency (DCMA).
- DoD Fed Mall – <https://www.fedmall.mil> - has replaced DOD EMALL and is a full service e-commerce site used to acquire goods from commercial and Government sources for Federal, State, and Local Governments as well as other authorized buyers. It provides large and small businesses the opportunity to supply their products 24/7 via a web-based environment to multiple agencies across the globe. It is an easy-to-navigate platform with the look and feel of a commercial website, has new search technology that allows buyers to find products quickly and easily, supports current business processes for ordering (commercial and DLA requisitions), and permits vendors to upload their catalogs in the Market Place without requiring a contract to allow for dynamic pricing.
- The Office of Cost Assessment and Program Evaluation (CAPE) – www.cape.osd.mil/ - provides insightful analysis on resource allocation and cost estimation for Major Acquisition Programs
- Acquisition Gateway – <https://www.gsa.gov/portal/category/107699> - built by GSA, helps federal Government buyers from all agencies act as one community.
- GSA Advantage – <https://www.gsaadvantage.gov> - Government search engine with millions of products and services arranged in common schedules.
- GSA Global Supply – <https://www.gsaglobalsupply.gsa.gov> - enables search by national stock number (NSN) - one-stop source for Outside the Contiguous United States (OCONUS) military and agency support needs, from new tools and fire-fighting equipment to office supplies.
- International Trade Administration – <http://trade.gov> - research tool that contains data and analysis on specific industries.
- Department of Commerce – <http://www.commerce.gov> - research tool that contains data and analysis on specific industries, and economic indicators.

Memoranda of Agreement (MoA). MoAs are established between the cognizant DCMA Corporate/Divisional Administrative contracting officer (C/DACO) and individual contractors seeking to facilitate procurement of commercial items. The intent of the MOA is to document an understanding about the kinds of information to be provided to the Government to establish the commerciality of items and the price reasonableness of a given item or set of items. The purpose of these MOAs is to establish what both parties agree should be sufficient information in most, if not all, circumstances to establish commerciality and price reasonableness, and contracting officers will generally not find a need to request additional information. While these agreements are not binding on the contracting officer, the information provided may help streamline the contracting officer's ability to obtain information necessary to determine a fair and reasonable price. The MOA does not relieve the contracting officer from making determinations of commerciality and price reasonableness.

Trade Publications or Databases. Online resources such as [IHS Global Insight](#) (which contains various economic information), databases such as Haystack, Partsbase, Inventory Locator Services, BidLink, SAI Global Subscriptions, and others. These database subscriptions provide pricing values, inventory availabilities, options to price parts by part numbers, and may include sales data on same or similar items sold.

Government Publications. The Department of Labor (DoL), [Bureau of Labor and Statistics](#), publishes information about wages, costs of goods, and Employment Cost Indices (ECI) and Consumer Price Indices (CPIs) for the calculation of inflation, among other things. The [Department of the Treasury](#) publishes information about various interest rates.

Government Experts. In addition to the technical specialists in your office, there are numerous DoD and Civilian Agency experts available to help you. These Government experts may be available to help at different stages of your market research. For example, you may not need to seek Defense Contract Audit Agency (DCAA) assistance if you can establish fair and reasonable price through competition, historical prices paid, etc. However, DCAA is one resource that may be required if you reach the point that other than certified cost and pricing data is necessary to determine fair and reasonable price. Government experts include:

- DCMA – encompasses a broad range of functions, including specialization in commercial item pricing with the DCMA Commercial Item Group (CIG). In addition to DCMA CIG, DCMA contracting officers and Contractor Purchasing System Review (CPSR) teams have insight into the contractor’s business systems and conduct cost monitoring activities to support forward pricing activity. D/ACO may have advanced agreements in place that address the types of information offerors may have agreed to furnish during price reasonableness reviews. D/ACO and pricing teams may have valuable insight into the offeror’s cost estimating, cost accounting structure, sales data and proposal areas. These pricing teams review specific proposals and may be able to provide guidance on the estimates and methodologies, and give advice on how to adjust the estimates if appropriate. Early and often communication with DCMA can expedite the review process and assist in establishing fair and reasonable prices. See [Appendix B](#) of this Guidebook for a standard template to e-mail: Commercial@dcma.mil.
- DCAA – has the primary function to perform audits of contractor books and records and aid in verifying the accuracy of representations the offeror has made. For example, DCAA can access the offeror’s books and records and assist in the review of contractor-provided, but redacted, sales data. DCAA may also have the capability to pull sales data from contractor’s accounting system provided they have access to the contractor’s system. In addition, DCAA compensation teams have access to numerous compensation surveys that will assist the acquisition community with pricing commercial items.
- Navy Price Fighters – performs analyses on a highly technical and complex system acquisitions. They also have access to certain market subscriptions that you may be able to utilize during your market research efforts. Note, there may be a charge for assistance provided by the [Navy Price Fighters](#).

2. Second Source: Sources Other than Offeror (Public Resources)

After you have considered the information available within the Government, you can consider public resources and expand your market research efforts external to Government resources. These sources include advertisements, catalog pricing, and online search engines.

Advertisements. Typically, promotional pricing offers a discount below the normal price, but above the break-even price (meaning the seller will still make a profit on the deal). Occasionally, prices advertised will be at a negligible loss. When that happens, the loss price may be accompanied by: (1) fine print limiting the quantities that can be purchased at that price; (2) requirements to purchase other additional nondiscounted items; or, (3) other upsell sales techniques. Consider each of these factors when determining whether the advertised price is a relevant data point when comparing the proposed price

under the current acquisition terms and conditions and requirements to the advertised terms and conditions. See the section entitled “Price Analysis Techniques” for additional information.

Catalogs/Indices. An offeror may have published catalogs available on the open market or available upon request. For example, price lists may be published on company websites (e.g., <http://altenergy.com/PriceLists/PriceLists.htm>). The fact that a price is included in a catalog (whether paper or electronic) does not, by itself, make the price fair and reasonable.⁴ If the catalog you are reviewing contains price information, you will need to verify that the prices listed in the catalog are the final prices that were actually paid by requesting copies of the invoices billed for the items. An example of catalog pricing includes research related to commercial services wages such as GSA catalog prices for services (<https://calc.gsa.gov/>). It is very important to understand whether customers pay the published catalog price or receive a discount.

Other indices may be available to help with pricing commercial items. Examples related to wage determinations include, but are not limited to:

- DOL’s Bureau of Labor Statistics (BLS) Employment Cost Index (ECI) – <http://www.bls.gov/news.release/eci.toc.htm> - database of escalation rates for services
- Wage Determinations On-line – <http://www.wdol.gov/Index.aspx> - contains Service Contract Act (SCA) and Davis-Bacon Act (DBA) wage determinations
- Salary Determination – General compensation surveys such as “[CompAnalyst](#)” contains prices for fully burdened labor rates for numerous labor categories.)

Online Search Engines, Media Sites and Retailers. There are a multitude of online search engines that can aid in collecting and analyzing pricing for commercial items.

- Many search engines and retailers such as Amazon, Google, etc. allow you to input identifying factors such as part numbers or stock-keeping unit (SKUs) that may help in locating commercial product availability and pricing/inventory research.
- Some exchanges, such as NASDAQ, will have current prices on common trade commodities such as metals, energies, etc.
- Morningstar – <http://www.morningstar.com/> - provides stock market analysis; equity, mutual fund, and ETF research, ratings, and picks; portfolio tools; and IRA, 401k, and 529 plan research.
- Reuters – <http://www.reuters.com/> - provides investing news, world news, business news, technology news, headline news, small business news, news alerts, personal finance, stock market, and mutual funds information. Of particular interest to those conducting market research is the business and market tabs.
- U.S. Securities and Exchange Commission (SEC) EDGAR Database Company Filings – <https://www.sec.gov/edgar/searchedgar/companysearch.html> - database of annual and quarterly SEC financial reports filed by publicly traded companies, can be used for research into a company’s business practices and current sales projections.

Industry Specific References. Your ability to successfully price commercial items improves when you have a superior knowledge of the specific industry. Many online databases offer bluebook values and pricing data related to specific industries such as commercial aircraft and engines, watercrafts, parts and test equipment. Conducting industry specific market research will help identify customary terms and conditions, trends in market prices, trends in supply/demand, and other factors that affect market prices. These databases sometimes require accounts. [Appendix A](#) includes a non-exhaustive reference list by industry of potential databases, as well as Federal Government, and other resources.

⁴ FAR 15.403-3(c)

- **Commodities Industry**

- **U.S. Energy Information Administration** – <http://www.eia.gov/>
(Current market prices for energy, fuels, metals, and radioactive materials.)
- **CNN Money** – <http://money.cnn.com/data/commodities/>
(Resource for finding company information and financial data and contain data on raw materials (I.e. Steel, Oil, Gold))
- **Metal Price Index** – <https://www.metalprices.com>
(Resource for finding current metal prices.)

- **Commercial Aircraft and Engines Industry**

- **AVITAS Blue Book of Jet Aircraft Values** – <https://www.avitas.com/>
(Database of aircraft values and aircraft engine values.)
*Requires Account please contact DOD CAPE for reports.
- **Controller** – <http://www.controller.com/>
(Sales listings of used aircraft, avionics, engines, and components. Also includes dry and wet leases on many airframes.)
- **AeroTrader** – <https://www.aerotrader.com/>
(Sales listings of used aircraft, avionics, engines, and components. Also includes dry and wet leases on many airframes.)
- **The International Bureau of Aviation (IBA)** – <http://www.ibagroup.com/>
(Database of used aircraft values and aircraft engine values.)
*Requires Account
- **Morten Beyer & Agnew** – <https://www.mba.aero/>
(Database of used aircraft values and aircraft engine values.)
*Requires Account
- **Aircraft Blue Book** – <http://www.aircraftbluebook.com/>
(Database of used aircraft values and aircraft engine values.)
*Requires Account
- **Aircraft Value Analysis Company** – <http://www.aircraftvalues.com>
(Database of used aircraft values and aircraft engine values.)
*Requires Account

- **Commercial Watercraft Industry**

- **Nautic Expo** –
<http://www.nauticexpo.com/boat-manufacturer/military-boat-35627.html>
(Sales listings of boats, navigation, engines, and components.)

- **NADA Guides** – <http://www.nadaguides.com/Boats>
(Sales listings of boats, navigation, engines, and components.)

- **Commercial Parts (aircraft, vehicles, boats) Market**

- **Thomas Register** – <http://www.thomasnet.com/>
(Comprehensive online resource for products manufactured in North America)
- **ISO Parts Enables search by NSN** – <http://www.iso-parts.com/Default.aspx>
(Search by NSN for aviation spare parts and quotes)
- **WBParts** – <http://www.wbparts.com/>
(Sells aircraft connectors, military connectors, connector receptacles, backshells, plugs, sockets, adapters, covers and clamps)
- **Buy Aircraft Parts** – <http://buyaircraftparts.com>
(Sells aircraft spare parts)
- **AeroBase Group** – <http://aerobasegroup.com/>
(Sells aircraft spare parts)
- **SOI Aviation- Obsolescent parts** – <http://www.soiaviation.com/>
(Database of obsolescent aircraft parts, suppliers, and requesting quotes.)
- **SAI Global** – <http://logicom.ili-info.com/>
(Comprehensive source of Government logistics and parts data)
*Requires Account
- **ElectroSpec** – <http://www.electrospec.com>
(Search Engine to find electronic parts and computer chips)
- **Electronic Products' Buyers' Guide** – <http://www.eem.com/>
(Resource for electronic component information, arranged by product type)

- **Test Equipment**

- **Test Mart** – <http://www.testmart.com/>
(Search engine for commercial test equipment and accessories and includes detailed specifications and performance requirements on most products)
- **Laboratory Equipment** – <https://www.laboratory-equipment.com/>
(Sells commercial test equipment and accessories and includes detailed specifications and performance requirements on most products)

Contract Pricing Reference Guide (CPRG). FAR subpart 15.403-3 provides reference to consider the guidance in Volume 1, Chapter 3, and Section 3.3 of the CPRG before requesting price data from offerors.⁵ The CPRG can help you determine the type of data to request, why it is needed, and the appropriate questions to ask during your analysis. The CPRG may be found at <https://acc.dau.mil/cprg>.

Some initial considerations recommended by the CPRG include:

Price Data Other Than Certified Cost or Pricing Data⁶		
Information Element	Consider Requiring Offerors To...	Related Analysis Questions
Catalog pricing	Identify any relevant offeror commercial catalog, its date, catalog prices, and related discounts. Also require the offeror/contractor to explain any differences between the offered price, the established catalog price, and price of recent sales in quantities similar to the proposed quantities.	Does the firm have a commercial catalog price? How do the prices for recent commercial sales compare with the catalog price? How does the price offered compare to the catalog price and the circumstances of the commercial sales?
Market pricing	Describe the nature of the relevant market and how that market affects the offered price including, the source and date or period of any relevant market quotation or other basis for market price, the base market price, applicable discounts, or other price adjustments.	Is there a commercial market for the item? Is there an independent and verifiable record of the market price (invoices, commercial contract/orders, etc.)? How does the price offered compare to the market price and the circumstances of the commercial sales?
Other evidence of prices charged	Provide evidence of prices charged other customers under similar circumstances. For example, the firm could provide copies of contracts with other customers to document the prices charged.	Can the offeror provide evidence of the prices paid by commercial customers (i.e., invoices paid)? Do commercial customers verify the prices paid? How does the price offered compare with the prices paid by other customers under similar circumstances?
Services normally provided	Describe the services provided by the offeror to the firms buying at the prices provided as bases for price analysis. Different firms and industries provide different levels of support services for their products, including product warranties, set-up, and financing.	What services are provided to other customers? Based on services provided, should the Government price be different than the price charged to commercial customers?
Normal order size	Document the normal order size for firms paying prices provided by the offeror/contractor as bases for price analysis. Prices may relate to the total size of each order, not just the price of the item involved. For example, an order could include 100 units of the item, or the order could include 1000 units of the item. Presumably, the larger order should merit a lower unit price resulting from economies of scale.	What was the total dollar value of orders with other customers? Based on the relative order size, should the Government price be different from the price charged other customers?
Annual Volume of Sales to Similar Customers	Document the sales volume to similar customers and the prices paid by those customers. For example, commercial firms often negotiate total volume discounts with major customers, over and above normal order quantity discounts. In comparing total	Under similar circumstances, does the firm sell at lower prices to firms with larger total annual purchases?

⁵ FAR 15.403-3(a)(1)(v)

⁶ Table Source: <https://acc.dau.mil/cprg>

	volume of purchases, you should normally consider known acquisitions from all Government activities as a group.	What prices are charged other customers with total annual purchases similar to that of the Government?
Lowest Price Charged Other Customers	Document the lowest prices recently charged other customers for the same or similar products. The Government procurement may not obtain this most favored customer treatment, however this information will provide useful information on the lowest prices paid by any customer under any circumstances. What is considered recent will vary based on the type of item and the market. Generally, it will vary from three months to a year.	What is the lowest recent price paid for the same or similar product? How do the circumstances of the Government procurement differ from the circumstances of the lowest priced sale?

3. Third Source: Information from the Offeror

In a FAR Part 12 acquisition, you should exhaust other information sources before requesting information from the offeror.⁷ After exhausting other sources, if a fair and reasonable price still cannot be determined, you may have to request additional information from the offeror. DFARS 212.209 provides a hierarchical order for requesting data when engaging with the offeror. See the [Pricing Analysis](#) section for additional information.

Start by having a discussion with the offeror. Explain what you know of the marketplace and any outstanding questions you have. Develop an understanding of what information the offeror has that is readily available. Ask the offeror who they see as their competitors and if they have any other information available to aid in your understanding of how they established their price. When requesting information, a good practice is to maintain a request for information log and ensure all requests are in writing with established understanding among all parties and agreed upon due dates for receipt of information.

When obtaining uncertified cost data on commercial items, requests should not impose undue requirements on the offerors to provide data that is not normally maintained in the offeror's business operation.⁸ Many offerors have Enterprise Resource Planning (ERP) systems. If the Government is granted access to an ERP system, this may be useful in obtaining relevant data. ERP systems are business management tools for planning production, managing inventory, recording purchases, sales, shipping, and invoicing of customers. These systems are powerful tools containing valuable information - in contractor format. Examples of commercial ERP systems include, but are not limited to, SAP, Oracle, MAPICS, Deltek and others, including company unique and proprietary systems. For some defense contractors, these business systems are overseen and approved by DCMA, who can provide valuable insight to an analyst on the business system's capability. Key considerations for ERP systems:

- Why are these business systems important? Businesses use electronic systems to conduct business processes such as: Operations (Sales and Distribution, Materials Management including, underlying Bills of Material for each part, Production Planning, Logistics Execution, and Quality Management), Financials (Financial Accounting, Management Accounting, Financial Supply Chain Management) and Human Capital Management (Payroll, e-Recruiting).

⁷ FAR 15.402(a)(2); 15.403-3(a)(1)

⁸ DFARS 215.402(a)(i)(C)

- How can we capture this utility? Instead of asking for copies of contracts and invoices to demonstrate sales, ask for an ERP summary of sales for a set period of time that is reasonable given the totality of circumstances. This helps the Government overcome concerns that the offeror is “cherry picking” select information that may not represent the complete picture and address concerns related to information that may otherwise be presented with significant redaction. In addition, these queries can be prepared with little time and effort. In the event the contractor representatives claim that they cannot release prices paid by other contractors due to non-disclosure agreements with their customers, try getting a summary by “customer number.” A Government organization, such as onsite DCMA or DCAA, can validate that sales are to actual commercial customers (vice other Government entities) without revealing the names of those customers and identifying end users.

In the event all else fails in the price arena, ERP systems contain cost data. Typically, this information is referred to as “cost of goods sold.” This is essentially direct material and labor--no indirect rates or profit is included, so do not mistake these costs as the fair and reasonable price without considering these factors. Being flexible with the data format should allow you to use the contractor’s tools and save time during your evaluation.

Practical Example No. 1 - Order of Preference

The practical examples are hypothetical and have been created for the purpose of illustrating how to apply the concepts discussed within the Guidebook in the context of price reasonableness.

Objective: To identify factors that affect comparability, the Government must understand what is being procured and under what conditions. When reviewing whether an item is commercial, you must understand the preliminary commercial item packages or commercial item determinations made by the offeror and prior Government team members. Recall the FAR 15.402 order of preference for obtaining information: (1) Government resources, (2) sources other than offeror, and (3) information from the offeror.

Background: The prime contractor provided comprehensive satellite and internet systems to a foreign customer in the Middle East through the Foreign Military Sales (FMS) program. The prime contractor was a directed source by the FMS customer. The Procuring Contracting officer (PCO) conducted market research, determined the items to be commercial, and issued a FAR Part 12 solicitation. The proposal was a catalog in Indefinite Delivery, Indefinite Quantity (IDIQ) form that included optional parts, subscriptions, and technical support pricing.

Commerciality Review: Upon receipt of the proposal, the Government performed extensive market research in order to satisfy price comparisons of other available parts. Market Research indicated there were many vendors who offered satellite internet and Very Small Aperture Terminal technology in mobile form. These products were all same, or very similar. Many of the products were COTS items such as VOIP phones and brand name modems. Other parts included satellite dishes which may be specific to this military application, but were previously considered commercial of a type, due to the broad range of alternatives with minimal technical differences. Furthermore, the satellite internet requirements had no encryption or secure requirements making the alternative sources very competitive.

Price Analysis: Satellite Dish Component - The contractor proposed dishes with prices ranging from \$175K to \$250K with no additional catalog price available. The Government team started with market research and obtained pricing data from the commercial market (alternative vendor satellites) that demonstrated price ranges from \$16K to \$25K. Next, the Government team contacted other Government resources and obtained an engineering review which concluded that there were no material differences between the proposed satellite and the commercial market alternatives.

Other parts/components - The contractor proposed miscellaneous computer parts and technical labor. To assess the proposed parts, the review team utilized multiple search engines such as Google, Amazon, and eBay and was able to find most of the specific model phones, licenses, and parts. Many websites offered the ability to buy immediately, at significantly discounted pricing in comparison to the proposal. Specific to technical labor, the reviewer utilized salary.com and added Department of State pricing factors such as danger pay, and hardship premiums with estimates to overhead and profit to account for the OCONUS (FMS) technical support. This market research allowed the team to conduct a “should cost” review of the miscellaneous computer parts and technical labor.

Results: The Government team recommended that the pricing align with the commercial marketplace. The Government team relied on their market research and did not need to request sales data from the offeror.

Take Away:

- When conducting price analysis and market research, be sure to understand the acquisition conditions associated with your proposal.
- Remember to obtain information from the Government and marketplace before requiring the offeror to supplement its proposal.
- Price analysis based on commercial market quotes and sales is an effective method of establishing price reasonableness.
- Value analysis may be a useful technique when used in conjunction with a price analysis.
- Incorporating technical analysis will support negotiations, especially when there are large deltas between the proposed price and commercial market pricing.

Alternative Considerations/Results: What if the FMS country did not direct the source? Would you have wanted to consider other sources? Could you have considered competition? There is solid market research that indicates viable options to compete the requirement to drive a fair and reasonable price. Market research should be conducted at every stage of acquisition. Communicating your research with your team is critical.

PROHIBITION ON OBTAINING CERTIFIED COST OR PRICING DATA

Contracting officers are generally prohibited from requiring certified cost and pricing data in the case of a contract, a subcontract, or modification of a contract or subcontract for the acquisition of commercial item.⁹



NOTE: The fact that an item has been determined to be a commercial item does not, in and of itself, prohibit the contracting officer from requiring data other than certified cost or pricing data. This includes data related to prices and cost data that would otherwise be defined as certified cost or pricing data if certified. Obtaining sufficient data for a price analysis, which may include obtaining information from the offeror, is particularly critical in situations where an item is determined to be a commercial item in accordance with FAR 2.101 and the contract is being awarded on a sole source basis.¹⁰

The type(s) of cost or pricing data you request can be anything that is necessary to help you make the determination of price reasonableness. Any uncertified data requested from the offeror for proposal evaluation is considered “data other than” certified cost or pricing data. It may even be identical to certified cost and pricing data, EXCEPT that it is not certified.

Requirements for Certified Cost and Pricing Data from the Contractor for minor modifications. In limited instances, the contracting officer may request and obtain from the contractor certified cost or pricing data for the minor modifications, but not for the commercial item. In these instances the contracting officer should refer to FAR 15.403-1(c), “Prohibition on Obtaining Certified Cost and Pricing Data.” It is critical to apply the requirements under this FAR part when contracting for minor modifications that are not customarily available in the commercial marketplace.¹¹ Minor modifications mean modifications that do not significantly alter the nongovernmental function or essential physical characteristics of an item or component, or change the purpose of a process. Factors to be considered in determining whether a modification is minor include the value and size of the modification and the comparative value and size of the final product. Dollar values and percentages may be used as guideposts, but are not conclusive evidence that a modification is minor.

POINTS TO CONSIDER ABOUT MARKET RESEARCH

When obtaining information, keep in mind the size and complexity of your acquisition. Always make sure that the information you are relying on is reasonably current,¹² and verifiable.¹³ This is a different standard than certified data, which is certified to be accurate, complete, and current as of a specific date. The data should be such that a reasonable person would rely on it to make a prudent business decision.

Document, Document, Document

⁹ 10 U.S.C. 2306a(b)(1); FAR 15.403-1(c)(3)(i)

¹⁰ DFARS PGI 215.403-1(c)(3)(A)(3)

¹¹ FAR 15.403-1(c)(3)(iii)

¹² FAR 15.403-3(a)(3)

¹³ DFARS PGI 215.403-3(1)

Every time you request data other than certified cost, pricing, or technical data, you must document the request in the official file. At a minimum, you must include the following—

- (1) A justification of the need for additional cost, pricing, or technical data;
- (2) A copy of any request from the DoD component to the contractor for additional cost, pricing, or technical data; and
- (3) Any response received from the contractor to the request, including any rationale or justification provided by the contractor for a failure to provide the requested data.

Offeror Inability to Provide Requested Data

You will occasionally encounter situations where an offeror is unable or unwilling to provide the data you have requested. An offeror who fails to comply with a request to submit data for a contract or subcontract is ineligible for award unless the Head of the Contracting Activity (HCA) grants a waiver. This rule applies to information that is necessary for determining price reasonableness.



NOTE: DFARS PGI 215.404-1 describes specific steps to take when an offeror does not furnish data requested by the contracting officer. In addition to elevating the issue within the contracting activity, the cognizant Government employee should enter the offeror's inability to provide the requested data into the past performance system (www.cpars.gov). Comments on a subcontractor's refusal to submit data must be documented in the performance assessment of the prime since the Government only has privity of contract with the prime.

Price Analysis

OVERVIEW

Price analysis is the preferred method for determining whether prices paid for commercial items are fair and reasonable. When using price analysis, the focus is on evaluating a proposed price without evaluating its separate cost elements or profit. However, if a price cannot be determined to be fair and reasonable after exhausting price analysis techniques, contracting officers must use cost analysis to examine the separate cost elements. A combination of price analysis and cost analysis techniques may be needed, such as when you are examining the price reasonableness for a modified item. In such cases, you will generally use price analysis techniques for the base commercial item and cost analysis for any minor modifications that are not commercial. The key to success is to select the appropriate technique, or combination of techniques, needed to evaluate whether a proposed price is fair and reasonable.

RECENT CHANGES TO PRICE ANALYSIS REQUIREMENTS

DFARS 212.209, Determination of Price Reasonableness, sets forth a hierarchy of data to be used for pricing commercial items.

The first step is conducting market research to inform price reasonableness determinations. In the above section, market research and the order of preference were discussed, but it is important to consider market research through all stages of your evaluation.

The DFARS provides that, if price reasonableness cannot be determined through market research, a contracting officer shall consider information available to the Government or submitted by the offeror of recent purchase prices paid by the Government and commercial customers for the same or similar commercial items under comparable terms and conditions. This information can provide a basis for establishing price reasonableness on a subsequent purchase if the contracting officer is satisfied that the prices paid remain a valid comparison. In assessing whether the prices previously paid remain a valid reference for comparison, the contracting officer shall consider the totality of other relevant factors such as the time elapsed since the prior purchase and any differences in the quantities purchased.¹⁴

If after conducting market research and reviewing sales data provided by the offeror, the contracting officer cannot determine price reasonableness, DFARS 212.209(c) provides that the contracting officer should request that the offeror submit information on: (1) prices paid for the same or similar items sold under different terms and conditions; (2) prices paid for similar levels of work or effort on related products or services; (3) prices paid for alternative solutions or approaches; and (4) other relevant information that can serve as the basis for determining the reasonableness of price.



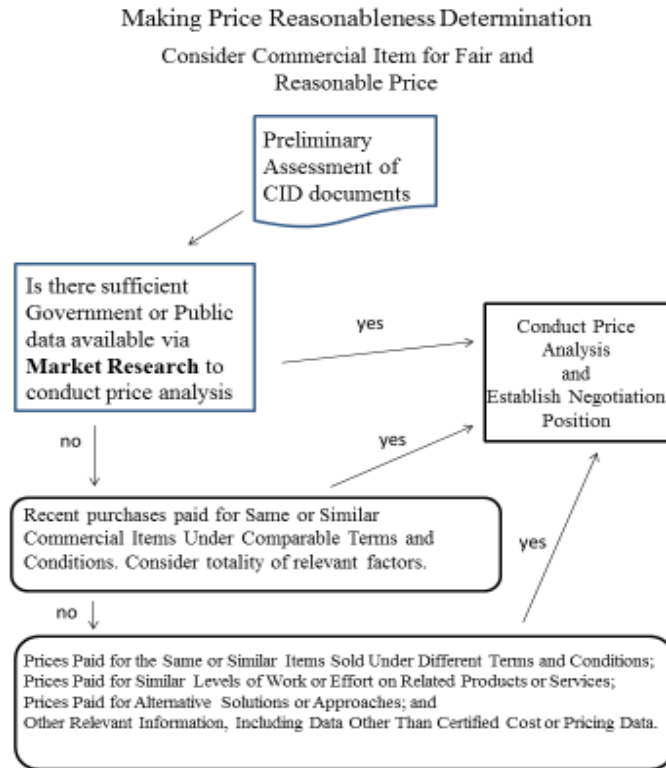
NOTE: The contracting officer may require the contractor to supply information to determine the reasonableness of price, regardless of whether or not the contractor was required to provide such information in connection with any earlier procurement.¹⁵ If the contracting officer determines that the pricing information submitted is not sufficient to determine the reasonableness of

¹⁴ 10 U.S.C. 2306a(b)

¹⁵ DFARS 212.209(d)

price, the contracting officer may request other relevant information regarding the basis for price or cost, including uncertified cost data such as labor costs, material costs, and other direct and indirect costs.¹⁶

Decision Chart



CONDUCTING PRICE ANALYSIS

Price Analysis Process

Before we address and expand on the different techniques and factors to consider when conducting a pricing review, we need to understand the framework or general process for conducting the review. With consideration for case-by-case scenarios depending on organizational specific roles and responsibilities, the following steps serve as a general guide for conducting a price analysis:

¹⁶ DFARS 212.209(d)

Preliminary Assessment	<ul style="list-style-type: none"> • Understand the CID • Review relevant market research gathered during CID efforts • Reach out to technical specialists as appropriate
Market Research	<ul style="list-style-type: none"> • Follow FAR 15.402, Order of Preference and DFARS 212.209, Price Determination • Select appropriate prices for comparison • Identify factors that affect comparability
Conduct Price Analysis	<ul style="list-style-type: none"> • Determine impact from market research • Compare and adjust prices • Incorporate functional specialists as appropriate
Establish position and negotiate	<ul style="list-style-type: none"> • Establish negotiation position or range taking all inputs into consideration (value analysis) • Document market research efforts and functional specialist inputs

Keeping this process in mind when conducting your analysis will allow you to apply flexibility and employ critical thinking skills during your analysis. Remember, market research will aid you in conducting your price analysis and should be employed throughout all stages of your analysis. As you work through the process and employ the different techniques, keep in mind the concepts behind value analysis.

Price Analysis Techniques

Price analysis based on commercial market prices (current market quotes and sales prices) is the most effective method of establishing price reasonableness. Available commercial market quotes, sales prices, published catalogs, or market prices, etc., can often be obtained through market research and may provide a basis for determining if the proposed prices are fair and reasonable. Although not always possible, you should strive to obtain quotes and recent sales data for the same or similar items and quantities as that being procured. This will reduce the amount of adjustments necessary and will often help improve the accuracy of your analysis.

In addition to market research efforts, use price analysis techniques and price adjustments that take into consideration how contract terms and conditions impact the determination of fair and reasonable price. Terms and conditions, which should be considered throughout your commercial item review, are discussed next.

Terms and Conditions. When evaluating pricing data, the contracting officer shall consider materially differing terms and conditions, quantities, and market and economic factors. For similar items, the contracting officer shall consider material differences between the similar items and the items being procured. Material differences are those that could reasonably be expected to influence the contracting officer’s determination of price reasonableness.

When conducting market research, it is critical that contracting professionals pay particular attention to the terms and conditions under which items are offered and sold. Merely reviewing invoice prices may not be sufficient to support the determination of a fair and reasonable price. A major source of price variation may exist if the current terms and conditions differ significantly from those associated with

prices paid. The terms and conditions in a contract may be significant drivers of cost and require commensurate analysis.

In addition to the typical adjustments based on quantity, delivery schedule, and escalation/de-escalation, the Government team should first determine if differing terms and conditions (a) are necessary, (b) have value, and (c) the extent to which the Government is willing to pay for these capabilities. Consider asking the following types of questions:

- Are there any conditions in terms of the period of performance which would impact the pricing comparisons such as an expedited delivery schedule?
- Does the commercial environment employ different methods in terms of testing, standards, etc.?
- Does the Government benefit from warranty provisions?
- Do the terms and conditions shift additional risk to the Government?
- Are the terms and conditions prohibited under the FAR or other applicable law?
- Where is the place of performance and does a different geographical location need to be considered?
- What discounts or rebates are offered to customers based on status?
- Who pays shipping?
- What types of technology are employed?

The following section discusses the price analysis techniques listed in FAR 15.404-1(b)(2).

Comparison of Proposed Prices. The best, and preferred, price analysis technique involves the comparison of proposed prices received from multiple offerors in response to a competitive solicitation. Adequate price competition will normally establish price reasonableness, but the size of the market, number of offerors, and other factors can result in large differences in proposed prices and, otherwise, complicate your analysis.

Comparison of Proposed Prices with Prices Obtained through Market Research for the Same or Similar Items. The importance of market research cannot be overstated. Thorough market research will produce a substantial amount of information that can be used to analyze proposed prices. Market research may reveal the potential number of suppliers and buyers, demand for the product or service, availability of the product or service, and a host of other factors that influence price. Market research may lead you to price quotes from competitors and alternative sources in the commercial marketplace. Accordingly, it is important to be familiar with the market research techniques described in the section titled, [Market Research](#). The CPRG also contains a full chapter devoted to conducting market research for pricing (See Volume 1, Chapter 1 at <https://acc.dau.mil/cprg>).

Comparison to Published Price Lists, Market Prices, and Similar Data Sources. Part of your market research efforts may include obtaining published price list, market prices, and other data sources. This technique allows comparisons between offered prices and published price lists and other publicly available market data that have been validated and for which the prices are known to be fair and reasonable. The prices of commercial supplies and services can easily be compared to commercial item price lists that may be available from Government resources or other competitor listings. As with other price analysis techniques, the contracting officer must ensure any prices used in the analysis are comparable. Before relying on price lists, market prices, price indices, and other data sources, it is important to understand the terms and conditions for the items being used for comparison and to make adjustments, as necessary, to account for any differences. For example, there may be differences in warranty provisions, quantity discounts, rebate arrangements, and other factors that may influence the contracting officer's buying decision.

The contracting officer must ensure any online catalogs, hard copy price lists, or other data used in the analysis are up-to-date and are published by a reliable source such as the original equipment manufacturer, industry association, or other widely recognized organization.



NOTE: The fact that a price is included in a hard copy catalog or online price list does not automatically make it fair and reasonable. Market prices mean current prices that are established in the course of ordinary trade between buyers and sellers free to bargain and that can be substantiated through competition or from sources independent from the offeror.¹⁷ It is possible that an item listed in a supplier's catalog has never been actually sold at that price or has only been sold for Government end-use. You may need to confirm that catalog prices are consistent with relevant actual sales data (i.e., prices in commercial invoices, prices in commercial contracts, etc.). The contracting officer may need to request that the offeror support differences between the proposed prices, catalog prices, and relevant sales data.¹⁸ Refer to the section "comparison to historical prices" for information on relevant sales data.

In certain circumstances, listed prices (including GSA Schedules) may differ significantly from the actual final price paid by customers. For example, if a contractor consistently gives its customers a 10 percent discount beyond the list price in its catalogs, the catalog price is not the true price. In order to evaluate whether the price being offered to you is fair and reasonable, you will need to confirm that the Government qualifies for a discount consistent with the seller's standard business model, practices and offers to other commercial and Government customers.



NOTE: With regard to orders under GSA schedules, the Department has issued a Class Deviation 2014-O0011 to FAR 8.404. GSA has determined the prices of supplies and fixed-price services, and rates for services offered at hourly rates, to be fair and reasonable for the purpose of establishing the schedule contract. However, GSA's determination does not relieve the contracting officer from the responsibility of making a determination of fair and reasonable pricing for individual orders, Blanket Purchasing Agreements (BPAs), and orders under BPAs, using the proposal analysis techniques at FAR 15.404-1. The complexity and circumstances of each acquisition should determine the level of detail of the analysis required¹⁹. The amount of competition should be considered when determining the level of price analysis required. FAR 8.405-1(d) provides that proposed orders exceeding the Simplified Acquisition Threshold shall be placed on a competitive basis. Contracting officers are directed to solicit quotes from three offerors, in the case of orders that include a Statement of Work²⁰, or provide the Request for Quote to ensure prices of three offerors are received, in the case of orders that do not include a Statement of Work²¹. When prices are received from at least three offerors, the level of price analysis should be streamlined based on the level of competition and the initial GSA schedule market research.

¹⁷ DFARS 215.401

¹⁸ DFARS 215.404-1(b)(vi)

¹⁹ Deviation 2014-DO0011 re FAR 8.404(d)

²⁰ FAR 8.405-2(c)(2)(ii)

²¹ FAR 8.405-1(d)(3)(ii)

Practical Example No. 2 - Minor Modification with Market Research pricing

The practical examples are hypothetical and have been created for the purpose of illustrating how to apply the concepts discussed within the Guidebook in the context of price reasonableness.

- Objective:** Minor modifications require understanding of how sales data needs to be adjusted for the modification. When determining if the minor modification requires price adjustments to catalog or other publicly listed price, the contracting officer needs to understand the common practices and terms and conditions in the marketplace for the items being acquired. For example, understanding whether the modification is a commercial or Government modification will affect one's analysis. Furthermore, other factors such as quantity discounts need to be considered.
- Background:** The Government team is acquiring simplified surveillance systems at a quantity lot of 1,000. The CID market research revealed that the simplified surveillance systems is substantially similar to a version that is commercially available. The modification necessary to the surveillance system entailed welding a part to the box and use of stronger screws in another part. Otherwise, the items are identical. .
- Analysis:** The Government team leveraged the market research conducted for the CID. The Government team started with conducting pricing market research on the commercially available surveillance system and found there were multiple sources with published price catalogs. The catalogs had similar pricing ranges. The catalog prices were updated and many included quantity ranges and options for minor customization/options with minimal impact to prices. The Government team concluded that the modification did not require a significant change to the manufacturing line in order to weld the part and use heavy duty screws... With this information, the Government team determined there was adequate market pricing available to compare the proposed price for determining fair and reasonable pricing.
- Results:** Based on market research on the commercial equivalent there was sufficient market pricing to recommend fair and reasonable pricing on the government surveillance system. The modification was insignificant and posed no material impact to the offeror's manufacturing process. The Government team verified that the proposed price was in line with the marketplace. No material adjustment to the market price was needed for the minor modification, as the market research allowed for minor customization with no pricing impact. The market research also concluded that the proposed price took into consideration quantity discounts.
- Take-Away:**
- When pricing minor modifications, the contracting officer needs to determine if the modification imposes material changes to the offeror's production line or requires additional/less material that would justify an adjustment to the commercial market price.
 - When conducting market research, make sure to consider factors such as quantity discounts and common terms and conditions. For example, customization of the surveillance system was common and did not require material pricing adjustments.

- If the market place has COTS pricing and the modification requires price adjustments, sound market research to support the base price will allow the contracting officer to isolate the cost of the modification.

Comparisons with Historical Prices. Comparing proposed prices to historical prices is usually an effective price analysis technique, if the Government is buying the same, or similar, item and an adequate commercial market exists. Per FAR 15.404-1(b)(3), comparisons with historical prices are a preferred technique if information on the previous contract prices is sufficient for determining a proposed price is fair and reasonable.

Many factors need to be considered for a price comparison to render valid results. Comparing historical prices may require requesting sales information from the offeror. The contracting officer should request that the offeror provide recent purchase prices paid by the Government and commercial customers (to include the identification of known end users), if price reasonableness cannot be concluded through other market research efforts. The following actions should be considered for price comparisons to render valid results:

- Ensure the sales data are for the same, or similar, items being procured.
- Verify that the terms and conditions of the sales/offers are comparable. Although this is important in all acquisitions, it is particularly critical when dealing with commercial services that are either commercial support services or commercial services of a type due to the wide variation in terms and conditions.
- Verify the totality of relevant factors, such as the time elapsed since the prior purchase, and any differences in the quantities purchased.

If your review of the sales data provided, in terms of recent purchases paid with same, or similar items, does not allow you to conclude that the price is fair and reasonable, the DFARS provides that the contracting officer should request further sales data on:

- Prices paid for the same or similar items sold under different terms and conditions
- Prices paid for similar levels of work or effort on related products or services
- Prices paid for alternative solutions or approaches

Practical Example No. 3 – Acquiring a similar of a type sole source item by utilizing historical prices paid by the government

The practical examples are hypothetical and have been created for the purpose of illustrating how to apply the concepts discussed within the Guidebook in the context of price reasonableness.

Objective: Acquire a similar commercial of a type sole source item at a fair & reasonable price. The Government sought a 5-year Firm-Fixed-Price, Indefinite-Delivery Indefinite-Quantity (IDIQ) contract for stock replenishment of a Power Amplifier. The amplifier is used to interface with the Single Channel Ground and Airborne Radio System (SINCGARS), and is used to provide improved Nap-of-the-Earth (NOE) communications capability to helicopter pilots.

Background: To make a CID, the contracting officer conducted market research and identified a commercial equivalent amplifier to the required Government item. The contracting officer requested technical assistance from the local engineering office. Both

amplifiers had similar basic functions of amplifying radio frequencies on aviation platforms. The commercial variant amplified an extensive number of waveforms, while the government version was only required to amplify a narrow frequency band. The Government engineer stated that other than the frequencies at which they operate, the two amplifiers are virtually identical. Nevertheless, the increased capability of the commercial version should make it a more costly item, and invoices obtained by the contracting officer to establish the commerciality of the similar item support this assessment.

Analysis: The required item had an estimated annual demand of 250 units/year and had been previously purchased by the Government, but no commercial market exists for the exact item. The offeror proposed identical unit prices for all quantity ranges. Per FAR 15.404-1(a)(2), price analysis was used to verify that the price is fair and reasonable. Historical prices paid on a prior Government contract, adjusted for quantity and economic factors, were used to establish the Government's objective position for negotiations. The price for the similar item on a current GSA contract was considered in determining a maximum position. The offeror did not propose quantity price breaks; however, market research identified price discounts based on quantity variances. As such, the Government relied on price analysis of historical prices paid per FAR 15.404-1(b)(2)(ii), and comparison with prices on the same item during market research per FAR 15.404-1(b)(2)(vi) to determine the prices fair and reasonable.

Results: Negotiations produced agreement within the Government objective range for each year. The offeror agreed to some small quantity price breaks and less escalation in the out years.

Take-Away:

- Monetizing technical differences between similar items in a price based environment can be challenging; however utilizing multiple price analysis techniques and conducting market research can assist in developing an objective price range and negotiating reasonable prices.
- Quantity discounts can be accounted for in smaller purchasing lots as well as large lots sizes. Comparing historical purchases prices, with consideration for lot sizes, can assist the contracting officer to identify quantity discounts to apply to the acquisition.

The different types of sales data available should help the contracting officer to understand how critical terms and conditions and how they affect evaluating sales prices for comparison, and that one must consider the totality of relevant factors to determine if the sales history should be considered in the price reasonableness review.

Relevant Factors. The contracting officer should consider the totality of relevant factors when evaluating sales history.²² The following actions should be considered when evaluating the relevance of the information available:

²² DFARS 215.404-1(b)(v)

- Verify that the sales data reflect market prices. Market prices are the current prices that are established in the course of ordinary trade between buyers and sellers free to bargain and that can be substantiated through competition or from sources independent of the offerors. The seller may adjust prices multiple times for changes in supply/demand curves, or other economic changes. When non-Governmental buyers in a commercial marketplace account for a majority of sales by volume of a particular item, there is a strong likelihood the item is market priced. This factor includes verifying that commercial market sales are to the general public and not to federal, state, local, or foreign Governments and that the end use of the item is not for Governmental purposes.
- Review the age of data. Sales data may be too old to be relevant. “Too old” varies based on the type of product and industry (e.g., cell phone sales data could be outdated in less than 6 months). Consider the specific industry when determining if the data is relevant.
- Review pending sales. A pending sale may be relevant if, in the judgment of the contracting officer, it is probable at the anticipated price and the sale could materially influence the contracting officer’s determination of price reasonableness.
- Review volume, completeness, and nature of transaction data. This level of detail will aid in adjusting for any related discounts, refunds, rebates, offsets or other adjustments. These details may be shown in the contract for the specific sale of the item, or in a separate agreement, such as a separate Revenue Sharing Arrangement between the prime and a subcontractor/supplier.

Practical Example No. 4 – Obtaining Sufficient Data to Compare Proposed Price to Previous Prices Paid

The practical examples are hypothetical and have been created for the purpose of illustrating how to apply the concepts discussed within the Guidebook in the context of price reasonableness.

Objective:	Understand the importance of ensuring the Government obtains sufficient information to compare the proposed item to historical prices to arrive at a fair and reasonable price. Determining the price to be fair and reasonable through price analysis using comparison to the previous proposed price is the preferred and the most appropriate technique for this procurement.
Background:	A requirement exists for engine maintenance on four helicopters in storage. Market research indicates that only the Original Equipment Manufacturer (OEM) can perform the required maintenance on this specific type of engine. The contracting officer determined the engine and the associated service to be commercial based on market research and data provided by the contractor. The offeror provided the contracting officer with a price quote for the service and stated that the engine has been sold to various non-Government customers in the commercial marketplace and that the offeror provides customers with maintenance on those engines. The offeror provided the contracting officer with several redacted invoices showing that they provided engine maintenance service to non-Government customers.
Analysis:	FAR 15.404-1(b)(2)(ii)(A) states that for a price to be determined fair and reasonable based on a comparison to historical prices paid, the prior price must be a valid basis for comparison with similar terms and conditions. The contracting officer requested the offeror provide un-redacted invoices that indicated the date, labor hours, and price of the engine maintenance service. The offeror responded with invoices showing the date and total price of the service, but stated that the labor hours were proprietary and not necessary to support the price analysis of their commercial service. The Contracting officer explained that labor hour data is necessary to be able to compare the historical

services on the invoices to the current quoted service. Without this data, the Contracting officer would be unable to determine that the historical services are a valid comparison, and would have to request data other than certified cost or pricing data in order to analyze the quoted price. The contractor provided the requested data. The contracting officer analyzed the data by calculating historical prices by labor hour, adjusting prices for time, and comparing the adjusted historical hour prices to the proposed.

Results: The proposed price per hour was 2.14 percent lower than the average adjusted historical price. The contracting officer determined the proposed price fair and reasonable.

Take-Away: This hypothetical example illustrates the importance of obtaining sufficient information to compare previous prices to the proposed price to make a determination that the proposed price is fair and reasonable.

When reviewing historical prices for comparability, other considerations/factors can aid you in your review. These may include:

- Seeking the assistance of Government engineers or other functional specialists (your DCMA C/D/ACO or other cognizant ACO (e.g., Supervisor of Shipbuilding for Navy shipbuilding) can help you find the appropriate points of contact) to determine if there are significant differences between the item(s) being used for comparison and the item(s) being procured.
- Ensuring prices have been appropriately adjusted for inflation according to the appropriate Global Insights Producer Price Index and DOL indices.
- Gaining an understanding of the Government price analyses supporting the fair and reasonableness determinations for previous prices paid by reviewing information in CBAR. This may include consideration of contract payment and financing terms. Reviewing the price negotiation memorandum, price analysis report, and other supporting documents will allow you to verify that the appropriate price analysis techniques were used and validate the rationale used for determining the previous prices to be fair and reasonable.

Practical Example No. 5– Understanding Terms and Conditions

The practical examples are hypothetical and have been created for the purpose of illustrating how to apply the concepts discussed within the Guidebook in the context of price reasonableness.

Objective: Understand the importance of ensuring the Government analyzes the terms and conditions during market research and appropriately adjusts the negotiation position to arrive at a fair and reasonable price.

Background: For example, consider that the contracting officer is procuring engine sustainment services. The engine was acquired as a commercial of a type item available in the marketplace. Minor modifications to the engine for military use did not alter the function or essential physical characteristics of the engine. The Government team determined the service to be commercial because it was (a) in support of a commercial item and (b) was similar to services provided to the general public under terms and conditions similar to those offered to the Federal Government.

Analysis: Based on the CID research, the Government team knew that the service was similar (but not the same) thus the team needed to perform an analysis to determine the differences between the services provided to other customers and those to be provided

to the Government as well as an analysis of the differences in price. There were three provisions that affected pricing as it related to the terms and conditions and requirements of the services: quick engine change (QEC), line replaceable unit (LRU) maintenance, and degree of use (i.e., light or heavy).

QEC Analysis: The requirements specific to the full QEC engine included basic engine plus the electrical system and fuel/oil system. Under this procurement, the requirement included extended warranty past the normal warranty in the commercial marketplace. Additional terms and conditions included special provisions for inspections.

LRU Analysis: LRU is an essential support item which is removed and replaced at the field level to restore the end item to operational ready condition. In contrast to the commercial market, the Government requires that the LRU design is in accordance with Mil-Std-1553.

Degree of Use: The commercial marketplace use of the engines requires extensive warranty provisions based on the heavy duty degree of use. The current procurement will need to adjust for the light degree of use as compared to the typical commercial market.

Result: The Government team determined a base price normalized to current year dollars, added to the base price an adjustment for QEC and LRU maintenance, and applied a discount for differences in use between the military and commercial sector, to arrive at a fair and reasonable price.

Take-Away: This hypothetical example illustrates the importance of analyzing the terms and conditions during market research to first determine if an item is commercial; and second, to determine the impact of cost drivers to arrive at a fair and reasonable price.

Practical Example No. 6 - Verifying that sales data reflect market pricing

The practical examples are hypothetical and have been created for the purpose of illustrating how to apply the concepts discussed within the Guidebook in the context of price reasonableness.

Objective: When conducting your market research and obtaining comparable sales data, you need to consider the relevant factors above when determining if the sales data is a good basis for the price. There are times when pricing in the marketplace can fluctuate based on supply/demand or other economic changes, and this may result in additional review efforts to ensure your sales data reflects the appropriate price for the current market.

Background: For example, the government team is acquiring a synthetic polymer that was developed for use in military aircraft. In the near future, the item is intended for commercial use on structural rehabilitation projects such as bridges and over passes. The team has determined the item meets the definition of a commercial item but does not have enough information available to determine if the pricing is fair and reasonable.

Analysis: The Government team was not familiar with the background and use of the synthetic polymer and requested technical assistance to understand the compound. Assistance was requested from a technical specialist who opined that the projected engineering

and manufacturing processes are technically similar to carbon fibers. The Government team's market research also indicated that the design and testing costs, scrap rates, and retooling costs can be difficult to predict due to the use of materials that perform inconsistently. Based on the market research, the Government team contacted the offeror for information to support the proposed price. The offeror provided a range of historical prices paid by the United States Government, along with its proposed price.

Market research based on industry indices confirmed that the raw material cost fluctuates with the market conditions. The offeror also provided historical Government sales data to illustrate that pricing is volatile for the component. The Government team conducted trends over the material components to confirm that the pricing is volatile.

Results: Although relevant Government sales data exists, the volatility in the prices meant there was insufficient information to conclude that the price proposed to the Government is fair and reasonable. The team obtained the historical Government sales data from the offeror and determined a range of pricing to the contracting officer. Based on the volatility and the price range, the team encouraged the use of Economic Price Adjustment (EPA) provisions to the FP contract.²³

Take-Away:

- Market research may indicate that sales data is unreliable due to the volatility of material. Such volatility will warrant other considerations to protect the Government such as incorporating EPA provisions to the Fixed Price contract.
- When an item is entering the commercial market, price volatility may be expected based on supply/demand and/or product maturity. Understanding which phase of a product lifecycle the item is in can help in your pricing review. Be sure to consider all factors collectively when determining a fair and reasonable price.
- Developing and considering a range of pricing options based on historical buys and market research into current market conditions will help the contracting officer make an informed decision on the pricing strategy for negotiations.

Practical Example No. 7 – Of a type Commercial Pricing

The practical examples are hypothetical and have been created for the purpose of illustrating how to apply the concepts discussed within the Guidebook in the context of price reasonableness.

Objective: Commercial items classified as of a type require understanding of customized features and associated terms and conditions in order to price them adequately. Buying activities should consider the standard practices in the industry when imposing additional terms and conditions.

Background: To illustrate the objective, in this example, the Navy wished to acquire a fluid filter and conducted extensive discussions with the offeror to determine whether or not the filter is commercial and whether the price is fair and reasonable. The fluid filter is made of metal, is self-cleaning, and is customized to fit Navy applications. The Navy

²³ FAR 16.201(a)

required stringent terms and conditions to include: 100 percent inspection at piece part level, 100 percent Non-Destructive (ND) Testing, and 100 percent metallurgy certifications.

Commerciality Review: The offeror presented another filter for price comparison. The alternative unit had the same functionality and was made with DFARS-compliant stainless steel. Both units met pressure standards of 3000 pounds per square inch (PSI) and filtration standards to 5 microns. The comparable units were all half the length of the Navy's filter. During the commercial review, market research indicated most customers customize size to fit the application. With regard to the Navy's terms and conditions, market research indicated commercial production runs were verified by statistical sampling versus the 100 percent inspection and ND testing required by the Navy.

Pricing Analysis: Considering the market research conducted during the commerciality review, the filter is classified as of a type based on the following considerations: 1. Commercial filters in the same class exist, although the others were shorter; 2. The inspections and qualifications are the same, with the exception of the Navy's requirement for 100 percent testing versus the standard sampling technique used commercially; 3. The industry practice is to produce customized filters to fit the specific applications; and 4. Standard materials are used. The Government team recognized that the differences in the filter and inspection and testing requirements, industry practices, and terms and conditions all must be taken into consideration when comparing historical sales prices to the proposed prices.

A commercial unit of half the length was priced at \$10/unit. The offeror proposed \$300 per unit for the government filter and claimed the delta (\$252/unit) was based on the value of additional testing. The offeror provided prior sales data but would not provide cost data.

The Navy's market research indicated that other filters were made with the same PSI rating, materials, and micron filtration, but were shorter. All filters were customized by length and diameter; therefore, pricing consideration for customization was included in the historical sales data. The closest filter to the Navy's filter sold at \$30 per unit.

The Government team recommended conducting regression analysis on the sales data for the \$30 unit. Regression analysis was considered an acceptable technique based on the sales data received because it allowed the Government team to derive a baseline price from the \$30 unit since it did not account for specific terms and conditions and did not account for the additional length of the filter needed for the Navy's application. The Government team produced a recommended position of \$42/unit.

Results: The Government determined that the filter was commercial of a type and that 100 percent testing was not necessary. The Government team determined the extra cost associated with 100 percent testing was not in accordance with industry standards, and based on discussions with the requirements and program management team, was neither necessary, nor value-added. The Government team recommended a per unit price of \$48/unit. The Government team computed a recommended price per unit as follows: \$42/unit based on historical sales and regression models before the added requirements, \$5/unit for additional materials/labor for length, and \$1/unit for certification requirements.

Take Away:

- Market research can highlight key pricing distinctions based on differing requirements.
- It can be difficult to determine a fair and reasonable price for commercial of a type items given varying terms and conditions, etc., from market research and sales history.
- If the contracting officer cannot determine a fair and reasonable price through price analysis, he or she can utilize functional specialists to aid in discrete estimates, tools such as regression models, and other techniques to assist in the pricing recommendation.
- When customizing a government requirement, pay attention to standard practices in the industry. Ask key questions to ensure inspection and testing above and beyond the commercial marketplace is necessary.

When reviewing historical prices paid by the Government, it is important that reliance on the prior prices paid by the Government be done with a “trust but verify” mindset. According to DFARS PGI 215.403-3, before relying on a prior price paid by the Government, the contracting officer must verify and document that-

- (1) Sufficient analysis was performed to determine that the prior price was fair and reasonable. Sometimes, due to exigent situations, products or services are purchased even though an adequate price or cost analysis could not be performed. The problem is exacerbated when other contracting officers assume these prices were previously adequately analyzed and determined to be fair and reasonable; and
- (2) The prices previously paid were for quantities consistent with the current solicitation.

The DFARS PGI 215.403-3(4) also provides that “Not verifying that a previous analysis was valid and, inconsistencies in quantities, have been a recurring issue on sole source commercial items reported by oversight organizations. Sole source commercial items require extra attention to verify that previous prices paid on Government contracts were sufficiently analyzed and determined to be fair and reasonable. At a minimum, a contracting officer reviewing price history may need to discuss the basis of previous prices paid with the contracting organization that previously bought the item. These discussions should be documented in the contract file.”

Practical Example No. 8 - Sole Source Environment with Historical Buys

The practical examples are hypothetical and have been created for the purpose of illustrating how to apply the concepts discussed within the Guidebook in the context of price reasonableness.

Objective: The DoD acquires many sole source commercial items and in this context, it may be difficult to obtain relevant data from market research. In a FAR Part 15 prime contract with FAR Part 12 subcontracts, FAR 15.404-3 provides that the contracting officer is responsible for evaluating the reasonableness of the prime contract, including subcontracting costs. It may be necessary to ask the offeror, prime or subcontractor, for sales history to commercial customers when the contracting officer determines prior Government sales prices are insufficient for determining price reasonableness.

Background: To illustrate the objective, subcontractor proposed a quantity of 56 units at an FY 2018 unit price of \$75,000 and applied a 4 percent escalation to compute the per unit price for the out years. The subcontractor was a sole source provider and included a

screenshot of its catalog price in its proposal. The catalog price was \$200,000 per unit. The offeror, in support of its own fair and reasonable pricing review, provided a screenshot of its subcontractor's catalog price which showed a price of \$475,000 per unit. The catalog snapshots of the two divergent prices were from different subcontractor catalogs.

Analysis: Keeping the order of preference and the general process of conducting a price analysis in mind, the Government team conducted market research to identify any available market data that would allow for price comparisons. Based on the disparity of the catalog prices and the lack of competition and lack of available market data, the Government team asked the offeror to obtain information from its proposed subcontractor to support the proposed subcontract price of \$75,000. The subcontractor provided approximately ten invoices with a total of twelve units sold per invoice. The invoiced per unit price ranged from \$70,000 to \$100,000. The volatility in the subcontractor provided invoice prices indicated that the contract specialist may need to expand the sample to conduct a trend analysis of the pricing history. Via the offeror, the Government team obtained all history of the proposed subcontractor's sales to commercial customers for the specific part for the prior eighteen months. Coordinating with the offeror, the Government team worked with the subcontractor in understanding the invoiced terms and conditions and the associated quantity discounts. The average price of the relevant invoices that were similar to the current buy averaged \$50,000 per item. The relevant invoices were extracted based similar quantities and other terms and conditions. The Government team referenced the DoD's [Contract Business Analysis Repository](#) (CBAR) and reviewed post-negotiation memoranda (PNM) information related to the prior acquisitions' terms and conditions at the prime level.

Results: The Government team utilized the comparable sales history to compute a per unit average and applied a 2 percent escalation based on historical trends and industry forecasts. The Government team recommended a unit price of \$55,000 (recommended reduction of over 20 percent of the proposed price). The recommended average per unit price took into consideration historical purchase prices over a relevant period of time and normalized them for comparable quantity discounts and terms and conditions.

Take Away:

- Maintain a "trust but verify" mindset and request that the offeror/proposed subcontractor provide adequate data. In this situation, the subcontractor initially only provided data that was consistent with the proposed price, whereas there were other sales points below the proposed price.
- It is critical to understand what prices are actually being paid, not just what is provided in the catalog.
- Sole source situations may result in the need to contact the offerors to provide sales data that cannot be obtained through sources within the Government or from outside the offeror.
- You must understand the terms and conditions and quantity related discounts to ensure that the previously invoiced pricing is comparable to your acquisition.

Parametric Methods. Parametric estimating methods can be useful in establishing price reasonableness, but should be supported by other pricing techniques. When using parametric analysis, it is important to validate the parametric model or method to ensure accuracy and validity. This technique involves cost

estimating relationships (CER) and “rules of thumb” based on historical data. A CER is a technique used to estimate a particular cost or price by using an established relationship with an independent variable, for example, hours/drawing. The CER may be mathematically simple in nature (e.g., a simple ratio) or it may involve a complex equation. If needed, contracting officers should contact DCMA or their internal estimators/proposal evaluators (e.g., at the Naval Sea Systems Command’s Supervisors of Shipbuilding) to ensure a CER or other parametric model has been properly validated and calculated.

We use CERs in our everyday life. For example, home prices are often evaluated based on a price per square foot, and food items are often priced in terms of dollars per pound, gallon, or some other measure. When using CERs, the contracting officer must ask three questions:

- Has the CER been widely accepted in the marketplace (by both buyers and sellers)?
- Does the CER produce reasonable results? (The user has the burden of proving that the rough yardstick produces reasonable estimates to achieve the desired outcome.)
- How accurate is the CER? (The contracting officer should validate the CER using known product data and prices. Accuracy should be based on relevance (e.g., same, or similar, effort) and currency of data).

When evaluating a CER, there may be instances where contractors have different definitions or meanings for a CER or proposed factor. As mentioned, a CER has an established relationship with an independent variable. If you find that a proposed “CER” does not have a strong correlation, the CER may be a factor that is allocating cost similar to indirect rate functions. In this event, it is necessary to contact DCMA or other experts to review the factor.

Comparisons with Independent Government Cost Estimates (IGCE). IGCEs should not be used as the sole price analysis technique to evaluate whether a price is fair and reasonable. If valid, however, an IGCE can be an excellent way to validate the findings of the other price analysis techniques described above. To be a valid basis for comparison, the IGCE must address how the estimate was developed and include any assumptions relied on, a description of the tools used, and other information used to develop the estimate.

Detailed information on independent Government estimates can be found in the CPRG at <https://acc.dau.mil/cprg>.

Value Analysis. Value analysis, utilized in conjunction with price analysis, is a viable and important technique to establish price reasonableness of commercial products and services. It can be useful when used in combination with other price analysis techniques. Contracting officers as well as cost and price analysts need to work closely with program and requiring officials to understand what features/characteristics of a given product/service or offered terms and conditions warrant consideration as having legitimate value to the Government. For example, answering questions such as: What is a five year warranty worth? How do you value sustaining engineering that is included with the product? What portion of research and development costs is the vendor entitled to recover? Is the Government obtaining the same terms and conditions as other buyers? Why or why not? These are difficult questions which require critical thinking, collaboration, and judgment.

Per FAR 15.404-1(b) (4), value analysis can provide insight into the relative worth of a product and may be used in conjunction with the other price analysis techniques. Value analysis should not be used to justify the price difference between the proposed price and the price analysis; it should be used in conjunction with the Government’s price analysis. When considering the “value” of an item, consider that a fair and reasonable price is a price that a prudent businessperson would pay for an item under competitive market conditions, given a reasonable knowledge of the marketplace.

When you think value analysis, you may think about best value and how it applies in a source selection context. You also may think of how this applies in your everyday life, e.g. is it worth to me to pay \$500 extra to get heated leather seats in the vehicle I am purchasing?

In the case of a best value analysis for a competition, the Source Selection Authority (SSA) can make trade-offs between cost and performance. In fact, the SSA may reach a decision that it is worth paying extra in order to obtain additional performance over that of the competing offerors. Competition is the key in that context. In a source selection, when two or more offerors are bidding, competitive forces are at work and that is reflected in the offers that are submitted. The SSA can generally rely that the successful offer submitted was with competition in mind and is reflective of a fair price to the Government for the solution that is offered. The SSA may choose to pay a higher price in exchange for a higher level of performance. There is a level of subjectivity involved in arriving at that best value decision. Section M of the solicitation should establish how the Government will make its selection for award, which will provide the SSA with evaluation results to determine which proposals represent the best value.

In comparison, how does value analysis work in a sole source commercial item environment? Are competitive forces at work the same as in a competitive environment? The answer is not necessarily. In this environment, an offeror may propose “what the market will bear” and when competitive forces are not part of the equation, in some cases, the offeror may be testing the market to determine what the Government is “willing to pay”. In some cases, the offeror may propose prices aligned with their own profit objectives without market pressures influencing the proposed prices. Given the premise for a TINA exception for commercial items is that the commercial marketplace drives fair and reasonable prices, it is important for the Government to have a baseline from which to make a comparison as far as the commercial marketplace. Comparing against prices paid in the commercial marketplace should form the foundation of the price analysis.

What if the Government is unsuccessful obtaining a relevant commercial baseline from which to make comparisons? In that case, the Government may have to conduct a “value analysis”. When applied to price, value analysis is intended to establish the value of the product, how much it is worth to the user. More precisely, value analysis is a systemic and objective evaluation of the function of a product and its related costs (to the Government), whose purpose is to ensure optimum value. In the case of a sole source commercial item, this could involve assessing the cost to produce the item, e.g. a cost build-up and then adding the additional items that provide value. For example, a commercial item sold in the commercial marketplace has a price that should already include items like management support and non-custom warranty. However, if you are doing a cost build-up, you will have to consider these types of items (beyond the cost to product) when arriving at the final value to the Government. It would not be appropriate, however, to consider things like company profit objectives as that would not be relevant when evaluating any market price.

Another important aspect to the value analysis discussion is the subjectivity that can be part of the decision making process. However, it is important to note that in a sole source environment, the Government does not have the same options as present in a competitive environment. Therefore, caution must be exercised in making subjective value assessments in comparison to the commercial marketplace. For example, if a price analysis was conducted based on commercial sales data and the offered price was higher, it would not be prudent to add things like “brand name” value adjustments in order to justify the higher price over that of the commercial marketplace. An example where it would be appropriate for a subjective valuation would be in the context of quality differences. If the Government is purchasing a “high performing” item and a lesser performing item is sold in the commercial marketplace, it could be appropriate to assess the value of the higher performance and pay a premium over the prices of the lesser

performing items sold in the commercial marketplace. In that case, it would be appropriate to have a thought process behind the additional cost that the Government is willing to pay, e.g. after consultation with the technical team it is worth an additional 10 percent to obtain the higher level of performance.

Value analysis should foster an understanding of the Government's acquisition need and help align the requirements with the industry capabilities. For an effective acquisition, market research should provide information on the value of the item/service in comparison with possible substitutes in the industry. Consider the guidance in chapter 3 and chapter 6, volume I of the Contract Pricing Reference Guide (CPRG) when conducting value analysis:

1. Determine acquisition costs based on current proposal or other estimates.
2. Assure Government requirement documents reflect the minimum needs of the Government.
3. Identify alternative products or methods meeting the minimum needs of the Government. This is typically the key step in the analysis. The following are examples of questions you should consider:
 - a. *Can any part of the product be eliminated?*
 - b. *Can a standard part replace a special part?*
 - c. *Can a lower cost material or method be used?*
 - d. *Can paperwork requirements be reduced?*
 - e. *Can the product be packaged more economically?*
4. Estimate the costs associated with alternative products or methods that would meet the minimum needs of the Government.
5. Document the reasonableness of the current prices or recommend appropriate changes. Ensure that the process and results of the value analysis are clearly documented and include a copy of the documentation in the contract file. When you are satisfied that the value to be received supports the offered price, use the information obtained to support your determination of price reasonableness. When you are not satisfied, use the information to document efforts to bring the price in line with the perceived value.

In summary, knowledge of the product, its functions, and the use to which it is to be put is essential for sound contract pricing. When applied to price, value analysis is intended to establish the value of the product, how much it is worth to the user. More precisely, value analysis is a systematic and objective evaluation of the function of a product and its related costs, whose purpose is to ensure optimum value. Value analysis determines whether the product, as it is now constituted, is the best product in terms of value. Certain features might be modified or eliminated, or there may be alternative product or an alternative process to provide the required function at a lower cost.

Practical Example No. 9 – Value Analysis of Intellectual Property Rights

The practical examples are hypothetical and have been created for the purpose of illustrating how to apply the concepts discussed within the Guidebook in the context of price reasonableness.

Objective: Utilizing value analysis to support the purchase of intellectual property in a sole source commercial item IT procurement.

Background: The Center for Naval Analyses (CNA), a Federally Funded Research and Development Center (FFRDC), along with a Naval Aircraft Program Office has been working with an IT Corporation on the development of a novel approach to aircraft operational planning and inventory management. The results of this effort resulted in a prototype IT system called the Naval Air Toolset (NAT), which relies on the IT Corporation's proprietary software framework call the Airmade Application

Framework (AAF). In order to utilize the NAT, the Navy procured the AAF licensing from the IT Corporation. A request for proposal was provided to the IT Corporation requesting a license for the AAF.

Analysis: The IT Corporation provided their licensing agreement to the Navy for a price of \$2,000,000. The price analysis showed the AAF license available for sale on the IT Corporation's website in their 2017 commercial pricing catalog for \$2,050,000. The AAF license was also available on the General Service Agreement (GSA) website for \$2,000,000. However, upon review of the licensing agreement the Navy decided the license agreement "as is" did not provide enough value to the Navy to pay the proposed price. Instead of deciding the price was too high for the intellectual property, the Navy decided minor changes to the license agreement were needed in order to gain greater value to support the proposed price.

Results: The Navy broadened the applicability of this license for future use beyond the current Naval Aircraft Program Office's need to allow the Department of Navy (DON), which includes all of the Navy and Marine Corp, use of this license. This supported the intended future transfer of the NAT from the Naval Aircraft Program Office to the Executive of Ship Operations. The license change also included the addition of language to clarify and protect Government data rights, allow unlimited installation and access by DON authorized third party contractors and to permit further expansion of the NAT. Finally as the NAT would be utilized for years to come, the license was modified to state that the license will continue perpetually or until otherwise terminated by the DON. The modified licensing agreement provided the Navy with legitimate value to the proposed price.

Takeaway:

- While the price analysis alone supported the proposed price, the item was no longer "worth" the proposed price to the Government when combined with the value analysis.
- Don't assume intellectual property is too expensive. Think of what is important (what would provide greater value) and see if those important items can be included/modified within the intellectual property terms and conditions.
- The Navy received significant cost avoidance in the modified license agreement by opening the applicability of the license to the DON, so a new license wouldn't need to be procured when the Navy transfers the NAT within the Department, and removing the license expiration timeframe, which saves on the NAT sustainment cost.

Practical Example No. 10 – Value Analysis Mobile Chem Bio Sensor, Analysis and Notification Systems

The practical examples are hypothetical and have been created for the purpose of illustrating how to apply the concepts discussed within the Guidebook in the context of price reasonableness.

Objective: Use Value Analysis to identify features and factors to consider when establishing the Government objective when acquiring a sole source commercial item procurement.

Background: Mobile Chem-Bio Sensor, Analysis and Notification Systems is a commercial, privately held company that manufactures the gold standard for chemical and

biological detection, analysis, and notification. Research confirmed the quality and customer satisfaction with their products. Mobile-Chem Bio Sensors has developed an improved product that the Army wanted to procure. It was mounted on an electrical vehicle that contained a stable, hardened container to protect the sensor and analysis equipment. The vehicle could be self-driving, remotely controlled, or driven by a human. The new sensor could detect as few as three Nano particles per cubic meter for a list of over 200 microorganisms and over 400 elements or chemical compounds. An aerial version used a drone with sensors that fed the information back to a central command center. Both versions provided GPS coordinates, wind direction, and velocity. No other company had anything like this product, and the Army questioned if this had commercial applications.

The Army tried to procure it as a developmental product, but the owner of company refused. The company claimed they ran a commercial company and anticipated many commercial applications for the new product. The owner also stated that the company could not comply with CAS standards. When asked for catalog prices, the owner replied that a quote would be available upon request because “every situation is different.” When the Army received the quote for the price per unit, the acquisition team was taken aback. The Army sought the assistance of the DCMA CIG to determine a fair and reasonable price. DCMA assigned its most experienced and capable pricer as well as several industrial engineers to support the effort.

Commerciality Review: Upon receipt of the price quote, the DCMA CIG performed extensive market research in order to satisfy price comparisons of other available parts. The research confirmed what others had said. There were many commercial applications for Chem-Bio sensors, analysis, and notification systems (e.g., fracking operations, oil refineries, petrochemical plants, and other heavy industries all use some form of chemical sensor and notification). In addition, large agri-businesses use bio sensors to detect a multitude of biological micro-organisms that would create a liability or reduce profits through an epidemic among poultry or livestock. Market Research also confirmed that this particular company was used and the preferred provider. Interviews with commercial customers indicated how pleased they were with the quality and capability of the systems. DCMA CIG concluded that this system is a commercial product and that the offeror did not have an accounting system that would be CAS compliant.

Value Analysis: The DCMA CIG analyst realized that he would have to use Value Analysis to provide independent should cost analysis for the mobile Chem-Bio system. The DCMA CIG listed the major components and found pricing for a comparable vehicle. The team assessed a value for the modified cargo carrier for the sensors and analytic equipment. There were other sensors in the commercial market place, but they were designed for stationary sensing and had limited analysis. Clearly the analyst and his industrial engineers would have to use other methods to assess these additional features. DCMA’s group of industrial engineers worked to evaluate the new features and estimate a value and price range for each of the additional features.

Other term and conditions - DCMA conducted in person research. The company provided some unusual terms and conditions for all of its products. For example, it unconditionally guaranteed the sensor and analysis systems. The company automatically pushes out software updates to the applicable systems and provides quarterly calibration and maintenance checks by its own employees. If a system fails

to perform for any reason, the company sends out a team to repair it within 24 hours. The price analyst accounted for the value of these terms and conditions in recommending a price objective.

Results: The team concluded that the price quoted was fair and reasonable, but the team recommended a quantity discount.

Take Away:

- Value Analysis is based upon price analysis not cost analysis in determining the prices of component parts and features.
- Value analysis is effective with support from Government engineering experts to help the contracting officer and other members of the acquisition team understand the value of certain technical characteristics, features, and terms.
- Objective pricing positions are typically stated in price ranges vice one point price because the techniques entail a certain amount of subjective judgment.
- The success of Value Analysis frequently depends upon the cooperation of the commercial offerors bringing forward information to substantiate the value of a given characteristic or term.

Price Analysis Adjustments

Once you have conducted your market research and identified differences in content, terms and conditions, and other relevant factors that affect pricing in the marketplace, you may need to adjust the baseline price obtained through market research efforts to reflect your acquisition's terms and conditions, and relevant factors. These types of price analysis adjustments can be difficult. Depending on the type of commercial item, the contracting officer may need to reach out to the cadres of experts within the DCMA CIG to help adjust any market research pricing. Common types of adjustments include differences in quantity, escalation, financing terms, or complexity factors.

Making price analysis adjustments can be complex. Let's consider a relatively simple illustration to illustrate the concept of price adjustments. Consider the purchase of a home. First, a buyer may list all the important features desired in the home and then might research the homes sold recently in the desired area. Then the buyer may select a handful of homes with the desired features and compare them on a spreadsheet based on what factors are the most important- location, square footage, bedrooms, etc. Next, the buyer might adjust the price of the comparable homes by adding or subtracting value based on features. This allows a buyer to use recently sold homes to compare important information and develop a price range based on these factors. Making price adjustments to baseline pricing found in the market requires analysis of important terms and conditions, and factors, and comparing differences to the proposed acquisition.

Many times offerors will have pricing and market models that aid them in pricing their commercial items. These models may include valuable information; however, many times offerors will not release the pricing models or provide the data inputs used to generate the proposed prices. Nevertheless, you will need to understand the market when making the adjustments for pricing and the "value" placed on the commercial items.

Consider the following when making price adjustments:

Market or sales trends- Trend analysis is a common practice in most industries and helps identify patterns in sales in the marketplace. This method may be better to utilize when there are minimum adjustments for specific terms and conditions, and data points can be easily normalized since trends are analyzed in groups of data with similar terms and conditions, and factors.

Statistical Application- Statistical applications such as regression analysis may be useful to analyze the relationship between price and one or more independent variables. Regression analysis is most commonly used in forecasting or predicting how a set of conditions will impact an outcome (price). Data points such as historical sales will need to be normalized or weighted based on factors (independent variables) identified. When using historical pricing, ensure the market conditions moving forward resembles the historical conditions. If not, you will need to make additional adjustments for anticipated out-year changes.

Pricing or Market Models- Pricing or market models can be anything from trend analysis to macro driven models that populate based on specific terms and conditions. Having access to price or market models can significantly benefit accurate pricing adjustments. These models may contain sales data that can be evaluated or may include batch reports on specific items that would help with should cost evaluations.

There are advanced models, such as conjoint analysis models, that combine choices to be made and how they impact pricing. These models are used when there is sufficient data available to compare historical prices paid. These models can be created internal to an organization based on historical data or can be purchased through industry/market subscriptions. Advanced models consider how trade-offs such as terms and conditions impact price by tracking and analyzing data points by a product profile. Product profiles will include pricing as it relates to assigned attributes such as requirements and terms and conditions. When conducting your market research, you should have access to CBAR and sales prices. By identifying specific terms and conditions and other relevant factors, you may be able to develop your own model that demonstrates how different terms and conditions and relevant prices impacted sales history.

Practical Example No. 11–Price adjustment based on sales data

The practical examples are hypothetical and have been created for the purpose of illustrating how to apply the concepts discussed within the Guidebook in the context of price reasonableness.

Be able to adjust pricing based on specific terms and conditions, and other factors.

You are in a sole source acquisition and the offeror has proposed a price at \$625,000 per item with a lot size of 10,000. Included in the proposed price are terms and conditions, and other requirements for increased testing and extended warranty that differ from standard practices in the market.

During your market research efforts, you gained knowledge of recent sales to the Government (to other military services). You obtained the sales prices and documented corresponding attributes that may have impacted the sales prices from CBAR. There is no cost data associated with the attributes; therefore, you utilize descriptive annotations:

Market research sales identified

Item No.	Sales Price per unit	Age of data	Customer	Lot Size	Warranty	Packaging	Testing
1	\$ 450,000	60 days	Army	12,000	Standard	Increased	Standard
2	\$ 700,000	15 days	FMS	9,000	Standard	Standard	Standard
3	\$ 300,000	61 days	Air Force	6,000	Standard	Standard	Standard

Also, you contacted DCMA and they provide additional sales history with the corresponding attributes obtained on a prior review of sales item no. 3:

DCMA provided sales history

Item No.	Sales Price per unit	Age of data	Customer	Lot Size	Warranty	Packaging	Testing
4	\$ 300,000	125 days	Commercial	15,000	Extended	Standard	Standard
5	\$ 600,000	65 days	Air Force	10,000	Standard	Standard	Increased
6	\$ 580,000	103 days	Marine Corps	7,000	Extended	Standard	Increased
7	\$ 400,000	400 days	Army	10,000	Extended	Standard	Standard
8	\$ 300,000	750 days	Commercial	4,000	Extended	Standard	Standard
9	\$ 610,000	315 days	Air Force	9,500	Standard	Standard	Increased

Market research identified available catalog pricing that ranged from \$300,000 to \$650,000. The catalog pricing included a note that ranges may vary based on specific terms and conditions, and requirements.

You review the sales data for age to ensure all sales are current. You identified sales item no. 8 is not current based on the universe of sales data and remove it from your analysis. Based on the catalog pricing, you identify any sales data that falls outside of the published price. Item no. 2 sales price per unit sold for \$700,000. The customer was FMS; the acquisition conditions were not the same. You remove this sale from your analysis because other sales data more closely-related to your acquisition conditions is available.

Your market research efforts, with consideration for recent and relevant sales review, results in the following sales for comparison:

Recent and Relevant Sales History

Item No.	Sales Price per unit	Age of data	Customer	Lot Size	Warranty	Packaging	Testing
1	\$ 450,000	60 days	Army	12,000	Standard	Increased	Standard
3	\$ 300,000	61 days	Air Force	6,000	Standard	Standard	Standard
4	\$ 300,000	125 days	Commercial	15,000	Extended	Standard	Standard
5	\$ 600,000	65 days	Air Force	10,000	Standard	Standard	Increased
6	\$ 580,000	103 days	Marine Corps	7,000	Extended	Standard	Increased
7	\$ 400,000	400 days	Army	10,000	Extended	Standard	Standard
9	\$ 610,000	315 days	Air Force	9,500	Standard	Standard	Increased

For comparison, you review how the requirements and terms and conditions impact the sales price. Taking sales collectively, you calculate an average sales price and lot size. Average price per unit is \$462,857 with an average lot size of 9,929. The standard deviation of the sales data is approximately \$126,119. This indicates that price adjustments based on requirements and terms and conditions is necessary. Further analysis identifies the “lower per unit prices” have standard industry testing requirements. You also identify through a review of the sales data that extended warranty does not necessarily add to the price per unit. You calculate the following per unit prices based on the sales data:

Average Price/Unit	\$	462,857	(a)
Average Lot Size		9,929	(b)
Standard Deviation	\$	126,119	
Average Price/Unit with Increased Testing	\$	605,000	(d)
Difference in avg price	\$	(142,143)	(a-d)
Average Price/Unit with Increased Warranty	\$	350,000	(f)
Difference in avg price	\$	112,857	(a-f)

The average price/unit with increased testing only is \$605,000/unit. You isolate the price/unit with increased warranty and notice it does not necessarily increase the price/unit; therefore, the main drive for increased cost seems to be increased testing requirements.

You speak to the DCMA engineering team familiar with the manufacturing site. The DCMA engineers inform you that in order for additional testing to be completed, the offeror must stop the production line and isolate the batch order. Manual testing is conducted on the items in a side room. There are no Corrective Actions Reports on the offeror and reviews indicated limited warranty repairs are planned each year which provides additional insight into why the extended warranty cost did not seem to impact the sales price significantly.

Your team conducts Regression Analysis on the sales price and lot sizes to determine if there are any associated relationships between units sold and quantity discounts. The Regression Analysis resulted in an R-Square of 6.237 percent (perfect correlation would be 100 percent), with an estimated sales price at the proposed lot size of \$462,048. Based on the Regression Analysis, you determine lot size is not driving the price per unit but rather the price differences for the requirements and terms and conditions.

The contracting officer may request other relevant information regarding the basis for price or cost, including uncertified cost data in the event the pricing information is not sufficient to determine the reasonableness of the price. In the example, the differences in requirements and terms and conditions made it difficult to determine the cost impact of quantity discounts and associated warranty, testing, and packaging costs. If the contracting officer concluded that the sales data was sufficient to determine price reasonableness, a negotiation range could be established based on concessions for the requirement of increased testing:

	Minimum (1)	Objective (2)	Maximum (3)
Negotiation Range	\$ 350,000	\$ 580,000	\$ 605,000
Basis	Warranty Avg	Sale Item No. 6	Testing Avg

Note 1: The Minimum position is based on the average unit price with increased warranty cost. To consider this position, we would need to make a concession on our requirement for increased testing.

Note 2: The Objective position is based on sale item no. 6 historical buy. Market research indicates sales history for no. 6 is the closest buy to our requirements and terms and conditions.

Note 3: The Maximum position is based on the average price per unit with increased testing. No adjustment is made for warranty based on the sales history.

Take-Away:

- There are different pricing techniques for and approaches to analyzing historical sales data. Many times historical pricing data will need to be reviewed to determine how specific terms and conditions, and other factors impacted the prices paid.
- The contracting officer may request other relevant information to include uncertified cost data if necessary to determine price reasonableness.
- Regression analysis and simple averages are not always the best pricing techniques and there is rarely one right answer. Make sure to employ different techniques and analyze your data in different ways to ensure you don't overlook an important term, condition or other relevant factor price impact. Having multiple analyses that support your conclusion will help you in developing your negotiation position.

Prime and Subcontract Price Analysis

It is important to recognize there may be distinctive considerations when analyzing the prime offeror or the proposed subcontractor for fair and reasonable pricing. This section covers circumstance where there is a FAR Part 15, noncommercial, prime contract with a FAR Part 12, commercial, subcontract. In accordance with FAR 15.404-3(b), the prime contractor or subcontractor shall conduct appropriate cost or price analyses to establish the reasonableness of proposed subcontract prices.

Prime Contractor Analysis Considerations

Specific to your review of the prime offeror, consider the following:

- Focus efforts to drive competition at the prime level. Encourage competition to reduce our efforts in the pricing review by allowing adequate competition to drive our price to fair and reasonable. If your market research during the pricing review reveals there may be adequate price competition, communicate this to the appropriate acquisition team member.
- Continuously evaluate and understand your acquisition need, there may be available alternatives in the marketplace that could expand competition. If you discover suitable alternatives that drive additional competition during your pricing market research, you may not be able to impact the current solicitations; however, you may be able to impact future solicitations.
- When conducting market research, understand the market conditions and the common terms and conditions within the industry. Offerors have buyers that understand the market very well. Reach out to the DCMA CIG cadre of experts or other appropriate Government personnel to gain insight into the industry market conditions.
- Inquire with the Administrative Contracting Officer (ACO) and others within the contract administration office to understand how the offeror routinely conducts business. Understanding any advance agreements, routine obstacles/challenges, etc. may allow your team to interact with the offeror in a more efficient and productive manner.

Considerations Regarding Price Analysis of Subcontractors

In terms of analysis of subcontractor pricing, the contracting officer needs to ensure that the prime offeror has conducted a price analysis on its proposed subcontractor's prices²⁴. If the contracting officer concludes that the prime or higher tier subcontractor has not performed adequate price analysis, he or she will either have to ask the prospective prime contractor to do so or rely exclusively on Government analysis.

- Remember sole source at the prime level does not mean that we cannot have competition at the subcontract level. Encourage competition at every level! Ask yourself if the prime contractor is incentivized to compete subcontracted items, and if not, consider what steps you can take to establish that incentive.

²⁴ FAR 15.404-3

- The prime contractor should conduct an analysis of the subcontractor's price. There are instances when the subcontractor will not support a prime contractor's request to determine fair and reasonable pricing. For example, the subcontractor may not want to share sensitive pricing information with a prime contractor since the prime contractor may also be a competitor. In these situations, the Government team will need to conduct the analysis at the subcontractor level to determine if the subcontractor's proposed price is fair and reasonable. The prime contractor should include in their proposal language any limitations they had when evaluating the subcontractor's price for fair and reasonableness. The Government team should engage with the cognizant DCMA office as determined appropriate when requesting reviews of the subcontractor's price.
- Conducting an evaluation at the subcontract level, the Government might identify differences between the subcontractor's (or supplier's/vendor's) proposal versus the Government's recommended price. Many times prime contractors will be negotiating with their subcontractors during the Government pricing reviews. The Government should try to notify the prime contractor of any price differences between the proposed subcontractor price and Government recommended position, preferably before the prime contractor concludes negotiations with the subcontractor. It is important to understand what subcontractor information can be shared with the prime contractor. Typically, the subcontractor will provide a non-disclosure agreement on any restrictions imposed on what can and cannot be shared with the prime contractor.
- It is critical to understand the status of the prime and subcontractor's business systems. How business systems may impact your review should be discussed with the cognizant DCMA C/D/ACO, cost monitoring teams or the cognizant ACO. Discussions should address any specific issues or planned reviews that may impact your price analysis. If you find areas during your review that may impact a business system review or forward pricing monitoring, you should contact the cognizant DCMA D/ACO or the cognizant ACO if not DCMA.

Although an approved business system may provide some level of confidence, there may be instances where a business system has not been reviewed; or where it has been reviewed, but there is no mitigation for known risks or inadequacies. For example, the DCMA CPSR team reviews the purchasing systems. Within purchasing systems, there is a requirement associated with whether the prime contractor conducts adequate price or cost analysis on subcontractors. If a contractor's policy requires price analysis on subcontractor's prices in the commercial market, the DCMA CPSR team may not see discrepancies that exist between the policy and the application of the policy in each and every instance. A failure to exercise due diligence in this area can have substantial long term implications in future contracts. For example, there is danger if a prime contractor has not adequately performed a review of the subcontractor price for fair and reasonable because once the subcontractor price is incurred, the prime has established a market price which may be utilized as a price point in future acquisitions if historical prices paid is a technique utilized for determining a fair and reasonable price. Due diligence in price analysis may uncover a significant business system deficiency that was not discovered via the CPSR.



NOTE: While an approved purchasing and/or estimating system may provide some level of confidence, it is analogous to assuming all proposed prices and costs in a proposal are acceptable because there is an approved system. Reliance on a business system does not constitute automatic acceptance.²⁵

²⁵ FAR 15.404-3

Practical Example No. 12– Future contract work for large dollar buy

The practical examples are hypothetical and have been created for the purpose of illustrating how to apply the concepts discussed within the Guidebook in the context of price reasonableness.

Objective: It is important to keep a “trust but verify” mindset when requesting data from the offeror. The DCMA DACO team will be able to assist your team in this process. When reaching out to the team, you will gain valuable insight into the business systems and the data routinely monitored and collected in support of forward pricing efforts. Ensuring communication between Government teams will aid in exchange of information that may impact other areas of Government contracting.

Background: To illustrate the example, the Navy is acquiring a quantity of 4,000 high-durability tires. All 4,000 tires are the same make and model. The planned contract type is firm-fixed price (FFP). The contracting officer determined that the tires are commercial, as they include commercially available modifications to make the tires more durable in unpaved mountainous terrain. Market research indicates the make and model of the tires resulted in a sole source contracting environment.

Analysis: Market research produced general, but not relevant, sales data because the modification and specific tire’s make and model required additional support from the offeror. The contracting officer requested relevant sales data from the offeror. The contracting officer also requested the DCMA DACO assist in verifying the accuracy of the offeror’s response. The DACO’s Cost Monitor ran the query again, and ran similar queries to compare the sales data with that provided by the offeror’s ERP system. .

However, as part of the monitoring of the general and administrative (G&A) indirect rate and the contractor’s Estimating System, the Cost Monitor also tracked information on large dollar proposals not yet awarded. The Cost Monitor noticed that the offeror was also concurrently negotiating a sale to the Army of 40,000 of the same type of tire. The price offered to the Army included a quantity discount of 15 percent. The offeror anticipated there was a high probability of winning the contract with the Army, and this sale would account for 10 percent of the annual sales for the product line.

This information could be expected to influence the Navy contracting officer’s determination of price reasonableness. The Army contract is likely, and it could significantly alter the fair and reasonable price for tires offered to both the Army and the Navy. The Cost Monitor observed that that proposed sales to the Army was not included in the sales data provided to the contracting officer.

Results: The offeror’s response was incomplete and follow-up is required. The pending sale to the Army should have been disclosed within the relevant sales data, because it can be expected to influence the contracting officer’s determination of price reasonableness. The DACO therefore ensured that the Army contracting officer and the Navy contracting officer conferred with each another.

Take-Away:

- Encouraging the appropriate channels of communication will empower the two Services to work together and likely save taxpayer money.

- Effectively engaging the DCMA DACO teams will be invaluable for the flow of communication and forward pricing monitoring.
- Quantity discounts and supply/demand are viable factors that drive pricing.

Long Term Agreements (LTAs) between the Prime or Subcontractor and Lower Tier Suppliers:

An LTA is a long-term contract between a contractor and a supplier that the PCO may encounter when engaged in price analysis of a subcontractor. LTAs are becoming a common practice in the industry. Benefits of LTAs include price discounts such as quantity related discounts or rebates, supply chain management, and long range insight into future sales. The result is a mutually beneficial procurement process for the contractor and its supplier because the parties achieve predictable pricing and do not have to negotiate as frequently. Although LTAs can provide a variety of benefits, the Government review should ensure cost savings generated from LTAs are realized and passed on to the Government. If the contracting officer finds a lower prices in the competitive market place, or find that different customers received different discounts, it may trigger concern if the LTA benefits the Government. LTAs also may need to be reviewed to ensure that transactions are arms-length between the contractor and supplier and to determine whether a fair and reasonable price was established.

Questions to Consider:

- How long the LTA has been in place?
- When was the LTA competed? For example, if the LTA is for 2 years and was competed with multiple bids, there may be appropriate conditions to determine pricing is fair and reasonable. If the LTA was negotiated five years prior under different economic conditions and was not competed, it may signal further review is necessary to determine fair and reasonable pricing.



NOTE: As the benefits drive primes to enter into LTAs, we must remember to keep our mindset on competition. We do not want to encourage an LTA if it is likely to discourage competition and result in an artificially determined sole source provider in future acquisitions. We should encourage open competition with multiple sources.

When conducting analysis of price reasonableness under the LTA, the contracting officer should seek information from the contractor's records or from third-party sources. Revised agreements, recent/relevant purchase order history, and other third party catalog pricing may be available. There may be supplier sales data available to conduct additional analysis. The cognizant DCAA office could compare LTA prices with what is recorded under the supplier's accounts receivables on a sample basis. The contracting officer also could ask for a review of total supplier sales on an annual basis and total associated rebates to generate the effective price. This could then be compared to the LTA provisions and pricing.



NOTE: If contracting officer finds that the LTA pricing is not fair and reasonable, he or she should quantify the impact and incorporate that into the negotiation position. Remember, DCAA can aid in reviewing supporting documentation. It should be noted that prime contractors ultimately will pay based on the quantities of all units they purchase, not solely based on one acquisition quantity. Reviewing the terms of the LTA will allow the Government more insight into the pricing strategies of the LTA and how the Government may be recovering those savings.

Practical Example No. 13– Prime LTA with a major first tier supplier

The practical examples are hypothetical and have been created for the purpose of illustrating how to apply the concepts discussed within the Guidebook in the context of price reasonableness.

- Objective:** When evaluating an LTA, the contracting officer can request queries of ERP sales data queries in order to understand why any sales data varies among customers. This will aid in developing the Government’s negotiation strategy to derive the best benefits available from the LTAs.
- Background:** To illustrate this objective, this hypothetical case involves an indefinite delivery/indefinite quantity (IDIQ) contract for refurbishing airplane wings. The prime contractor purchases all wing flaps required for this type of wing under an LTA with one specific supplier, whether using them for original or after-market assembly.
- Analysis:** The Government team requested the sales data which provides all sales history for both Government and commercial customers for the type of wing. The sales data provided to the contracting officer showed that the contractor consistently charged the same flat fee for January through March to the Government, but charged a lower price to commercial customers. The contracting officer asked the reason for the price disparity, and was informed that a volume discount was obtained on the wing flaps under the LTA. The cost savings were passed along to the commercial customers, but the Government was locked in at the higher price under the IDIQ.
- Results:** When conducting your price analysis, ensure you are receiving all sales history along with the terms and conditions associated with the LTA. Understanding the agreement with the first-tier supplier and ensuring the Government is treated fairly. The price analysis should include adequate sales data and adjustments, where necessary, to make the Government pricing comparable with the sales data.
- Take-Away:**
- LTAs are not in the taxpayer’s best interest if they are not reasonably priced.
 - LTAs should provide benefits such as reduced cost, pricing volatility mitigation, supply chain benefits, effective outsourcing, etc. Ensure that you take these factors into consideration in your evaluation. If you find the item on the open market at a similar price, ask for comparable discounts or benefits in the LTA.
 - Periodically review LTAs and compare them to open market availability and pricing. We want to encourage competition and not create sole source providers.
 - When conducting price analysis, ensure you receive all sales history. There is not a requirement that a prime or subcontractor provide all sales history upfront. Therefore, they may only supply the sales history they decide is relevant to the price analysis.

Non-disclosure Agreements from Suppliers/Vendors

It is common for suppliers/vendors to have non-disclosure agreements with their prime contractors that restrict release of sales data/support documentation. It is common in some industries for customers to have non-disclosure agreements with the seller. This may impact your ability to obtain relevant sales data. During a review of supplier/vendor sales data, the supplier or the prime may redact invoices/sales data. Notwithstanding, it is important to identify whether the customer of the sale is a commercial customer

and who, ultimately, is the end user of the item. It is important to work with the prime contractor to understand what is available regarding historical sales data and incorporate functional specialists as appropriate when validating sales information. Depending on the concerns of your review, the prime may be able to work with the subcontractors to obtain alternative data to meet your review needs. Based on the sensitivity of prime and subcontractor relationships, you may need to work directly (or request the cognizant Government official to work directly) with the subcontractor to obtain the data you need to support a fair and reasonable price. This may include site visits to the subcontractor location and signing of non-disclosure agreements. Also, don't forget to consider how business systems impact your review scope. Many contractors expend significant time and resources to ensure approved system status.

Revenue Sharing Agreements between Prime Contractors and Subcontractor

Revenue Sharing Agreements may exist between a prime contractor and a subcontractor. Revenue Sharing Agreements can be viewed similarly to rebate programs. Essentially, a prime contractor may enter into a rebate program with a subcontractor for volume of sales, quantity discounts, etc. These types of agreements typically include an annual baseline of anticipated level of business of parts, or families of parts. They can also include provisions for increases for overall portfolio of business. The prime contractor and/or subcontractor will issue rebates for extra business above/beyond the projected baselines based on an established ratio/percentage. These transactions are difficult to identify because most contractors account for these rebates at the profit line, unlike specific material quantity discounts you might see on a Bill of Material or invoice. The Government focus is on ensuring the prices paid by the Government are consistent with market prices. When evaluating commercial prices we need to understand customary commercial pricing terms or other arrangements that may impact pricing. Conducting market research and focusing your efforts on evaluating the market place will assist you in this area. Be sure to ask if there are any rebate programs, strategic agreements etc. that may result in discounts to commercial pricing.

Interorganizational or Interdivisional Transfers

Companies promote business within their own organization and may establish profit sharing relationships with each other (e.g., subcontractor and prime are part of the same parent company). When conducting a commercial procurement, the commercial product or service from the interorganizational transfer to the prime is normally at price and therefore includes profit. This is different than non-commercial procurements in which interorganizational work is transferred at cost to the prime.



NOTE: The key is, in a commercial acquisition, to conduct price analysis to ensure that the interorganizational transfer is at price that is fair and reasonable given current market prices.

Price Analysis of Commercial Services

When conducting price analysis on a services acquisition, it is important to understand the terms and conditions associated with the acquisition. It is helpful to reference the definition under FAR Part 2 regarding what is a commercial service. This should lead you to understand the importance of how terms and conditions impact your pricing review. When drafting the requirements of a solicitation based on your program needs, terms and conditions include contract type, financing, warranty differences, etc. Furthermore, pricing considerations will need to be made based on your requirements. This would include frequency of management/quality oversight, testing requirements, frequency of inspections, timeliness of repairs, etc. These types of terms and conditions may vary significantly from common industry practices in the commercial marketplace. This is where the pricing challenges exist. For example Government contracts for services may contain terms and conditions not found in private sector contracts, such as avoidance of inherently governmental functions. In these situations, it is important to incorporate functional specialists such as the DCMA CIG or other cognizant specialists on how you adjust for these types of impacts.

Practical Example No. 14—Acquisition of Commercial Services

The practical examples are hypothetical and have been created for the purpose of illustrating how to apply the concepts discussed within the Guidebook in the context of price reasonableness.

Objective: Understand the importance of ensuring the Federal Government receives similar terms and conditions offered to the general public for such services, when appropriate.

Background: The United States Air Force (USAF) solicited bids for Maintenance, Repair and Overhaul (MR&O) services for a fleet of 30 aircraft. A USAF Procuring Contracting Officer (PCO) determined that the engines are commercial items with minor modifications per paragraph (3) (ii) of the commercial item definition at FAR 2.101. The USAF sought a commercial vendor to service the engines in the U.S.

ABC Aerospace, operated out of a commercial airport, was a small business that provides MR&O services for turbine engines to many commercial airlines. ABC Aerospace submitted a FAR 12 proposal asserting their MR&O services are commercial based on FAR 2.101. A summary of the bid is below.

ABC Aerospace submits the following FAR Part 12 proposal to provide MR&O services to the USAF fleet (30 aircraft). ABC Aerospace has over 20 years of experience providing MR&O services to multiple commercial airlines with commercial aircraft that also use a similar to engine, previously determined to be commercial. ABC Aerospace asserts these services are commercial based on FAR 2.101 and will provide the following standard MR&O services at \$60M per year except where noted:

- *All scheduled maintenance as outlined in the applicable maintenance manual (oil changes, hydraulic fluid changes, stationary seal replacement, shaft and turbine blade inspections where visible)*
- *Major overhaul every 1,000 hours to include complete disassembly and internal inspection of each engine and repairs where necessary (drum inspections, rotor inspections, disk inspections, diffuser and exhaust cleaning)*

- *All unscheduled maintenance and repairs (limited to \$250k per engine including labor due to the extreme operating environments required for military aircraft)*
- *All MR&O work completed by Federal Aviation Administration (FAA)-certified maintainers using FAA-approved parts*

Preliminary Analysis: Market research indicated that the standard major overhaul interval is every 500 hours and that unscheduled maintenance is customarily limited to \$1M per engine for MR&O services for similar commercial fleet sizes. The MR&O services provided to the commercial airlines were not offered in a fixed price per year format, rather a fixed price per engine overhaul. Commercially, there were also various price points per overhaul depending on the number of cycles (takeoff and landing) per engine; ranging from \$1M-\$3M per overhaul.

Preliminary Results: The engine was determined to be a commercial item but the terms and conditions offered in the ABC Aerospace proposal to the Government are not similar to those offered to the general public. In this case, the RFP issued by the buying command requested that ABC Aerospace propose in a manner that was inconsistent with commercial practices. In the proposal, ABC Aerospace extended the overhaul interval and limits unscheduled maintenance repairs to \$250k per engine because of the extreme military operating environment. In addition, the price proposed was based on a price per year of service opposed to price per engine/flying hour. In this case, these services are not customarily available in the same or similar manner in the commercial market; therefore, the service proposed was deemed to be not commercial.

Revised RFP: The buying command re-issued the RFP to include standard terms and conditions that would exist in the commercial market, and ABC Aerospace provided pricing per engine based on cycles. ABC Aerospace re-proposed using the standard market approach. ABC Aerospace proposed \$4M for “light” overhaul and \$5M per “heavy” overhaul. “Light” and “heavy” were dictated by the number of cycles on the engine. ABC Aerospace also increased the price limit proposed for unscheduled maintenance from \$250k to \$750k based on commerciality discussions with the buying command. ABC Aerospace and the buying command were not able to impact or change the intervals in which the engine was overhauled. When the military engine was developed and put through flight testing, and critical safety requirements were examined, it was expected to be overhauled every 500 hours. As a result, overhauling every 1000 hours would become a safety issue.

Revised Proposal: ABC Aerospace proposed using the commercial standards of dollars per engine cycle; they increased the unscheduled maintenance price to \$750k, which was much closer to the \$1M commercial market; however they still required engine overhaul to be twice as frequent as the commercial market. The operating environment of the military aircraft can be harsher than commercial airlines. ABC Aerospace referenced a study that was done during the engine development which compared the conditions of military engines to those of the commercial market and it showed that overhauls are required at a similar rate more frequently. The terms and conditions are not identical, but they were similar. Because the engine was considered commercial, the Government team started the analysis by looking at paragraph (5) of the commercial item definition. With the re-bid, the buying command confirmed that the repair services are of an item which is considered commercial per paragraph (3)(ii) of the commercial item definition, and the services are offered under similar terms and

conditions to those offered to the Government, thus meeting all criteria of paragraph (5) of the commercial item definition.

Analysis: The Government team compared the \$4-\$5M per engine to the market of \$1-\$3M per engine. The Government team compared the commercial price to the proposed price by pricing a baseline of the engine, and then adjust for any Government unique requirements. Below is a chart that is a combination of the proposal and market research:

	Commercial		Military	
	Light	Heavy	Light	Heavy
# of Cycles	0-300	301+	0-300	301+
# of hours before overhaul	1000	1000	500	500
Price per overhaul (\$M)	\$ 1 M	\$ 3 M	\$ 4 M	\$ 5 M

Devising a table allowed the Government team to see how much more expensive and more frequent the military overhauls are as compared to the commercial market. The Government is paying for overhauls more frequently than in the commercial market, and they cost more per overhaul. Based on the cited conditions above, which required the military overhauls to be every 500 hours; the Government team determined the condition of the military engine after 500 hours is comparable to a commercial engine after 1,000 hours. Given the fact that the 1,000 hour mark and the 500 hour mark is the respective overhaul times, the Government can assume that each engine in the “light” and “heavy” category respectively are in a similar condition to those in the commercial market when taken in for an overhaul. Because of this, the Government had no information suggesting that each overhaul should cost more than the commercial comparable. As a result, the Government agreed with the increased frequency of the military overhauls, given their harsh operating condition, but recommended paying the same price per engine overhaul as the market research yielded: \$1M for light and \$3M for heavy.

Take Away: The DOD mission required many services that are similar to those commercially available, but the military unique requirements may drive the need for additional services or more frequent services and testing that are not customarily available to the general public. The Government team needs to understand exactly what the terms and conditions are so the correct price analysis can be conducted.



NOTE: The importance of understanding the commercial item definition as it relates to service acquisitions is critical when evaluating for fair and reasonable pricing. See DOD Guidebook for Acquiring Commercial Items, [Part A](#), section Commercial Definition- subparagraph 5 and 6 for further illustrations.

Beyond Price Analysis

Price analysis, not cost analysis, is the primary method used to evaluate commercial pricing. However, some degree of cost analysis may be necessary when prices cannot be established using price analysis techniques alone.

The contracting officer is responsible for determining if the information provided by the offeror is sufficient to determine price reasonableness. This responsibility includes determining whether information on the prices at which the same or similar items have previously been sold is adequate for evaluating the reasonableness of price, and determining the extent of uncertified cost data that should be required in cases in which price information is not adequate. DFARS 212.209(d) provides that, if the contracting officer determines that the pricing information submitted is not sufficient to determine the reasonableness of price, the contracting officer may request other relevant information regarding the basis for price or cost.

Follow the FAR 15.402 and DFARS 212.209 order of preference and the hierarchy of data requests when determining whether cost analysis techniques are necessary. No cost data may be required in any case in which there are sufficient non-Government sales of the same or similar item to establish reasonableness of price. This will require the contracting officer to understand the commercial item definitions in detail and how they apply to your item ([Part A](#)). Understanding how terms and conditions and requirements affect the sales data provided by the contractor will play an important role in whether the contracting officer can determine price reasonableness based on market research and sales data alone. A situation requiring cost analysis may occur when acquiring a commercial item that includes minor modifications. Cost analysis may be required if the minor modifications are not of a type customarily available in the commercial marketplace. Also, in accordance with FAR 15.403-1(c)(3)(iii)(C), certified cost or pricing data and a cost analysis is required if the value of the modification(s) exceed the greater of the Truthful Cost or Pricing Data threshold or 5 percent of the total price of the contract at the time of the contract award. Price analysis techniques are generally conducted on base commercial items; however, cost analysis is generally needed for minor modifications that are not commercial.

There are several resources that can be utilized when conducting a cost analysis. These resources are discussed in the CPRG.

Remember, when obtaining uncertified cost data, the contracting officer shall require the offeror to provide the information in the form in which it is regularly maintained in the offeror's business operations. Cost analysis may lead you to conduct a "should cost" scenario. Utilizing market research tools such as public databases will aid you in identifying what items "should cost" by giving you access to cost data by component or task level. For example, some GSA schedules have labor rates for specific skill mix categories. Other online sources may list components or parts for sale. This information, along with what you may obtain from the contractor through requesting uncertified cost data will aid you developing what the item "should cost".

Practical Example No. 15 – Conducting analysis with Data Other than Certified Cost or Pricing Data available for commercial items

The practical examples are hypothetical and have been created for the purpose of illustrating how to apply the concepts discussed within the Guidebook in the context of price reasonableness.

Objective: FAR 15.403-3(c)(1) provides if the contracting officer cannot determine whether an offered price is fair and reasonable, even after obtaining additional data from sources other than the offeror, then the contracting officer shall require the offeror to submit data other than certified cost or pricing data.

Background: For example, to illustrate this objective, the Navy issued a sole-source firm-fixed price contract for a heavy duty engine to support an amphibious assault vehicle. The contracting officer determined the engine was commercial of a type that has been sold to the general public. The model did include modifications of a type not customarily available in the commercial marketplace made to meet Government requirements. The modifications made did not alter the nongovernmental function or essential physical characteristics. The base quantity of the engines are a total of 300 engines. The solicitation included that the offeror submit a firm fixed price proposal and submit information to include other than certified cost on pricing data to support the proposal. The offeror provided catalog prices, purchase orders, quotes for engines, and included a top level support on labor cost, overhead cost and a bill of material.

Analysis: The Government team reviewed the quotes provided by the offeror for the average price per engine. The Government team identified the quotes provided by the offeror included different delivery terms than the current requirement. The Government team requested the offeror provide recent quotes and include quotes with similar delivery terms as the current requirements. The Government team compared all quotes received and made an appropriate price adjustments based on the delivery terms. The Government team also identified that the proposed price was based on a quantity of 1, as compared to the Government quantity of 300 engines. The offeror asserted there is no economy of scale for the engine if production of the engine is less than 20 engines per month. The Government’s requested quantity resulted a proposed engine price based on a build schedule and purchasing practices consistent with “Just in Time” inventory.

The Government team conducted market research efforts to determine whether pricing discounts associated with differences in engine quantities would be useful. The Government team identified a research report that showed pricing advantages should exist in small quantity buys. The Government team shared the research efforts with the offeror and came to an agreement on pricing discounts based on smaller buys.

The Government team included price adjustments to account for inflation based on commercially available software such as Global Insight, which is a tool for economic and financial analysis, forecasting, and market intelligence.

Additionally, the Government identified added costs associated with support engineering efforts. The additional cost for the support engineering effort is not a commercial practice; however, it was proposed due to the requirements for full support per the Statement of Work. Cost and pricing analysis to produce a more comprehensive support requirement resulted in test that allowed the offeror to control mean miles between failures.

Results: Based on market research, price analysis and a review of data other than certified cost or pricing data, the Government team achieved a 16.7 percent reduction on the price of the engines. The price reductions were based on adjustments for smaller quantities, differences in delivery terms, escalation, and historical prices. Based on the technical

requirements and the available data, need for full support, the Government concluded the proposal addition for the support engineering efforts was fair and reasonable for the level of effort.

Take-Away: This example illustrates the importance of obtaining sufficient information to compare previous prices to the proposed price to make a determination that the proposed price is fair and reasonable.

Practical Example No. 16 – Conducting analysis on of a type items for nonrecurring costs

The practical examples are hypothetical and have been created for the purpose of illustrating how to apply the concepts discussed within the Guidebook in the context of price reasonableness.

Objective: Commercial items classified as of a type may need tailoring to meet our specific military-unique need or to integrate the item into a military platform or weapon system. This could require offerors to propose nonrecurring effort (e.g. development cost, engineering design cost, etc.) to perform this work. While it is not common to pay nonrecurring cost discretely (they are typically included in the unit price) on commercial items, there may be instances where it is justified. Contracting officers will need to determine when it is appropriate and how to determine a fair and reasonable price for the effort.

Background: For example, to illustrate this objective, an offeror proposed to supply a communication device for installation into a new military aircraft. In their proposal, the offeror asserted that the item was commercial of a type because the communication device was similar to other devices in that they supplied for commercial aircraft but with additional, military-specific capability. Additionally, the initial contracting officer for the acquisition determined that the communication device to be commercial of a type and, therefore, both the Air Force and Navy have been purchasing the communication device on FAR Part 12 contracts for the past several years. For this new Air Force aircraft, the offeror submitted a FAR 12 compliant proposal that included unit prices for the communication device, and proposed firm-fixed price nonrecurring effort as well.

Analysis: After reviewing the CID completed by the prior contracting officer, the PCO agreed that the item was properly identified as commercial of a type. In addition, the contracting officer reviewed the unit prices and found them to be fair and reasonable based on market research for commercial communication devices, the unit prices historically paid by both the Air Force and Navy for this specific communication device, and the rationale for the same prices previously paid. The contracting officer did not believe, however, that they should have to pay non-recurring expenses given this is an of a type commercial item and that those costs should be included in the unit price.

Results: The contracting officer requested the offeror provide additional support for their nonrecurring proposed price. After subsequent fact-finding sessions with the offeror, the contracting officer ascertained the nonrecurring expense was for the design effort to integrate the communication device into the new aircraft including creating software to ensure the communication device actually communicates appropriately with the

other avionics systems on the aircraft. The offeror provided a top-level breakout of the hours to perform the work and their firm-fixed price labor rates. The offeror asserted that while they typically include all cost in their recurring unit prices, when they modify, tailor or perform nonrecurring work to adapt the communication device for a specific customer, they charge them directly versus allocating within the unit prices. This ensures that only the customer that receives the benefit for the nonrecurring design work pays for it and they don't increase the unit prices for the other customers not receiving the benefit. After the technical team reviewed the hours and the contracting officer reviewed the labor rates, the contracting officer determined that the one-time, the nonrecurring costs were appropriately charged and fair and reasonable.

Take-Away: For most commercial items, you pay a unit price and have no to little insight into component costs for that item. For example, for a COTS item such as a cell-phone, you would not pay separately for the R&D or the design effort, you simply pay a unit price for the phone. Of a type items may need item tailoring to meet our mission needs. Who will receive the benefit for the nonrecurring effort? If other customers receive benefit, the cost should be allocated accordingly. In the above example, the Government is the only customer receiving the benefit and it would be appropriate that they pay all costs related to this nonrecurring effort.

Once you have established the cost are appropriately allocated to your effort, you will likely need to require the offeror to provide other than cost or pricing data to evaluate price reasonableness as sales data or market research may not be helpful. It would be appropriate to have a technical representative evaluate the hours; while the contracting officer would review the labor rates and any other data provided. Do not require the offeror to provide this data in any other format beyond what they maintain as part of their normal business operations.

Preparing for and conducting negotiations

OVERVIEW

Developing an effective bargaining position is important in any acquisition. Armed with the results of their market research and other information, contracting officers and contract specialists should be able and willing to negotiate to achieve fair and reasonable pricing.

Both the buyer and the seller have an equal right to engage in hard bargaining. At the same time, the ultimate success of the negotiation depends upon two-way cooperation and a desire by both parties to establish and maintain a mutually advantageous business relationship. Remember that contracting officer has a duty to pursue a fair and reasonable price for both the Government and the contractor. If a seller is unwilling to negotiate, this behavior should be elevated through the appropriate chain of command, documented in the business clearance/negotiation memorandum and considered in future source selections.

See http://www.acq.osd.mil/dpap/cpf/docs/contract_pricing_finance_guide/vol5_ch3.pdf.

DOCUMENTATION NEEDS

Pre-negotiation objectives need to be substantiated with sufficient detail regarding the pricing method used or the analyses performed to establish the negotiation objectives. Be specific and avoid general, boiler-plate statements. Price negotiation documentation should identify the applicable FAR 2.101 subparagraph and explain the results (outcome) of the negotiations in comparison to the stated pre-negotiation objectives. Adequate documentation will clearly specify how the negotiated amounts were determined to be fair and reasonable. For example, if the price analysis was based on a prior commercial item determination and pricing, your documentation should speak to significant differences between the terms of the last contract and those recommended for your acquisition. Specific to pricing, document how you adjusted for those differences in developing your negotiation position. In preparing for and developing your negotiation position, contracting officers should utilize CBAR as applicable. The CBAR eTool enables contracting offices to share contracting officer's negotiation experience with other contracting officers who will be negotiating with the same contractor. (www.dema.mil/WBT/CBAR/)

NEGOTIATION POSITION

Your negotiation position should be based on your evaluation. Your evaluation should result in understanding the market conditions, account for price adjustments based on differences in requirements, terms and conditions, quantities, etc. and should consider the "value" or price that a prudent businessperson would pay for the item.

Understanding the marketplace will enable you to effectively evaluate the factors that influence pricing in a particular market. Market leverage needs to be considered when preparing for and conducting negotiations. Buyers and sellers enter the marketplace with different amounts of leverage. Leverage is determined by a number of factors, in addition to the traditional forces of supply and demand that make buyers and sellers attractive business partners to one another. For example, buyers increase their leverage when they purchase larger quantities, take advantage of full lines of products and services offered, use flexible terms and conditions, minimize unique requirements or specifications, commit to long-term partnerships, use existing commercial distribution systems, and so forth. The more attractive the

Government can make itself as a buyer, the more likely it is that world-class sellers will enter into contracts with the Government, and the more likely it is that the parties will negotiate favorable terms and conditions and pricing.

By understanding the requirements, as well as the marketplace, the acquisition team is in a better position to match customer needs with marketplace capability. Every member of the acquisition team has a role in ensuring that the Government has maximum leverage in the marketplace. The successful acquisition team will work closely and use the collective wisdom and expertise of its various functional experts to achieve optimum results, instead of simply maximizing outcome according to the narrow perspective of a particular expert's functional area. The grouping and timing of requirements, the specifications and packaging, testing requirements, payment terms, and the like can all influence the Government's ability to get the best deal for the Government. Often, trade-offs among the various functional experts on the team are necessary.

The success of your negotiation will depend on how well prepared your team is going into the negotiation. It is critical that your team understands the acquisition need, documents why the item is commercial, conducts market research to better understand the relative requirements, terms and conditions, etc. and follows the documentation requirements in the Pre-Negotiation Memorandum and Post Negotiation Memorandum process. Detailed file documentation will enable your team to be prepared for negotiations and will enable subsequent contracting officers, contract specialists, and auditors to fully understand the circumstances surrounding the prices paid, should there be a need for future acquisitions of the same item. If the requirement is likely to recur, it is imperative that the acquisition team take any steps necessary to enhance the Government's market leverage and negotiating position prior to the next procurement.

Negotiation Range. You may wish to develop a negotiation range in terms of objective, minimum and maximum position. When establishing your negotiation range consider that price is not the only important issue in contract negotiation. In most contract negotiations, you will need to develop tradeoff positions for several key issues, such as the terms and conditions and other relevant factors (e.g., value analysis).

Objective. This is your best estimate of a fair and reasonable price based on your price/cost analysis. It is the price that you want to negotiate. When conducting your price analysis, you should keep documentation on any concessions (how aggressive/conservative) you might have been on price analysis adjustments throughout your review. This type of documentation will help you establish your range and understand areas where you might be able to negotiate adjustments based on your analysis data.

Maximum Position. In a win/win negotiation, your maximum price should be equivalent to the highest fair and reasonable price. Establish your maximum position based on a reasonable price for your anticipated worst case scenario.

Summary Highlights

This guide serves as a resource to facilitate your understanding of the techniques and considerations involved in pricing commercial items. The examples illustrated throughout the guide highlight the importance of understanding the commercial marketplace and how Government specific terms and conditions, and other relevant factors will impact your pricing review.

APPENDIX A: Market Research Resources

Please note the external sources listed in the guidebook are not endorsed by the Department.
The sources are provided as potential market research sources.

General Research Sites

- **Global Spec** – <http://www.globalspec.com>
(Search engine for commercial products and services, vendor catalogs and product specification)
- **SupplyView** – <http://www.supplyview.com>
(Search Engine for electronic components, electromechanical parts, commercial and military aviation parts and more. Queries can be accomplished by part number, NSN number, and description)
- **Superpages** – <http://www.superpages.com>
(Search engine for commercial products and services for any geographical area or the entire nation)
- **GovCon** – <http://www.govcon.com>
(Search engine for commercial products and services, and vendor catalogs)
- **MarketResearch.com** – <http://www.marketresearch.com>
(Market trends, product research, industry-specific reports, market intelligence)
***Requires Paid Account**
- **IHS** – <http://www.ih.com>
(Commercial trend analysis reports for several industry sectors)
***Requires Paid Account**

Federal Government Research Sites

- **ACQ Market Research** – http://www.acq.osd.mil/dpap/cpic/cp/market_research.html
(Online database for market research in procurements for services)
-
- **Federal Business Opportunities (FedBizOps)** – <http://www.fbo.gov>
(The largest data base for current Federal business opportunities, can be used to find other federal institutions buying similar items)
- **GSA Advantage** – <https://www.gsaadvantage.gov>
(Government search engine with millions of products and services arranged in common schedules)
- **GSA Global Supply** – <https://www.gsaglobalsupply.gsa.gov>
(Enables search by NSN - one-stop source for OCONUS military and agency support needs, from new tools and fire-fighting equipment to office supplies)
- **Interagency Contract Directory (ICD)** – <https://www.contractdirectory.gov>
(Central repository of Indefinite Delivery Vehicles (IDV) awarded by the Federal agencies where the IDV is available for use at both the intra agency and interagency levels. IDVs include Government-Wide Acquisition Contracts (GWAC), Multi-Agency Contracts, Other Indefinite Delivery Contracts (IDC),

Federal Supply Schedules (FSS), Basic Ordering Agreements (BOA), and Blanket Purchase Agreements (BPA).

- **AbilityOne Program** – <http://www.abilityone.gov>
(Products and services provided by people who are blind or have significant disabilities)
- **DOD Information Analysis Centers (IACs)** – <http://iac.dtic.mil>
(DODIAC collects, analyze, synthesizes, produce, and disseminate Scientific and Technical Information (STI))
- **North American Industry Classification System (NAICS)** – <http://www.census.gov/eos/www/naics>
(The North American Industry Classification System or NAICS is used by business and Government to classify business establishments according to type of economic activity process of production)
- **International Trade Administration** – <http://trade.gov>
(Research tool that contains data and analysis on specific industries)
- **Department of Commerce** – <http://www.commerce.gov>
(Research tool that contains data and analysis on specific industries, and economic indicators)

Department of Defense Resources

- **Defense Standardization Program (DSP)** – <http://www.dsp.dla.mil/Programs/Parts-Management>
(Database of standardized DOD parts that can be used on systems to leverage large quantity buys and reduce costs)
- **DoD Fed Mall** – <https://www.fedmall.mil>
(Search by NSN - an Internet-based Electronic Mall for military and other authorized Government customers to search and order items from Government and commercial sources.)
- **The Office of Cost Assessment and Program Evaluation (CAPE)** – www.cape.osd.mil
(Provides insightful analysis on resource allocation and cost estimation for Major Acquisition Programs)
- **IHS Haystack® Gold** – <https://www.ihs.com/products/haystack-gold.html>
(IHS Haystack Gold is a defense parts and logistics information system offering insight to help you maximize savings and efficiency while minimizing risk)

Industry Associations References

- **American National Standards Institute (ANSI)** – <http://www.ansi.org>
(Trade associations, Industry and Government professionals seeking common standards)
- **National Defense Industrial Association** – <http://www.ndia.org>
(Manufacturers of defense products and service providers for the U.S. and allies)

- **Telecommunications Industry Association (TIA)** – <http://www.tiaonline.org/>
(Communications and Information Technology industry)
- **Government-Industry Data Exchange Program (GIDEP)** – <http://www.gidep.org>
(Data bases for supplies/services of interest to Government and industry)
- **Society of Manufacturing Engineers** – <http://www.sme.org>
(Latest information on technology trends and new developments)
- **Society for Technical Communication** – <http://www.stc.org>
(Promotes standardized technical communication across all industries)
- **International Society for Logistics** – <http://www.sole.org>
(Logistics support providers in industry and Government)

Escalation Indices

- **IHS Global Insights** – <https://www.ihs.com/index.html>
(Database of escalation rates for services) *Requires Account
- **DOL BLS Consumer Price Index (CPI)** – <http://www.bls.gov/cpi>
(Provides monthly data on changes in the prices paid by urban consumers for a representative basket of goods and services)
- **Bureau of Labor Statistics Producer Price Index** – <https://www.bls.gov/>
(Database of escalation rates)

Wages for Commercial Services

- **DOL's Bureau of Labor Statistics (BLS) Employment Cost Index (ECI)** – <http://www.bls.gov/news.release/eci.toc.htm>
(Database of escalation rates for services.)
- **GSA CALC (Catalog Prices for Services)** – <https://calc.gsa.gov/>
(Contains prices for fully burdened labor rates for numerous labor categories.)
- **Wage Determinations On-line** – <http://www.wdol.gov/Index.aspx>
(Contains Service Contract Act (SCA) and Davis-Bacon Act (DBA) wage determinations)
- **Salary Determination** – <https://www.salary.com>
(Contains prices for fully burdened labor rates for numerous labor categories.)

Commodities

- **U.S. Energy Information Administration** – <http://www.eia.gov/>
(Current market prices for energy, fuels, metals, and radioactive materials.)
- **CNN Money** – <http://money.cnn.com/data/commodities/>

(Resource for finding company information and financial data and contain data on raw materials (I.e. Steel, Oil, Gold)

■ **Metal Price Index** – <http://metalprices.com>

(Resource for finding current metal prices.)

Commercial Aircraft and Aircraft Engines

■ **AVITAS BlueBook of Jet Aircraft Values** – <https://www.avitas.com/>

(Database of aircraft values and aircraft engine values.)

*Requires Account please contact DOD CAPE for reports.

■ **Controller** – <http://www.controller.com/>

(Sales listings of used aircraft, avionics, engines, and components. Also includes dry and wet leases on many airframes.)

■ **AeroTrader** – <https://www.aerotrader.com/>

(Sales listings of used aircraft, avionics, engines, and components. Also includes dry and wet leases on many airframes.)

■ **The International Bureau of Aviation (IBA)** – <http://www.ibagroup.com/>

(Database of used aircraft values and aircraft engine values.)

*Requires Account

■ **Morten Beyer & Agnew** – <https://www.mba.aero/>

(Database of used aircraft values and aircraft engine values.)

*Requires Account

■ **Aircraft Blue Book** – <http://www.aircraftbluebook.com/>

(Database of used aircraft values and aircraft engine values.)

*Requires Account

■ **Aircraft Value Analysis Company** – <http://www.aircraftvalues.com>

(Database of used aircraft values and aircraft engine values.)

*Requires Account

■ **The American Institute of Aeronautics and Astronautics** –

<https://www.aiaa.org/default.aspx>

(Database of aerospace journals but not specific suppliers or items. Useful to find out if a commercial aircraft or engine is available.)

■ **AFRL D'Azzo Research Library** – <http://www.wpafb.af.mil/afrl/wrslibrary>

(Database of aerospace research journals)

* Account only available for AFRL employees but is available for use in person at AFIT located at WPAFB.

■ **U.S. Securities and Exchange Commission EDGAR Database Company Filings** –

<https://www.sec.gov/edgar/searchedgar/companysearch.html>

(Database of annual and quarterly SEC financial reports filed by publicly traded companies, can be used for research into a company's business practices and current sales projections.)

Commercial Watercraft

- **Nautic Expo** – <http://www.nauticexpo.com/boat-manufacturer/military-boat-35627.html>
(Sales listings of boats, navigation, engines, and components.)
- **NADA Guides** – <http://www.nadaguides.com/Boats>
(Sales listings of boats, navigation, engines, and components.)

Commercial Parts (Aircraft, Vehicles, Boats)

- **Thomas Register** – <http://www.thomasnet.com/>
(Comprehensive online resource for products manufactured in North America)
- **ISO Parts Enables search by NSN** - <http://www.iso-parts.com/Default.aspx>
(Search by NSN for aviation spare parts and quotes)
- **WBParts** – <http://.wbparts.com/>
(Sells aircraft connectors, military connectors, connector receptacles, backshells, plugs, sockets, adapters, covers and clamps)
- **SOI Aviation- Obsolescent parts** – <http://www.soiaviation.com/>
(Database of obsolescent aircraft parts, suppliers, and requesting quotes.)
- **SAI Global** – <http://logicom.ili-info.com/>
(Comprehensive source of Government logistics and parts data)
*Requires Account
- **ElectroSpec** – <http://www.electrospec.com>
(Search Engine to find electronic parts and computer chips)
- **Electronic Products' Buyers' Guide** – <http://www.eem.com/>
(Resource for electronic component information, arranged by product type)

Test Equipment

- **Test Mart** – <http://www.testmart.com/>
(Search engine for commercial test equipment and accessories and includes detailed specifications and performance requirements on most products)
- **Laboratory Equipment** – <https://www.laboratory-equipment.com/>
(Sells commercial test equipment and accessories and includes detailed specifications and performance requirements on most products)

Note: These are resources only; all sources must be verified.

APPENDIX B: DCMA CIG Request Template



FOUO_CIG_Custom
er_Request Form
