FPIF Contracts and Point of Total Assumption

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FPIF Contracts and Point of Total Assumption

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Introduction

The fixed-price incentive firm target (FPIF) contract type is described in the Federal Acquisition Regulation (FAR) 16.403-1. This contract offers contractors a significant incentive to control costs through the use of a profit adjustment formula. However, the FPIF is one of the more complex contract types to negotiate and execute.

Throughout the course, the terms Buyer and Seller are used. In the context of Federal contracts, Buyer means the Government; and Seller means the contractor.

Let's break down why the FPIF contract is so named:

- *Fixed-price*: A ceiling price fixes the maximum rate that Buyer pays to Seller.
- *Incentive*: The contract has a profit adjustment formula, a.k.a. Share ratio that rewards Seller for undershooting target cost; and penalizes Seller for overshooting it.
- *Firm target*: Target cost and target profit are set at contract award.

Before proceeding, it is important for the reader to distinguish price vs. cost. In the context of FPIF contracts, the distinction can be easily made with this basic formula:

$$Price = Cost + Profit$$

Application

FPIF contract is appropriate when Buyer and Seller can negotiate at the outset a firm target cost, target profit, and profit adjustment formula that will provide a fair and reasonable incentive; and a ceiling that includes Seller to assume an appropriate share of the risk. When Seller assumes a considerable or significant percentage of the cost responsibility under the adjustment formula, the target profit should reflect this responsibility.

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The FPIF is generally appropriate for production efforts when there is a reasonable opportunity for Seller to gain efficiency savings as more units are produced, and Buyer is seeking to gain a share of those savings. Because of the direct & negative relationship between costs incurred and profits gained, FPIF may not be the best incentive in situations when Buyer desires to incentivize Seller to invest in pursuit of performance-enhancing capabilities.

Limitations

FPIF contracts may be used only when

1. Seller's accounting system is adequate for providing data to support the negotiation of final cost and incentive price revision; and
2. Proper value or pricing information for establishing reasonable firm targets are available at the time of initial contract negotiation.

Risk

According to FAR 16.101, contract types are grouped into two broad categories: fixed-price contracts and cost-reimbursement contracts. The specific contract types range from firm-fixed-price, in which Seller has full responsibility for the performance costs and resulting profit (or loss), to cost-plus-fixed-fee, in which Seller has minimal responsibility for the performance costs and the negotiated fee (profit) is fixed. In between are the various incentive contracts, in which Seller's responsibility for the performance costs and the profit or fee incentives offered are tailored to the uncertainties involved in contract performance.

Selecting a contract type involves balancing risk between Buyer and Seller. The International Cost Estimating and Analysis Association (ICEAA) assigns the relative risk of firm-fixed-price (FFP), fixed-price incentive (FPI), cost-plus-incentive-fee (CPIF), cost-plus-award-fee (CPAF), and cost-plus-fixed-fee (CPFF) as follows:

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From the figure above, FPIF contracts would carry somewhat more risk for Buyer than FFP contracts because the final price is unknown until the final cost and final profit are negotiated when the Seller completes the work. Cost under-run or overrun is shared between Buyer and Seller. Fortunately, Buyer's risk is substantially mitigated by the ceiling price, which sets a maximum limit on the final amount. Risk can also be reduced by adjusting the profit share formula, or share ratio, as we will see later.

The FPIF contract puts significantly more risk on Seller than a cost-reimbursement contract but much less than an FFP contract.

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FPIF Contract Elements

Essential elements of an FPIF contract are negotiated at the outset, before contract award:

- *Target cost*, (*TC*): the fundamental cost objective of the contract. It's the basis for determining target profit, target price, ceiling price, and cost sharing. Also, it sets the boundary between cost under-run or overrun:
  - **Under-run** is when the final cost comes in below target; $FC < TC$
  - **On target** is when final cost equals target; $FC = TC$
  - **Overrun** is when the final cost comes in the above target; $FC > TC$
- *Target profit* (*TF*): often some negotiated percent of target cost
- *Ceiling price* (*CP*): the maximum price that Buyer pays to Seller. Final price cannot exceed ceiling price, regardless of cost. Mathematically, $CP > TP > TC$.
- *Share ratio*: formally known as "profit adjustment formula;" also called a "share line. It's expressed as the ratio of percentages *BS*/*SS* with Buyer share (*BS*) first and Seller share (*SS*) second, and $BS + SS = 100\%$. Typically, $BS \geq SS$.

From the essential elements above, we can derive two more FPIF contract elements:

- *Target price* (*TP*): target cost plus target profit that Buyer pays to Seller; $= TC + TF$
- *Point of total assumption* (*PTA*): the value at which the Seller assumes any overruns, and where final price becomes the ceiling price; $PTA = TC + (CP - TP) / BS$

Share Ratio, *BS*/*SS*

As mentioned before, the share ratio is the reason why the FPIF contract is called an "incentive contract." It quantifies the share of risk between Buyer and Seller. Share ratio is synonymous with terms such as **profit adjustment formula** and **share line**. Typically, $BS \geq SS$.

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For example, a share ratio of 80/20 means that *BS* = 80% and *SS* = 20%. So, Buyer bears 80% of the risk and Seller 20%. Proportionally, for every $1 that final cost is *below* target cost, Seller's profit *increases* by 20¢. Seller has saved money and is rewarded with increased profit (though Buyer reaps most of the savings).

On the other hand, for every $1 that final cost *exceeds* target cost, Seller's profit *decreases* by 20¢. Seller has overspent and is penalized with diminished profit (though Buyer absorbs most of the overrun).

Negotiating separate share ratios for under-run and overrun scenarios is permissible. Before doing so, the Buyer's team must establish why different ratios are in its best interest, and formally document the decision. For example, an FPIF contract could stipulate an under-run share ratio of 80/20; and an overrun share ratio of 50/50. Converting the Seller share (*SS*) from 20% to 50% will more severely penalize the Seller for overruns. Separate share ratios will be demonstrated in Scenario 2.

Point of Total Assumption (PTA)

PTA is a cost milestone that is unique to FPIF contracts. *PTA* is a specific value of cost, not price. The formula for *PTA* is as follows:

$$PTA = TC + (CP - TP) / BS$$

Mathematically, *PTA* is always greater than target cost (*TC*) and therefore demarks an overrun. However, unlike other values of overrun, *PTA* is where two important changes take effect in the FPIF contract:

1. Final price becomes the ceiling price. For cost beyond *PTA*, the FPIF contract effectively becomes a firm-fixed-price price contract locked at ceiling price (*CP*).
2. Seller assumes cost overrun. For cost beyond *PTA*, the Seller share (*SS*) becomes 100%; and the share ratio becomes 0/100.

PTA doesn't mean that the Seller's final profit is zero. It's still possible for Seller to exceed *PTA* yet still make a profit, as we will see later in Scenarios 1 and 2. Nevertheless, *PTA* is critical for the Seller because every $1 above PTA deducts $1

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from the Seller's profit. The Buyer pays only the ceiling price (*CP*), regardless of the additional cost incurred by the Seller.

Beyond *CP*, Seller is still obligated to deliver per the contract. The FPIF is in the "fixed price" contract family, and therefore includes a "Default" clause (FAR 52.249-8 through -10). Under this clause, if Seller fails to deliver, even beyond *CP*, Seller faces the remedies of the Default clause, including termination for default.

Close-Out

When Seller completes performance, Buyer and Seller negotiate the *final cost* (*FC*), which is also known as *actual cost*. *Final price* (*FP*) is established by applying the share ratio to adjust *the final profit* (*FF*):

	FC ≤ PTA	***PTA***
Share ratio		*00*
		FC

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Both formulae show ighlights the advantage of FPIF c ller to control cost and preserve their pr

However, the rate of c 's PTA because the coefficient of *FC* chan

Now let's demonstrate of scenarios.

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