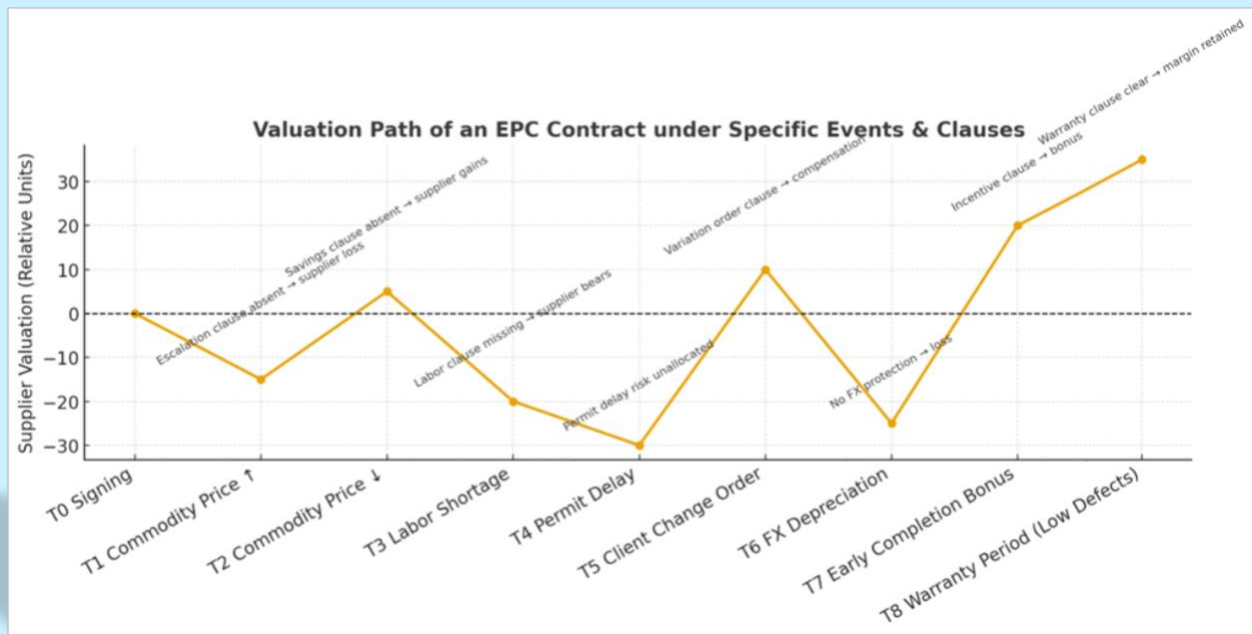


BEYOND THE CONTRACT PRICE: VALUATION PATH OF EPC DEALS

Difference between Contract Value vs. Contract Valuation

- Contract Value (Nominal): The agreed lump-sum or unit-rate amount (e.g., \$500M EPC contract).
- Contract Valuation (Economic Value): The perceived net benefit to each party at any point in time.
 - At signing: valuation is \approx zero (both sides think it's fair, given assumptions).
 - Over time: valuation moves positive or negative depending on actual events.

Here's an example of valuation path chart for an EPC supplier, showing how specific events and



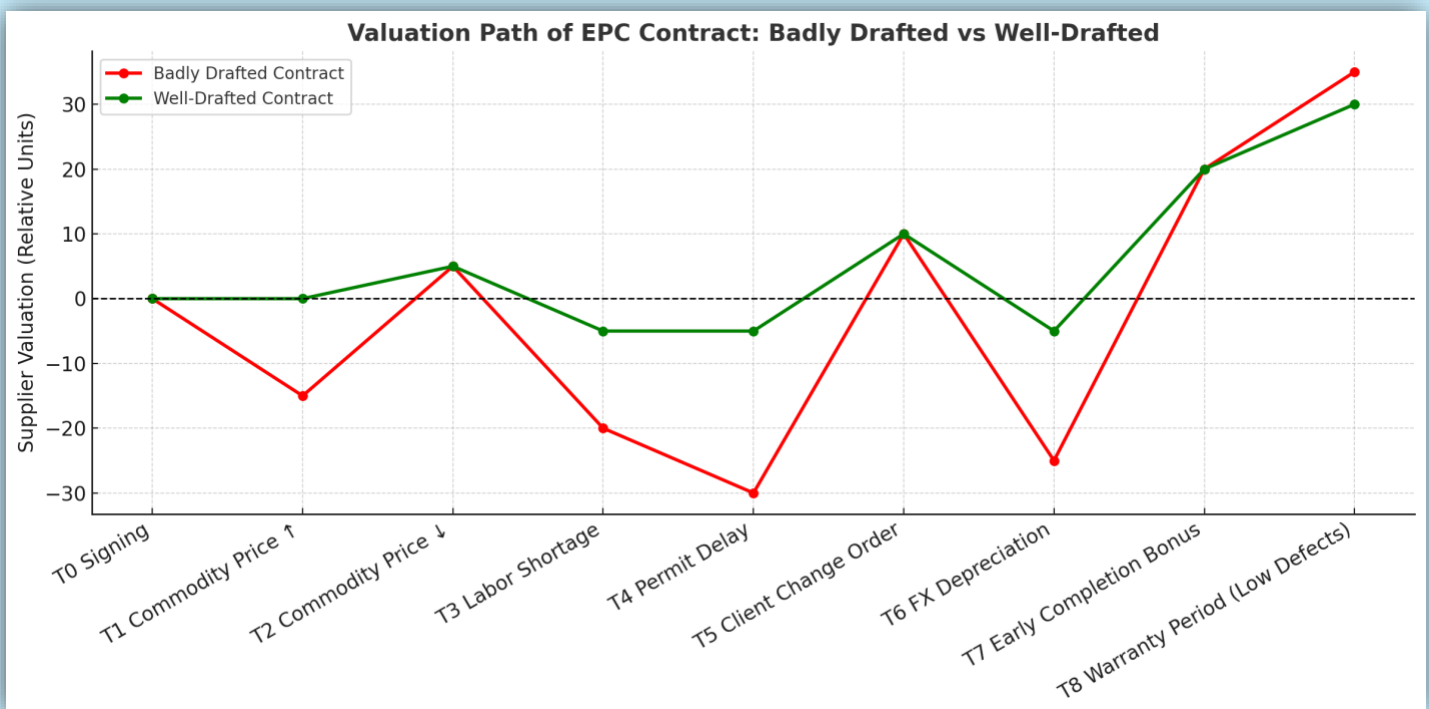
contract clauses shift the contract's economic value:

- T1: Commodity Price ↑ → negative (no escalation clause).
- T2: Commodity Price ↓ → positive (supplier keeps savings).

- T3: Labor Shortage → negative (no labor escalation protection).
- T4: Delay → negative (risk unallocated).
- T5: Client Change Order → positive (variation order clause gives compensation).
- T6: FX Depreciation → negative (no hedging clause).
- T7: Early Completion → positive (incentive clause).
- T8: Warranty Period (low defects) → positive (clear warranty allocation).

Valuation path for a badly drafted vs well drafted EPC contract

Following is a comparison diagram of valuation path for a badly drafted vs well drafted EPC contract (from EPC supplier's perspective)



- Red line (Badly Drafted Contract): Supplier's value swings wildly negative when risks aren't covered (commodity shocks, labor shortage, permits, FX).

- Green line (Well-Drafted Contract): Protective clauses (escalation, change in law, variation orders, hedging) smoothen the path, keeping valuation closer to neutral or positive.

However, one thing may be noted that the variation in contract valuation can be detrimental for either side. Initially negative valuation from supplier's side is turning opposite at the end when the variability and loose nature of contract is helping the supplier. The outcome becomes more unpredictable if risks are not covered in the contract. This applies both for suppliers and project proponent. Furthermore if risk are valued duly in nominal value (price at which contract is entered) of contract the protective clauses becomes less important .However risk of appropriate valuation in lieu of the clauses will still persist.

Major power sector companies do include many of the key risk clauses: Force Majeure, Variation / Change Orders, Payment Security/Performance Securities, Insurance in the contract document . These act as stabilizers in the valuation path.

However, some Gap areas are still found in many contracts such as:

1. FX risk: less explicitly addressed in many supply / erection contracts. Suppliers in many cases have to absorb import cost / currency swings unless negotiated.
2. Labor escalation: not consistently indexed; sometimes assumed in contingency, but large deviations can hurt margin.
3. Clarity in "Change in Law": whether retrospective laws, tax changes, local regulation changes are included.
4. Speed & clarity in issuing change orders / variation orders: delays in variation change approval can lead to cash flow and cost overruns. Even with clauses in

contract, implementation may lag or there may be disputes about whether a change is a variation or was in original scope.

EPC Risk–Clause Protection Matrix with Importance

Risk Event	Protective Clause	Impact on Valuation	Severity
Commodity Price Volatility	Price Escalation / Adjustment Clause	Neutralizes commodity shocks, prevents sharp losses	High
Regulatory / Tax Changes	Change in Law Clause	Transfers new law costs to client, avoids margin erosion	High
Scope / Design Changes	Variation Order / Change Order Mechanism	Ensures compensation for extra work, stabilizes returns	High
Force Majeure / Uncontrollable Events	Force Majeure Clause + LD Relief	Protects against extreme downside from delays	High
Payment Delays / Cashflow Stress	Payment Terms & Security (Advance, Milestones)	Secures cashflow, reduces financing stress	High
Labor Shortage / Wage Inflation	Labor Escalation / Productivity Sharing Clause	Shares burden of unexpected labor cost increase	Medium
Foreign Exchange Fluctuation	Currency Fluctuation / Hedging Clause	Prevents FX losses from wiping margin	Medium
Permit / Approval Delays	Client Responsibility & Site Access Clause	Avoids delays becoming supplier's loss	Medium
Performance & Warranty Obligations	Warranty & Performance Guarantee Clause	Limits long-tail liability, protects retained margin	Low

So The Five Clauses that Matter Most in EPC Contract Valuation are :

1. Price Escalation / Adjustment Clause
 - Why it matters: Protects against volatility in commodities (steel, cement, copper, fuel).
 - Without it: Supplier absorbs cost spikes → valuation plummets.
 - With it: Costs are passed through or shared → valuation stays stable.
2. Change in Law Clause
 - Why it matters: Shields supplier from unexpected regulatory/tax/policy changes.
 - Without it: New laws = supplier cost burden.
 - With it: Client compensates for law-driven costs/time impact → valuation unaffected.
3. Variation Order / Change Order Mechanism
 - Why it matters: Projects almost always see design/scope changes.
 - Without it: Supplier must execute extra work at same price → valuation negative.
 - With it: Supplier gets compensated for additional work → valuation neutral/positive.
4. Force Majeure & Delay Risk Allocation
 - Why it matters: Uncontrollable events (flood, pandemic, war) can stall projects.
 - Without it: Supplier bears idle costs, LDs for delay.
 - With it: Supplier gets time relief (sometimes cost relief) → valuation protected.
5. Payment Terms & Security (Advance, Milestone Billing, Bank Guarantees)
 - Why it matters: EPC projects are cash-intensive. Smooth payments = survival.
 - Without it: Client delays payments → supplier suffers cash crunch, financing costs.
 - With it: Balanced milestone payments, advance guarantees, escrow → valuation stable.

Insights

- *High severity risks (price, law, scope, force majeure, payment) are non-negotiable for EPC suppliers.*
- *Medium severity risks (labor, FX, permits) can be partly managed through subcontracting, hedging, and negotiation.*
- *Low severity risks (warranty) matter, but are usually insurable and less immediately damaging.*