Managing cost escalation risk

Costs on construction projects can easily escalate, especially in busy times. The best approach to treat the risk will differ from case to case.

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COST FLUCTUATION results when changes occur to the price of specific goods or services over a period of time. Cost escalation risk is simply the risk associated with upward cost fluctuation.

Many factors cause costs to escalate
It may be a result of inflation, market volatility, labour and skill shortages, construction congestion and demand. The Christchurch rebuild is a good example of these factors combining to dramatically increase cost escalation risk.

The risk of cost escalation is important because it can impact on the:
● profitability of contractors
● ability of owners to fund project completion
● affordability for consumers and end users.

Options for risk treatment
Having identified cost escalation as being a risk on a project, the project owner (the principal) needs to determine how to treat the risk.

Not proceeding
Eliminating the risk can only really be achieved by deciding not to proceed. In a highly inflationary market, a developer may decide the risk is too great when compared to the potential returns.

Redesign or material substitution
If a particular component of the works is subject to supply constraints or a higher inflationary risk, the risk may be at least partially eliminated through redesign or material substitution.

Procurement and supply
The risk may be managed by early engagement with the market or supply chain, for example, the early procurement of material.

The principal can supply the material as free issue, particularly if they have storage capacity, or novate supply agreements once the main contract is awarded. If there is a forecast supply shortage, this strategy may get a jump on the market.

Leveraging off long-term supplier arrangements, bulk purchasing and looking to new markets may also be options.
**Cost planning**
The principal can also manage the risk through the setting of the project budget and ensuring an appropriate amount of contingency.

**Share, transfer or retain**
Allocation of the risk is usually done via the construction contract as a consequence of the delivery method and compensation mechanism or a combination of both.

**Contractual risk allocation**
Recognised contractual risk allocation principles suggest, as a starting proposition, that sharing cost escalation risk is the most appropriate risk allocation.

The principal’s (or financier’s) drivers may override the starting position. For example, cost certainty may be the overriding driver. The principal may be prepared to pay a cost premium to achieve cost certainty, which means transferring the costs escalation risk to the contractor. This happens in a traditional lump sum contract.

Transfer of the risk requires a willing market. In an increasingly competitive market, contractors may not be prepared to take and price the risk. Tenderers could be discouraged or competition within tenders reduced. Currently on vertical construction projects, contractors are still prepared to take the risk, which in reality means they pass it to their subcontractors.

**Each case is different**
Other factors also need to be considered such as the project length. The contingency priced by a contractor on a project running over 12 months is likely to be much greater.

The appropriate risk treatment needs to be decided on a case-by-case basis. Poor treatment may increase costs. Contractors who are not making their margin may generate claims. In a worst case scenario, poor treatment may result in a contractor or subcontractor insolvency.

**Specific contractual devices**
The key purpose of cost fluctuation provisions is to transfer the effect of price changes during the term of the contract from the contractor to the principal. This ensures contractors are reimbursed for costs beyond their control and that allowance is made for unpredictable changes to the contractor’s tender.

A feature of the cost fluctuation provision in Standards New Zealand’s standard form is the reference and use of price indices. Under NZS 3910:2013 *Conditions of contract for building and civil engineering construction* the applicable indices are the:

- Producers Price Index; Inputs: Industry Group - Construction.
- Labour Cost Index; Private Sector: Industry Group - Construction: all salary and wage rates

While the indices in NZS 3910:2013 are industry specific, they are national indices so do not consider any regional variation.

For a project running over 18 months in a highly constrained market, the use of cost fluctuation provisions may present better value for money for the principal.

One-off market events will be normalised by national indices, so the principal will not generally take the risk of one-off events such as specific material shortages or regional variations.

The use of cost fluctuation provisions is a common feature in civil work contracts and long-term infrastructure projects. These contracts are usually measure and value or rates-based contracts, not lump sum arrangements.

**Procurement strategies**
Cost escalation risk can also be addressed and managed via different procurement strategies and compensation mechanisms.

Guaranteed maximum price arrangements result in a sharing of cost escalation risk but with a wrap that gives a measure of cost certainty for the principal. The residual risk is transferred to the contractor. The principal achieves cost certainty earlier, prior to full design maturity, but with a mechanism to achieve value for money by competitive pricing via the supply chain.

Managing contractor arrangements also result in a sharing of cost escalation risk. The risk sits with the principal initially but transfers to the contractor as each trade package is fixed. Cost certainty comes later for the principal as trade packages are fixed via the subcontract market. The principal gets better value for money and may get advantages via early contractor involvement. Long lead items can be let early.

Painshare/gainshare mechanisms result in some sharing of cost escalation risk but with a cap, depending on the provisions. Under a typical alliance compensation mechanism (cost reimbursement), only the contractor’s margin is generally at risk. That is, the risk really sits with the principal.

**No single solution**
There is no one solution to addressing cost escalation risk. Appreciating current market conditions, including local variations, is important for making effective decisions as to the appropriate treatment. The principal’s drivers and circumstances on each project must also be considered.

Some flexibility may be required as the supply chain becomes more and more constrained.

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**Note** This is an abridged version of a paper originally delivered at the CHH Building & Construction Conference 2014.