

## Practical Project Risk Management <sup>1</sup>

### Budgeting for Cost Risk: A brief guide <sup>2</sup>

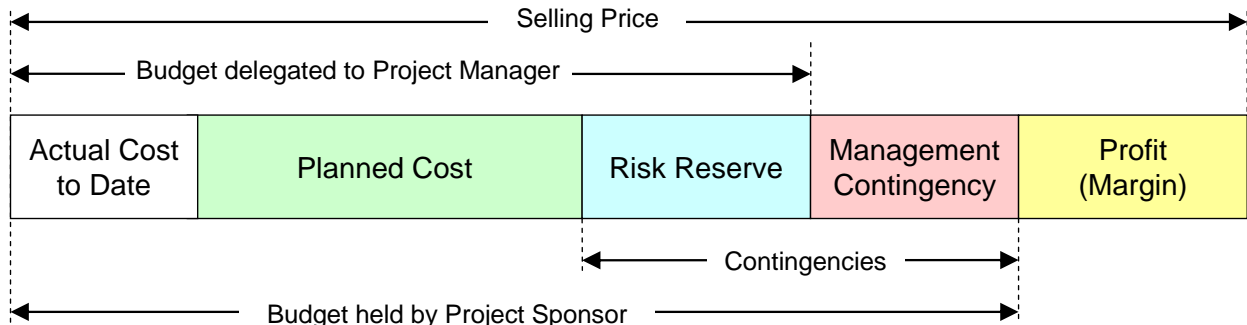
#### Purposes

1. Manage contingencies so as to reduce the risk of cost overrun or margin erosion.
2. Assign responsibilities for cost risk that are aligned with the project’s governance.

#### Typical approach

The figure below illustrates a typical approach to budgeting for project risk. Note that:

- Different terminologies may be used e.g. Risk budget instead of Risk Reserve.
- The Profit element is only relevant if the project is being delivered on a commercial basis. It would not usually be relevant to an internal or a government-owned project.
- The delegation of budgets may vary from that shown e.g. the sponsor may retain some of the Risk Reserve or Management Contingency may be pooled with other projects.



The **Planned Cost** is usually calculated deterministically from the project’s project plan and cost breakdown. Although, the Project Manager may delegate responsibility for elements of the planned cost to members of the project team, they retain overall accountability for actual costs relative to planned costs. As the project progresses, the Actual Cost will increase, whilst Planned Cost, Risk Reserve and Management Contingency should (normally) reduce.

<sup>1</sup> This series of articles is by Martin Hopkinson, author of the books “*The Project Risk Maturity Model*” and “*Net Present Value and Risk Modelling for Projects*” and contributing author for Association for Project Management (APM) guides such as *Directing Change* and *Sponsoring Change*. These articles are based on a set of short risk management guides previously available on his company website, now retired. See Martin’s author profile at the end of this article.

<sup>2</sup> How to cite this paper: Hopkinson, M. (2023). Budgeting for Cost Risk: A brief guide, Practical Project Risk Management series, *PM World Journal*, Vol. XII, Issue IX, September.

The **Risk Reserve** may be used or delegated by the project manager to fund new risk responses and/or absorb the effects of risk as they occur. Its value should be derived from risk analysis - see the *Cost Risk Analysis* guidance sheet (August 2023). It should be based on the implications of risks owed by the project and the tolerance of risk by the organization.

Some organizations use “post-mitigation” estimates to calculate Risk Reserve. See the *Pre and Post-mitigation Estimates* guidance sheet (Sep 2022) for information on the issues involved.

**Management Contingency** is a source of funding that can be released to the project by senior management (typically the Project Sponsor). The following factors may influence its value:

- Exposure of the project to unidentified risk, taking into account factors such as project size, duration, complexity, novelty and the influence of other stakeholder organizations.
- The significance of very low-probability / very high impact risk events of the type that would not usually be funded from the project’s Risk Reserve.
- Policy regarding the pooling of contingencies at the program or project portfolio level.

Note that the above factors are not usually covered in the project team’s risk register or analysis of risk. It is therefore irrational to extrapolate an estimate for Management Contingency from a project cost risk model.

## Sponsorship and Governance

The Association for Project Management (APM) recommends that every project has a project sponsor, who is accountable for the project business case and the availability of resources, oversees the project objectives and flows down associated decisions to the project manager.

A sound approach to estimating Risk Reserve and Management Contingency provides valuable assurance to project governance decisions including those made at key project approval points. Following project approval, differentiation between Risk Reserve and Management Contingency provides clarity about roles and responsibilities, while monitoring them provides information about the project’s continued health.

## Common Faults

1. Using simple rules of thumb to estimate risk e.g. Risk Reserve = 10% of project budget.
2. Failure to recognise that high risk projects may need disproportionately large contingencies, whilst low risk projects may need only a small Risk Reserve.
3. Unrealistically low levels of provisions for cost risk imposed by the project sponsor.
4. Omitting the potential for unidentified risk when provisioning Management Contingency.
5. The use of post mitigation risk estimates that are unrealistically optimistic.

## About the Author



**Martin Hopkinson**

United Kingdom



**Martin Hopkinson**, recently retired as the Director of Risk Management Capability Limited in the UK, and has 30 years' experience as a project manager and project risk management consultant. His experience has been gained across a wide variety of industries and engineering disciplines and includes multibillion-pound projects and programmes. He was the lead author on Tools and Techniques for the Association for Project Management's (APM) guide to risk management (*The PRAM Guide*) and led the group that produced the APM guide *Prioritising Project Risks*.

Martin's first book, *The Project Risk Maturity Model*, concerns the risk management process. His contributions to Association for Project Management (APM) guides such as *Directing Change* and *Sponsoring Change* reflect his belief in the importance of project governance and business case development.

In his second book *Net Present Value and Risk Modelling for Projects* he brought these subjects together by showing how NPV and risk modelling techniques can be used to optimise projects and support project approval decisions. ([To learn more about the book, click here.](#))