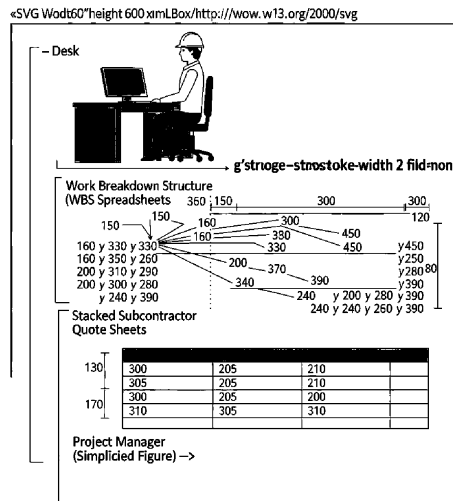


# Contingency Justification Memo -- Board or Investor Presentation

*Use when a project with Category B or C contingency must be approved by a board, investor, or senior partner who will ask why the contingency is higher than last quarter's average.*





## What This Is For

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A board member or investor looking at a project bid with 18% contingency will ask two questions: what are the specific risks, and why has the contractor not already mitigated them? The answer cannot be "we always add contingency for uncertainty." That is not a business explanation -- it is a description of a process. This worksheet produces a memo-quality justification: each risk named, its probability and cost impact quantified, mitigation assessed, and a total deterministic contingency basis calculated. The final figure in the memo is not a percentage chosen by feel but a sum derived from identified risk expected values.

This worksheet also disciplines the estimation process itself. Risks with a probability above 50% are not contingency events -- they are expected costs and must move to the direct cost estimate. Identifying that boundary before the board presentation prevents the embarrassment of defending a contingency reserve that actually contains costs the project is almost certain to incur.

## Benefits

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What you get when you actually run this worksheet on a real situation:

- Transforms contingency from a feel-based percentage into a defensible, risk-by-risk expected value calculation.
- Forces the identification of risks with probability above 50%, which belong in direct cost, not in contingency.
- Produces a memo structure that answers a board's or investor's specific questions before they ask them.
- Identifies which risks have available mitigations and what those mitigations cost -- the basis for deciding whether to mitigate or carry the risk.
- Creates the risk register required for PSAK 72 contingency documentation and Level 3 due diligence.

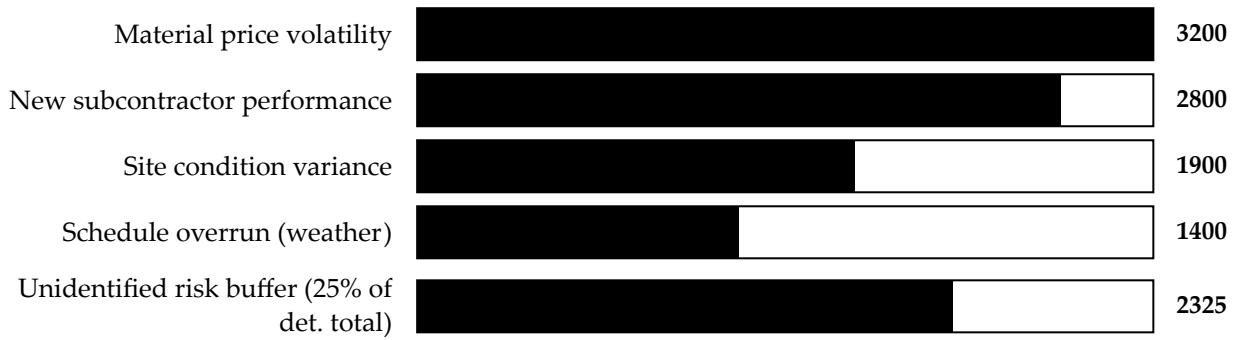
# Framework To Use

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## — Deterministic Risk Expected Value Build

*Each risk has a probability and a cost impact. Expected value = probability x impact. Sum the expected values. Add an unidentified-risk buffer. That total is the defensible contingency.*

Contingency Reserve Composition -- Category B Project Example



# How To Use

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Follow these steps in order. Each one builds on the previous.

- 1 List every specific risk identified for this project -- not a generic list from a manual, but risks tied to the actual conditions of this project: site not yet visited, subcontractor new to the business, imported material with exchange rate exposure.
- 2 For each risk, estimate the probability of occurrence as a percentage and the cost impact if it occurs in absolute dollars.
- 3 Calculate the expected value: Probability  $\times$  Cost Impact. This is the risk's contribution to the contingency reserve on a probabilistic basis.
- 4 Assess whether a mitigation is available and estimate the mitigation cost. If the mitigation costs less than the expected value it eliminates, the risk is worth mitigating.
- 5 Calculate Net Expected Value After Mitigation: Expected Value minus (Expected Value  $\times$  mitigation effectiveness %). For a mitigation that eliminates the risk entirely: Net EV = 0.
- 6 Sum all Net Expected Values. This is the deterministic contingency basis.
- 7 Add an unidentified-risk buffer: typically 20-30% of the deterministic total for Category C projects, 15-20% for Category B. Document the buffer amount and the reasoning.
- 8 For any risk with probability above 50%: move its cost impact from the contingency table to the direct cost estimate. Contingency is for events that may or may not occur.

## Example Use

*A contractor is presenting a Category B project bid to a senior partner who co-invests in the business. Project value: \$156,000. Direct cost: \$112,000. Contingency proposed: \$14,300 (12.8%). The partner asks why contingency is higher than last quarter's average of 8%.*

Five risks identified:

Risk 1 -- Material price increase (steel, 30% of materials): probability 40%, impact \$6,800. Expected value: \$2,720. Mitigation: purchase 80% of steel within 30 days of contract signing. Mitigation cost: \$400 inventory finance charge. Net EV: \$544.

Risk 2 -- New subcontractor for waterproofing package: probability 35%, impact \$9,200 (rework if workmanship fails). EV: \$3,220. Mitigation: require performance bond equal to subcontract value. Bond cost: \$180. Net EV: \$1,610 (bond covers material cost of rework but not labour).

Risk 3 -- Site condition variance (soil survey not yet complete): probability 25%, impact \$11,500. EV: \$2,875. No mitigation available. Net EV: \$2,875.

Risk 4 -- Schedule overrun due to rainy season (project spans November to January): probability 30%, impact \$4,800. EV: \$1,440. Mitigation: advance procurement and covered storage. Mitigation cost: \$320. Net EV: \$720.

Risk 5 -- Client drawing revision mid-project: probability 45%, impact \$5,600. EV: \$2,520. No mitigation applicable. Net EV: \$2,520.

Net EV total: \$8,269. Unidentified risk buffer at 20%: \$1,654. Total contingency: \$9,923 (8.9% of direct cost). The original 12.8% figure had been set by category feel. The deterministic calculation produces 8.9% -- still Category B range, but more precise. For Risk 3 (soil survey), the partner asks what happens if conditions are worse than assumed. The contractor points to the \$2,875 already reserved for that specific scenario.



## Reflection Prompts

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*After filling in the worksheet on the previous page, work through these.*

1. Sum the Net Expected Value After Mitigation column. This is the deterministic contingency basis. Add an unidentified-risk buffer: 15-20% of the deterministic total for Category B, 20-30% for Category C. Document the buffer amount and the reasoning in one sentence.
- 

2. For every risk with Probability above 50%: this risk is more likely to occur than not. It is an expected cost, not a contingency event. Move it from this table into the direct cost estimate.
- 

3. Final board memo line -- fill in your figures verbatim: 'Contingency of \$[total] represents [Y]% of direct cost. Category [A/B/C] per AACE 40R-08 methodology. Deterministic basis: \$[deterministic total] from [N] identified risks. Unidentified risk buffer: \$[buffer]. Total BAC: \$[BAC amount].'
-

# Tips and Traps

## TIPS

- Probability estimates should be grounded in historical data, not intuition. If the business has completed 20 projects with new subcontractors and 7 required rework, the base rate for new subcontractor rework risk is 35%, not 'moderate' or 'possible.'
- Cost impact estimates should use the same unit rates as the rest of the estimate. A rework impact quantified at \$9,200 should show: X hours of labour at \$Y per hour plus Z materials at current prices. A round number without a breakdown is not defensible under direct questioning.
- Present the mitigation-vs-carry decision explicitly. A risk with expected value \$3,220 and a mitigation costing \$180 that reduces EV to \$1,610 is a \$1,430 saving on a \$180 investment. That arithmetic makes the mitigation recommendation obvious.
- Run this worksheet before the contingency percentage is decided, not after. Many operators pick a contingency percentage first and then construct a justification around it. That reversal produces post-hoc rationalisation.

## TRAPS

- Listing vague risks like 'market conditions' or 'unexpected events' without a specific mechanism, probability, or impact figure. Boards ask: what specifically, how likely, how much? A vague entry produces a vague answer.
- Including the same risk in both the contingency table and as a correction factor in the unit cost estimate. Double-counting produces an inflated reserve that the board or auditor will identify.
- Omitting the unidentified-risk buffer entirely on the grounds that 'we have identified all the risks.' No estimator has ever identified all the risks. The buffer is not an admission of incompetence.
- Presenting this worksheet only to the board and not keeping it in the project file. If an auditor asks at project completion why \$9,923 was reserved, the answer is this worksheet.

# Appendixes

## Appendix A -- Contingency Category Quick Reference

Category A -- Low risk (5-8% of direct cost)

All of the following apply:

- Recurring project type, scope done before
- All materials from known suppliers, prices stable
- Site visited and field conditions verified
- No new subcontractors
- No imported materials with unhedged exchange rate exposure
- Project duration under 6 months

Category B -- Medium risk (10-15%)

One or two of the following apply:

- New materials not previously purchased
- One new subcontractor for a specific package
- Site not yet directly visited
- Components with fluctuating prices over project duration
- First time doing this scope at this scale

Category C -- High risk (18-25%)

Any of the following applies:

- New project type, never done before
- Scope still ambiguous or partially defined
- Site conditions cannot be verified before contract signing
- Fixed price for imported materials with unhedged exposure
- Project spans rainy season with no weather contingency
- Subcontractor track record unknown

## Appendix B -- Board Presentation One-Paragraph Template

Contingency of \$[total] represents [Y]% of direct cost on this project.

Risk category: [A / B / C] per AACE 40R-08 methodology.

Deterministic basis: \$[deterministic total], derived from [N] identified risks with quantified probability and impact. The three largest risk contributors are [Risk 1 name] (\$[EV1]), [Risk 2 name] (\$[EV2]), and [Risk 3 name] (\$[EV3]).

Mitigations committed: [brief list of actions taken].

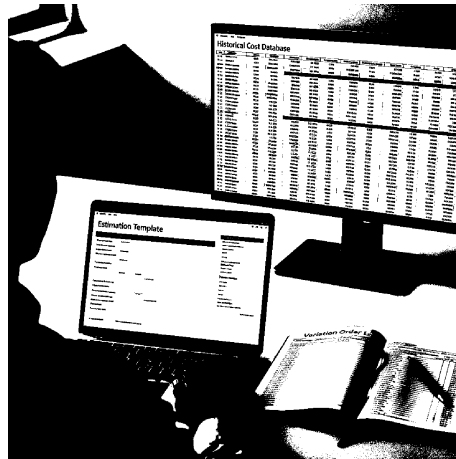
Mitigation cost: \$[total mitigation cost].

Net deterministic contingency after mitigations: \$[net EV].

Additional buffer for unidentified risks: \$[buffer] ([%] of net deterministic basis).

Total contingency reserve: \$[total]. Total BAC: \$[BAC].

Contingency is managed by the project manager. Any draw against it is documented by risk event and date.



WHERE THIS WORKSHEET COMES FROM

## Project Cost Estimation

*Calculate the Cost Before Signing, Not After the Work Has Started*

by Ibrahim Anwar

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This worksheet is one of nine in the *Project Cost Estimation* companion worksheet pack. The full pack is grouped into three categories: high-volume worksheets you can run weekly, niche-search worksheets for rare but high-value situations, and specific-case worksheets that walk you through a single concrete scenario.

Every framework, decision filter, and figure used in these worksheets is drawn from the chapters of the source book. The book sets the diagnosis, the worksheets give you the form to act on it.

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Read the source book on Google Play Books:

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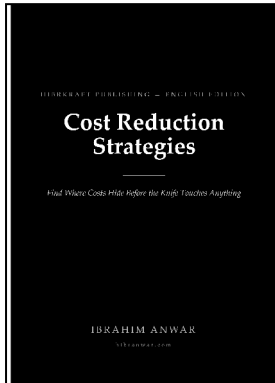
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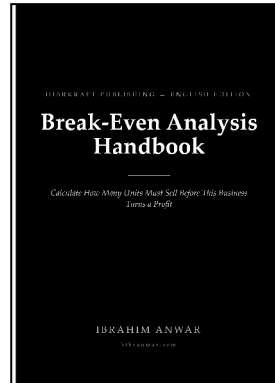


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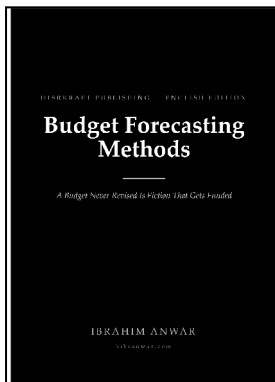


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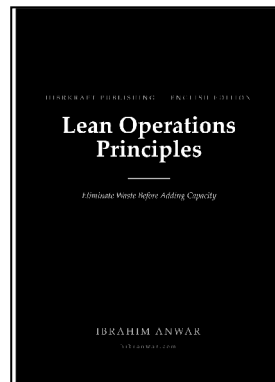


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