Fundamentals of Project management: Creating the Project Risk Plan

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Introduction

- **Risk management** is the **systematic process** of **identifying**, **analyzing**, and **responding** to project risk.
- Without this plan, you are forced to manage reactively when things go wrong—easily the most expensive approach.

Defining Project Risks

- Project risk management begins **early** in the life cycle.
- A **clear** understanding of the risks that face the project must be **established**.
- The sources of project risk are **almost limitless**, emphasizing the need for a well-thought-out, detailed plan.
- Typical examples include the loss of a key team member, weather emergencies, technical failures, and poor suppliers.

Defining Project Risks

- Many project managers wait too long to assess risk factors and delay the risk plan because they assume they **don't know enough yet**, that there are too many **unknowns**.
- During the initiation phase of the project life cycle, an initial high-level assessment ought to be conducted.

Defining Project Risks

- You and your team members should take a strategic approach to "**what can go wrong**" and begin arranging the foundation for the detailed plan to follow.
  - Without this foundation, projects often experience the **negative impact of risks** that become **reality.**
- This is **reactive behavior**, and you must live in the **proactive** world to be successful as a project manager.

Risk Management: *PMBOK Guide* Description

- Project risk management is "*the process of conducting risk management planning, identification, analysis, response planning, and monitoring and control on a project.*"

The Six-Step Process

- The **Six-Step** process is a common and practical approach to establishing, the project risk plan.
  - This process should not be created in a vacuum but typically involves a great deal of **research** and **collaboration** with the **project team**.
- Step 1: Make a List
- Steps 2 & 3: Determine the Probability of Risk Occurrence and Negative Impact
- Step 4: Prevent or Mitigate the Risk
- Step 5: Consider Contingencies
- Step 6: Establish the Trigger Point

Step 1: Make a List

- Making a **list of potential risks** to the project should not be an analysis but a formal **brainstorming** session, when all ideas are captured.
- It is important that the **entire team** get involved in identifying threats and highlighting what **can go wrong**.
- This initial step of the process must be **collaborative** and involve the individuals who are **expert** at that portion of the project work for which they are responsible.

Steps 2 & 3: Determine the Probability of Risk Occurrence and Negative Impact

- These two steps allow you to **prioritize** all identified threats to the project and help you determine how much **time**, **effort**, **staff**, **and money** should be devoted to **preventing** or **mitigating** each.
- Again, this must be accomplished **not** in a vacuum but with full input from team members and subject matter experts (SMEs).

Steps 2 & 3: Determine the Probability of Risk Occurrence and Negative Impact

- **How probable is it that each risk will become a reality?**
- **If the risk becomes a reality, how badly will it damage the project?**
- It is often sufficient to use a **High-Medium-Low** (HML) scale and apply it to the list of brainstormed risks.
- All **aspects** of the project should be considered when rating the negative impact of any risk. If the risk becomes reality, how will it affect the budget, **schedule**, **resource utilization**, **scope of work**, and so on.

Risk	Probability	Impact
A	M	L
B	M	M
C	L	L
D	H	H

Steps 2 & 3: Determine the Probability of Risk Occurrence and Negative Impact

- Or a **simple number-based scale** can be applied.
  - As you rate probability and impact, **you assign a value to each risk**.
- The probability scale can be based on a range of 1 through 10, with 1 representing unlikely and 10 being very likely. Negative impact can be represented by the same scale or in budgetary impact:

Risk	Probability		$ Impact		Total
A	3	×	1K	=	3K
B	7	×	1K	=	7K
C	2	×	14K	=	28K
D	5	×	3K	=	15K

Step 4: Prevent or Mitigate the Risk

- Some risks can be **prevented**; others can only be **mitigated**.
  - Earthquakes or the retirement of an important stakeholder, for instance, cannot be prevented.
- If a risk has been identified and you have **the ability to prevent** its occurrence, **do so**.
- **Proactivity** is the project manager's **best friend**.
  - Kill the risk before it has a chance to grow and flourish, and you won't have to deal with it again.

Step 5: Consider Contingencies

- **Contingencies** represent the specific **actions** that will be taken if the risk **occurs**.
  - Here, you answer the question "**If the risk becomes reality, what will we do**"?
- Contingencies are **directly linked** to the **prioritization** factors introduced in steps 2 and 3.
- If the risk is a high priority (high probability, high negative impact) you will want to identify **multiple** contingencies. If the risk falls in the middle range of the prioritization scale, you should establish **at least one contingency**. Those risks that fall in the lower level should not require much attention; be careful of the very low probability, very high impact risk.

Step 6: Establish the Trigger Point

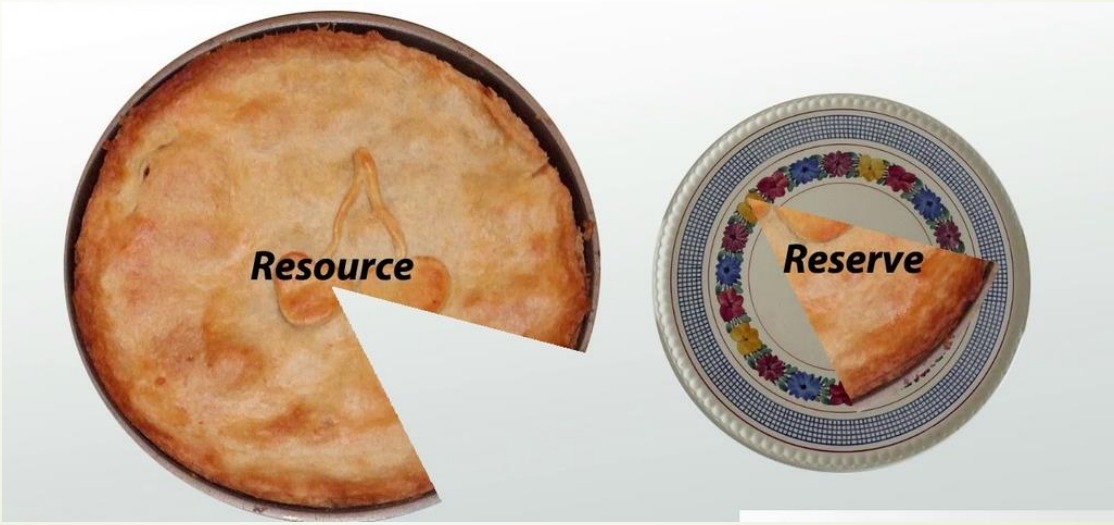
- The trigger point is often the **most important element** of the project risk plan.
- There is a direct relationship between the trigger point and the contingencies.
- The trigger point is the point at which the **risk becomes enough of a reality** that the project manager needs to trigger the contingency.

Step 6: Establish the Trigger Point

- It is a judgment call meant to **maximize** the value of the **predetermined contingency** by implementing it at the **optimal time**.
- Trigger **too soon** and you will probably spend time, effort, or money for no good reason.
- Trigger **too late** and you may end up experiencing the full impact of the occurrence, with little value added by implementing the contingency.

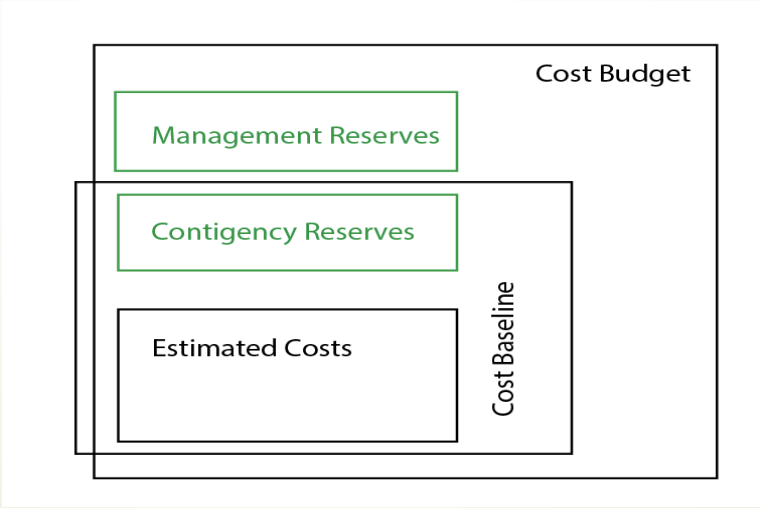
Establishing Reserves

- Establishing reserves enables you to leverage the plan to its **fullest potential**.
- The best-laid plans are helpless without the **time and/or budget** to allow for effective implementation.
- As a result, you need to establish **contingency and management reserves**.



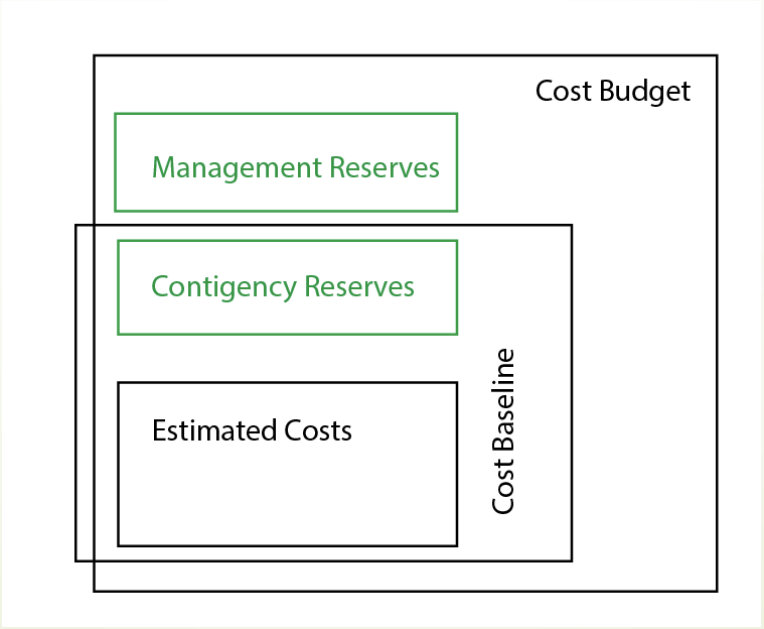
Contingency Reserves

- Contingency reserves are **designated amounts** of **time and/or budget** to account for risks to the project that have been identified and actively accepted.
  - They are created to cover **known risks** to the project.
- Once the process is complete, you should **estimate the required reserves** to cover the risks that have been identified and accepted.



Management reserves

- Management reserves are designated amounts of time and/ or budget included in your plan to account for risks to the project that **cannot be predicted**.
- Management reserves are created to cover ***unknown* risks** to the project.



Managing Multiproject Risks

- Many, if not most, project managers find themselves leading more than one project.
  - In the **multiproject** world, many projects **overlap or experience direct dependencies** with other projects.
- **First**, you must **focus** on the **individual project** and the associated risks for each.
- **Then**, you must **assess your entire portfolio** and determine the nature of the relationship of these projects.
- Your **portfolio** is the **sum of all projects** under your purview. The relationship among these projects may vary widely.

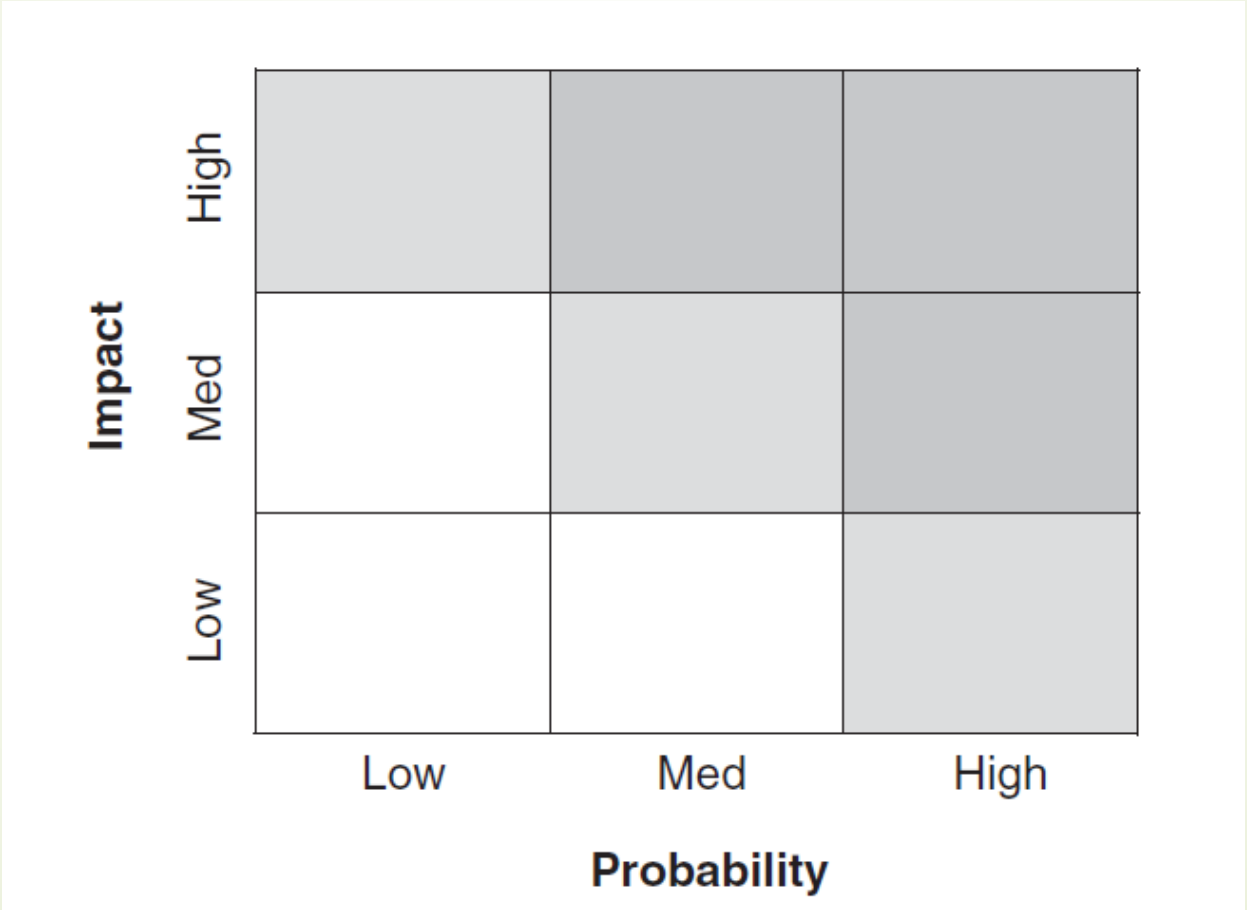
Managing Multiproject Risks

- Program typically involves multiple projects working toward the completion of a single **deliverable**.
- These projects must all be **properly integrated** toward this end.
- In the portfolio environment, you must identify where the projects **coincide** or **overlap** with regard to any project work.
- You then determine what might go wrong in these areas where the projects "touch."

Coordination Points

- In either case, the areas where the projects **touch** are called **coordination points**.
  - You need to identify these points, after which a standard multiproject risk plan can be created.
- In reality, you focus on creating a risk plan for each project individually to manage intraproject risks
- and then turn your attention to the **coordination points** and perform the same process to manage interproject risks.
- The portfolio or program risk plan is meant to supplement and enhance the individual risk plan in the multiproject environment.

Risk Matrix



Risk Register

- The risk register is a useful tool in managing actions taken regarding accepted risks to the project.
- The risk register is the last ingredient of the project risk plan. It is a living, breathing dynamic tool that can help you to track risk status as your project matures through the life cycle.
- The risk register also helps you identify ownership of contingency implementation, outcomes of actions taken, and active and inactive risks.

ID	Risk	Outcome/Response	Owner	P	I	Active

P = Probability I = Impact

Conclusion

- If a thorough risk analysis is not developed, you and your team will live in the reactive world, putting out fires throughout the project life cycle. This is easily the most expensive way to operate in terms of time, effort, and money, and it will jeopardize the success of any project. You must invest yourself early by adding this crucial element to your overall project plan.