

Summary of the topic

Often times a costing exercise needs to conclude with the identification of a single number. This is inherently challenging for cost estimators as the "right" number is a reflection of a number of factors ranging from selecting the right / agreed-up variables to alignment with political agendas.

The breakout session was designed to explore some of the challenges contributing to picking the right number and exchange ideas on how these challenges could be resolved.

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Approach

The session was divided into two main components:

- 1. Table groups discussed current challenges with "picking the right number" and identified the single biggest challenge, and
- 2. Challenges were assigned to table groups for resolution. Each table presented to the room the key insights learned from their discussions.



Challenges identified

Three prominent themes emerged as being the most significant challenges with picking the right number:

- 1. Defining and Aligning on Assumptions
- 2. Defining and Aligning on Risks, and
- 3. Availability and Completeness of Data.

Outside of this core list one table identified "creating certainty out of uncertainly" as a challenge, which is really thematic for costing, and even paradoxical. In order for a number to be accepted, it needs to be presented with confidence and support by robust, non-bias analysis. However, the "right" number (whatever it ends up being) is inherently uncertain as a result of the data available, assumptions made and risk profile selected.

Challenges		Discussion points
Д	Defining and Aligning on Assumptions	 Lack of governance to achieve alignment from stakeholders on what assumptions should be included.
Д		 There can be different interpretations of assumptions, which can in part be a result of a lack of communication and understanding of the assumptions being modelled.
	Defining and Aligning on Risks	 Lack of governance to achieve alignment from stakeholders on what risks exist, what risks should be intentionally included in the model, and what risks should intentionally be excluded from the model.
		• Interpreting risk probability and impact is subjective. The modelled financial impact of identified risks is equally subjective.
	Availability and Completeness of Data	 Not all of the data requirements and variables are identified early on, which can lead to the creation of an incomplete model.
D		• Existing data is insufficient to meet the costing requirement.
		 Existing data is an unreliable and does not represent a strong basis upon which to estimate costs. This creates a downstream model credibility challenge – making any number, let alone the "right" number, difficult to defend.

Key insights identified

A number of solutions to the identified challenges were proposed. Generally speaking, the solutions or insights related to the first two challenges were very similar.

Challenges		Key insights
1.	Defining and Aligning on Assumptions	 Establishing a process whereby stakeholders engage in a concerted effort at the outset of a costing exercise to identify and agree upon all of the relevant assumptions and risks could significantly mitigate the challenges with differences in interpretations. During this process stakeholders would also agree upon how to quantify risk probability and impact. The process would culminate with stakeholder sign-off.
2.	Defining and Aligning on Risks	• Cost estimation is an iterative process, so it is reasonable for assumptions and risks/risk profiles to change. The same stakeholder group would need to be consulted and agree upon any changes to the last version of assumptions and risks that had been signed off. This process would help to ensure that stakeholders remain engaged throughout the process and mitigate the risk of last-minute changes as a result of a lack of alignment.
		• Some dependencies for each of the above points are clearly defined accountabilities for decision-making, agreed-upon terms and conditions/rules of engagement, and transparency through documentation.
3.	Availability and Completeness of Data	 Conduct consultations with stakeholders at the outset of a costing exercise and conduct research on prior/similar projects to get alignment on the type of data that is required.
		• Leverage networks to supplement missing data or comparators that have been used for similar cost estimating exercises.
		 Collect benchmark data or conduct market surveys and use this data to either fill a void, or as a basis upon which to assess internal data quality.
		 Mitigate known data availability/integrity risks by adding contingencies.
		Conduct independent reviews.

Concluding remarks

The objective of the breakout session was for participants to make connections within the Ottawa costing community by exploring common challenges and sharing experiences. Based on the level of engagement and quality of discussion, we believe that the objective was met.

It was clear to us that the challenges identified are pervasive and significant across the costing community. It was also clear to us that there is a tremendous amount of desire to improve cost estimating processes and competencies, as well as a substantial amount of knowledge and experience within the costing community to be leveraged to make these improvements. We hope that you take advantage of the connections you developed throughout the two days.

One participant had asked if the challenges identified were "typical" and we committed to share with you some results taken from a recent survey:

In 2012 a UK consulting firm called QinetiQ conducted a Cost Estimating Health Check Survey ("health check") in which attendees at a Society for Cost Analysis and Forecasting (SCAF) Workshop identified some weaknesses with their current cost estimating practices. Some of the key insights from the survey were that most organizations did not maintain good data repositories, and did not have full stakeholder participation in the estimating process.

There are definitely parallels between the survey results and our breakout discussion – you are not alone in your challenges!



Contact information

Deloitte has depth of experience in cost estimation across many industries, and around the world. The Deloitte facilitators (Jay and Dan) have been involved in a number of public sector costing projects and are always happy to exchange ideas. Please feel free to reach out at any time.

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Dan is a Senior Manager in Deloitte's Ottawa office. He has 11 years of Public Sector Experience within the UK. He has spent the last six years focusing on UK Defense Projects, where he has led three significant projects within Procurement and Decision Support. In managing these engagements Dan provided deep financial analysis and cost assessment skills. Dan is a specialist in Business Cases, Investment Appraisals, Cost Estimating and Modelling. He has used his knowledge of best practice Business Case requirements to collect, collate and challenge financial data to meet the requirements of external and internal stakeholders. This has led to the successful submission of several multi-million Business Cases for approval including the UK's Treasury Department. This has involved: conducting gap analysis, contract review, management of risk, developing Whole Life Cost Models, affordability analysis, Monte Carlo @RISK simulations, verification and validation of data and the interpretation and presentation of results. He runs knowledge share sessions on his current projects that seek to embed best practice. He has also worked on the Through Life Capability Management Program, is comfortable with project management techniques and Complex Procurement within restrictive commercial environments.

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Jay is a Senior Manager in Deloitte's Ottawa office. His focus is supporting Government of Canada CFOs and finance functions across a number of dimensions, including planning, budgeting and forecasting, analytics, investment management and costing. Throughout his career Jay has advised a number of Government of Canada clients in the application of sound costing practices, including related processes and tools. Jay has developed detailed costing models to support investment business cases and cost reduction initiatives, as well as advised on the development of costing processes and operating models. He has also supported clients in complying with Treasury Board requirements pertaining to the costing of TB submissions, Memoranda to Cabinet and CFO attestation, and has audited and advised on costing principles and practices.

