# MCX

**CMAA** Construction Management Association

## Member Communication Experience

Any views and opinions expressed in this article may or may not reflect the

# Giga vs Traditional Projects

## Key Points

- The tendency to think of the primary difference between mega/giga projects and more traditional sized projects as one of scale
- Scaling up in size has the concomitant effect of v ( } o ] v P _ µ v • v. ] u v • ] } v •
- Unseen dimensions create and expose new challenges
- References to related Executive Insights are provided

## Introduction

There is a tendency to think of the essential difference between mega/giga projects and more traditional sized projects as one of scale. If only it were that simple. A better analogy, and something that is more clearly evident in the world of giga projects, is that this scaling up in size has the concomitant effect of ^ µ v ( } o ] v P _ µ v • v that were likely always there but whose effects were not readily noticeable.

## The Unseen Dimensions

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Æ ‰ } • • µ š o ^ } µ ‰ o ] v Project that at smaller scales was not as significant; this ^ } µ ‰ o ] v P _ ] • v } š } o Ç ] Œ š } µ ‰ o ] v P U µ š ] u ‰ } Œ š v š o Ç ] v ] Œ š } } v • š Œ ] v š • _ } Œ ^ Á Z ] š • ‰ _ } µ ‰ o ] v P • š Z š ‰ Œ À ] } µ • o Ç Á Œ v } š •

potential sets of interactions. In the second case, one might consider the result as a scaling up of the project tenfold. Even if this scaling up tenfold only resulted in twice as many discrete activities, the number of possible interactions would rise over fourfold.

Expose the fragility of many assumptions. Longer project development and execution periods, an inherent characteristic of growing levels of capital, demonstrate that assumptions are far from static and

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reasonable error band that might be recognized as existing at project initiation but that broadens as time passes. In a simple case, take project escalation that may have been forecasted at 5 +/- 1 percent at project initiation. If the worst of the initial assumption set materializes, a 10 percent growth will be experienced above the base estimate in a 10-year project. If this higher level of escalation persists, the assumption may migrate to 6 +/- 1 percent, which, if this 3 W*40.82 Tm a ht

## For Further Reading: Executive Insights

Systemic Risks in Large Complex Projects

White Space Risks

Opportunity Analysis

Coupling in Large Complex Projects

Assumption, Risk Driver, and Constraint Tracking

Flows in Large Complex Projects

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