

Capital Projects & Infrastructure

Capturing success in major projects: A series of options

Understanding what makes large-scale real-estate projects different than smaller projects can greatly improve developers' chances of maximizing profitability.

by Iñaki Azaldegui and Siddharth Jha



Real-estate development can be risky business. This is particularly true for major projects—those with a value of more than \$1 billion. Even when conditions seem ripe for success, so many plans for large-scale real-estate developments never come to fruition. In the case of many major projects, the initial measure of success should be simply avoiding bankruptcy during the first few years. Yet most projects do not manage to clear this bar, either due to unrealistic expectations or changing conditions, which are typically related to market dynamics or macroeconomic events and trends.

Indeed, unlike a portfolio of disparate real-estate investments, a major project is more exposed to outside risks. But it also has the distinctly advantageous chance to build on the success of each phase of the development in a way that increases the value of subsequent phases. Accepting a low internal rate of return from an initial investment may, for example, increase the value of adjoining plots of land owned by the developer. In this way, developers can measure the success of all investments holistically and achieve optimal returns. But this approach may clash with cash constraints in the initial phases.

In our experience, suboptimal returns on major projects often result from an underappreciation of the fundamental differences between a major project and a smaller one. For smaller projects, which have shorter timelines and can often be taken on as single investments, developers can focus on key tenant commitments and attempt to ride out market fluctuations. These projects can be thought of as a single investment decision—based on execution—that simply results in either success or failure.

Major projects, however, should be considered a series of options that develop over one or more decades as they respond to shifting demands. While some engineers may balk at the idea of tackling a large project in phases, risk mitigation should take

priority. And developers should seek to “modularize” as many decisions as possible—that is, breaking them down into individual phases—even if it means higher costs down the line. As a result, major projects can be thought of as sequential investment decisions, where the outcome of each decision affects subsequent decisions.

One American real-estate developer in Spain, for instance, managed to increase the asking price of a residential property from €1,000 per square meter to more than €3,000 per square meter through multiple measures, such as having a sound masterplan, creating social infrastructure, and projecting an appealing public image. They anchored the project with a shopping center, completely isolating the center’s financing and construction from other portions of the project. While the shopping center suffered from delays and cost overruns, the other project components were unaffected because their strategy was independent. Had the same contractor been used across projects, or if their bank had issued a single, large loan, they would have suffered worse outcomes.

Taking a long-term view of the investment life cycle

Investors entering large-scale real-estate development must have the mind-set that they are managing a long investment life cycle. Furthermore, while some of the initial project investments are unavoidable, most investment decisions depend on market factors, including the availability of funding and on the evolution of the project itself. Investors must therefore be able to calculate risk and respond to unforeseen obstacles over the project’s duration.

An initial business case should encompass the full project duration while also breaking down the entire value chain, allowing developers to evaluate each phase of the investment and estimate potential profit pool. Developers sometimes attempt to use

Major projects should be considered a series of options that develop over one or more decades as they respond to shifting demands.

large financial models, which can capture too much information and muddy clarity of thought. It often makes more sense to structure a large investment as a portfolio of LandCo and BuildCo investments, rather than trying to capture the business as a whole.¹

To illustrate these points, let's compare two hypothetical projects:

Project A is an office building located in the central business district of a large city. The plot is purchased at a premium—with a large cash commitment—and the developer seeks to advance the project over the course of three years. To ensure success, the developer focuses on three key investment commitments: purchasing the land, engaging architects and engineers, and awarding construction. This investment is by no means risk free, but adhering to solid processes in managing the design-construction cycle and securing preleases should help keep the developer on track.

Project B, however, is a mixed-use plot that will be the site of dozens of buildings. The timeline for this development is estimated at ten years. The developer here takes the following actions:

- clearly differentiates LandCo investments from BuildCo investments
- maintains the same investment discipline as Project A for each infrastructure area and each new building

- modularizes investment in assets and infrastructure systems as much as possible
- prepares for unexpected changes to economic cycles throughout the duration of the project
- develops a clear strategy to build monetary value over time

Developers who do not follow the model of Project B drastically increase their risks. One developer in the Middle East, for example, fully committed to infrastructure investment for a large project where so-called wet networks—such as water supply, sewage disposal, and irrigation—ran along 13 kilometers as a single system. When the financial crisis of 2008 hit, the developer had already sunk hundreds of millions of dollars into infrastructure. Ten years later, that infrastructure has only been partially utilized. Given that demand was going to arrive much slower than planned, this developer would have been better off investing a fraction of that money into launching infrastructure in phases, as opposed to in a single system.

Approaching the investment in phased modules sometimes comes with slightly higher overall infrastructure costs compared with awarding a huge construction contract, but it is well worthwhile. Almost invariably, the “savings” calculated by constructing the whole network in one go do not consider the time value of money. The equation is simple: if the total network can be constructed in two phases for \$500 million each or in one phase for

¹ “LandCo” refers to the transformation of land. For example, developers cannot simply purchase a large plot of land and begin construction right away. First, they will need to obtain basic infrastructure permits, such as road, electric, and water. With those in place, they can begin work on the land before the construction of the vertical building. “BuildCo,” however, refers to the development of buildings on zoned or serviced land. For example, a developer purchases a plot after the LandCo work has been done, secures a building permit, and then hires a construction company to begin development of the building itself.

\$900 million, and cost of capital for the developer is 10 percent, then modularization pays off in two years. In the case of Project B, which saw infrastructure grossly underutilized for ten years, phased development is well worth the extra cost.

In addition to disciplining the investment process, we have found that dividing a major project into a series of packages helps better structure exit options. For example, many developers waste time and resources evaluating investments that will take place in a five- to ten-year horizon instead of focusing on the decisions that will yield results (and cash flow) within three years.

Another Middle East developer, for example, bet its transportation strategy on a proprietary driverless-vehicles network powered by renewable energy. When market conditions changed, this strategy

was not only economically unfeasible but obsolete, as more-promising transportation alternatives emerged a few years later. A more prudent investment strategy would have limited the initial investment, minimized the amount of capital at risk, and allowed for easier adjustment to the new technological landscape.

Simply stated, developers should remain flexible throughout the life cycle of a major project, taking the time to consider their options, including when to sell, develop, delay, or halt entirely. Doing so simplifies the approach and allows investors and developers to focus attention and equity on achieving optimal returns over a longer period of time.

Iñaki Azaldegui is vice president, major projects, in McKinsey's Abu Dhabi office, and **Siddharth Jha** is a consultant in the Dubai office.

Designed by Global Editorial Services
Copyright © 2019 McKinsey & Company. All rights reserved.