

# Project Cost Estimates

- Cost underruns and overruns can be defined as the difference in the estimate of project costs upon which loan approval is based, and the final cost incurred at project completion.
- Of all Asian Development Bank (ADB)-financed projects completed since 1995, 35% had a cost underrun higher than 20% of the estimated project cost, and 9% a cost overrun higher than 20%. Put together, almost half of the projects were characterized by inaccurate cost estimates.
- Cost underruns lead to loan cancellations and these impact both borrowing countries and ADB's operations. In the former, loan savings could have financed additional projects and, if ADB financing is from ordinary capital resources, unduly large loans incur unnecessary commitment fees. For ADB, cost underruns indicate inefficient allocation of scarce resources.

## Background

The high number of ADB projects affected by large cost underruns or overruns has been an issue for years. In 2004, the Operations Evaluation Department undertook a **Special Evaluation Study on Project Cost Estimates** to (i) determine the major causes of cost underruns and overruns; (ii) assess the contribution of each to cost variations; and (iii) recommend ways to improve the reliability of cost estimates, and share the risk of unpredictable changes.<sup>1</sup> The analysis covered 220 projects with completion reports issued from 1998 to mid-2003, with a focus on typical investment projects in agriculture and natural resources, energy, transport and communications, and social infrastructure. Case studies were conducted in India, Indonesia, and Pakistan. ADB staff and consultants were surveyed.

## Summary of Findings

Until the 1980s, three fourths of projects had overruns averaging 63% of the original cost estimate. Since then, underruns have predominated: two thirds of projects had cost underruns averaging 26%. (Projects in agriculture and natural resources, energy, and social infrastructure have had larger underruns than projects in transport and communications. In the latter sector, there were more overruns.) The factors that explain the change have included (i) inflation and exchange rate developments; (ii) the smaller share of civil works in later projects; (iii) a shift in the sector composition of ADB's portfolio; and, perhaps, (iv) ADB staff's experience in preparing supplementary loans. Over the

years, projects have also had larger components for training, institutional development, and operations and maintenance that, in practice, have tended to be oversized. Overestimation of the cost of equipment and materials has also been a feature, although another reason was a slump in prices in the 1990s.

Overall, cost estimation is now better than in ADB's first 10–15 years but the tendency to overdesign smaller or softer components remains, as well as the inclination to overestimate equipment and materials, and physical and financial contingencies. This more than counterbalances the general underestimation of the cost of civil works.

Project designs and cost estimates can be improved, but this depends in part on making resources available for that. Some degree of cost variation is likely to remain, inside and outside ADB.

## Recommendations

- To improve estimation of processes for project costs, it is essential that adequate resources, in both time and money, be allocated to conduct required analyses. Better project designs and cost estimates can be expected to lead to smoother implementation, fewer loan cancellations, and more positive results.
- Improved estimates of project costs are possible with (i) rigorous consideration of inflation and depreciation factors; (ii) thorough consideration of sectoral and country experiences with cost variations; (iii) better estimation and verification of commitment to training and institutional

development; and (iv) realistic estimation of the cost of civil works and their operation and maintenance.

- Paying more attention to project administration will reduce cost underruns and overruns. Projects mired in implementation problems should be reviewed early with a view to timely cancellation of part of the loan. The interest that executing agencies have to avoid cancellations should be weighed against the borrower's interest in reducing the debt burden.
- Savings in contingencies could be reduced by giving to governments the option not to borrow for contingencies. This option should be made available if the borrower has the capacity and commitment to finance contingencies when they arise.
- Periodic updating of cost estimates will help in timely assessment of loan savings. Consistent with ADB's new thrust toward results-based management, standard operating loan administration procedures should require executing agencies to annually update project cost estimates for review in ADB.

## Feedback

**ADB Management's Response** signified that ADB's Management and staff will continue to make efforts to enhance project design and implementation by improving the quality of cost estimates as recommended. The **Chair's Summary of the Development Effectiveness Committee Discussions** considered the study to be a major and important input to an action plan for next steps. At the same time, the Committee emphasized that more accurate cost estimation was not an end but a means to improve efficiency and effectiveness in allocation of ADB's resources and reduce negative impacts on borrowing countries. With the total amount of loan cancellations having doubled from 1998 to mid-2003, the need for immediate action was real and pressing. A solution to the issue of persistent cost underruns would not be achieved overnight, but monitorable change had to start. Such change might require fundamentally new business processes and systems, not mere adjustments. The Committee remained concerned that borrowing countries might be incurring excess commitment charges on loans from ordinary capital resources for projects affected by major cost underruns. At the same time, ADB and its developing member countries share responsibility for good project design. Consideration

should be given to the need to review ADB's current policies or practices on determining the size of loans, **local cost financing**, procedures covering **physical and price contingencies** and their amounts, **financing of interest and other charges during construction**, commitment charge accrual, **supplementary financing**, and **use of surplus loan proceeds**. Committee members remarked that:

- Improvement of cost estimation is directly related to capacity building in executing agencies.
- In reviewing ADB's supplementary loan policy, there is room for the Board of Directors to consider further delegation of related decision making to ADB's Management. In this context, the concept of a "two-part loan system"—the first part for base cost, the second for contingencies and a fixed percentage for cost overruns, with approval for use of the second part possibly delegated to ADB's Management—could be further analyzed and subjected to careful consultation with borrowing members. However, increased flexibility should not be at the expense of the Board's responsibility for due diligence.
- Innovative solutions, such as the option for a government not to borrow for contingencies, should be considered.
- The issue of inconsistent application of ADB's guidelines for estimation of price contingencies must be further examined. Accountability for ensuring consistent application of the guidelines must be clarified and established.
- Since corruption and poor governance were perceived by ADB staff and consultants as major factors for project cost variances, these deserve further specific examination.
- The effect of increased loan conditionalities on cost overruns should be assessed.
- The implicit financial effects of poor project cost estimates on borrowing countries should be further defined so that these can be addressed in the future.

<sup>1</sup> ADB. 2004. *Special Evaluation Study on Project Cost Estimates*. Manila. Available: <http://www.adb.org/Documents/Reports/Evaluation/sst-reg-2004-06/ses-pce.pdf>