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Revealing true cost of public projects not so simple

Proposals by Tony Abbott and Barry O'Farrell for greater rigour in evaluating major projects are a step in the right direction when it comes to policy-making on infrastructure development in Australia. Having organisations that provide a breadth of perspective to inform government decisions is a good idea. Having them develop long-term plans that order projects by priority also has merit. It would mean for example that during episodes such as the GFC, when a government was looking to spend on infrastructure projects to stimulate the economy, projects could be chosen quickly and in a way that would be consistent with the national interest. Most importantly, it is impossible to argue with the proposition that a major infrastructure project should be evaluated according to whether it will provide benefits to Australian society that outweigh its costs, and that the results from this cost-benefit test should be made publicly available.

Saying that infrastructure projects will be subject to cost-benefit analysis should be however just the beginning of a policy, rather than the end of that policy. Because a well-designed policy also needs to provide a protocol for how that cost-benefit analysis is to be done.

Doing cost-benefit analysis is as much an art as a science. There is no algorithm or computer program that can be used to work out the costs and benefits of a project. Instead, doing cost-benefit analysis requires many judgements and assumptions. Making these judgments introduces plenty of scope for getting different results. And as Campbell's Law states: 'The more any quantitative social indicator is used for social decision-making, the more subject it will be to corruption pressures...'. I am confident for example that it would be possible to do a cost-benefit analysis of the NBN with the conclusion that it provides a net gain to Australian society; and equally confident an analysis could be done that would get the opposite result. So what is needed is a protocol that would provide detailed guidelines on how a cost-benefit analysis of any major project should be done.

Here is an example of an issue that could arise in doing a cost-benefit analysis. Suppose an infrastructure project is going to have an adverse effect on the natural environment. Then we would want to include that effect as a cost of the project to society. But how to value the cost? There is no market where we can go to observe how much a unit of 'environment' sells for, as a way of working out the cost to society of the damage.

Instead we might choose to use a method known as contingent valuation. A representative sample of the Australian population who will be affected by the environmental damage is presented with a scenario that describes how the project would affect the environment, and asked what they would be willing to pay to prevent that damage occurring. This solves our problem of needing an estimate of the environmental cost of the project. However it's well-known that the estimate we get will vary with exactly how the contingent valuation survey is done. Consider how the environmental damage is described – make this sound worse and respondents are likely to say they are willing to pay more to prevent the damage; make it seem benign and the estimated cost of damage will be less.

Recognising that in many situations contingent valuation was the best available method for measuring costs or benefits associated with goods or services not traded in markets, but also aware of how the method could be misused, in 1993 the National Oceanic and Atmospheric Administration sought the advice of an expert panel (including two Nobel prize winners) on the proper way to use contingent valuation. The panel developed guidelines on best practice in using the method, covering aspects such as how to interview survey participants, how to describe the scenario, and how to ask participants their value of the good or service being studied. These NOAA guidelines have since become a standard benchmark for judging the validity of cost-benefit studies that use contingent valuation. They provide a valuable example of what a protocol for doing cost-benefit analysis on major projects in Australia might look like.

Another example of an issue that can arise in doing cost-benefit analysis is how to weight the benefits received from a project (or costs incurred) by different members of society. Suppose that there are two rail lines which can be built at the same cost, one to a high-income suburb, and the other to a low-

income suburb, both of which provide benefit to residents in the suburb of $200m. Should these projects be judged as equivalent, or should a dollar of benefit to low income households be regarded as better for society than a dollar of benefit to high income households? Whatever we decide is the appropriate way to value benefits received by different groups in society will affect the ranking we make of projects.

What we learn from these examples is that for cost-benefit analysis to be a useful basis for decision-making, it is essential to have a well-argued and consistently applied protocol for how to do that analysis. In addition, by publicly releasing each cost-benefit analysis, it would be possible to check that the protocol had been followed. We could then be assured that any project a government had decided to fund had been properly evaluated. On this latter criterion, Barry O'Farrell's policy, which includes releasing the cost-benefit analysis, is to be preferred to that of Tony Abbott, which as announced thus far, would be restricted to releasing just the final result.

Cost-benefit analysis can be the foundation of an improved approach for decision-making on infrastructure development in Australia. But cost-benefit is not a magic bullet. It will only help if it is used in a careful and rigorous manner. This requires that Infrastructure Australia adopt and follow a protocol for doing cost-benefit analysis. Without such a protocol Infrastructure Australia itself would be likely to fail a cost-benefit test.