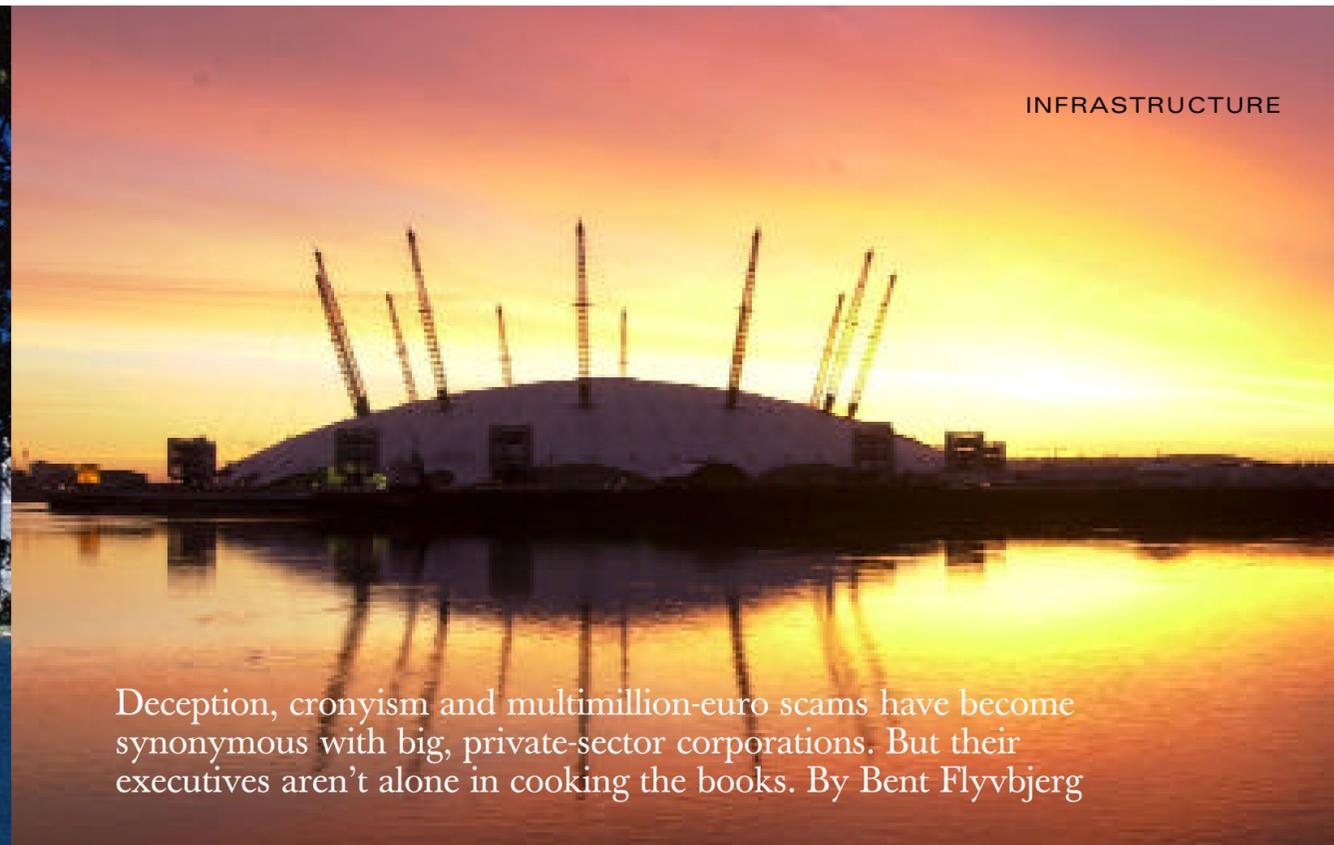




The lying game



Deception, cronyism and multimillion-euro scams have become synonymous with big, private-sector corporations. But their executives aren't alone in cooking the books. By Bent Flyvbjerg

SOME YEARS AGO I was threatened by a high-ranking government official as I was beginning research on cost overrun in large public works projects. The official told me in no uncertain terms that if I came up with results that reflected badly on his government and its projects he would personally make sure my research funds dried up. I replied he had just demonstrated the research had to be done and was likely to produce interesting results. The results are now being published and if the official walks his talk, I will never receive another research grant.

Which projects get built? We found it isn't necessarily the best ones, but those projects for which proponents best succeed in conjuring a fantasy world of underestimated costs, overestimated revenues, undervalued environmental impacts and overvalued regional development effects. Our survey, the first and largest of its kind, looked at several hundred projects in more than 20 countries.

Machiavelli seems to have been chief adviser on these projects with his observation that "princes who have achieved great things have been those ... who have known how to trick men with their cunning, and who, in the end, have overcome those abiding by honest principles". In fact, there seemed to be a formula at work:

(underestimated costs)
+ (overestimated revenues)
+ (undervalued environmental impacts)
+ (overvalued economic development effects)
= (project approval)

Many project proponents don't hesitate to use this Machiavellian formula for project approval, even if it means misleading parliaments, the public and the media about the true costs and benefits of projects. The result is an unhealthy 'survival of the unfittest' for large public works and other construction projects.

During project implementation, when fact defeats fiction, the consequence is huge cost overruns, delays, revenues that don't materialise, crippling debt and, to add insult to injury, often also negative environmental and social impacts. The misinvestments, overspending and financial problems are of Enron- and WorldCom-scandal magnitude, though much less transparent and harder to fix.

Shocking overspend

The recent #1.1 billion cost overrun and delays for the UK's Nimrod maritime patrol plane and Astute attack submarine are typical of defence projects. But the problem is not limited to defence. British examples from transport, the main focus of our study,

include the Humber bridge, which was 175 per cent over budget and cost #457 million more than projected, with patronage 75 per cent under that forecasted. The Channel tunnel came in 80 per cent over budget with a cost overrun of #4 billion and patronage 50 to 80 per cent under forecast. From the opening, Eurotunnel was locked in a debt trap from which it has never escaped. The Tyne Metro system was 57 per cent, or #438 million, over budget, with patronage 50 per cent lower than forecasted. Currently the West Coast rail upgrade is developing into the same type of underperforming project. Funding such underperformance is an inverted Darwinism where the worst projects survive. It is the material of which the Railtrack and Eurotunnel financial disasters are made.

Power plants, dams, water projects, oil and gas extraction projects, information technology systems, weapons systems and aerospace projects follow a similar pattern of understated costs and overstated benefits. The consequences may be dire, as illustrated by the NASA space shuttle operation and International Space Station. According to the *Washington Post* lawmakers and experts are now considering whether such Machiavellian cooking of budgets may have led to short-changed safety upgrades related to the loss of seven astronauts aboard the Columbia shuttle on 1st February.

Each and every large construction project does not follow the pattern of understated costs and overstated benefits, needless to say. But most do. Nine times out of 10, costs begin to soar after projects have been approved, leaving taxpayers or investors to pick up bills of hundreds of millions of euros. Cost overruns of 50 per cent are common. Overruns above 100 per cent are not uncommon. For rail projects, for example, half of all projects have cost overruns of 45 per cent and higher. When this is combined with patronage, which for half of all rail projects is more than 50 per cent lower than forecasted, it becomes clear why so many projects have financial problems.

The job creation and other economic or regional development effects that are invariably used by proponents to justify the millions spent on large projects often do not materialise. Or they are so weak they can't be measured outside of the temporary jobs generated by construction itself, jobs that disappear once the project is completed. Even for a giant project like the Channel tunnel, which is several times the size of most megaprojects, studies carried out at the University of Kent show that five years after the tunnel's opening there were still very few and very small impacts on the wider economy. Additionally, it was difficult to identify any major developments associated with the tunnel, and potential impacts

on the directly affected regions were found to be mainly negative. Studies of other projects corroborate these findings: the much-publicised positive economic and regional development effects of large projects are mostly non-existent, marginal or even negative.

In developing nations, large dams are the classic example of the underperforming project with negative social and environmental impacts. The Sardar Sarovar and Maheshwar dams in India are particularly

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well-known because of author Arundhati Roy's vivid descriptions in *The Cost of Living* and *The Age of Infinite Justice* of the violence and human suffering involved in these projects. Many other examples exist, including the Three Gorges dam in China and the Pergau dam in Malaysia.

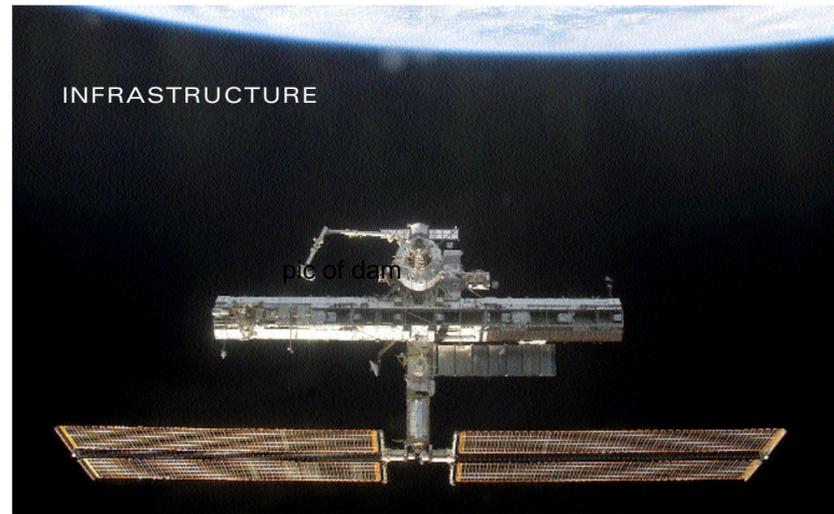
Web of deceit

But are the proponents of these projects intentionally deceiving governments and taxpayers when they produce their forecasts of costs and benefits? In an uncomfortable number of cases the answer is yes. Our data shows that

the old excuses - inadequate data or models, technical problems, over-optimism - aren't plausible. For more than 70 years cost overruns have stayed largely constant, meaning they are highly predictable. But it seems no one is learning from past mistakes, or no one wants to learn. The situation is similar for forecasts of benefits. Either the people who do the forecasts of costs and benefits are incredibly incompetent, which is unlikely, or they deliberately manipulate costs and bene-

fits to help projects get approved. Forecasters are on record stating the latter is the case. In comparison, it is hard to imagine society would allow medical doctors to make the same predictable errors decade after decade in diagnosing and treating patients. This would be blatant malpractice.

Undoubtedly, most project proponents believe their projects will benefit society and that, consequently, they are justified in 'cooking' up costs and benefits to get projects built - just as executives at Enron and WorldCom believed they were justified in cooking the books for the good of the company. The ▶



ends justify the means, or so the players reason. Moreover, the whole structure of incentives for large construction projects is geared towards underestimating costs and overestimating benefits. Each project is a multimillion- and sometimes even multibillion-euro business and when it goes forward a lot of people profit – engineers, contractors, bankers, landowners, construction workers, lawyers, developers. In addition, politicians with a ‘monument’ complex gain satisfaction, administrators get larger budgets, and cities get investments and infrastructures that would otherwise go elsewhere.

The problem is that the Machiavellian make-believe world of underestimated costs and overestimated benefits projected by many proponents to promote their favourite project distorts reality

Therefore, something more insidious than overt deception may be at play: a culture of covert lying. As pointed out by *US Access Magazine* in an editorial about our research, few of the players involved are likely to think of themselves as dishonest or corrupt. It might seem odd that low-cost, high-benefit forecasts miraculously fit clients’ and forecasters’ silent wishes time and time again. But their wishes may not be questioned or criticised. Rather it is taken for granted that the proposed highway, stadium, dam or rail line is the correct answer to the problem, and cost-benefit estimates somehow come out just right. Like patriotism, their conviction requires no rationale and allows no serious doubt. Once politicians, stakeholders and the media accept forecast costs and benefits as if they were hard facts, projects follow by sheer momentum. As in any other culture where critical voices are suppressed, eventually the dominant players begin to actually believe in their own deceptions.

Some argue that no projects, including our most treasured ones, would ever be undertaken if some form of delusion about costs and benefits weren’t involved. Big Ben and The Houses of Parliament, for instance, had cost overruns of 200 percent, the Sydney Opera House of 1,400 percent. Had the true costs been known, these architectural wonders may not have been built. Delusion is necessary for action – and for exquisite architecture – or so the argument goes. The logic is seductive because it holds an element of truth and, more importantly, because it justifies the practices of the culture of covert

lying. But even disregarding the fact that condoning deliberate delusion is indefensible for publicly funded projects on legal, ethical and economic grounds, it is an argument that is easy to refute.

Return to reality

Quite simply, many viable projects exist – in transport, energy, sports, water, information technology, tourism, public buildings, etc. – that don’t require delusion for their justification. The record shows that even architectural treasures like the Bilbao Guggenheim or the Pompidou Centre can be built on time and budget. And this is not a recent phenomenon: the Eiffel Tower and the Empire State Building are in the same category. The problem isn’t that good projects don’t exist. The problem is that the Machiavellian make-believe world of underestimated costs and overestimated benefits projected by many project proponents to promote their favourite project distorts reality and makes it exceed-

ingly difficult to decide which projects deserve undertaking and which do not. The result is, as even the industry’s own organ, the Oxford-based Major Projects Association, acknowledges, that too many projects proceed that shouldn’t have done. I would like to add that many projects don’t proceed that probably should have, had they not lost out to projects with ‘better’ delusion, that is ‘better’ underestimates of costs and overestimates of benefits.

Enron and its successor scandals have shown that one should be sceptical of professionals and officials who promise to regulate themselves. This scepticism must now be applied to those involved in promoting and building large public works projects. In addition to the war on corporate deception, we need a war on deception in government, and with the same objective: to curb multimillion-euro financial waste. Government ethics stand as much in need of betterment as corporate ethics.

Key weapons in the war on deception will be accountability and critical questioning. The professional expertise of engineers, economists, planners and administrators is certainly indispensable to building the infrastructures that make society work. Our studies show, however, that their claims about costs and benefits mostly cannot be trusted and should be carefully examined by independent specialists and organisations. The same holds for claims made by politicians and officials. Institutional checks and balances – including financial, professional, or even criminal penalties for consistent and unjustifiable biases in claims and estimates of costs and benefits – should be developed and employed in the campaign against deception.

Many of the public-private partnerships currently emerging in large construction projects contain more and better financial checks and balances than previous institutional set-ups. This is a step in the right direction but should be no cause for repose. The lying game has long historical roots and is deeply ingrained in professional and institutional practices. It would be naive to think it is easily toppled. Given the stakes involved – including billions of euros worth of misinvestments in underperforming projects – this shouldn’t deter us from trying.

Bent Flyvbjerg is principal author of the book Megaprojects and Risk: An Anatomy of Ambition, just published by Cambridge University Press. He is Professor of Planning at Aalborg University, Denmark and works internationally as adviser to governments, auditors general and private companies on questions of major projects.