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Infrastructure and Recovery

-When panic is not enough,

don't do it!

Even those of you who have been following closely the arguments in SAM over the past two issues may be surprised by the editorial today, but it comes after much thought.

I argue that this is NOT the time to spend on infrastructure.

However, since that choice is not ours, how do we make the best of the situation we are currently in? For those that rush the infrastructure game and spend like drunken fools in the name of stimulating the economy will leave their communities mired in the costs of inappropriate infrastructure for many years to come. Whilst those that take the time to plan and use it wisely can come out of this current turmoil stronger than ever.

To help you be on the side of the angels in this one, I have prepared an "Investment Criteria Flowchart"

Follow it and you will be safe. (or your money back!)

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EDITORIAL: Infrastructure is NOT the answer

Last issue I quoted Jon Tierney, a US science journalist, who believes that just because an idea appeals to a lot of people doesn't mean it's wrong - but that's a good working theory. Let's apply it:

Just because everyone thinks it is a good idea to spend your way out of a global recession using infrastructure, doesn't mean it's right.

I happen to think it is dead wrong and this is just one reason why (there are more!)

Infrastructure NOT the answer to economic stimulus

It has become commonplace to argue that the government stimulus money should be spent on infrastructure. We can all think of projects that will contribute to future well being - drought proofing Australia, improving roads, etc. But rushing infrastructure spending wastes money. It wastes it now and it wastes it continuously for a long time into the future in maintenance and operations costs. Unless we get it right! But getting it right means putting the time into good planning and design and even if we were to start right now it would be two, even three years before we would be ready to start construction.

This is too late for economic stimulus. For the stimulus money to be effective it has to start generating employment right now and the quickest way to do that is to increase spending on services. This generates employment directly whereas infrastructure generates employment only indirectly and with a considerable lag.

Consider: A 2-3 year program for increased teachers' aides, nursing aides, and other social services (including maintenance) would not only generate employment directly but the security of continuing employment would encourage people to spend, whereas construction work is spasmodic, lasting generally only a few months, so that prudent construction workers will not spend as much.

Because of the lag, infrastructure spending - whilst desirable overall - is not the answer to the current economic crisis. Short term problems need short term solutions. Infrastructure is for the long haul.

*Note: I sometimes try out arguments on people in my local coffee shop - ordinary folk! This time they looked at me as if I was crazy. Why it was obvious that something needed to be done to **their** road - how could I argue otherwise! That is what we are up against! The going will not be easy. But effort now will make your life easier in the future, much easier.*

Infrastructure 101

No project is worth it - no matter how great the benefits
- if the costs are even greater!

In their enthusiasm, decision makers may underestimate the ongoing life cycle costs of infrastructure projects. But whether they state them or not, those costs will surface in the future. If you let the project go forward with understated costs - you will be the one who will be faced with the job of managing on an insufficient budget.

In calculating the Benefit:Cost ratio of a project - labour is a cost!

Yes, there are social benefits to be had, mostly in the short run, from 'creating jobs' in an economic recession. If the recession is temporary and does not require social readjustments, the benefit is in avoiding dislocation. If the recession is longer lasting, the benefit can be in smoothing the social readjustments that need to be made. But in either case, the value of these benefits has to be separately calculated (it is not the same thing as the wages and salaries component).

A viable project is one where the benefits exceed the costs.
Once we know a project is viable - and only then - we can make the choice as to what benefits (social, environmental or economic) are most important to us at this stage.

We can think in terms of a 'first filter' and a 'second filter'. The first filter measures the total costs and benefits of all proposed projects - and rejects those where costs exceed benefits. The second filter chooses from amongst the remaining viable projects according to the needs that are considered most urgent, most valuable, most critical.

In the American Society of Civil Engineer's (ASCE) principles that we quoted in Issue 257, the focus is mostly on this second filter - choosing among projects according to the types of benefits to be received, but some of the principles relate to the 'first filter' - for example the requirement for life cycle costing.

On page 5 I present an **"Investment Criteria" flowchart** using a 'first filter' to determine those projects that have total benefits exceeding costs, and then a 'second filter' allowing choice to be made within those projects that survive the first filter.

and on page 4 I show how the ASCE principles can be mapped onto this flowchart.

ASCE believes that all projects supported by an economic stimulus investment must meet the following fundamental criteria:

* Projects must create and sustain employment increases;

* Investments must provide long term benefits to the public (such as congestion relief);

* Long term maintenance and upkeep needs of all infrastructure projects - existing and new - must be taken into account; and

* *To ensure accountability and transparency an auditing program must be established to review the program and measure desired outcomes.*

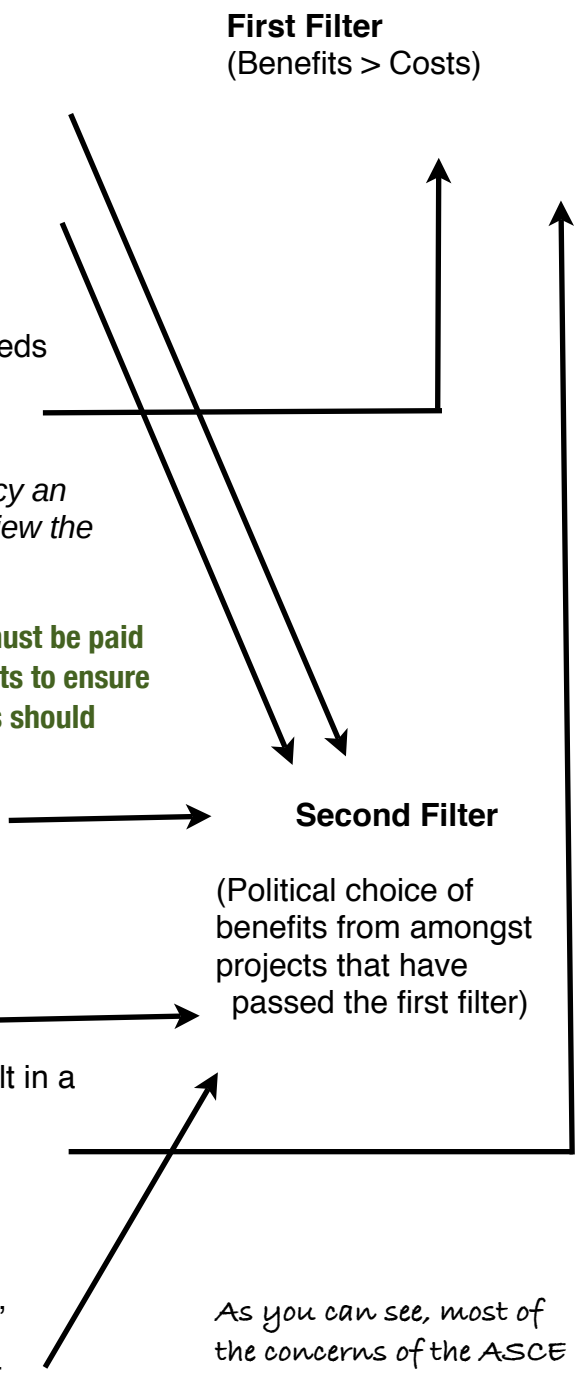
As the investments are made, proper attention must be paid to the prioritization and selection of these projects to ensure that the criteria are met. The following principles should guide selection decisions:

* The project should deliver measurable improvements in public health, safety and quality of life;

* The project should provide substantial, broad-based economic benefi*t*;

* The project should be designed and built in a sustainable and cost-effective manner, and proper consideration must be given to life-cycle costs*;* and

* The project should have a significant environmental benefit such as area restoration, improved air quality through reduced congestion and better watershed management through eliminating vulnerabilities in a system.

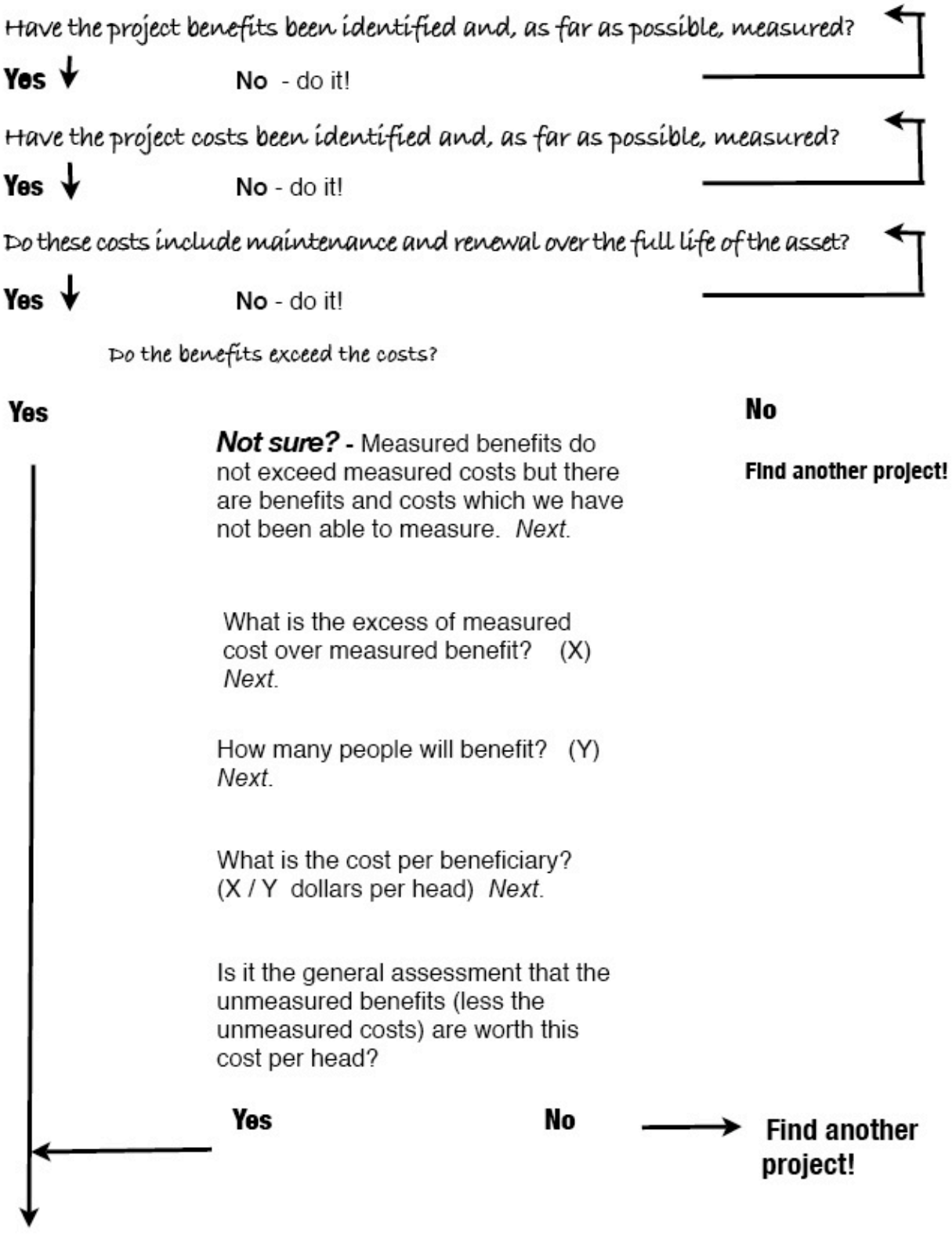


As you can see, most of the concerns of the ASCE are with the type of benefits that projects should aim at. They are 'second filter' issues.

The requirement that accountability and transparency be established via an auditing program is not a condition of the asset itself but rather of the process to be followed once the project is chosen.

A SIMPLE INVESTMENT DECISION FLOW CHART

First Filter



OK, You have passed the first filter, move to Filter 2.

A SIMPLE INVESTMENT DECISION FLOW CHART

Second Filter

The Second Filter looks at the range of benefits that you want to get from your project. Now that you know that all the contending projects are viable, it is now a matter of weighing the different outcomes to see which are a best match for community needs.

At this stage, you will want to weigh up whether a project that produces more environmental benefit is better than one that produces a greater amount of social benefit in the form of immediate employment.

The ASCE Principles on page 4 suggest a great range of community benefits to be considered and assessed at this stage.

CAUTION!

Problems arise when we try to do Filter 2 tasks before we have done Filter 1.

"Simple" does not mean "Easy"

but at least it is relatively quick!

Now, of course, we all know that "simple" does not mean "easy". I could have developed far more complex investment decision flow charts replete with risk profiles and seven different ways of measuring project worth. But, whereas some individual projects will warrant more analysis than others, this SIMPLE flow chart will keep you on track when you are pressed for a quick answer.

and this simple model is just as relevant in good times as in bad. Whereas now we may be inclined to value more highly projects that generate employment, it wasn't that long ago when - faced with major skill shortages during the mining boom and worried about the early retirement of a major cohort of professional engineers and other qualified professionals - we were looking for projects that put *less* demand on employment requirements.

What is your role as a professional? (asset manager/ engineer / economist)?

Actually you only have a professional role in the first filter - in the technical calculation of costs and benefits.

You may have opinions on what projects (ie what benefits) should take precedence - you may think that environmental measures should dominate, say, or employment generation, but when it comes to such value judgements, you are on the same level as every other citizen. Value judgements are social judgements - not professional ones. These are the role of the DECISION MAKER. You are the ANALYST, the adviser, not the decision maker.

POINTS TO PONDER

Be careful what you wish for!

Do we really want *long term ongoing* employment from our stimulus projects?

> Let me tell you the story of the council that thought it would like an eternal flame to remind everyone of the sacrifice made by our soldiers. It was a nice idea and was well supported by the community. But only after it was built did the council realise how much the gas would cost to run the flame 24 hours a day, 365 days a year. As a result the 'eternal flame' is now lit only on special occasions.

Now, in this case, no significant community services were lost because of their failure to account for the ongoing costs. But when we are spending billions on infrastructure - that will, in turn, require millions to operate and maintain - we need to ask ourselves where is the ongoing funding to come from?

Suppose all of the projects we develop require extensive labour to operate them if we are to get any benefits. And then, in say about 3 or 4 years time, when there is no more money coming from Federal stimulus programs - and, on the contrary - governments are having to reckon with the costs that they are now incurring. At this time, we are likely to have to cope with severely reduced budgets. How will we continue to operate these projects where the ongoing costs are so high?

Will we be in the position of the council with the eternal flame - and have to stop the projects for lack of cash?

The problem is that running a deficit can be managed for a short time, maybe even a few years, but then we will have to tighten our belts, as our excess spending now will need to be paid for by less than average spending later!

How are we funding our deficits?
- and why this matters.

We can spend more as a nation if some other nation is prepared to spend less. This has been the situation over the last few years as China has been willing to pick up the debt increasingly issued by the United States.

Can we rely on this continuing? And will it extend to the debts of all other developed and developing countries? The answer is clearly NO. China was prepared to extend support to the USA when the USA provided the prime market that kept up the Chinese economic miracle growth rates. But now that this is not happening, China needs to use its vast reserves to keep the peace at home; it needs to spend domestically what it once lent overseas.

Is there anyone else out there willing to extend credit while the developed and developing worlds run up debt? Probably not. And certainly not at the level required.

So there are only two options open to countries. Canada is taking one option, the USA the other. It is yet to be determined what Australia does.

Option 1: Issue Government Debt to cover the stimulus packages
Option 2: Print Money

Both are actually valid options, but both have a limited future. Let us see why - and what the resulting problems are for us as asset managers.

We can issue government bonds to cover government spending. This is the Canadian approach. Canadians then swap their money for government bonds. In times when private stocks and bonds are seen as highly risky, the safety of a government bond may have much to commend it. If Canadians simply lend to Government rather than lend to the private sector, this may cover the stimulus costs but it does little to increase net expenditure, because increased government expenditure is met by reduced private expenditure. What now happens is that a larger proportion of expenditure is now controlled by government. (*And it may be that interest rates will need to rise to encourage those who are so scared that they would rather keep their money under the mattress*.)

If the government projects are committed in panic - this means that the country is at risk of having a larger proportion of its capital spending in poor projects, ones that do not necessary have benefits exceeding costs. Result is country gets poorer.

If projects, however, are well chosen, then community strength can increase.

We can print money to cover government spending. This is the American approach. If the recession is short lived, this may help to keep incomes moving. But if this is continued for a few years, the country risks severe inflation, even hyper-inflation. (as happened in Germany in 1929 and as has happened in numerous countries since.)

If projects are committed in panic - then the excess of costs over benefits only exacerbates the inflationary effect.

If projects, however, are well chosen, then what will happen is that there will be a switch from capital expenditure that supports individuals to capital expenditure that supports groups - and again community strength can increase.

In both cases, there is increased work for public sector asset managers - but there may not be much, if any, extra money to pay for your role! You may also have to cope with inflation at the same time. And possibly with increased interest rates.

You are going to have to work harder, so at least make sure it is for projects you can believe in!