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The use of discount rates in economic appraisals in Australia: *A review of current practice and international trends*

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Australian Conference of Economists
16 July 2018

Deloitte Access Economics

Introduction

The theory behind discount rate setting remains contested

But Australia has diverged from international practice

There are two established approaches to deriving discount rates for economic policy appraisals:

- Social Rate of Time Preference (SRTP) approach
- Social Opportunity Cost of capital approach (SOC), based on a weighted average cost of capital.

These approaches start from very different premise, and can (and generally do) lead to very different answers.

- Australian guidelines tend to favour the SOC approach (~7%), international guidelines the former (~3.5%).
- These differences matter, especially for long-term investments.

Today, we will discuss the theory behind the different approaches, examine current guidelines and practice, and argue for a renewed approach to setting discount rates in Australia.

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Social Rate of Time Preference (SRTP)

The SRTP approach seeks to estimate the rate at which society is willing to trade present for future consumption

- The SRTP adopts a quasi-utilitarian approach to discounting based on the Ramsey discounting rule:

  $$r = d + n \cdot g$$

- Where *d* is the pure rate of time preference, *n* is the elasticity of marginal utility of consumption and *g* is the per-capita growth rate of consumption in the economy.

- The SRTP is generally estimated to be between 3 per cent and 4 per cent, although lower rates are sometimes estimated.

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Social Cost of Capital (SOC)

- The most common way to determine the value of a discount rate under the SOC approach is to estimate a benchmark rate of return to private capital investment in the economy.
- The argument often used to justify the use of the rate of return on private capital is that the government can always invest project funds in the economy and attract this rate of return (on average).
- The SOC is generally recognised to be around 7 per cent, which is the rate recommended by the OBPR and NSW Treasury.
- Recent work by Grattan and others have argued that lower rates should be used for infrastructure projects due to systemic declines in the WACC and through a more thorough account of risk.

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Current guidelines and practice

A North-South divide?

Or is Australia simply an outlier?

Current Australian guidance recommends a SOC approach with a central rate of 7%.

- This approach relies predominately on the work of Harrison (2010).
- There are differences in approaches across Australia, with Victoria and Queensland being notable examples.

International agencies tend to recommend rates in line with the SRTP approach

- The UK Green Book recommends a rate of 3.5%, based on the Ramsey Rule.
- The US OMB recommends using both a 3% and a 7% rate, however leading research has advocated for lower rates, in light of recent trends in the long-term bond rate.

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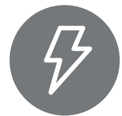
Practical implications

There is no one correct answer

We recommend using the SRTP…


Government projects are different to private sector investments

Public sector risks are different and so government capacity to bear them

Crowding out is not a material concern for most decisions where the discount rate is applied

- Australia is a small open economy – so crowding out of capital is not a significant concern
- Decisions about spending are generally made at the aggregate rather than the project level
- Regulatory decisions do not involve crowding out of investment

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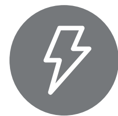

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Except where competitive neutrality is a material concern

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Practical implications

Just tell me which rate to use

It is not always obvious if competitive neutrality is material

Three questions to help

1. Is the decision a regulatory one?
2. Are the benefits primarily non-market ones?
3. Is there a significant capital expenditure component?

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