

Discounting in Government Appraisal: The Case for a Two-Rate Framework

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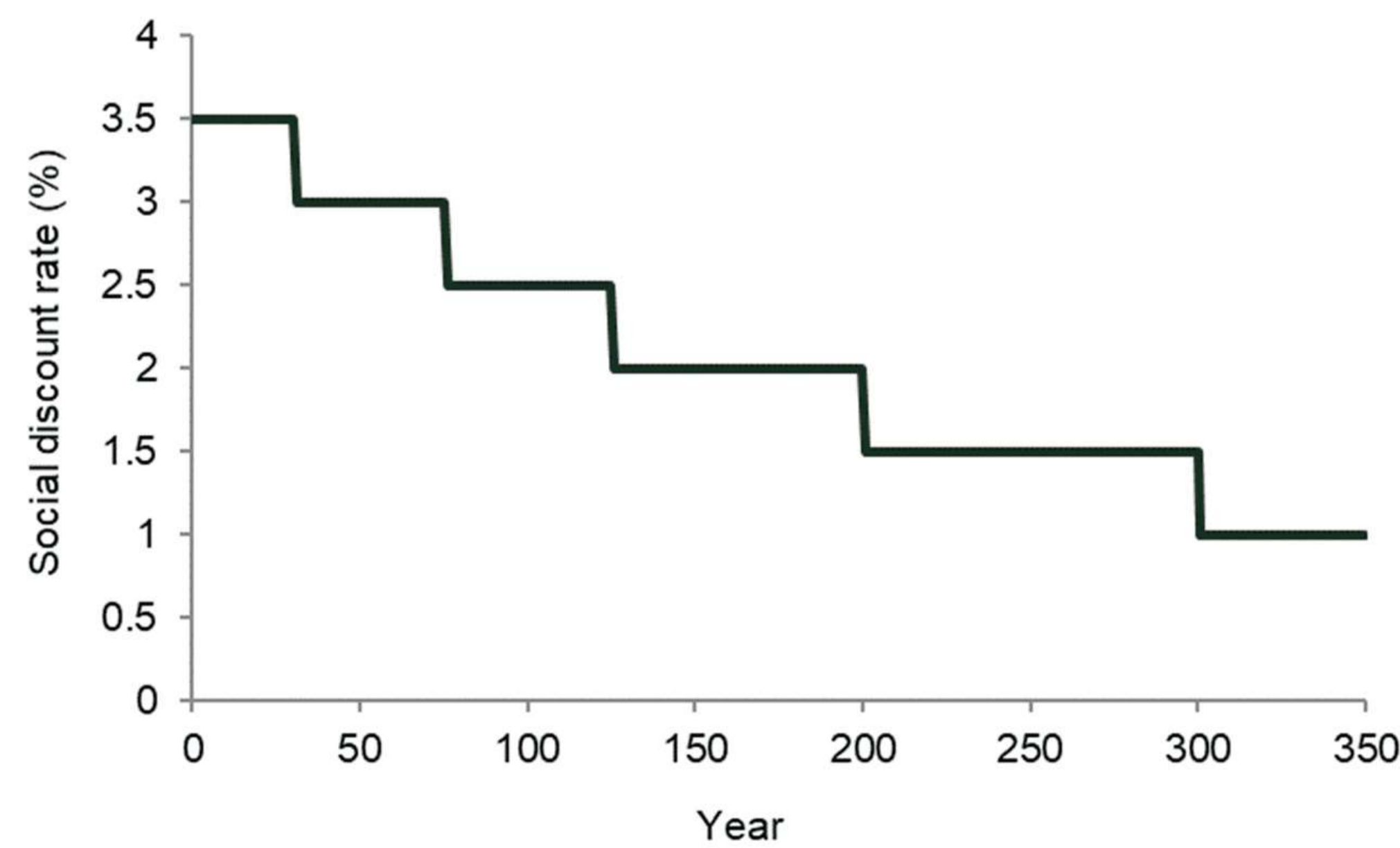


Abstract

The UK should adopt a two-rate discounting model in government appraisal. Current guidance is based on tautological mathematics and an authoritarian approach to central planning. STP rates fail to account for the cost of capital and SOC rates fail to account for intergenerational equity. Two separate rates are needed to address two separate economic objectives.

Context

As outlined in the Green Book (HM Treasury, 2022), the UK currently applies a declining STP rate: 3.5% for years 0-30, with scheduled reductions as project lifetimes extend [see below]. This framework has been earmarked for revision in a recent review (HM Treasury, 2025).



Source: Oxera (2020) 'A formula for success: reviewing the social discount rate', *Agenda*, September 2020.

Value Capital Costs at SOC Rate

Compute Net-Benefit Flow

Discount Net Benefits at STP Rate

Solution

In Szekeres' (2022; 2024) two-rate framework, capital costs and net benefits are treated separately. First, initial capital costs are discounted at the SOC rate, effectively a hurdle rate to ensure that public money is not expended on fiscally unsustainable projects. Then, the discounted capital costs replace the initial capital outlay in the project net flow. This modified all-inclusive net benefit flow is discounted using the STP rate (Szekeres, 2022, p. 2), to properly reflect society's preferences about consumption timing.

Policy

Flaws in the current appraisal framework outlined in the Green Book Review, and an explanation of how two-rate discounting could address each issue:

- 'Ineffectiveness at assessing transformational change'**
 - Discounting net benefits only after the social cost of capital is accounted for ensures that long-term, uncertain benefits are not suppressed by high initial discount rates.
- 'Over-emphasis on benefit-cost ratios (BCRs) in decision making'**
 - Only projects that pass both hurdles (SOC and STP) would be judged as welfare-enhancing; reduces strategic misrepresentation through rigorous testing.
- 'Overly long and complicated guidance'**
 - The proposed model is a simple, two-step process. Allows for simpler, more proportionate, and more transparent appraisal. Guidance would be simple, once appropriate rates are established.

Further Research

- Estimating appropriate STP and SOC rates within a UK-specific two-rate framework.
- Figuring out how to calibrate Szekeres' model for UK-specific use cases.