

Annexe A

The Benefit-Cost Ratio (BCR) is the key metric used in cost-benefit analysis to evaluate Value For Money and the viability and efficiency of a project. It compares the present value of all benefits generated by the project to the present value of all costs incurred. Below is a detailed explanation of the BCR calculation for HMP Glasgow.

1. Present Value of Benefits

The benefits of the project are quantified and then discounted to their present value. This includes all the positive outcomes expected from the project, such as:

- Increased capacity and improved conditions for prisoners.
- Enhanced regime adequacy, providing better physical and mental well-being, personal development, and reintegration opportunities.
- Compliance with international standards for cell sizes and living conditions.
- Reduced transport costs due to the prison's proximity to Glasgow Sheriff Court.
- Significant reduction in carbon emissions, contributing to environmental sustainability.
- Improved cost efficiency, resulting in lower operating costs per prisoner place.
- Increased staff engagement time, leading to better outcomes for prisoners.
- Support for national social care needs, reducing the cost of bespoke care.
- Reduced reoffending rates, leading to societal benefits.
- Improved safety and well-being for prisoners.

2. Present Value of Costs

The costs of the project are also quantified and discounted to their present value. This includes all expenditures required to complete and operate the project, such as:

- Capital costs for the construction of the new prison.
- Operating costs for running the prison once it is built.
- Maintenance and other ongoing expenses.

3. Discount Rate

Discount rates are used to convert future costs and benefits into their present value. This rate reflects the time value of money, acknowledging that a pound today is worth more than a pound in the future. The discount rate used in the calculation is based on rates specified by the Treasury's Green Book guidelines.

4. Calculation of BCR

The BCR is calculated by dividing the present value of the benefits by the present value of the costs. The formula is:

$$\text{BCR} = \text{Present Value of Benefits} / \text{Present Value of Costs}$$

A BCR greater than 1 indicates that the project is expected to generate more value than it costs, making it a viable and attractive investment. For HMP Glasgow, the

BCR is calculated to be 1.87 at the time of the investment decision, meaning that for every pound spent, the project is expected to generate £1.87 in benefits.

The BCR calculation for HMP Glasgow demonstrates that the project offers substantial value for money. By carefully quantifying and discounting both the benefits and costs, the analysis shows that the new prison will provide significant positive outcomes, justifying the investment. This aligns with the Treasury's Green Book guidelines on evidencing Value For Money, ensuring a robust and transparent evaluation of the project's economic case.