Technical Note – The treatment of inflation and the use of the HM Treasury Discount Rate and GDP deflators in the Explanatory Memorandum for the Senedd Cymru (Members and Elections) Bill

Introduction

This note provides a brief explanation of HM Treasury's central discount rate and the GDP deflator series and outlines how they have been used in the Explanatory Memorandum for the Senedd Cymru (Members and Elections) Bill[1] in line with established methodology. In summary, both the central discount rate and the GDP deflators are used within the Regulatory Impact Assessment (RIA) in different ways, and the GDP deflators are also used in the Affordability Assessment.

Background

HM Treasury discount rate

Discounting is technique which is routinely used in economic appraisal to express costs and benefits which occur in future years in present value terms. This enables a comparison to be made of alternative projects and options in which the costs and benefits occur at different points in time.

The reason costs and benefits are discounted in economic appraisal is to do with Social Time Preference. There are two components to Social Time Preference:

- Time preference - there is evidence that society would generally prefer to consume goods and services now rather than at a later point in time, and
- Wealth effects - since society generally becomes wealthier over time (in real terms), the utility or value gained from consuming goods and services in future years is expected to decrease relative to the current time.

HM Treasury's central discount rate (3.5%) has been calculated to reflect the rate of Social Time Preference, this is applied only to costs and benefits over the short to medium term and only where appropriate.

Lower discount rates should be applied to costs and benefits which impact over the long term, and particularly where future generations may be affected. Lower discount rates should also be applied to health and life impacts, and to some environmental impacts (where wealth effects are not relevant). For intergenerational health, life and environmental impacts, very low discount rates may be appropriate.

In practice, discounting means a declining weight is attached to the monetised costs and benefits which occur in each future year of an appraisal. Discounted costs and benefits are expressed as being in 'present value' terms.

While the discount rate may vary between countries, the technique of discounting costs and benefits to reflect time preference is standard practice, and has been used consistently in RIAs for previous Bills.

[1] pri-ld16037-em-e.pdf (senedd.wales)

The GDP deflator

The GDP deflator is a measure of price changes (i.e. inflation) in the domestic economy. It is calculated by HM Treasury using Gross Domestic Product (GDP) data produced by the Office for National Statistics (ONS).

The GDP deflator reflects the prices of all domestically produced goods and services in the economy, including Government services. This broad base means it is better suited to inflating/deflating public expenditure flows than other headline measures of inflation such as the Consumer Prices Index (CPI) or the Retail Prices Index (RPI).

The GDP deflator series is commonly used to remove the effects of inflation from time series data (hence the name) but it can equally be used to adjust data to include inflation.

How HM Treasury's discount rate has been used in the RIA

Having produced a best estimate of the costs of the Bill, those costs have been discounted using HM Treasury's central discount rate of 3.5% in order to calculate the present value (PV) of costs and the Net Present Value (NPV) of the Bill. These are recorded in the main RIA summary table on pages 125-128 of the Explanatory Memorandum. Unless otherwise stated, all other figures presented in the RIA are undiscounted.

How the GDP deflator series has been used in the RIA

The GDP deflator series has been used to uprate 'historic' cost data in order to ensure all costs share a common price base year in the RIA. To give an example, the data we have on ballot paper printing costs is from 2021. The GDP deflator series has been used to uprate this 2021 cost to 2022-23 prices (the base year used throughout the analysis).

While historic costs have been uprated to reflect inflation, the forward-looking cost projections in the RIA have not been adjusted to include expected future inflation. This is in line with the guidance in HM Treasury's Green Book[2] which states 'Costs and benefits in appraisal of social value should be estimated in 'real' base year prices. This means the effects of general inflation should be removed.'

How the GDP deflator series has been used in the affordability assessment

It has been agreed that the Explanatory Memoranda for all Bills introduced in the Senedd from Year 3 of the Legislative Programme will include an affordability

[2] The Green Book (publishing.service.gov.uk)

assessment in addition to the RIA. This change has been made in response to recommendations made by Finance Committee.

One of the main differences between the RIA and the affordability assessment is the latter **does** include general price inflation for future years. For the reason outlined above, the GDP deflator series is considered to be the most appropriate price index for adjusting the cost estimates to take into account expected inflation.

The Office for Budget Responsibility (OBR) presents a forecast for the GDP deflator in the Economic and Fiscal Outlook (EFO) publication which accompanies the Chancellor of the Exchequer's annual Spring Budget and Autumn Statements. The forecasts in the Spring 2023 EFO[3] (the latest available) were used to adjust the cost estimates in the affordability assessment for the Senedd Cymru (Members and Elections) Bill.

The costs in the affordability analysis have **not** been discounted using HM Treasury's central discount rate.

Economics and Fiscal Analysis
Welsh Treasury
September 2023

[3] Economic and fiscal outlook - March 2023 - Office for Budget Responsibility (obr.uk)