Údarás Náisiúnta Iompair
National Transport Authority

NTA Inflation Bulletin User Guide June 2026

Introduction

General

The Inflation Bulletin, and associated Inflation Report, provides a forward-looking analysis of inflationary trends within the Irish construction sector. Its primary purpose is to support Sponsoring Agencies in developing robust inflation assumptions for cost estimation across projects and programmes where the NTA acts as the Approving Authority.

Advice Note: The inflation report in its entirety (Modelling & Analysis) was completed prior to the onset of the Middle East conflict which commenced on 28th February 2026 (modelling base date of November 2025). The report in its entirety has been prepared Grant Thornton and AECOM. All modelling, assumptions, and estimations contained herein have been developed by Grant Thornton and represent estimates rather than certainties; as such, they are subject to change. Considering current global developments, market conditions are inherently volatile. Accordingly, all inflation forecasts presented in the report should be interpreted with an appropriate degree of caution.

The Bulletin and Report delivers price change forecasts for the following key categories:

- Tender Prices
- Material Prices
- Land and Property Capital Values

To complement this, the User Guide offers practical guidance on applying the data contained in the Inflation Bulletin and the associated Inflation Report. Specifically, it addresses:

- Methods for establishing inflationary values.
- Criteria for selecting single-point estimates versus range-based estimates.
- Worked examples to illustrate best practice in applying inflation assumptions.

The aim of this guidance is to ensure consistency and accuracy in cost estimation, enabling informed decision making and effective financial planning for infrastructure projects.

What is Tender Price Inflation

Tender price inflation reflects changes in the prices contractors submit in tenders for construction projects. It captures the overall market conditions, including contractor margins, risk allowances, and competitive dynamics. Tender prices are influenced not only by material and labour costs but also by factors such as demand for construction services, capacity constraints, and risk premiums. In essence, it represents the price the client pays to deliver the project. Tender price inflation is measured using the tender price index.

What is Cost Price Inflation

Cost price inflation measures changes in the underlying input costs of construction, such as materials, labour, plant, and overheads. It excludes contractor pricing strategies and market competition effects. This index is used to understand the real cost drivers within the supply chain and is often applied for estimating and benchmarking purposes. Cost price inflation is measured using the cost price index.

What is Land and Property Price Inflation

Land and Property Price Inflation measures changes in the market value of land and property over time. It is influenced by factors such as supply and demand, economic conditions, planning regulations, and infrastructure development. These fluctuations directly impact acquisition costs for projects and can significantly affect overall budgets. Accurate forecasting helps Sponsoring Agencies manage financial risk and maintain realistic cost estimates. Understanding these trends is essential for effective project planning and investment decisions. Land and property price inflation is measured using the land and property price index.

Which Index to Use

Unless otherwise agreed, the NTA requires that the tender price index be used when assessing inflationary allowances for projects where it is the Approving Authority. The Rational for the use of this particular index is summarised in the below table.

Phase	Gateway	Gateway Decision	Inflation Index to be Used	Rational for Use of Particular Index
Phase 1 Scope and Purpose	Gateway 1	Decision to commence project and proceed to next Phase including Option development	Tender Price Index (TPI)	During phases 1 to 5A the contract price is unknown and is subject to change. TPI is the most approprite index for application at this phase as it captures contractor pricing behaviour, supply/demand dynamics, competition, risk allowances, overheads and profit, all of which are still variable at phases 1 - 5A.
Phase 2 Concept Development and Options Selection	Gateway 2	Decision to develop the Preferred option to Preliminary Design level		
Phase 3 Preliminary Design	Gateway 3	Decision to proceed to Statutory Process Stage		
Phase 4 Statutory Processes	Gateway 4	Decision to proceed to further design and develop tender documentation		
Phase 5 Detailed Design and Procurement	Gateway 5A	Decision to proceed to tender for construction / implementation		
	Gateway 5B	Decision to proceed to contract for construction / implementation	Tender Price Index (TPI).	Tender Price Index = default to ensure consistency of approach. The most appropriate index to be used at phase 5B and Phase 6 may depend on the construction contract terms and conditions, specifically in relation to inflation clauses. Alternative Index may be proposed to NTA if deemed more appropriate considering contract terms and conditions.
Phase 6 Construction and Implementation	Gateway 6	Confirmation that the works are complete and that a Project Completion Report should be prepared		

Table 1: Applicability of Indices

The Project Types

When applying the Tender Price Index, users should note that the index is divided into five broad project categories as outlined below. Using the descriptions provided for each category, the project team must identify the most appropriate classification for their project. Once the correct category is determined, the corresponding inflation forecasts should be applied to the cost estimates to ensure accuracy and consistency.

Project Type	Description
General	A catch-all description that is intended to represent infrastructure construction 'generally'.
Highways (Rural)	A project that involves traditional highway construction works (e.g. earthworks, drainage, pavement works etc) and may incorporate some aspects of sustainable and active travel within a rural environment (i.e outside of towns and cities).
Highways (Urban)	A project that involves traditional highway construction works (e.g. earthworks, drainage, pavement works etc) and is likely to incorporate or a significant aspect of which may relate to sustainable and active travel within an urban environment (i.e within towns and cities)
Civil Engineering	Projects that are based primarily on civil engineering designs and plans, including bridges, utilities, water and wastewater projects, drainage projects etc but excluding highways and rail projects.
Rail	Projects that involve the construction or alterations to railway lines. Rail projects that are primarily building or Signalling and Track works should not be considered as part of this Project Type.

Table 2: Descriptions of Different Project Types

The Rural Highways Tender Price Inflation follows a similar pathway to that of the General Tender Price Inflation, with this being reflective of the similar cost inputs in both. As a result, the Tender Price Inflation pathway for General inputs and Rural Highways are similar.

Application of Inflation Forecasts

Step-By-Step Approach

To assess the allowances that are to be made for future price changes, the following steps are essential:

1. Determine the appropriate assessment methodology. There are various methods of assessing inflation. This may include, but is not limited to:

   - Inflation to mid-point of construction.
   - Inflation progressively assessed throughout construction using expenditure profiles that have been generated using S-Curve analysis techniques (or other techniques).
   - Inflation progressively assessed using expenditure profiles that have been generated using cost loaded programmes.

   The above assessment methodologies are listed from least to most robust. Users should use the more robust methods as projects progress through the project life cycle and for projects that are of a greater scale and complexity or are being delivered over a longer duration.

2. Establish the value that is to be inflated (the Base Date value) and when it is to be inflated to (the Forecast Date). Depending on the methodology adopted, there may be multiple values that are to be inflated from the Base Date to the Forecast Date.
3. Identify the Index Value (refer to Inflation Report) at the Base Date and at the respective Forecast Date(s).
4. Using the formula below, establish the Adjustment Percentage(s) for each of the values that require inflating.

$$\frac{\text{(Index Value at Forecast Date - Index Value at Base Date)}}{\text{Index Value at Base Date}} \times 100 = \text{Adjustment Percentage}$$

5. Apply the Adjustment Percentage(s) to the Value(s) established at Step 2 to establish the inflation value. If multiple values have been inflated, the user will be required to combine all the inflation values to establish the total inflation value for the project.

Refinement of Inflation Assessments (Possible Additional Step)

Within the Inflation Bulletin (and Report), inflation forecasts are presented in yearly increments. This has the potential to create two issues if not addressed:

- Where a Forecast Date (the date costs are being inflated to) is part the way through a calendar year, applying the entire inflation forecast for that year is likely to result in an over estimation of the inflationary cost. This issue is exacerbated the further the Forecast Date is from the end of the calendar year.
- During the construction period (this is not an issue for the period pre-construction) it would not be appropriate to apply the entire annual forecast price change to the spend for the entire year. This is because inflation will occur progressively throughout the year.

In order to prevent or mitigate the impact of the above, the following is recommended:

- Preferably, inflation is assessed at shorter intervals (e.g. monthly or quarterly) with the annual price change factored to account for the shorter intervals.
- Where construction spend spans an entire calendar year, the total annual inflation value is factored by a percentage to establish the inflation value that should be included in the cost estimate (e.g 60% of the annual inflation value).

Inflation as a Range or Single Point Estimate

Reporting Inflation as a Single Point Estimate

The single point estimate approach is particularly appropriate for projects scheduled for completion in the short to medium term (i.e., within two years of the estimate being produced), where the scope and nature of the project are relatively straightforward, or where it is mandated by organisational policy. Under the NTA's Cost Management Guidelines (CMG's), the default position is that the production of a single-point estimate for inflation is currently required; however, the NTA will consider a range-based approach in circumstances where it is deemed more suitable.

If forecasting inflation as a single point estimate, the base values in the tender price index should be applied.

Reporting Inflation as a Range

With prior agreement from the NTA, Inflation forecasts may be expressed as a range where uncertainty in market conditions makes a single point estimate less reliable. This approach is appropriate in the following circumstances:

- Medium to long-term projections beyond the standard five-year horizon, where economic assumptions become less predictable.
- Periods of market volatility, such as supply chain disruptions, geopolitical risks, or significant fluctuations in material and labour costs.
- Scenario-based planning, where upper and lower bounds are required to reflect potential variations in inflation outcomes.

Using ranges provides a more robust basis for risk assessment and contingency planning, ensuring that cost estimates account for variability in future price movements.

If forecasting inflation as a range, the lower and upper values in the tender price index should be applied.

Worked Example - Single Point Inflation Estimate

In this section, two worked examples have been provided to demonstrate two different methods for preparing a single point estimate for inflation:

1. Inflation to the mid-point of the project.
2. Inflation based on expenditure profiles (project S-Curves).

In both scenarios, the base values in the tender price index have been used to calculate the inflation value.

The Project

The Project is a 2-kilometre-long upgrade of a carriageway being delivered in an urban area. The base cost estimate has been prepared at the end of 2023, construction is due to commence in early 2024 and completion is programmed to be achieved in mid-2026. The construction cost of the project at the base date is €15,250,000.

Inflation to the Mid-Point of Construction

Following the five-step process outlined previously in this User Guide, the actions/outputs are summarised as follows:

1. Inflation to the mid-point has been selected as the first method of assessing inflation.
2. The value to be inflated is the entire construction cost of €15,250,000.
3. The Index value at the base date (2023), using the Tender Price Index for Highways Urban in the NTA Bulletin, is 130.54. The Index Value at the forecast date (mid-point of construction – Q1 2025) is 135.73.

As the index for the forecast date is part the way through a year, an arithmetical adjustment is required to establish the proportion that costs will have changed to that point in the year. In this case, Q1 2025 is 25% of the total inflation movement expected in 2025.

4. The below formula has been used to establish the Adjustment Percentage:

$$\frac{(135.73 - 130.54)}{130.54} \times 100 = 3.98\%$$

5. Multiplying the Adjustment Percentage (3.98%) to the value to be inflated (€15,250,000), it results in an inflation value for this project of €606,950.

Using this methodology, the inflation allowance that has been established for this project is €606,950.

Inflation using S-Curve Generated Expenditure Forecasts

S-Curve expenditure profiling is based on the general understanding that project expenditure will:

- Start fairly slowly for the first approximate 10 to 20% of the project duration.
- After this initial period, project expenditure is incurred at a reasonably consistent rate.
- This consistent rate continues up until the last 10 to 20% of the project duration, after which expenditure slows progressively until completion.

The following S-Curve expenditure forecast has been provided for demonstration purposes.

Period	Duration Complete (%)	Cumulative Expenditure (%)	Cumulative Expenditure (€)	Expenditure in the Period (€)
Q1 2024	10%	3.77%	€ 574,925	€ 574,925
Q2 2024	20%	9.58%	€ 1,460,950	€ 886,025
Q3 2024	30%	20.02%	€ 3,053,050	€ 1,592,100
Q4 2024	40%	33.50%	€ 5,108,750	€ 2,055,700
Q1 2025	50%	48.58%	€ 7,408,450	€ 2,299,700
Q2 2025	60%	65.37%	€ 9,968,925	€ 2,560,475
Q3 2025	70%	78.98%	€ 12,044,450	€ 2,075,525
Q4 2025	80%	90.83%	€ 13,851,575	€ 1,807,125
Q1 2026	90%	96.52%	€ 14,719,300	€ 867,725
Q2 2026	100%	100.00%	€ 15,250,000	€ 530,700

Table 3: Expenditure Profile Using S-Curve

The primary difference from the mid-point of construction approach is that the cost breakdown is significantly more detailed and therefore the inflation assessment is more thorough. The same 5 step process is followed; however this is carried out on the expenditure per quarter.

When this type of assessment is being carried out, it can be advisable to use Microsoft Excel (or other available software) due to the number of separate calculations required. A summary of the inflation assessment for the example project has been provided in the Table 3 below:

Period	Expenditure in the Period (€)	Index at Base Date	Index at Forecast Date	Adjustment Percentage	Inflation (€)
Q1 2024	€ 574,925	130.54	131.55	0.78%	€ 4,456
Q2 2024	€ 886,025	130.54	132.56	1.55%	€ 13,733
Q3 2024	€ 1,592,100	130.54	133.58	2.33%	€ 37,016
Q4 2024	€ 2,055,700	130.54	134.59	3.10%	€ 63,727
Q1 2025	€ 2,299,700	130.54	135.73	3.98%	€ 91,444
Q2 2025	€ 2,560,475	130.54	136.87	4.85%	€ 124,252
Q3 2025	€ 2,075,525	130.54	138.02	5.73%	€ 118,908
Q4 2025	€ 1,807,125	130.54	139.16	6.61%	€ 119,368
Q1 2026	€ 867,725	130.54	140.38	7.54%	€ 65,411
Q2 2026	€ 530,700	130.54	141.60	8.47%	€ 44,956
				TOTAL	€ 683,270

Table 4: Inflation Assessment Using S-Curve Expenditure Profile

Using this methodology, the inflation allowance that has been established for this project is €683,270.

Worked Example – Range Inflation Estimate

This section provides worked examples of how to prepare a range estimate for inflation based on two different methods:

1. Inflation to the mid-point of the project.
2. Inflation based on expenditure profiles (project S-Curves).

In both scenarios, the lower and upper bands of the tender price index for the relevant project type have been used to establish the inflationary adjustments.

The Project

The Project is a 3-kilometre-long upgrade to an urban corridor. The base cost estimate has been prepared at the end of 2023, construction is due to commence in early 2026 and completion is programmed to be at the end of 2029. The construction cost of the project at the base date is €45,000,000.

Inflation to the Mid-Point of Construction

Range Valuation Point 1 (Lower Band)

Following the five-step process outlined previously in this User Guide, the actions/outputs are summarised as follows:

1. Inflation to the mid-point has been selected as the first method of assessing inflation.
2. The value to be inflated is the entire construction cost of €45,000,000.
3. The lower band Index value at the base date (2023), using the Tender Price Index for Highways Urban in the NTA Bulletin, is 130.54. The lower Index Value at the forecast date (mid-point of construction – Q4 2027) is 145.64.
4. The below formula has been used to establish the Adjustment Percentage:

$$\frac{(145.64 - 130.54)}{130.54} \times 100 = 11.57\%$$

5. Multiplying the Adjustment Percentage (11.57%) to the value to be inflated (€45,000,000), it results in an inflation value for this project of €5,206,500.

Using this methodology, the lower range inflation allowance that has been established for this project is €5,206,500.

Range Valuation Point 2 (Upper Band)

Following the five-step process outlined previously in this User Guide, the actions/outputs are summarised as follows:

1. Inflation to the mid-point has been selected as the first method of assessing inflation.
2. The value to be inflated is the entire construction cost of €45,000,000.
3. The upper band Index value at the base date (2023), using the Tender Price Index for Highways Urban in the NTA Bulletin, is 130.54. The upper Index Value at the forecast date (mid-point of construction – Q4 2027) is 153.87.
4. The below formula has been used to establish the Adjustment Percentage:

$$\frac{(153.87 - 130.54)}{130.54} \times 100 = 17.87\%$$

5. Multiplying the Adjustment Percentage (17.87%) to the value to be inflated (€45,000,000), it results in an inflation value for this project of €8,041,500.

Using this methodology, the upper range inflation allowance that has been established for this project is €8,041,500.

In summary, applying the mid-point methodology, the inflation range for this project has been established as €5,206,500 to €8,041,500.

Inflation using S-Curve Generated Expenditure Forecasts

S-Curve expenditure profiling is based on the general understanding that project expenditure will:

- Start fairly slowly for the first approximate 10 to 20% of the project duration.
- After this initial period, project expenditure is more extensive and is incurred at a reasonably consistent rate.
- This consistent rate continues up until the last 10 to 20% of the project duration, after which expenditure slows progressively until completion.

The following S-Curve expenditure forecast has been provided for demonstration purposes.

Period	Duration Complete (%)	Cumulative Expenditure (%)	Cumulative Expenditure (€)	Expenditure in the Period (€)
Q1 2026	6.25%	2.11%	€ 949,500	€ 949,500
Q2 2026	12.50%	4.85%	€ 2,182,500	€ 1,233,000
Q3 2026	18.75%	8.65%	€ 3,892,500	€ 1,710,000
Q4 2026	25.00%	14.20%	€ 6,390,000	€ 2,497,500
Q1 2027	31.25%	21.82%	€ 9,819,000	€ 3,429,000
Q2 2027	37.50%	30.38%	€ 13,671,000	€ 3,852,000
Q3 2027	43.75%	39.07%	€ 17,581,500	€ 3,910,500
Q4 2027	50.00%	48.58%	€ 21,861,000	€ 4,279,500
Q1 2028	56.25%	59.44%	€ 26,748,000	€ 4,887,000
Q2 2028	62.50%	69.46%	€ 31,257,000	€ 4,509,000
Q3 2028	68.75%	77.64%	€ 34,938,000	€ 3,681,000
Q4 2028	75.00%	85.84%	€ 38,628,000	€ 3,690,000
Q1 2029	81.25%	92.03%	€ 41,413,500	€ 2,785,500
Q2 2029	87.50%	95.93%	€ 43,168,500	€ 1,755,000
Q3 2029	93.75%	97.84%	€ 44,028,000	€ 859,500
Q4 2029	100.00%	100.00%	€ 45,000,000	€ 972,000

Table 5: Expenditure Profile Using S-Curve – Range Approach

The primary difference between an inflation assessment of this nature and the inflation assessment to the mid-point, is that the cost breakdown is significantly more detailed and therefore the inflation assessment is more thorough. The same 5 step process is followed, however this is carried out on the expenditure per quarter.

When this type of assessment is being carried out, it can be advisable to use Microsoft Excel (or other available software) due to the number of separate calculations required. A summary of the inflation assessment for the example project has been provided in the Tables 5 and 6 below:

Range Valuation Point 1 (Lower Band)

The range valuation point 1 below has been calculated using the index figures in the lower band of the tender price index for this particular project type.

Period	Expenditure in the Period (€)	Index at Base Date	Index at Forecast Date	Adjustment Percentage	Inflation (€)
Q1 2026	€ 949,500	130.54	139.63	6.96%	€ 66,089
Q2 2026	€ 1,233,000	130.54	140.49	7.62%	€ 94,014
Q3 2026	€ 1,710,000	130.54	141.36	8.29%	€ 141,744
Q4 2026	€ 2,497,500	130.54	142.23	8.95%	€ 223,614
Q1 2027	€ 3,429,000	130.54	143.08	9.61%	€ 329,432
Q2 2027	€ 3,852,000	130.54	143.93	10.26%	€ 395,252
Q3 2027	€ 3,910,500	130.54	144.79	10.91%	€ 426,818
Q4 2027	€ 4,279,500	130.54	145.64	11.57%	€ 495,069
Q1 2028	€ 4,887,000	130.54	146.55	12.27%	€ 599,424
Q2 2028	€ 4,509,000	130.54	147.46	12.96%	€ 584,501
Q3 2028	€ 3,681,000	130.54	148.37	13.66%	€ 502,835
Q4 2028	€ 3,690,000	130.54	149.28	14.36%	€ 529,795
Q1 2029	€ 2,785,500	130.54	150.25	15.10%	€ 420,636
Q2 2029	€ 1,755,000	130.54	151.22	15.84%	€ 278,066
Q3 2029	€ 859,500	130.54	152.19	16.59%	€ 142,570
Q4 2029	€ 972,000	130.54	153.16	17.33%	€ 168,456
				TOTAL	€ 5,398,317

Table 6: Inflation Assessment Using S-Curve Expenditure Profile – Lower Range

Using this methodology, the lower range inflation allowance that has been established for this project is €5,398,317.

Range Valuation Point 2 (Higher Band)

The range valuation point 2 below has been calculated using the index figures in the upper band of the tender price index for this particular project type.

Period	Expenditure in the Period (€)	Index at Base Date	Index at Forecast Date	Adjustment Percentage	Inflation (€)
Q1 2026	€ 949,500	130.54	141.82	8.64%	€ 82,054
Q2 2026	€ 1,233,000	130.54	143.54	9.96%	€ 122,765
Q3 2026	€ 1,710,000	130.54	145.25	11.27%	€ 192,740
Q4 2026	€ 2,497,500	130.54	146.97	12.59%	€ 314,339
Q1 2027	€ 3,429,000	130.54	148.70	13.91%	€ 476,940
Q2 2027	€ 3,852,000	130.54	150.42	15.23%	€ 586,733
Q3 2027	€ 3,910,500	130.54	152.15	16.55%	€ 647,375
Q4 2027	€ 4,279,500	130.54	153.88	17.88%	€ 765,075
Q1 2028	€ 4,887,000	130.54	155.80	19.35%	€ 945,691
Q2 2028	€ 4,509,000	130.54	157.72	20.82%	€ 938,982
Q3 2028	€ 3,681,000	130.54	159.65	22.30%	€ 820,793
Q4 2028	€ 3,690,000	130.54	161.57	23.77%	€ 877,171
Q1 2029	€ 2,785,500	130.54	163.67	25.38%	€ 706,976
Q2 2029	€ 1,755,000	130.54	165.77	26.99%	€ 473,668
Q3 2029	€ 859,500	130.54	167.87	28.60%	€ 245,805
Q4 2029	€ 972,000	130.54	169.97	30.21%	€ 293,619
				TOTAL	€ 8,490,726

Table 7: Inflation Assessment Using S-Curve Expenditure Profile – Upper Range

Using this methodology, the upper range inflation allowance that has been established for this project is €8,490,726.

In summary, applying the S-Curve methodology, the inflation range for this project has been established as €5,398,317 to €8,490,726.

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