



CONSTRUCTION COST MANAGEMENT: HOW CAN COST DATA IMPROVE PROJECT PERFORMANCE?

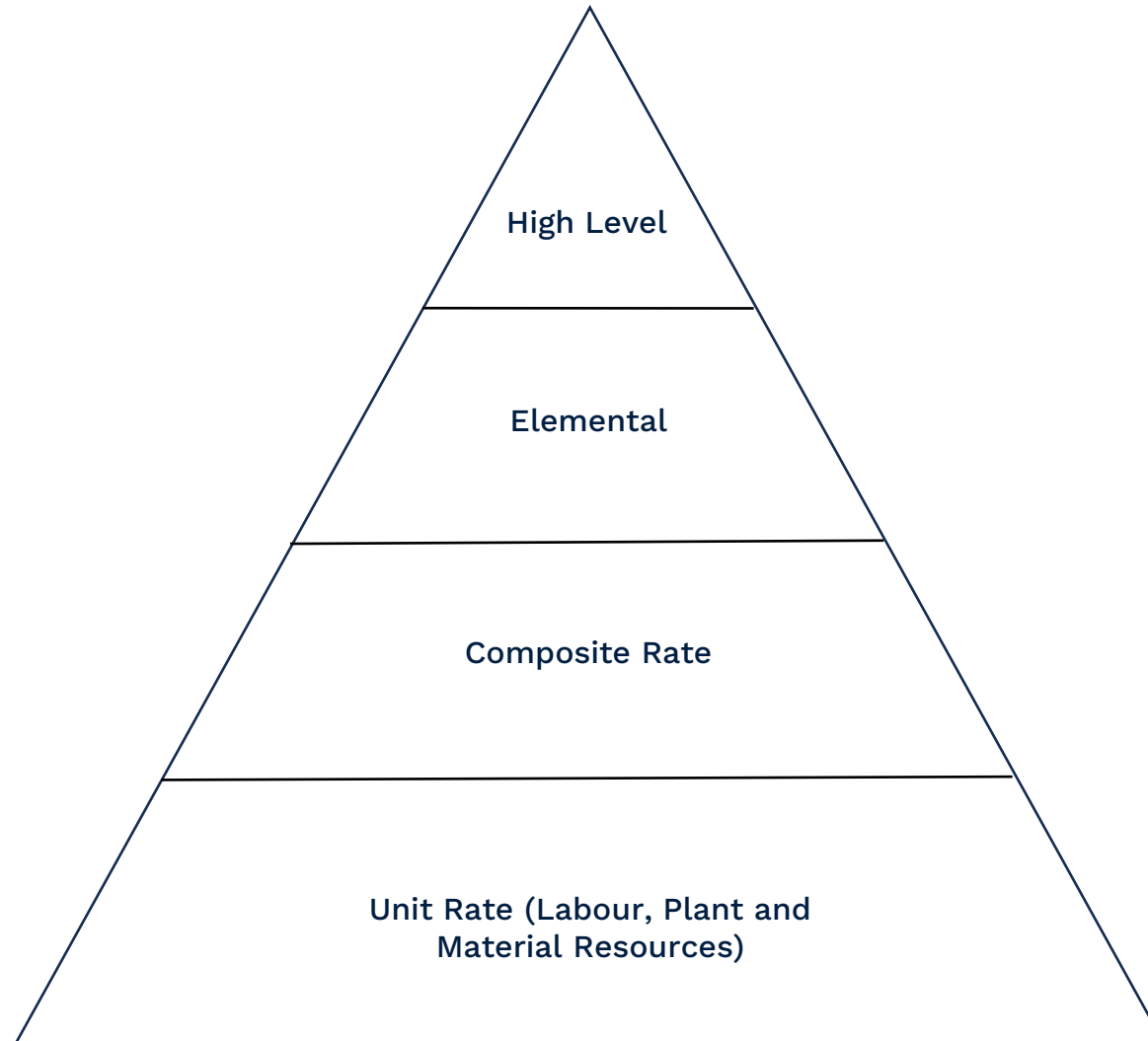
31st AUGUST 2023



AGENDA

- ▶ How cost data is used in project estimates
- ▶ External forces on and significant variations in construction costs
- ▶ The pitfalls of using inappropriate cost data
- ▶ How to ensure cost data reflects your specific project requirements
- ▶ How you can reap the benefits of using reliable cost data

DIFFERENT LEVELS OF CONSTRUCTION COST DATA



DIFFERENT LEVELS OF CONSTRUCTION COST DATA



Building function (Maximum age of projects)	£/m ² gross internal floor area						Sample
	Mean	Lowest	Lower quartiles	Median	Upper quartiles	Highest	
New build							
412. General hospitals, GP hospitals, cottage hospitals							

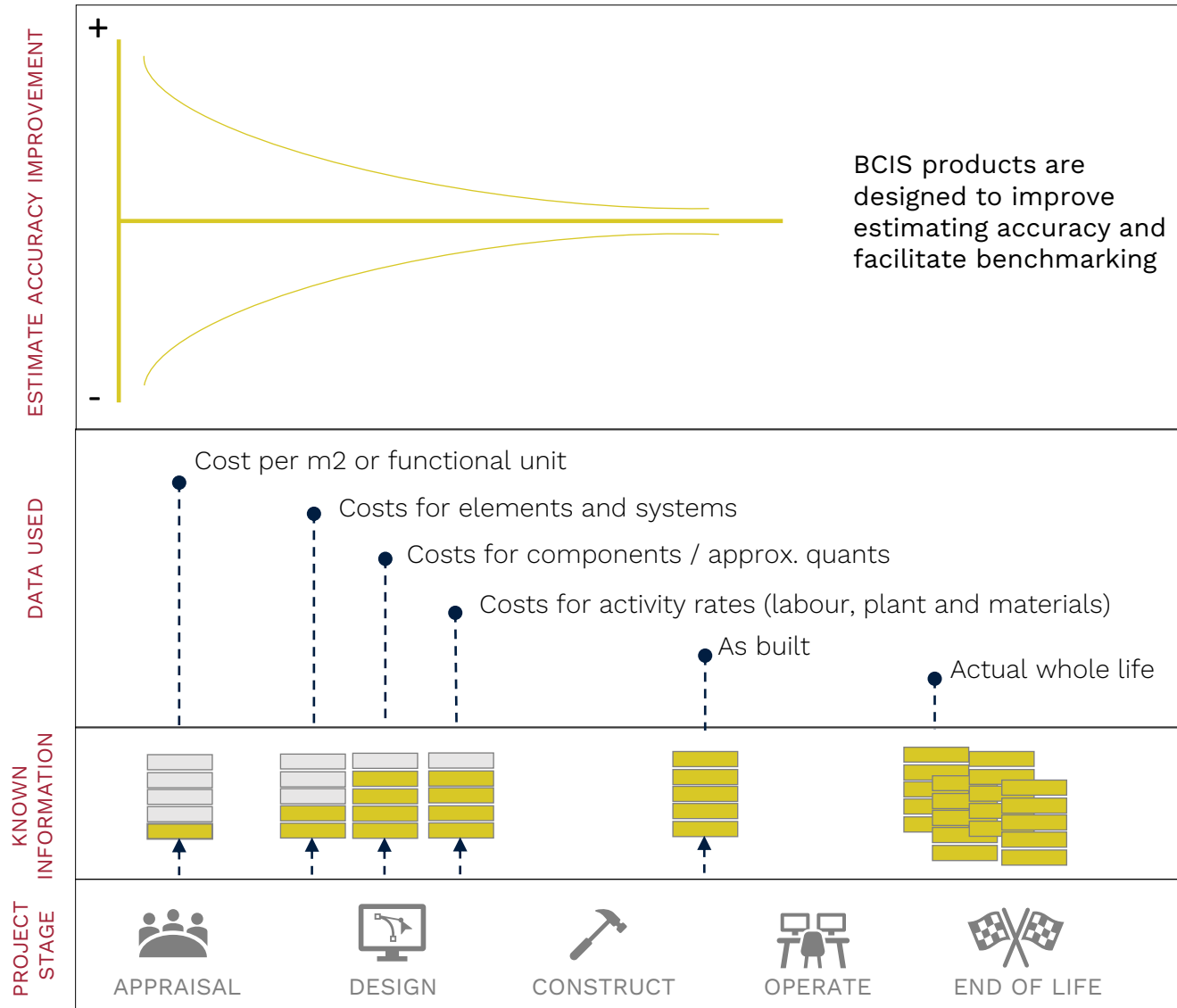
Source: BCIS Average Prices



Code	Description	Quantity	Unit	Rate	Total
A	Labour, plant, mortars and aggregates				
	Labour				
A2012	General Operative (skill rate 4)				
A	Labour, plant, mortars and aggregates				
A1	Wages - CIJC				
A2012CIJC	General Operative (skill rate 4)	1.00	hour	16.42	= 16.42
		1.00	Sub-Total		= 16.42
	Sum of Sub-Total / Quantity	1.00	Unit Price		= 16.42
	Waste				
	Overheads and Profit				
	TOTAL			16.42	16.42

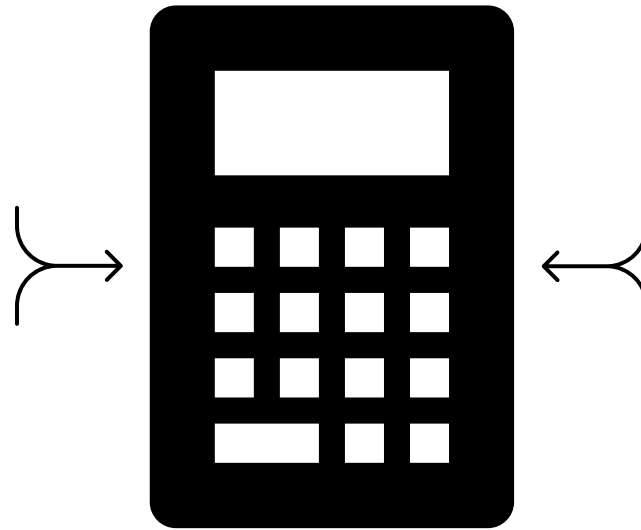
Source: BCIS Major Works Estimating Prices 2024

HOW COST DATA BECOMES MORE REFINED



SOURCES OF CONSTRUCTION COST DATA

- ▶ Building Merchant Prices
- ▶ Bills of Quantities
- ▶ Cost Analyses
- ▶ Construction Site Wage Rates
- ▶ Import Price Indices
- ▶ Industry Earnings Statistics
- ▶ Manufacturer Price Lists



- ▶ National Wages Awards
- ▶ Plant Hire Firms
- ▶ Producer Price Indices
- ▶ Survey Respondents
- ▶ Taxes, e.g. Landfill
- ▶ Tender Prices

EXTERNAL FORCES ON CONSTRUCTION COSTS



Home » Insolvencies and profit warnings in the construction industry

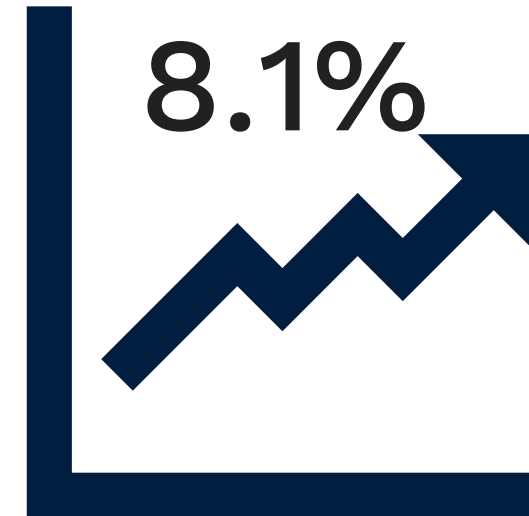
Insolvencies and profit warnings in the construction industry

Home » Scottish housing construction prices fall

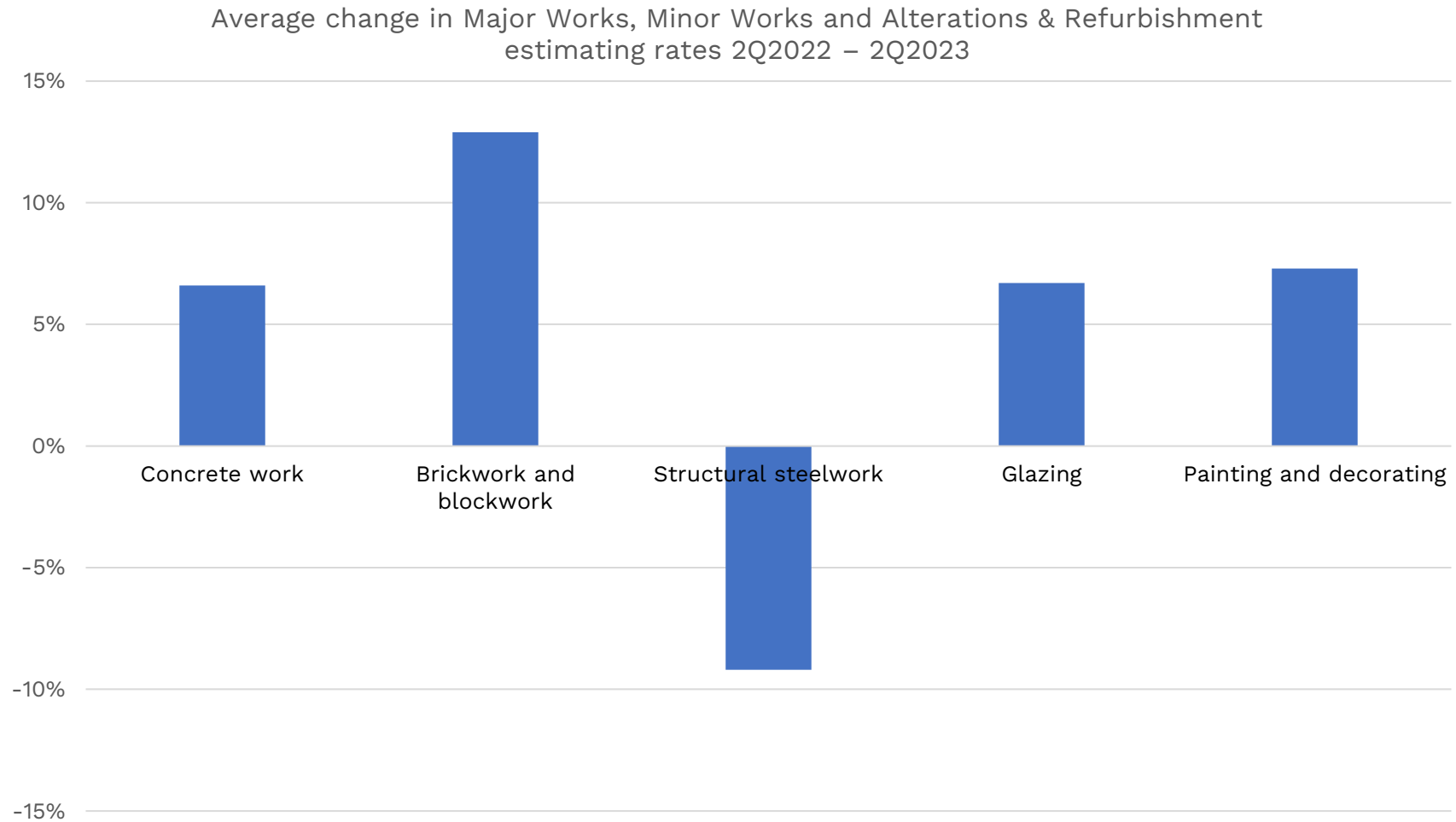
Scottish housing construction prices fall



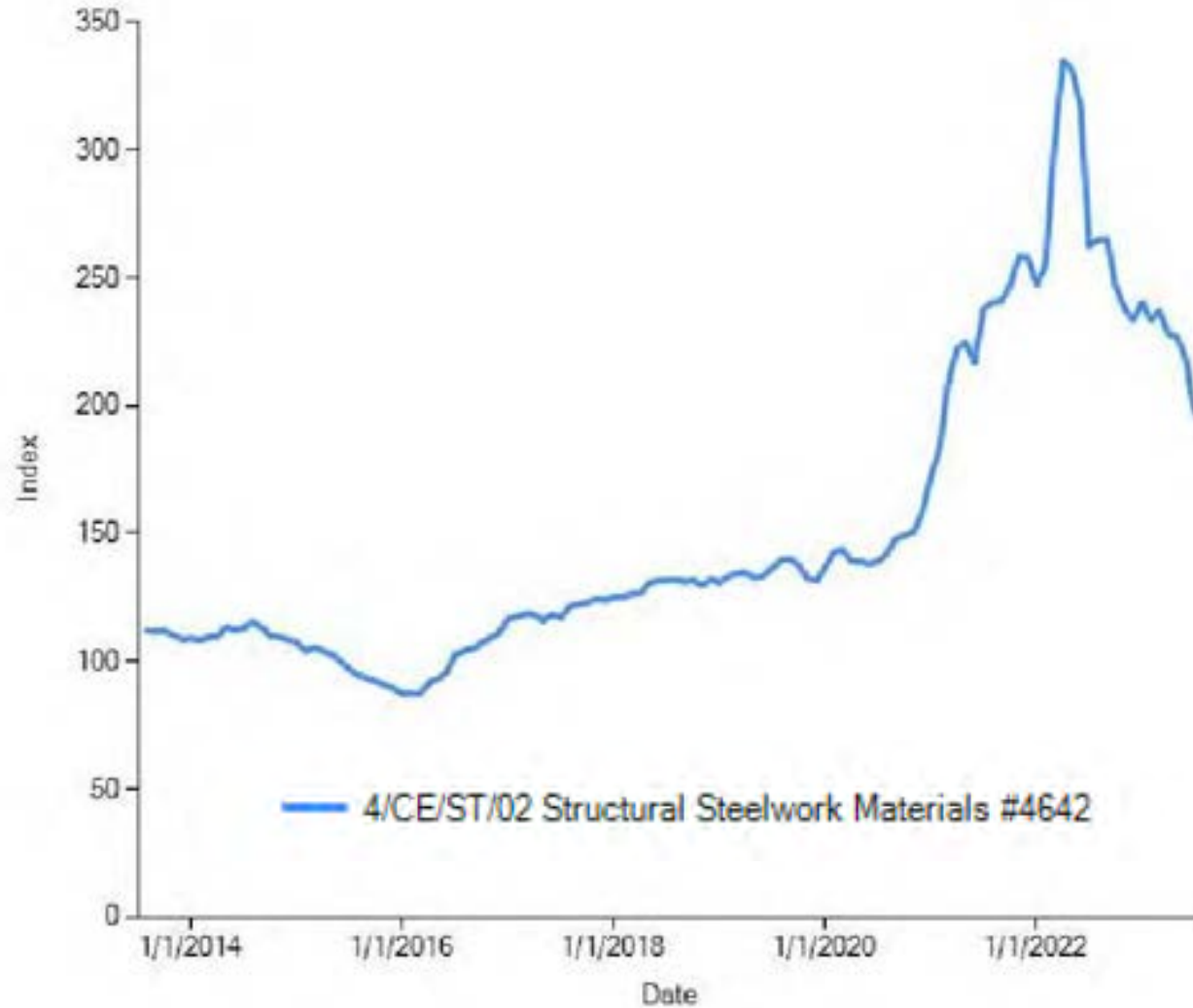
VARIATIONS IN CONSTRUCTION COSTS



VARIATIONS IN CONSTRUCTION COSTS



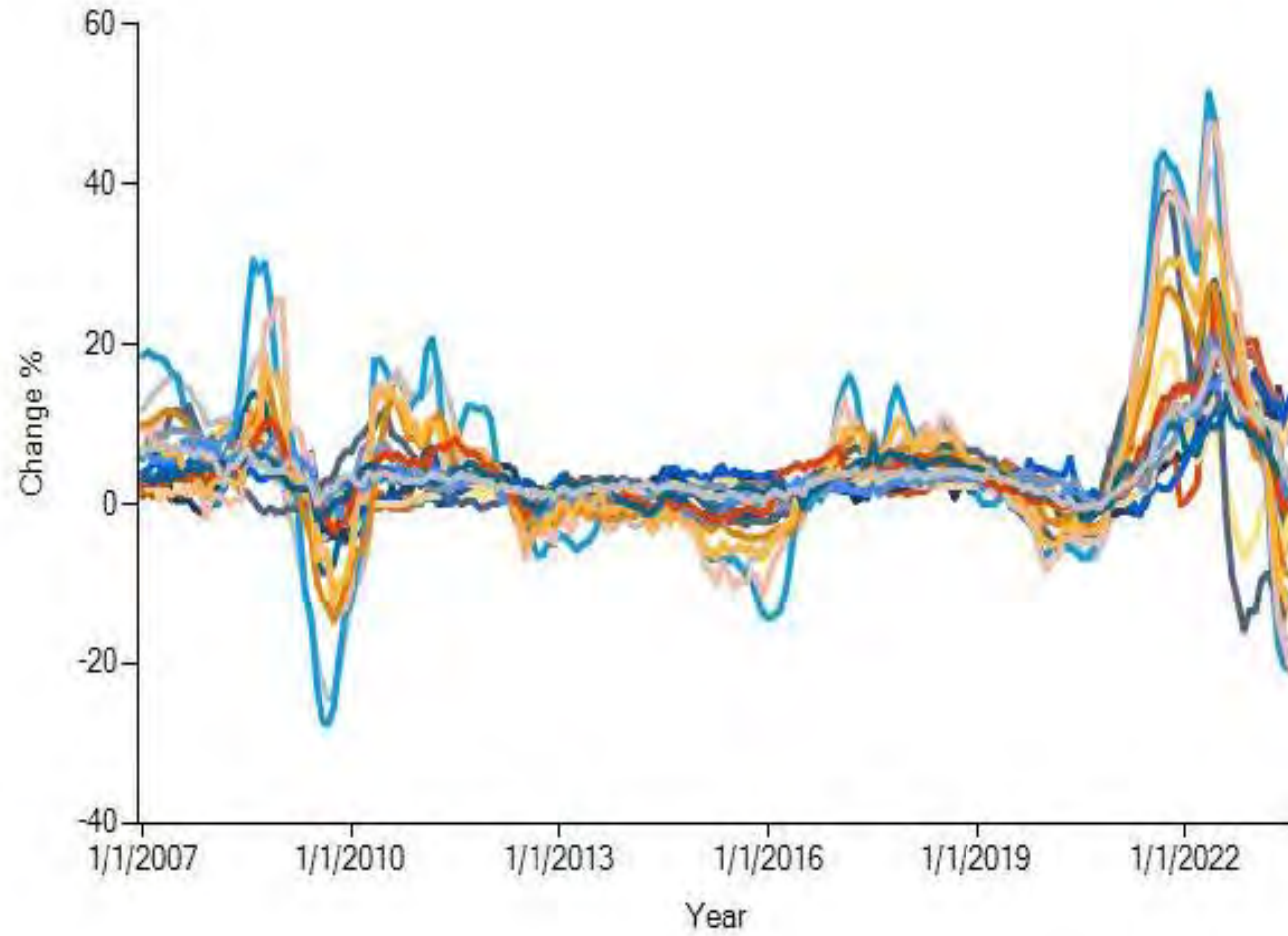
VARIATIONS IN CONSTRUCTION COSTS



Source: BCIS Civil Engineering and Specialist Engineering Price Adjustment Formulae Indices

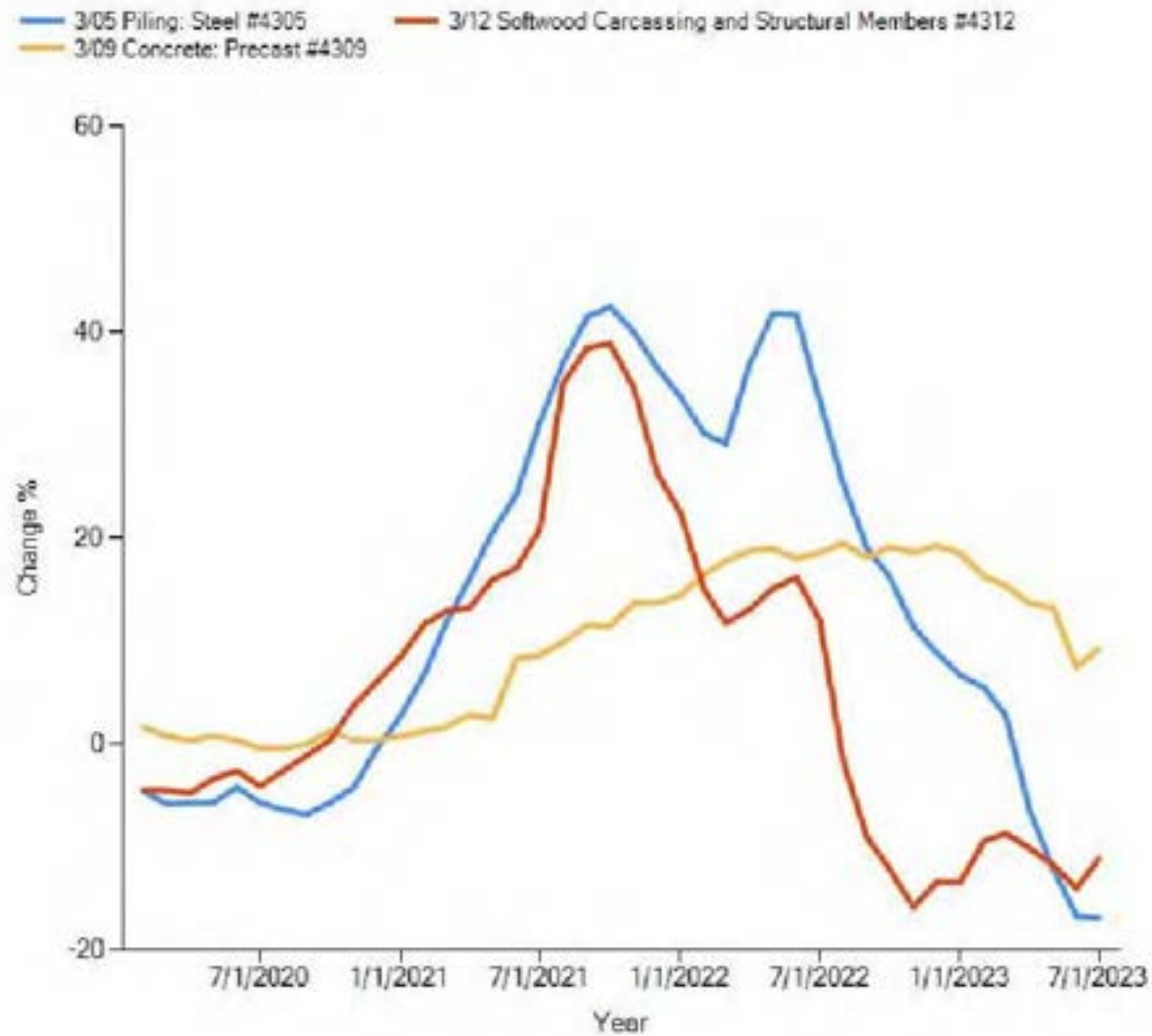
VARIATIONS IN CONSTRUCTION COSTS

Price Adjustment Formulae Indices (Building) Series 3 Annual % Change



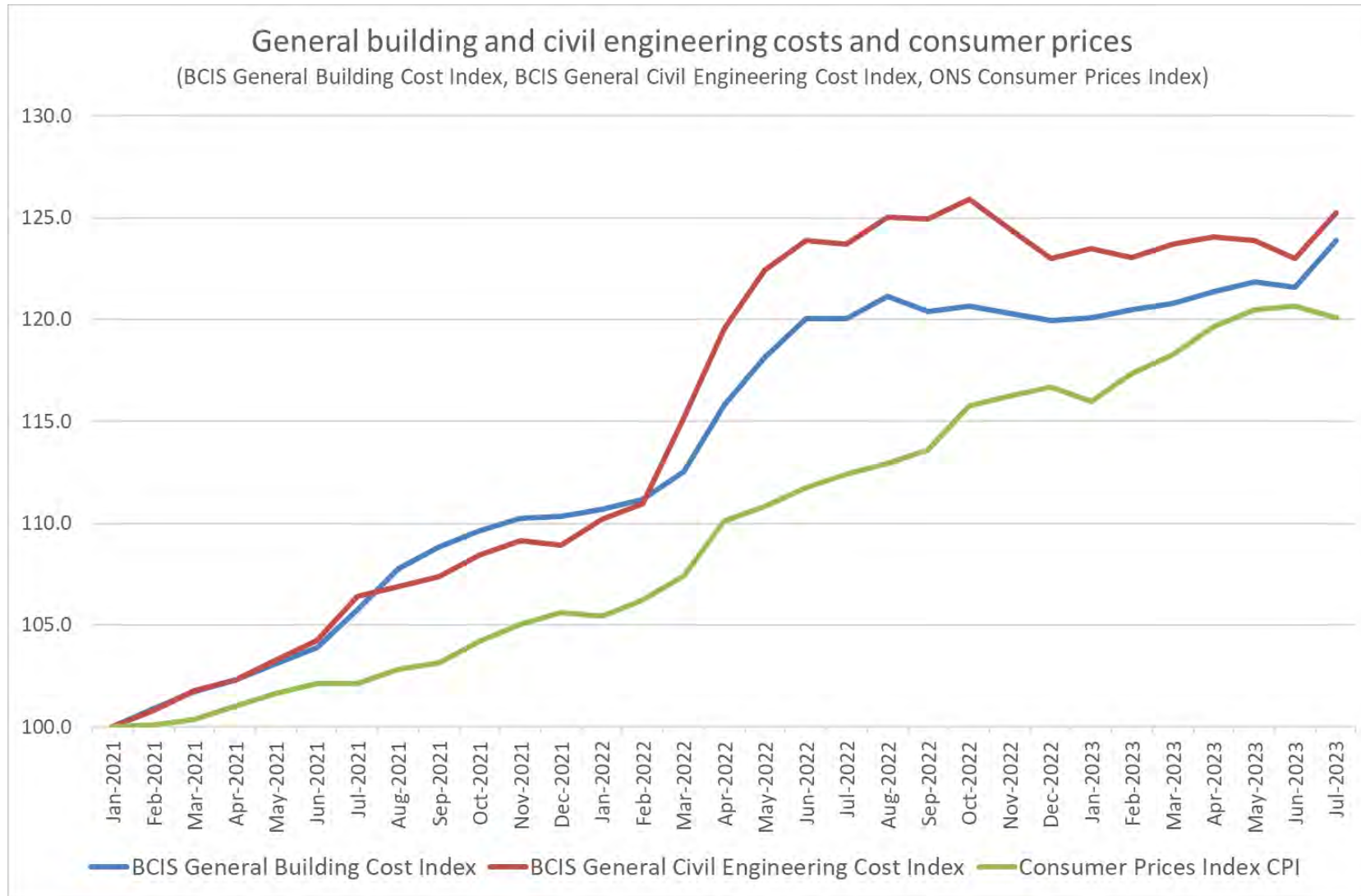
Source: BCIS Price Adjustment Formulae Indices (PAFI)

VARIATIONS IN CONSTRUCTION COSTS

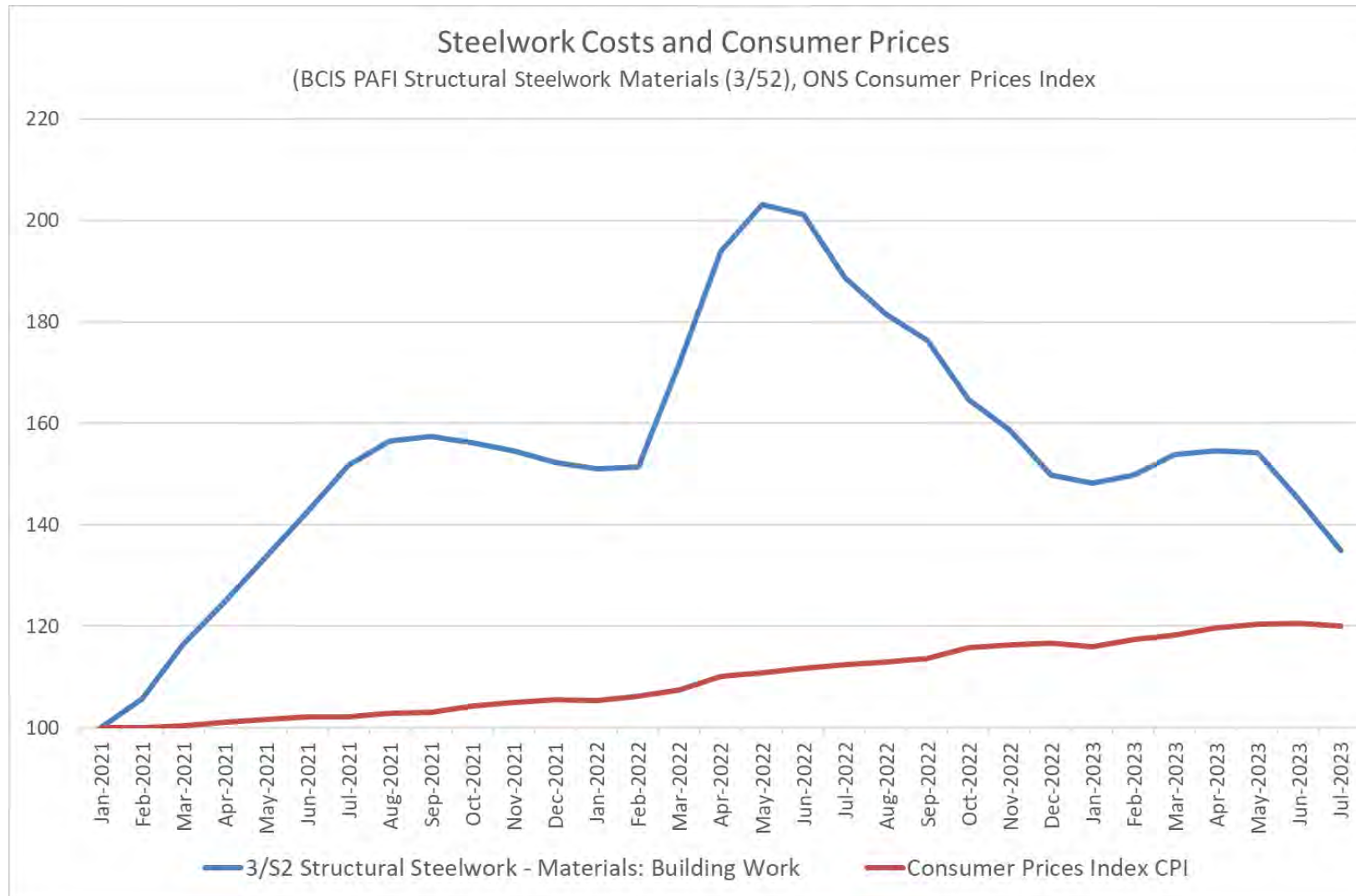


Source: BCIS Price Adjustment Formulae Indices (PAFI)

VARIATIONS IN CONSTRUCTION COSTS

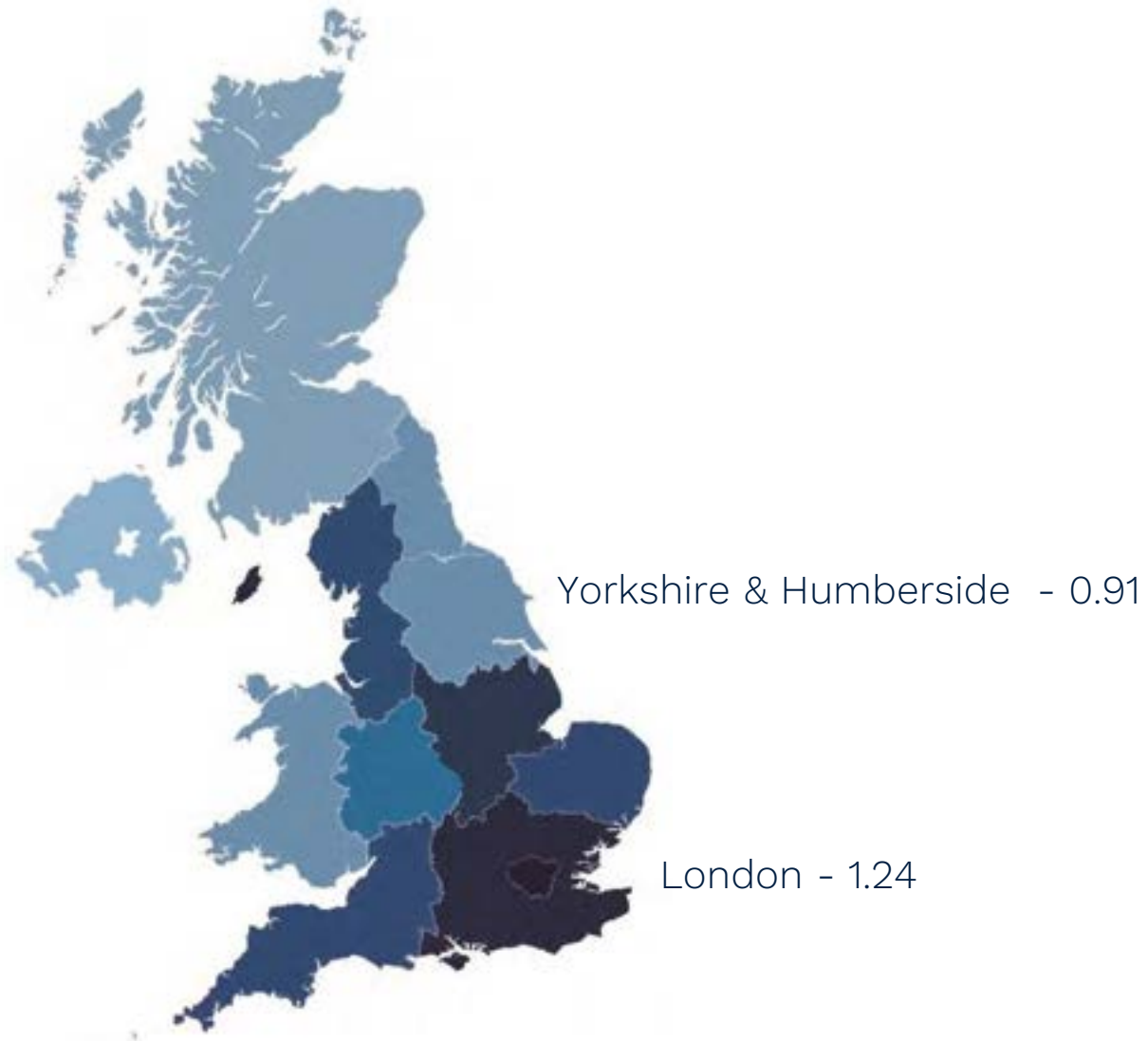


VARIATIONS IN CONSTRUCTION COSTS



Source: BCIS, ONS

LOCATION, LOCATION, LOCATION



LOCATION, LOCATION, LOCATION

MAYOR OF LONDON

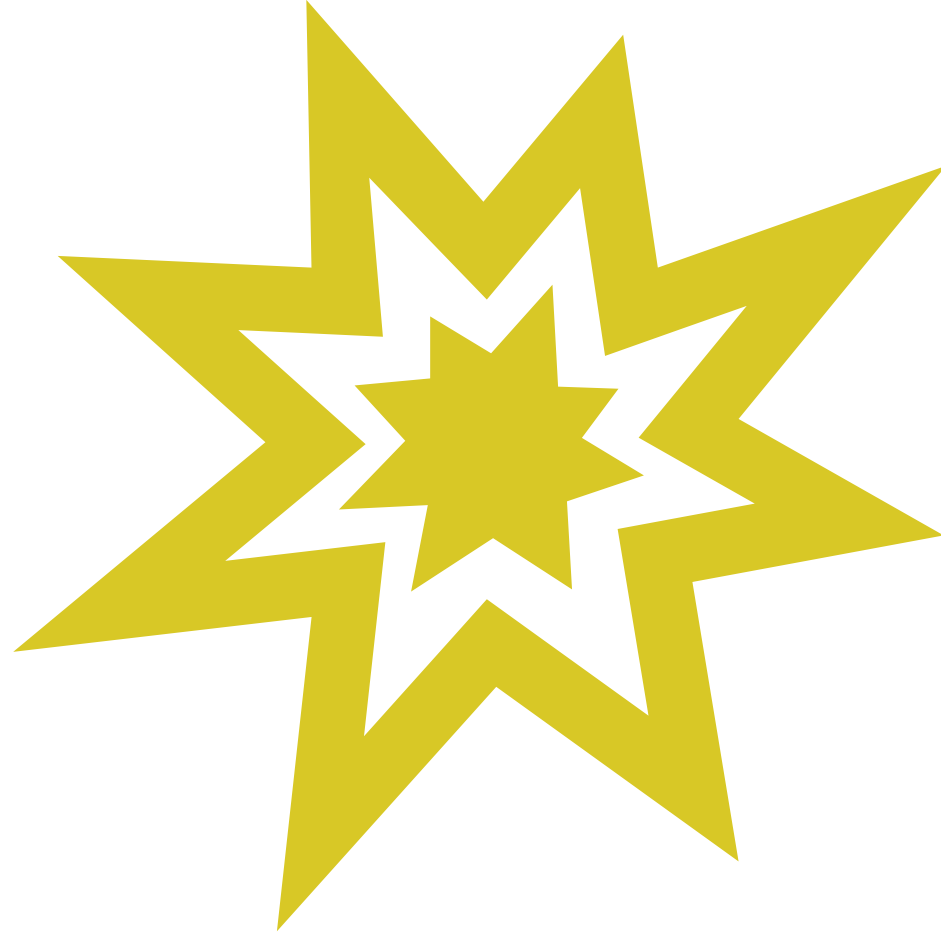
London Plan Guidance

**Whole Life-Cycle Carbon
Assessments**

March 2022

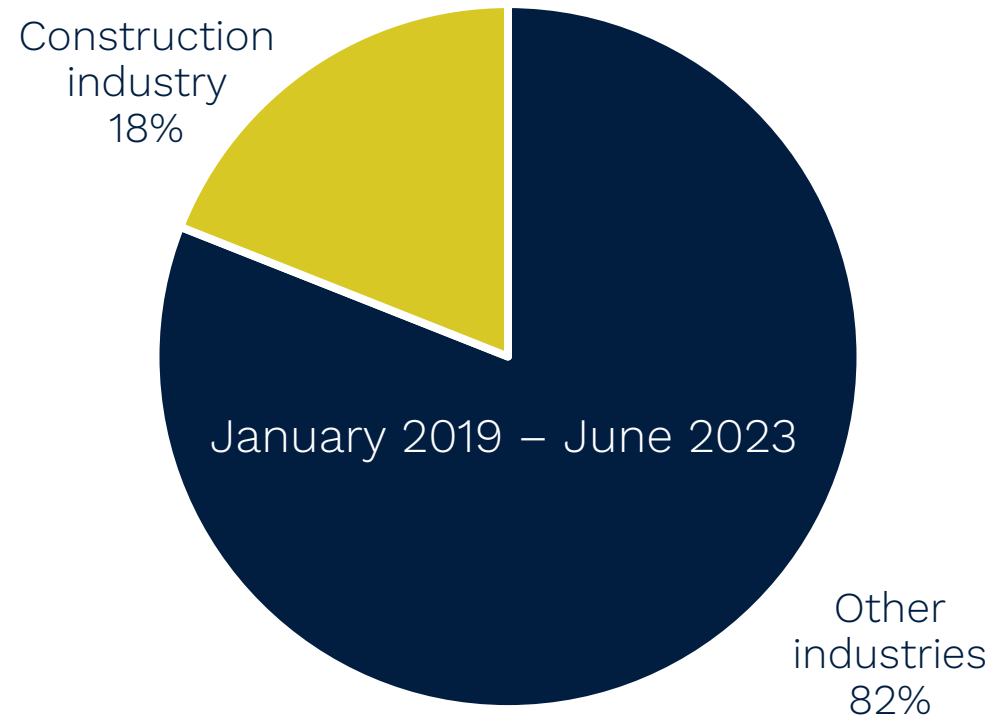


THE PITFALLS OF USING INAPPROPRIATE COST DATA

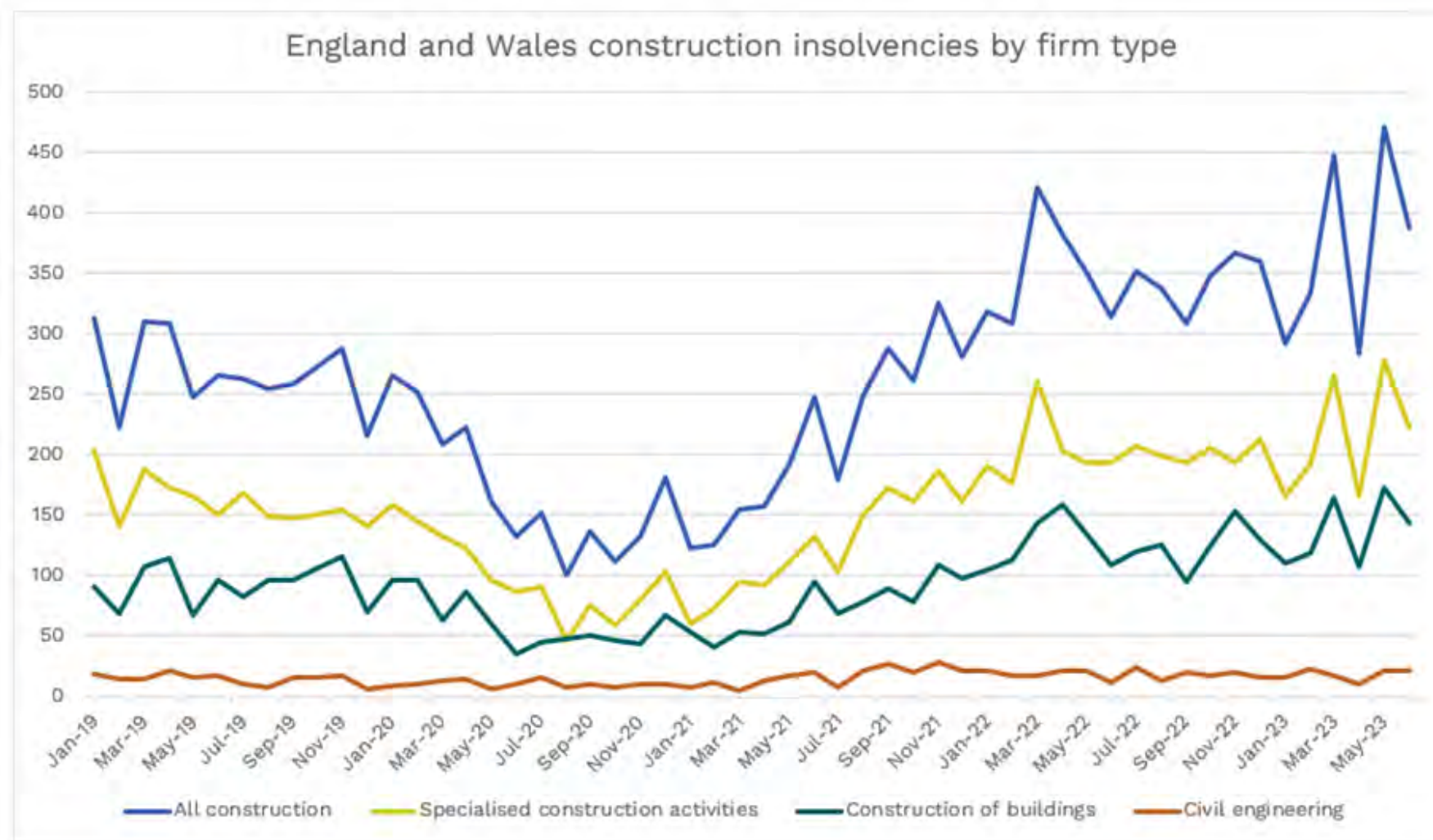


CONSTRUCTION DISPROPORTIONATELY AFFECTED BY INSOLVENCY

- ▶ 4,282 registered construction firm insolvencies from July 2022 – June 2023
- ▶ 347 self-employed bankruptcies in construction from June 2022 – May 2023



CONSTRUCTION FIRMS AFFECTED BY INSOLVENCY



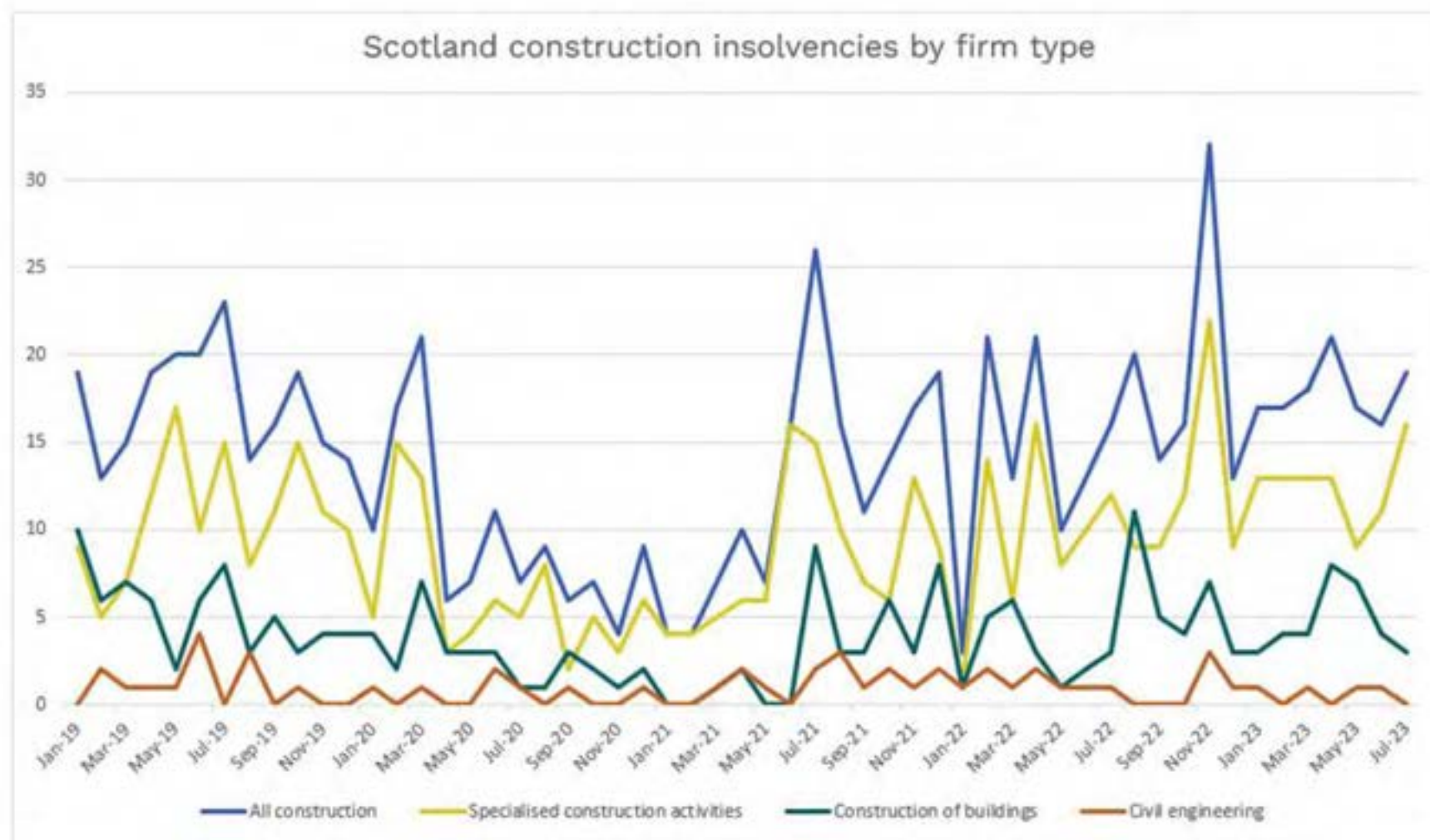
Source:



The Insolvency
Service

BCIS®

CONSTRUCTION FIRMS AFFECTED BY INSOLVENCY



Source:



The Insolvency
Service

BCIS[®]

EVEN LISTED COMPANIES ARE NOT IMMUNE FROM HARM



"To some extent, sectors like outsourcing, **construction** and software have an additional structural vulnerability to profit warnings due to their exposure to the **contract cycle**. But this doesn't make such high levels of profit warnings inevitable. Many of the problem contracts triggering profit warnings have flaws in their **inception and execution**."

Dr Mona Bitar, EY Parthenon

HOW TO ENSURE COST DATA REFLECTS YOUR SPECIFIC PROJECT REQUIREMENTS



HOW TO ENSURE COST DATA REFLECTS YOUR SPECIFIC PROJECT REQUIREMENTS

Table 1: Allocation of items to Consumer Prices Index including owner occupiers' housing costs (CPIH) divisions in 2023

	CPIH weight, February 2023 (per cent)	Observed variation in price changes ¹	Representative items ² (per cent of total)
1 Food & non-alcoholic beverages	9.6	Medium	24
2 Alcohol & tobacco	3.5	Low	4
3 Clothing & footwear	4.8	Medium	12
4 Housing & household services	30.3	Low	4
5 Furniture & household goods	5.6	Low	10
6 Health	1.8	Low	3
7 Transport	11.1	Low	7
8 Communication	1.9	Medium	2
9 Recreation & culture	11.2	High	17
10 Education	2.3	Low	1
11 Restaurants & hotels	11.2	Low	6
12 Miscellaneous goods & services	6.7	Low	10

HOW TO ENSURE COST DATA REFLECTS YOUR SPECIFIC PROJECT REQUIREMENTS

Calculation

Adjustment factor		Value
Inflation	2Q2023 to 1Q2025 as TPI	1.05
Location	North West Region (99; sample 943)	0.99
Contract value	Adjusted from 3,850,000 to 400,000	1.09
Preliminaries	10% addition	1.10
OHP	5% addition	1.05
Overall adjustment		1.31

HOW TO ENSURE COST DATA REFLECTS YOUR SPECIFIC PROJECT REQUIREMENTS

Total labour cost per hour

Effect of 10p/hr **plus rate** on total cost per hour (see note 2 below)



21
=====
0.1

PLEASE READ CAREFULLY THE NOTES PRECEDING THE FOREGOING CALCULATION AND AS FOLLOWS

1. Sources - BATJIC Agreement effective from 19th June 2023. NI revisions as at 6th April 2023.

THE BENEFITS OF USING RELIABLE COST DATA

- ▶ Improved cashflow management, budgeting and cost-certainty.
- ▶ Competitive tenders that won't cause problems later.
- ▶ A more reliable basis for entering into fixed-price contracts.
- ▶ Solid foundation to look at cost-savings and value engineering.
- ▶ Wide-ranging data allows for pricing of unfamiliar resources and methods, as well as new work areas.
- ▶ Clear audit trail provides protection in potential disputes.
- ▶ Streamlined estimating process with easy access to cost data means you can work more efficiently, in itself a cost-saving.

Follow BCIS on LinkedIn – just scan the QR code or search for BCIS



This webinar is now over. Thank you for joining!