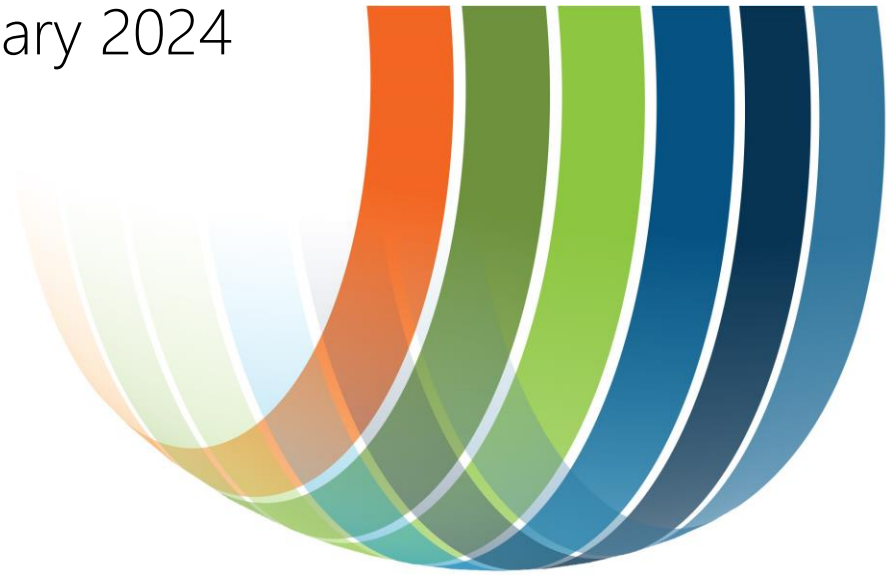
Analysing increases in local government costs

for Local Government New Zealand

February 2024



Infometrics

Economics put simply

Authorship

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Key Findings

Capital costs escalation

- Capital cost escalation had accelerated substantially over 2021-2023, with the overall capital goods price index peaking at 13%pa, and civil construction costs at 15%pa. In greater detail, transport capital cost escalation peaked at 19%pa (with bridges peaking at 29%pa!), and water systems peaking at 15%pa.
- Cumulative inflation since 2020 (when Long Term Plans were last assessed) is more than 25% across the capital costs that local government invests in. Civil construction costs are up 27% over the last three years (compared to 19% for consumer price inflation).
- Bridges are 38% more expensive to build over the last three years, and sewerage systems are 30% more expensive. Roads and water supply systems are around 27% more expensive.
- Although some cost escalation would have been anticipated in 2020, we estimate that the difference between actual and anticipated cost escalation over the last three years is around 20%.
- In the 2021 Long Term Plan round, local councils expected to invest $23b over the first three years (to 2024), and $77b over ten years, into network infrastructure. To undertake these same projects, given unexpectedly higher cost escalation, would require an additional $2.4b (over the last three years), rising to $11b (for the full ten year cycle) than was originally budgeted.
- These current infrastructure investment values are in the context of an estimated $210b infrastructure deficit, of which the local government deficit is estimated at around $52b.
- A fifth of the prior capital budget may need to be cut back in order to fund cost escalation on the remaining 80% of projects. Put another way, for every $100m expected to be spent last LTP round, $20m worth of projects will need to be cut to fund the cost escalation on the remaining $80m of original projects.

Operating costs increases

- Local government labour cost inflation has been stronger than other sectors in recent years, and has only recently been eclipsed by central government labour cost increases.
- Over the last three years, local government labour costs have increased just over 13%, compared to around below 12% for other sectors.
- Average local government labour cost inflation is running at around 4.3%pa over the last thee years, more than double the 2.0% average over the five years pre-pandemic.

- Infometrics estimates that local government operating costs have increased a cumulative 19% over the last three years, with cost increases that peaked above the rate of household inflation.
- Interest payments by councils topped $1.3b in the September 2023 year, up 64% on pre-pandemic payments. These payments now equate to 8.8% of operating income.
- In comparison, central government in 2023 spent around 5.3% of Core Crown revenue on interest payments.

Council rates rises over time

- Local government rates and water supply charges equate to 3.14% of the CPI basket, and so make up a relatively small proportion of overall average household spending.
- Rates rises averaged 9.8%pa in 2023, the fastest increase in rates in 20 years (since a 10.8%pa increase in 2003). Before 2003, the next largest rates rises were before the 1989 local government amalgamation.

Overview

Local Government New Zealand (LGNZ) has commissioned Infometrics to provide analysis on recent cost pressures on the local government sector. This analysis helps to put the current large local government rates rises proposed across New Zealand for upcoming Long Term Plans for 2024-2034 into context.

Our analysis focuses on three areas:

1. Capital costs escalation
2. Operating costs increases
3. Council rates rises over time

Background

For the decade after the Global Financial Crisis, headline inflation was relatively low and stable, averaging around 1.6%pa over the decade to December 2019. However, the COVID-19 pandemic brought about a substantial upheaval in supply chains, and support measures from governments around the world, and specifically in New Zealand also increased demand for infrastructure activity. More generally, headline inflation accelerated substantially as these broader supply chain and higher demand combined with a tight labour market that also pushed wage costs higher.

Capital costs escalation

This section provides analysis of capital costs escalation, and how much capital investment costs for physical infrastructure (for example, roads, bridges, pipelines, etc) have increased in price to deliver over recent years.

We examine both annual and cumulative price increases since the last Long Term Plan round in late 2020, and what these cumulative cost increases mean for previously prepared budgets.

Relevant cost indexes have been identified

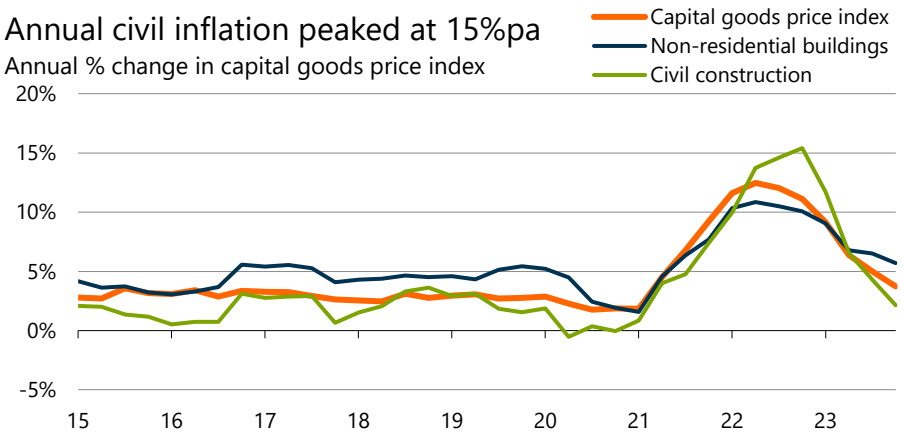
In recent years, the price to construct infrastructure has increased considerably, and by considerably more than was planned for. In New Zealand, increases in the price to construct infrastructure is best measured through the Stats NZ Capital Goods Price Index (CGPI). The CPGI includes several levels and indexes at which prices can be assessed. Given the nature of local government investment (buildings and network infrastructure), in our analysis, the most appropriate costs to examine for local government include:

- *Capital Goods Price Index*
    - **Non-residential buildings**
        - Commercial Buildings
    - **Civil construction**
        - Transport Ways
            - *Construction of Roads*
            - *Construction of Bridges*
            - *Construction of Car Parks, Footpaths, Parks, Walkways, Cycleways and Streetlights*
        - Systems for Water and Sewerage
            - *Construction of Urban Drainage & Sewerage Systems*
            - *Construction of Water Supply Systems and Wells*

Sizable increases in infrastructure prices

At a headline level, capital cost inflation started to accelerate from 2021 onwards, peaking in 2022. The overall capital goods price index (which includes residential buildings, plant and machinery, and more, plus the selected groups) saw annual escalation peak at nearly 13%pa in the second half of 2022 (see Graph 1).

Graph 1

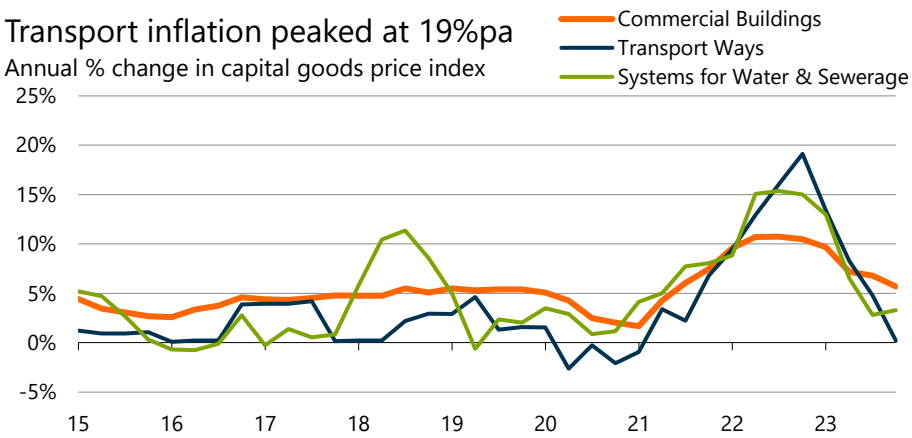


Non-residential annual escalation peaked at 11%pa in mid-2022, and civil construction (network infrastructure) annual escalation peaked at just over 15%pa at the end of 2022.

Those peak annual inflation rates compare to a 2.9%pa average for the CGPI over the five years to December 2019 (pre-pandemic, before supply and demand issues during the pandemic occurred). Non-residential annual escalation averaged 4.6%pa pre-pandemic, and civil construction annual escalation averaged 2.0%pa over the same period.

As Graph 2 shows, capital cost escalation was worse for transport-related infrastructure. Transport ways (roads, bridges, and more) annual escalation peaked at 19%pa at the end of 2022, while costs for water systems peaked at 15%pa throughout most of 2022.

Graph 2

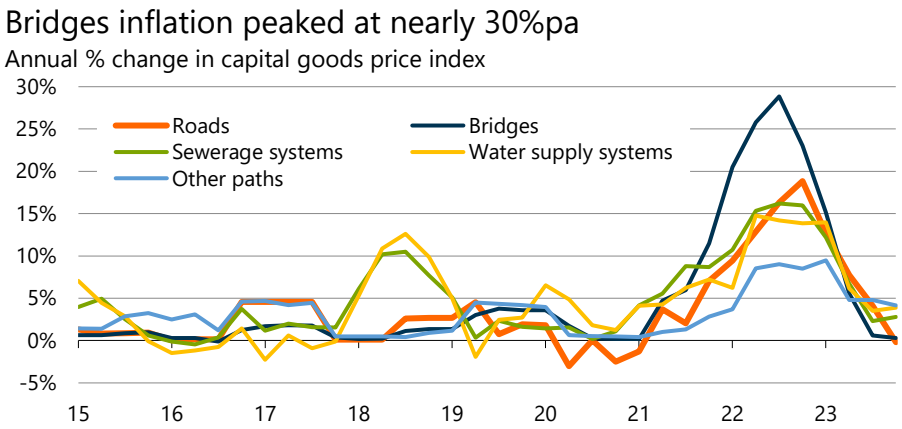


Although the most recent annual escalation rates look more benign, with transport ways capital costs up just 0.2%pa in the December 2023 quarter, cumulative increases over time mean that the slowdown in annual inflation is catch-up after a bout of high inflation.

Digging down to the greatest level of detail shows a further divergence in the recent pathway of capital cost escalation. Graph 3 shows that the cost of construction a bridge

saw an annual escalation peak of 29%pa in the second half of 2022 – considerably higher than annual escalation for other infrastructure.

Graph 3



Yet the peaks for other infrastructure types was still high regardless, with roads and water and sewerage systems annual escalation peaking at between 14-19%pa over 2022.

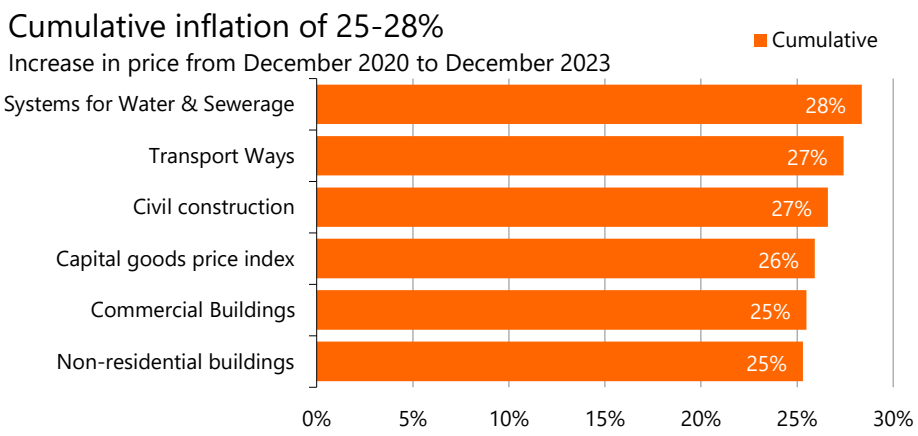
We have also examined cost increases since December 2020

Local councils across New Zealand are currently undertaking consultation with communities ahead of adopting their next Long Term Plan, for the period 2024-2034. The most recent Long Term Plans were issued in mid-2021 (for the 2021-2031 period). However, analysis for costings for the 2021 LTPs would likely have occurred using December 2020 data at the latest. As a result, our analysis focuses on the cumulative increases in prices between December 2020 and December 2023.

Cumulative increases top 25% since the end of 2020

The cumulative increases in capital costs escalation are considerable. As Graph 4 shows, civil construction costs (for network infrastructure) have risen nearly 27%pa since the end of 2020, when cost escalation for the next LTP period would have been assessed.

Graph 4

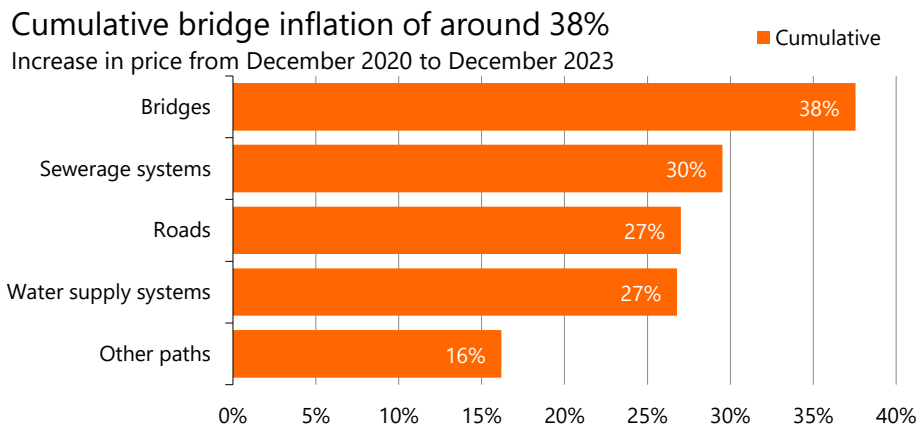


Water and sewerage capital costs have increased the most cumulatively over the period, with a 28%pa increase between the end of 2020 and the end of 2023. Transport ways costs have increased a cumulative 27% over the same period.

Although non-residential building costs have not increased quite as much, the 25% rise over three years is still considerable.

At the most detailed level, the cumulative increase in capital costs means that at the end of 2023, building a bridge now costs 37% more than it did in 2020.

Graph 5



Most other detailed network infrastructure types have seen sizable increases too, with sewerage systems costing nearly 30% more, and both roads and water supply systems costing 27%. Only other paths (carparks, footpaths, walkways, cycleways etc) have seen slower cumulative cost escalation.

As a reference point, consumer price inflation[1] only rose a cumulative 19% over the same three-year period. Capital costs have cumulatively increased by more than headline inflation.

Unexpected inflation gap has opened up

Some cost inflation over the last three years was to be expected. Indeed, local councils across New Zealand would have factored in a certain level of cost escalation when Long Term Plans in 2021 were being set.

But the level of cumulative cost increases seen in the last three years is more than would have been previously expected.

To better understand the possible gap in cost escalation that has occurred over the last three years, we have examined the difference between actual cost escalation and modelled escalation if prior trends had occurred over the last three years.

For this modelling, we have assumed that the 2020 year, being affected by the pandemic, is not a reliable indicator of cost trends, and assume that council planners

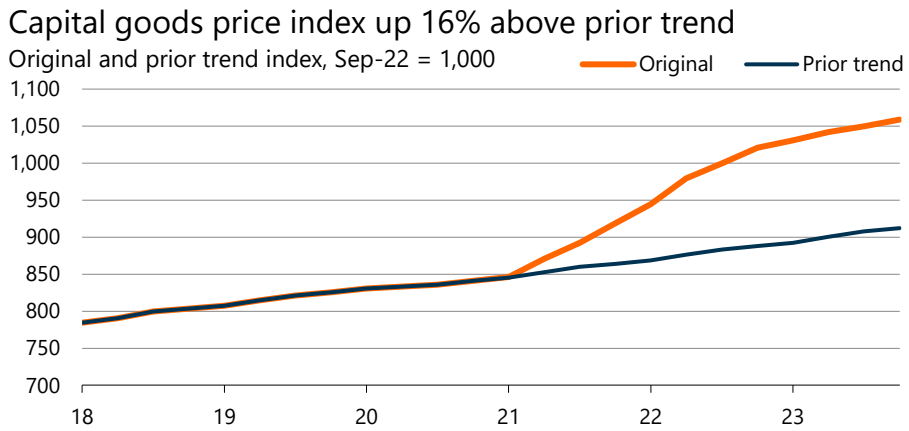
[1] As measured by the Consumers Price Index (CPI).

would also have been cautious about expecting pandemic-affected cost escalation. Instead, cost escalation in 2019 is the most viable recent prior escalation trend that this modelling is based on.

We have applied 2019 cost escalation trends from the March 2021 period onwards, as that period is both likely after when major cost escalation decisions for the last LTP round were likely completed, and also when cost escalation started to accelerate higher.

As Graph 6 shows, the difference in price level for capital costs between actual escalation and the prior trend is considerable. Based on the prior (2019) trend, cost escalation over the 2020-2023 period might have been expected to total a cumulative 8%. Instead the reality was a 26% cumulative increase in the cost of capital investments.

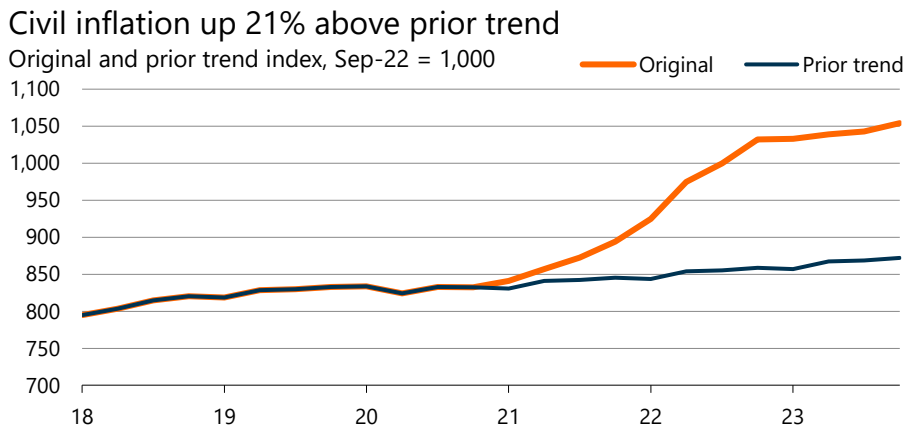
Graph 6



That left a 16% gap between actual and prior trend cost escalation over the three year period.

For civil construction costs, this difference was even larger. In late 2020, prior trends (from 2019) might have suggested cumulative cost escalation of 5% over the three years to the end of 2023. Instead, actual civil cost increases were a cumulative 27%.

Graph 7



These two trends leave a 21% difference between actual and likely anticipated cost escalation for civil construction over the three years to the end of 2023.

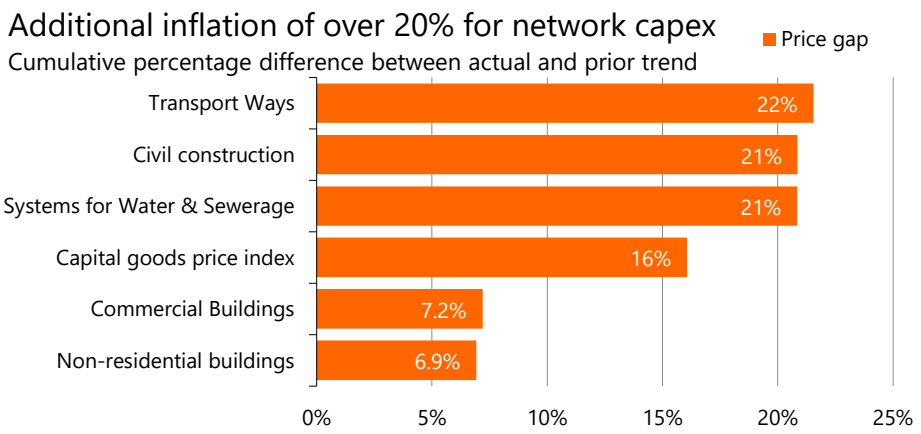
A full appendix of graphs, showing the actual and prior trends analysis for each capital class, is provided at the end of this report.

A 20%+ gap exists between actual and anticipated inflation

Our analysis shows that by the end of 2023, a gap of over 20% existed between actual and anticipated inflation for civil construction costs. These are costs that a major components of local government investment each year.

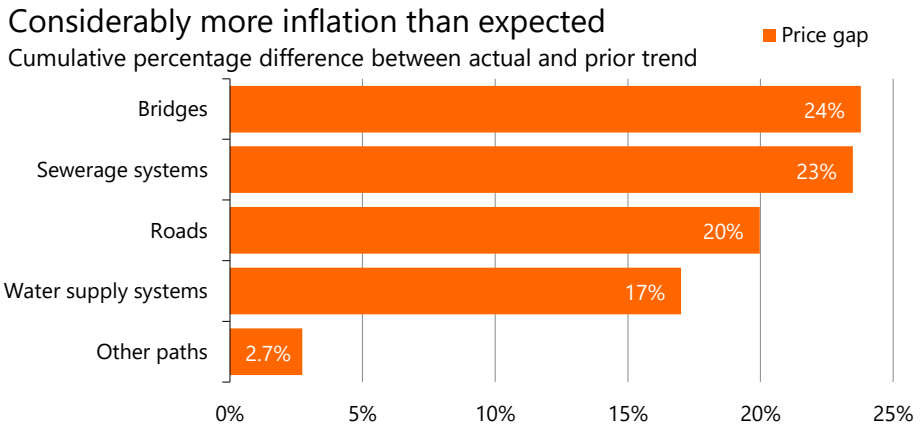
Transport costs at the end of 2023 were 22% higher than might have been expected when costs were last considered for the long term at the end of 2020, leading up to the 2021 Long Term Plan round (see Graph 8).

Graph 8



Water and sewerage systems now also cost 21% more than would have been expected in 2020. Although the difference for non-residential buildings isn't as large, the roughly 7% increase ahead of already-expected inflation highlights the broader pressures on capital costs. Graph 9 shows the increase for detailed asset classes.

Graph 9



Bridges and sewerage systems both have experienced the largest increases relative to prior expectations over the last three years. These two asset classes have seen cumulative increases of around 23-24% since 2020 – above and beyond what would already have been factored in.

Building a road is currently around 20% more expensive than might have been previously expected in 2020, and water supply systems are 17% higher than prior expectations.

Tough choices resulting from higher costs

Our analysis includes a considerable set of numbers to examine. In short, the cost escalation over the past three years over and above prior expectations means that a fifth of the prior capital budget may need to be cut back in order to fund cost escalation on the remaining 80% of projects.

Put another way, imagine a hypothetical situation where a local council had previously planned to undertake five $20m projects, worth a total of $100m. The higher-than-expected cost escalation over the last three years means that one of those five projects needs to be cut to fund the 20% unexpected cost escalation on the remaining four projects to keep to the previous funding envelope of $100m.

Over $77b expected to be invested by councils over 2022-2031

Infometrics analysis of all local council Long Term Plans for the 2021-2031 period shows a total of $77b in capital investment anticipated over the 10 year period. Around $23b of that total was expected in the first three years of the Long Term Plan, up to June 2024.

Table 1

Large amount of investment expected

Planned local government capital investment, $b

	Three year total (2021-2024)	Ten year total (2021-2031)
Solid Waste	1.38	4.92
Stormwater	1.28	4.12
Transport	6.09	22.42
Wastewater	3.85	13.28
Water supply	2.64	10.20
Total (including other groups)	**23.27**	**77.42**

Source: Infometrics analysis of all local council long term plans

Around $55b over the ten years (71%) of that total capital investment was expected to be in network infrastructure, for transport, water, and waste projects.

These figures are in the context of a $210b infrastructure deficit estimate contained in the Treasury's 2022 Investment Statement,[2] and further detailed in Te Waihanga's report, *Quantifying the gap and path to close it*.[3] This analysis suggested around a $52b deficit for the local government sector alone.

Additional $11b needed for prior expectations

Applying the cumulative estimated difference between actual and anticipated inflation over the last three years, and over the next seven years, produces an estimate of the additional funding that has or might be required to fund just the gap in cost escalation that we currently expect has occurred.

The cumulative gap between actual and anticipated inflation in the 2022, 2023, and 2024 years means that the previous levels of investment budgeted for would not be able to pay for the level of investments expected. Accounting for the unexpected inflation and increased cost to deliver projects that were set down for construction in 2022, 2023, and 2024 would cost an additional $2.39b compared to the original LTPs (see Table 2).

Table 2

An $2.39b increase needed to fund unexpected cost increases

Planned local government capital investment, $b, 2021-2024

	Current three year total	Inflated three year total	Difference	Index for gap adjustment
Solid Waste	1.38	1.55	0.17	Civil construction
Stormwater	1.28	1.48	0.20	Sewerage systems
Transport	6.09	6.88	0.79	Transport Ways
Wastewater	3.85	4.45	0.60	Sewerage systems
Water supply	2.64	2.98	0.34	Water supply systems
Total (including other groups)	**23.27**	**25.66**	**2.39**	**Capital goods price index**

Source: Infometrics analysis of all local council long term plans, Infometrics calculations

These figures are just the additional funding to pay for the exact same projects as were previously planned for in the 2021 Long Term Plans. Additional projects or investments (for example, water investment) that wasn't previously forecast in the 2021 Long Term Plans, is not accounted for here.

Assuming that cost increases don't increase any more above expectations than they currently have, investment would need to be $11b higher over the 10 years to 2031 to pay for higher costs than expected for the entire Long Term Plan period.

[2] Treasury. (2022). *He Puna Hao Pātiki: 2022 Investment Statement*. New Zealand Government. Retrieved from https://www.treasury.govt.nz/sites/default/files/2022-03/is22-hphp-v2.pdf (accessed 1 March 2024).
[3] Sense Partners. (2021). *New Zealand's infrastructure challenge – Quantifying the gap and path to close it*. Te Waihanga. Retrieved from https://tewaihanga.govt.nz/our-work/research-insights/new-zealand-s-infrastructure-challenge-quantifying-the-gap-and-path-to-close-it (accessed 1 March 2024).

Table 3

An $11b increase needed to fund unexpected cost increases

Planned local government capital investment, $b, 2021-2031

	Current ten year total	Inflated ten year total	Difference	Index for gap adjustment
Solid Waste	4.92	5.81	0.89	Civil construction
Stormwater	4.12	4.98	0.86	Sewerage systems
Transport	22.42	26.64	4.21	Transport Ways
Wastewater	13.28	16.10	2.81	Sewerage systems
Water supply	10.20	11.99	1.79	Water supply systems
Total (including other groups)	**77.42**	**88.33**	**10.91**	**Capital goods price index**

Source: Infometrics analysis of all local council long term plans, Infometrics calculations

Assuming no further difference between actual and anticipate cost inflation may appear a simplistic assumption given current inflation pressures have failed to be forecast. But the 2024 Long Term Plan round allows for budgets to be reset, priorities to change, and projects to be added, removed, or amended anyway.

The 10-year analysis provides an idea of what the additional cost would need to be to fund the exact same set of projects over the 2021-2031 period if they were budgeted for today compared to budgeted for in late 2020.

Operating costs increases

Capital costs are only one part of the costs that councils incur – and have increased. Operating costs have also generally increased significantly (relative to history) in recent years.

This section analyses some of the changes in local government operating costs recently, including labour costs, general operating costs, and interest repayment costs.

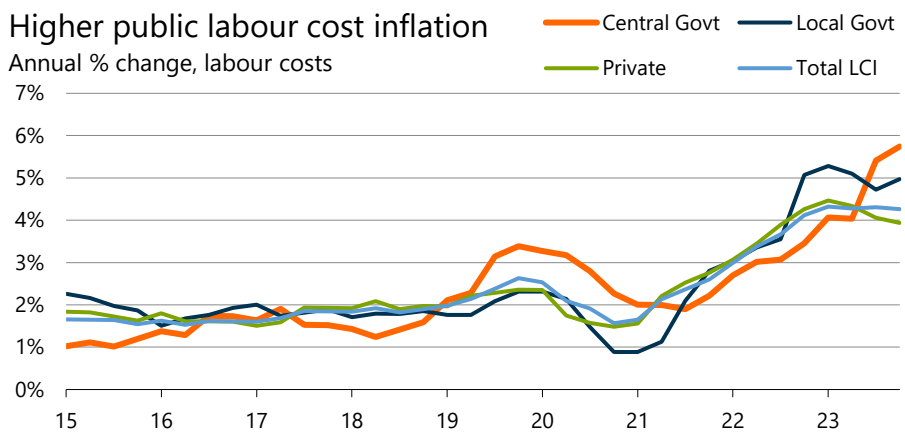
Local government labour costs

Labour costs are a core part of local government expenses, with council staff playing important roles in performing the functions of local government. Over the year to September 2023, employee costs for local government totalled $3.4b, equivalent to around 21% of annual operating expenses.

The wage bill of an entity (local government or another entity) can increase due to more staff, a different mix of staff (for example, more highly paid managers), or due to general underlying increases in current staff costs. The labour cost index (LCI), published by Stats NZ, attempts to measure the increase in labour costs for the same quantity and quality of work. Put another way, the LCI should measure increases to wage costs in a business on a like-for-like basis over time. More promotions don't influence the LCI, as someone promoted is doing a different job, not the same job. But someone that got an increase in pay as part of wage setting each year, but who still undertakes the same duties as the year before, would register as an increase in the LCI.

Stats NZ provides a breakdown of labour costs by sector, including a breakdown for central government, local government, and the private sector. As Graph 10 shows, labour costs for local government rose faster than other sectors in the second half of 2022 and into 2023. Local government labour cost inflation peaked at 5.3%pa at the start of 2023.

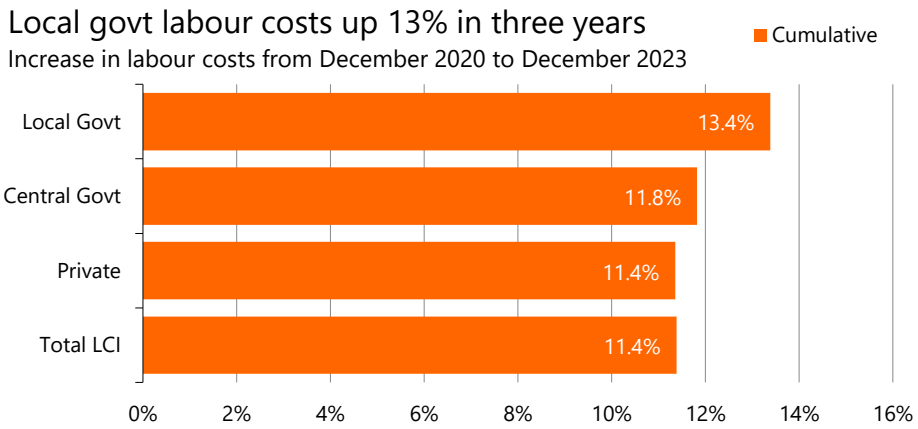
Graph 10



Central government labour cost inflation has recently surpassed the gains in local government labour costs, with annual labour cost inflation of 5.7%pa at the end of 2023.

Over the last three years, local government labour costs have increased a cumulative 13.4% (to the end of 2023, see Graph 11). That increase over three years works out to around 4.3%pa on average.

Graph 11



The cumulative increase in local government labour costs over the last three years is the highest of the analysed sectors. The increase for local government is ahead of the nearly 12% cumulative increase for central government, and above the just over 11% rise in private sector labour costs.

Over the 5 years prior to the COVDI-19 pandemic, local government labour costs rose by 2.0%pa on average. Labour costs across all analysed sectors recorded 1.9%-2.0%pa average labour cost increases over this period.

The faster increase in local government labour cost increases recently means that the gap between the previous average labour cost annual increase, and recent increases, is the largest for the local government sector compared to central government and the private sector.

Local government operating costs

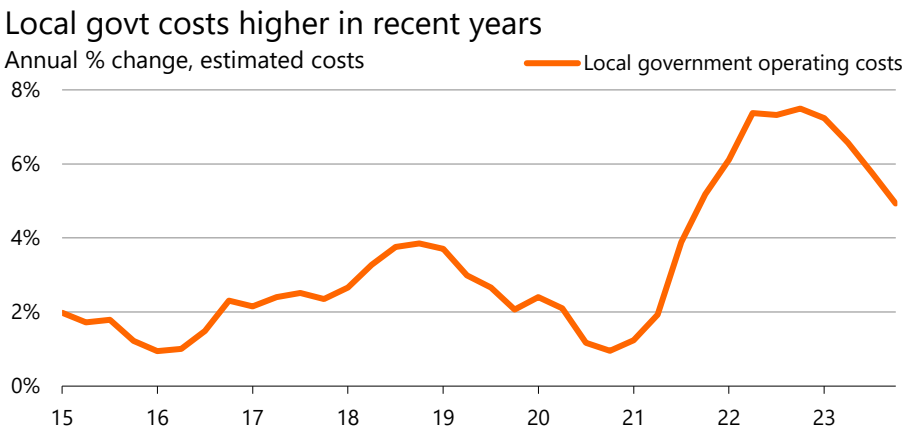
There is not an easily examinable operating cost index for local government operating costs. Although Stats NZ produces a Producers Price Index (PPI) for input costs into the Local Government Administration industry, Infometrics analysis shows that this index is inappropriate to determine local government operating costs. The local government administration PPI has a high weighting of agricultural inputs, but little to no transport or water systems maintenance operating costs included.

In the absence of an official local government cost index, Infometrics has compiled and modelled a local government operating cost index, based on operating spending activity undertaken by local government and recorded in Stats NZ's Input-Output tables.

Our analysis of local government operating costs measures the increase in the cost of delivering the same services from local government over time. Increases to services levels, or changes to local government services, are outside the scope of the modelling.

Our assessment of the annual changes in local government operating costs is shown in Graph 12. We estimate that local government operating costs increased significantly throughout 2021 to 2023, at a higher rate than household inflation. Local government operating cost increases peaked at 7.5%pa in the December 2022 quarter.

Graph 12

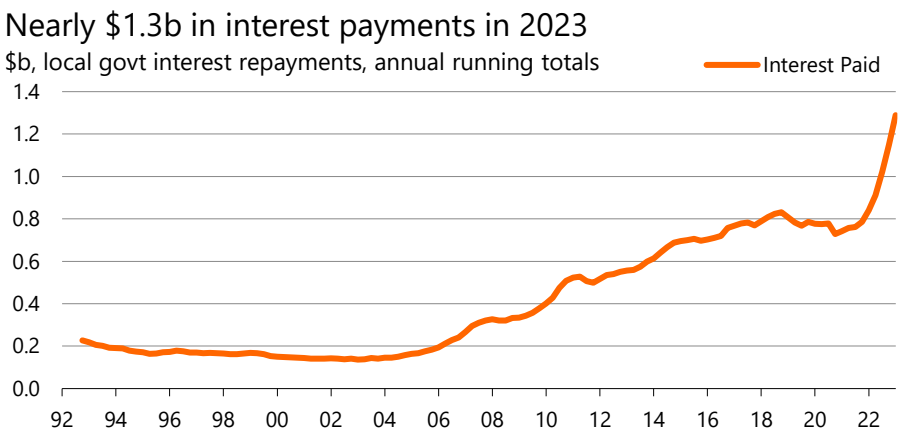


Local government operating costs rose a cumulative 19% over the three years to the end of 2023. That increase equates to around 5.9%pa on average over the last three years. Prior to the COVID-19 pandemic, local government operating costs rose by 2.4%pa on average over the five years to December 2019. Unsurprisingly given the increase in capital costs noted earlier in this report, rising transport maintenance costs (including civil engineering and equipment hiring), sewerage costs, and financial services were key drivers of higher local government operating costs.

Local government interest repayments

Local government has taken on considerably higher levels of debt in recent years, in part to fund higher levels of infrastructure investment. This higher level of borrowing and higher interest rates have pushed interest payments from local government to nearly $1.3b over the 12 months to September 2023 (see Graph 13).

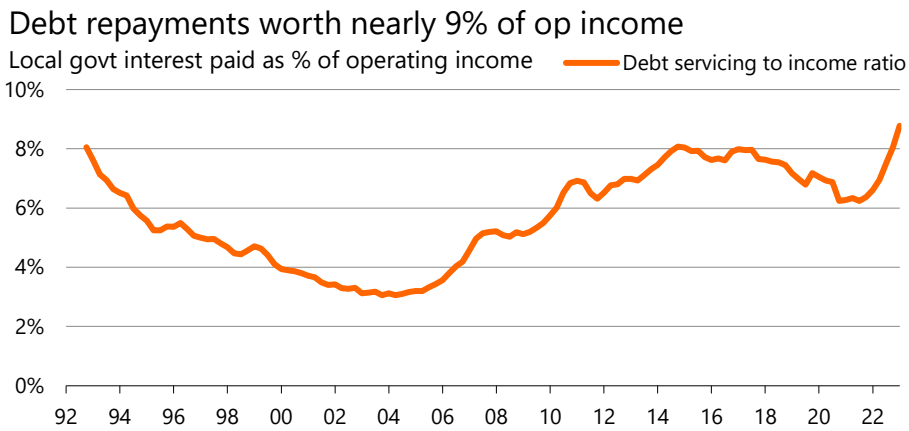
Graph 13



These annual interest payments are 64% higher than pre-pandemic.

Taking local government interest payments as a proportion of operating income shows that local government is currently paying a record-high proportion of income to service debt.

Graph 14



Over the year to September 2023, local councils across New Zealand spent 8.8% of operating income on interest repayments.

This debt servicing ratio is higher for local government than central government. In comparison, central government in the June 2023 fiscal year spent 5.3% of Core Crown Expenses on Core Crown finance costs.

Increasing levels of infrastructure investment from 2024 onwards, that requires debt funding, will see finance repayments increase further still.

Council rates rises over time

Rising costs to local government, including general operating costs, labour costs, finance costs, and capital investment costs, have seen larger rises in local government rates and other fees recently.

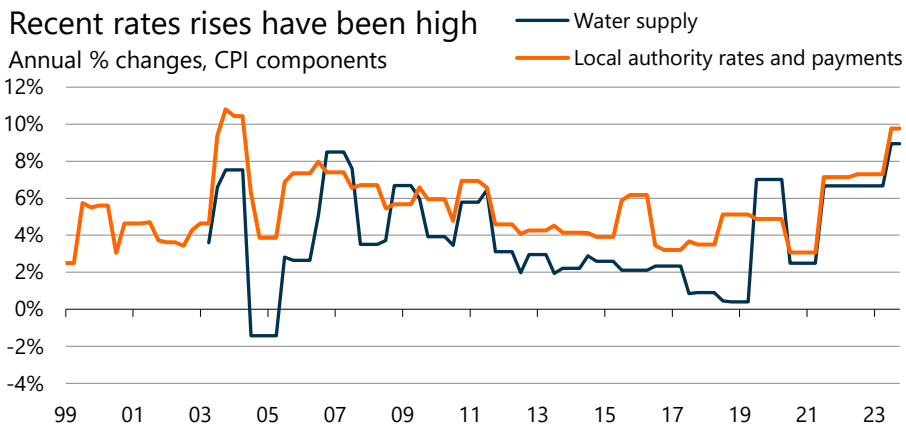
Local authority rates and payments, alongside water supply charges and waste charges, are observed by Stats NZ in the Consumers Price Index (CPI).

The latest weightings for the CPI, for June 2023, provides an idea of the average contribution to household costs that rates and other changes contribute. Local authority rates and payments make up 2.68% of the CPI basket, followed by water supply charges (0.36%), then refuse disposal and recycling (0.10%). In total, local authority collective charges are around 3.14% of annual household costs.

The figures recorded for local authority rates in the CPI are provided by councils to Stats NZ via survey, and reflect the quality adjusted increase in rates each year. In practice, the CPI rates measure examines the cost of delivering the same services to the same people each year, so increases in population or rateable units, changes in valuations, changes in levels of service, or changes to services provided, are not measured.

As Graph 15 shows, rates rises in 2023 were the largest increase since 2003. Rates rose 9.8%pa on average in 2023, just behind the 10.8%pa increase recorded at the end of 2003.

Graph 15



Recent rates rises have been the largest in 20 years, and are set to be the largest since the 1989 amalgamation of local government. The 1989 reforms came after a period of high inflation throughout the 1980s. During the 1980s, when headline consumer price inflation was also at high rates (double digit increases of 10-19%pa), rates increases were considerable too.

The 8.9%pa increase in water supply charges recorded in 2003 are the highest annual increases recorded by Stats NZ, with water supply charges data going back to 2002/03.

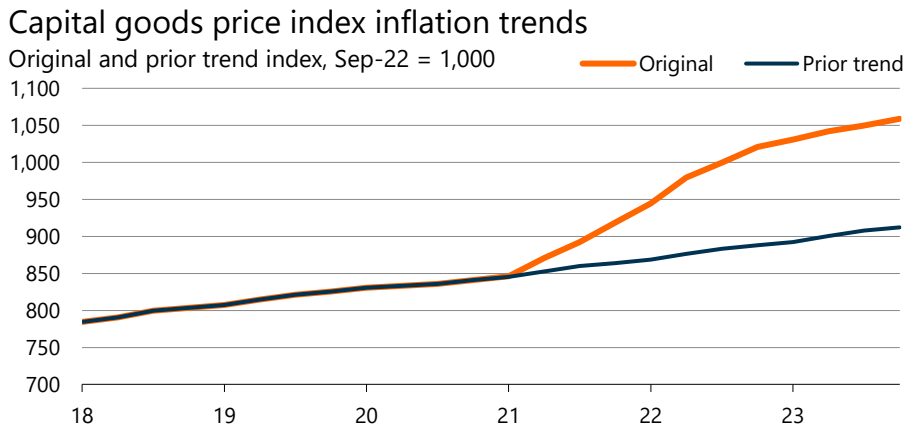
Appendix: Comparing actual and prior trend inflation

As outlined in the Unexpected inflation gap has opened up section of this report, we have estimated the possible gap in cost escalation that has occurred over the last three years by examining the difference between actual cost escalation and modelled escalation if prior trends had occurred over the last three years.

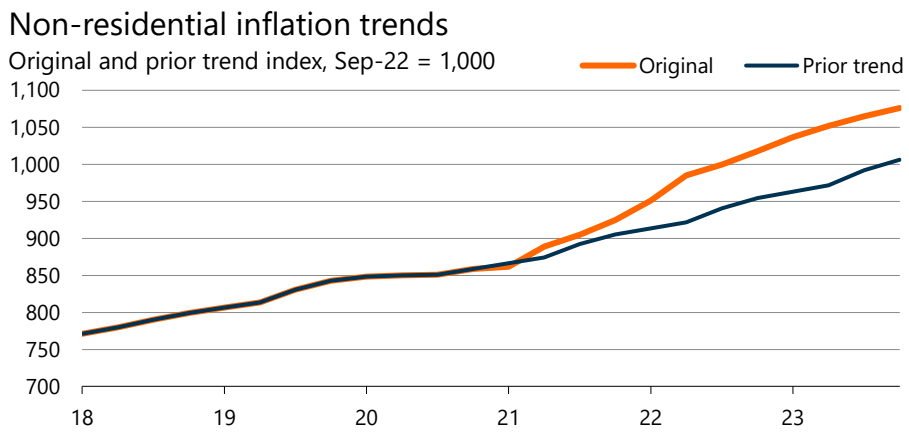
We have applied 2019 cost escalation trends from the March 2021 period onwards, as that period is both likely after when major cost escalation decisions for the last LTP round were likely completed, and also when cost escalation started to accelerate higher.

The full breakdown of actual and modelled prior trend escalation, for identified asset classes, is outlined below.

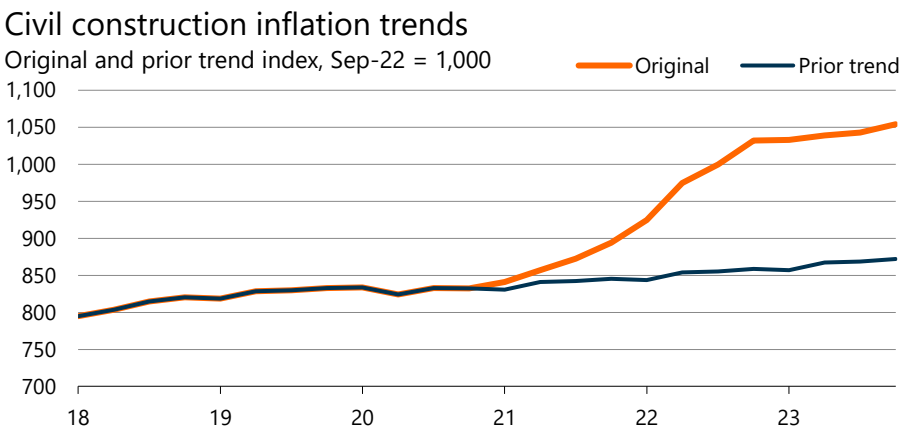
Graph 16



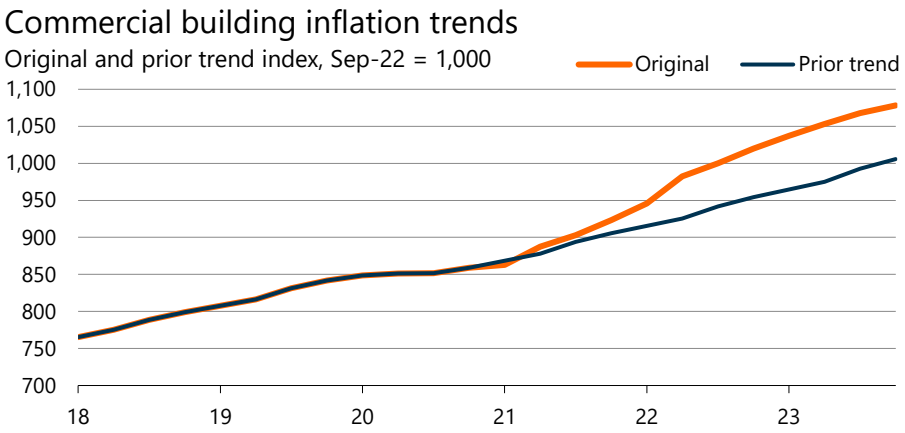
Graph 17



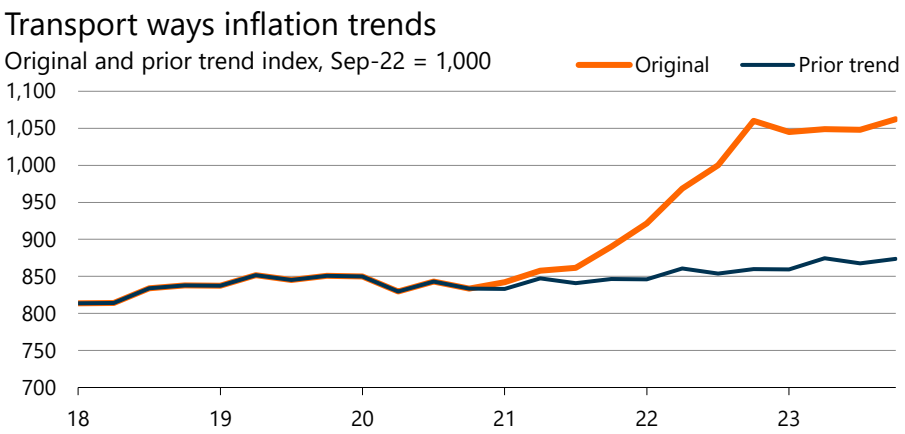
Graph 18



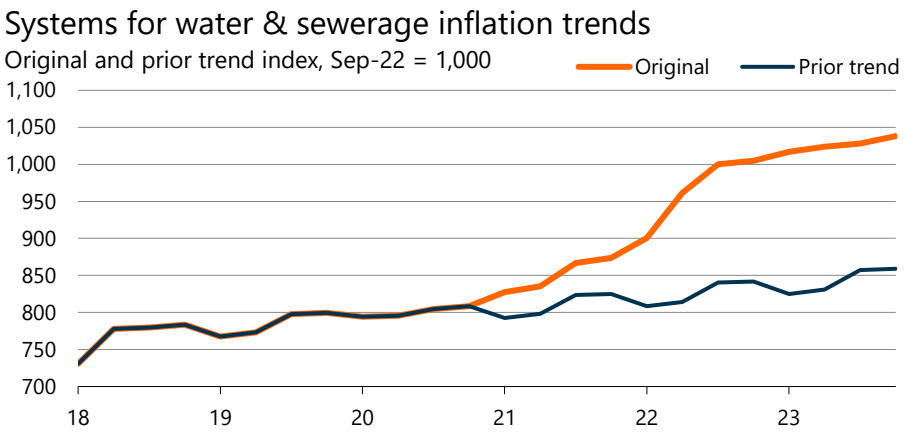
Graph 19



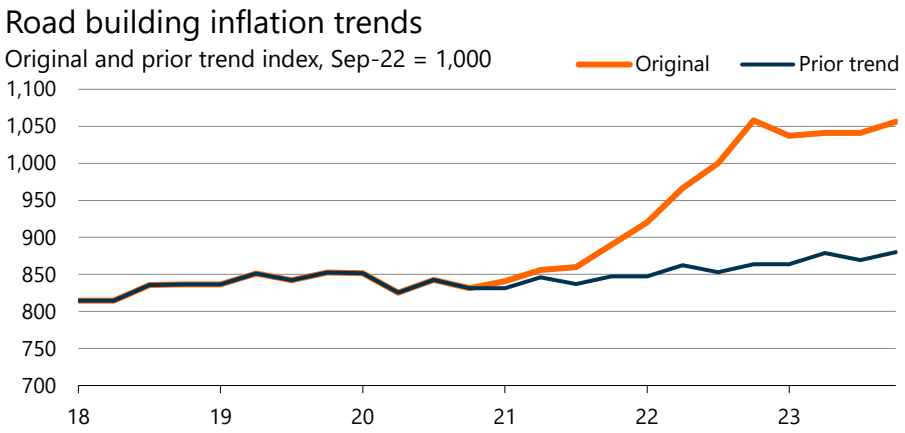
Graph 20



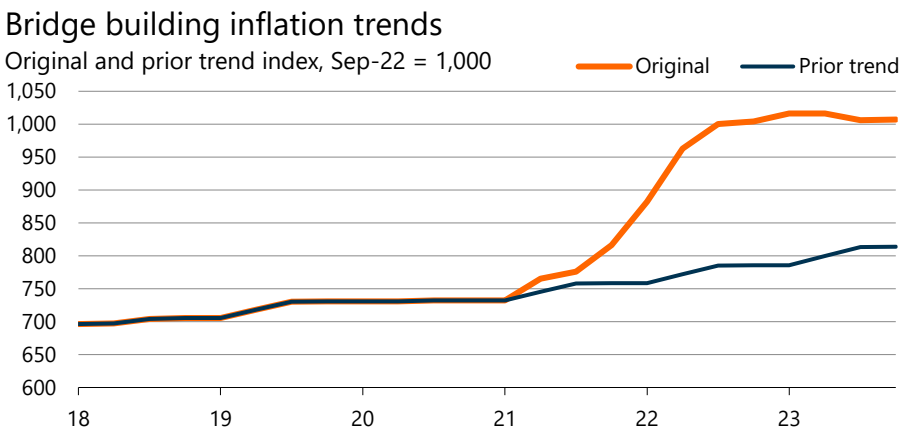
Graph 21



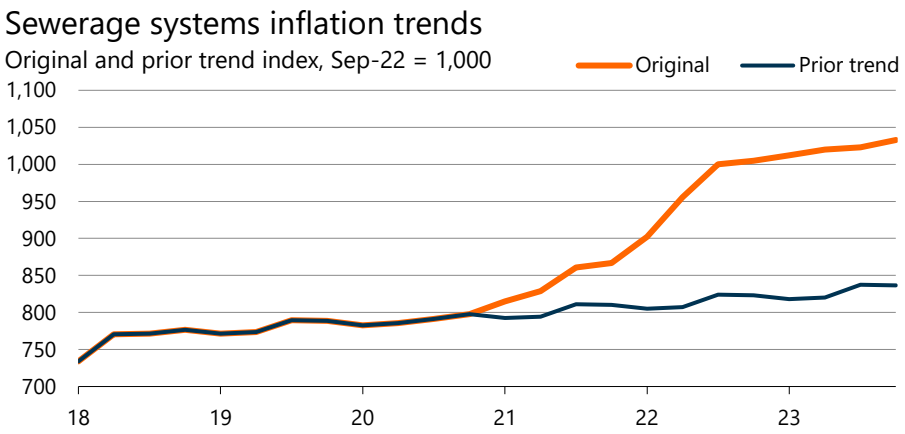
Graph 22



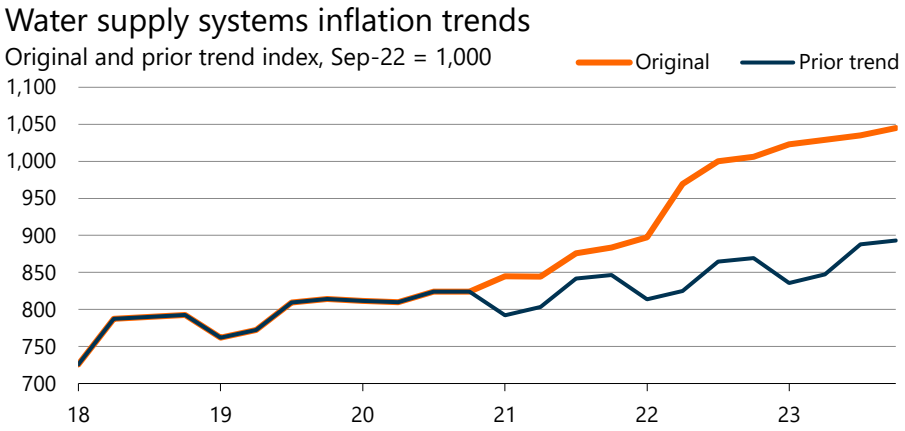
Graph 23



Graph 24



Graph 25



Graph 26