



Road Controlling Authorities Forum 26 November 2024

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Acting GM - Strategy



Te Kāwanatanga o Aotearoa
New Zealand Government

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Testing our thinking

Te whakapātaritari i ō mātou
whakaaro

Developing an enduring National Infrastructure Plan

He whakawhanake i tētahi Mahere Tūāhua ā-Motu auroa

Discussion Document

Tuhinga Matapaki

te.waihanga.govt.nz

The National Infrastructure Plan

Key questions we're asking

1. What infrastructure will be **needed** and what should we be spending over the next 30 years?
2. What infrastructure investment is **currently planned** over the next 10 years?
3. What is the **gap** between the long-term infrastructure need and planned investment, and how do we address this gap?



Three questions for transport delivery

Reflections from our research

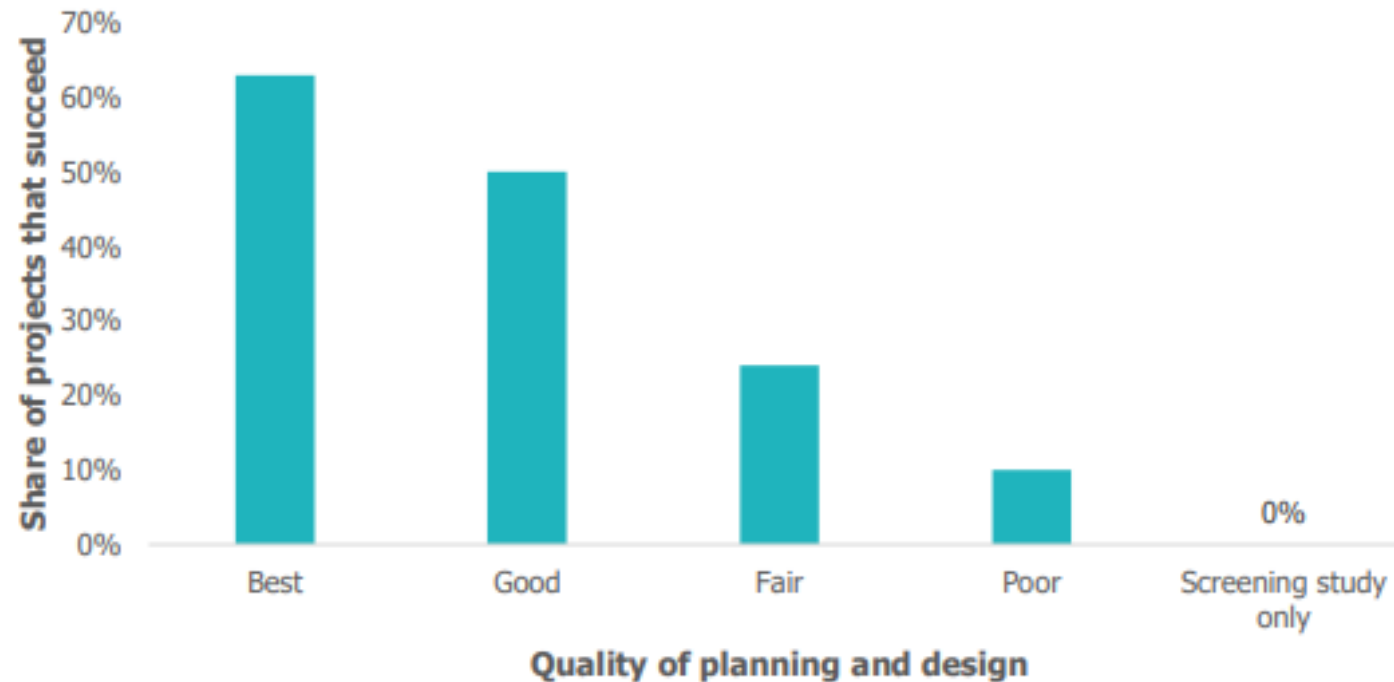
- **Capability:** What in-house capability do we need to set projects and programmes up for delivery success?
- **Procurement:** How can we achieve the benefits of competitive procurement in small regional markets?
- **Supply chains:** Where are (and aren't) there opportunities to strategically develop workforce and material supplies?



Capability

Think slow, act fast

Figure 15: High-quality planning and design increases project success

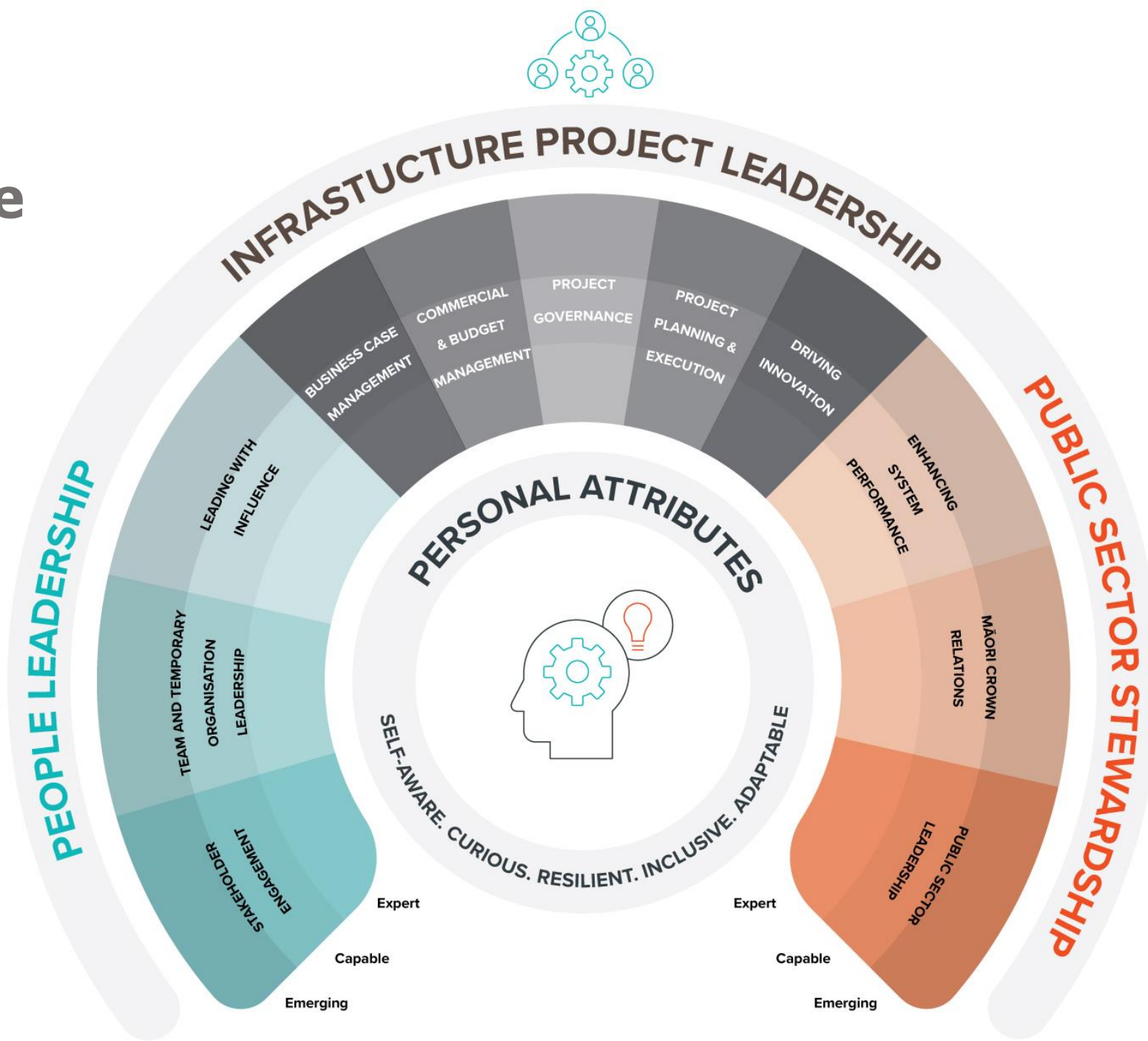


Source: Adapted from Figure 10.10 in Merrow (2011). Projects were considered to succeed if they had cost and schedule overruns of no more than 25%, if they were no more than 25% more expensive than similar projects, if they took no more than 50% longer to build than similar projects, and if they did not experience significant reductions in production after their first year.



Capability

Infrastructure project director capability framework





Procurement

Procurement models cannot fix poor scoping

American Economic Review 2014, 104(4): 1288–1319
<http://dx.doi.org/10.1257/aer.104.4.1288>

Bidding for Incomplete Contracts: An Empirical Analysis of Adaptation Costs[†]

By PATRICK BAJARI, STEPHANIE HOUGHTON, AND STEVEN TADELIS*

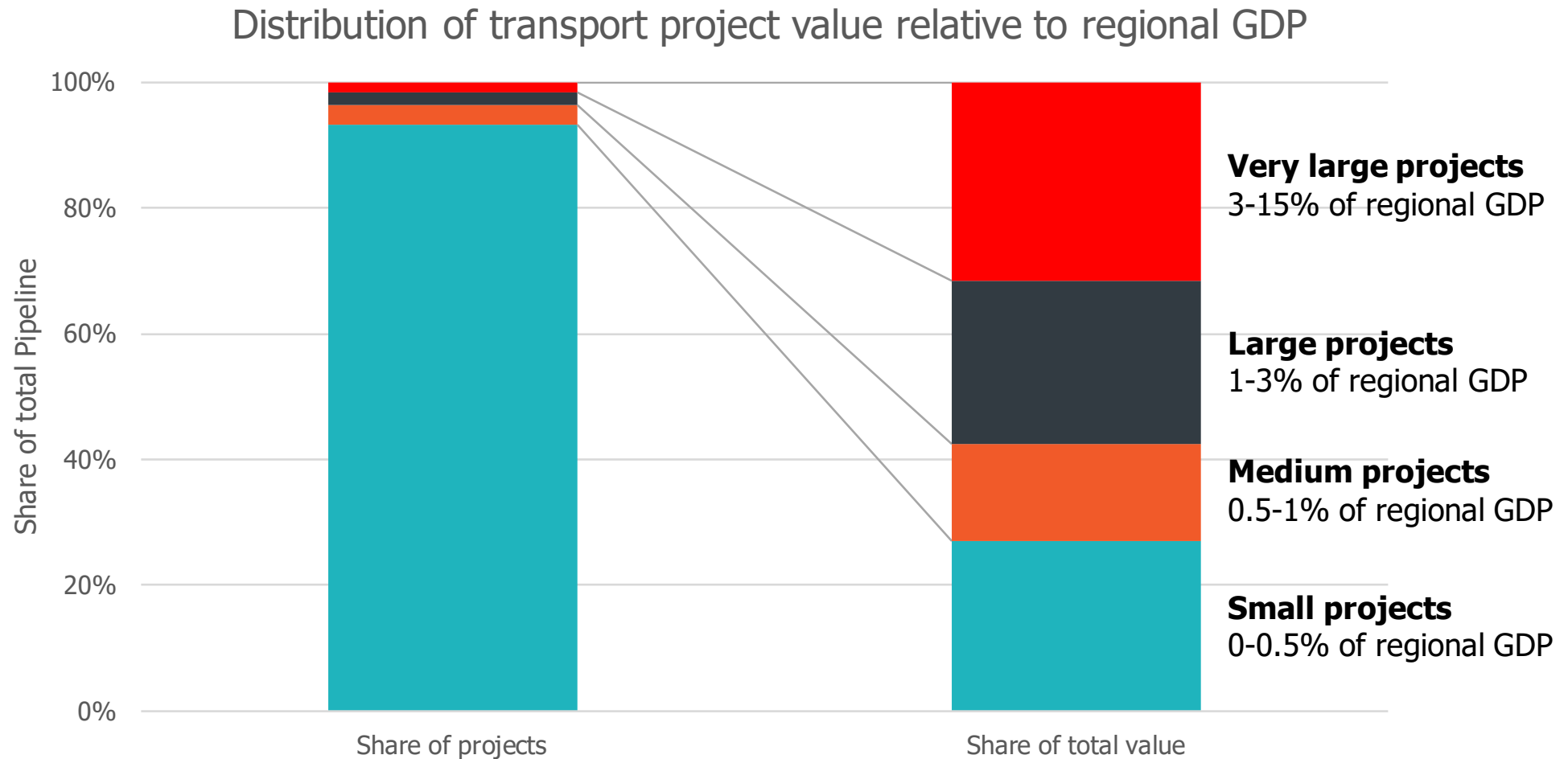
Procurement contracts are often renegotiated because of changes that are required after their execution. Using highway paving contracts we show that renegotiation imposes significant adaptation costs. Reduced form regressions suggest that bidders respond strategically to contractual incompleteness and that adaptation costs are an important determinant of their bids. A structural empirical model compares adaptation costs to bidder markups and shows that adaptation costs account for 7.5–14 percent of the winning bid. Markups from private information and market power, the focus of much of the auctions literature, are much smaller by comparison. Implications for government procurement are discussed. (JEL D44, D82, D86, H57, L13, L74, R42)

- Fixed price contracts are a floor, not a ceiling
- Buyers pay twice for poor scoping: first, when bids are marked up for uncertainty, and second, when variations are negotiated



Procurement

Big projects in small markets



Source: Te Waihangā analysis of data from the National Infrastructure Pipeline and SNZ Regional GDP statistics



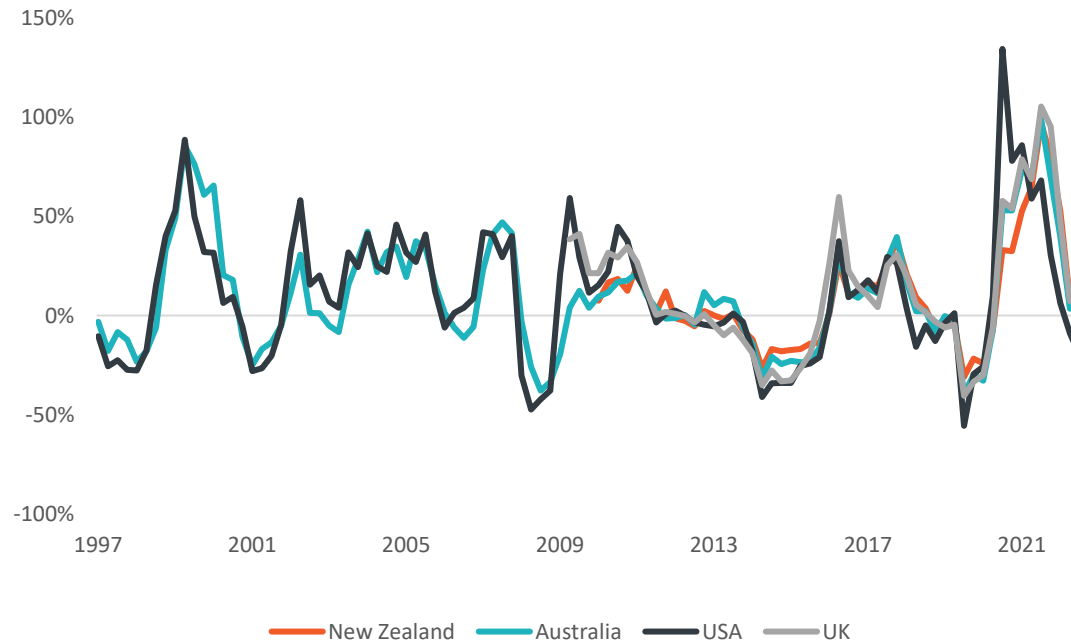
Supply chains

Global markets versus regional markets

Year-over-year price fluctuations for selected construction inputs

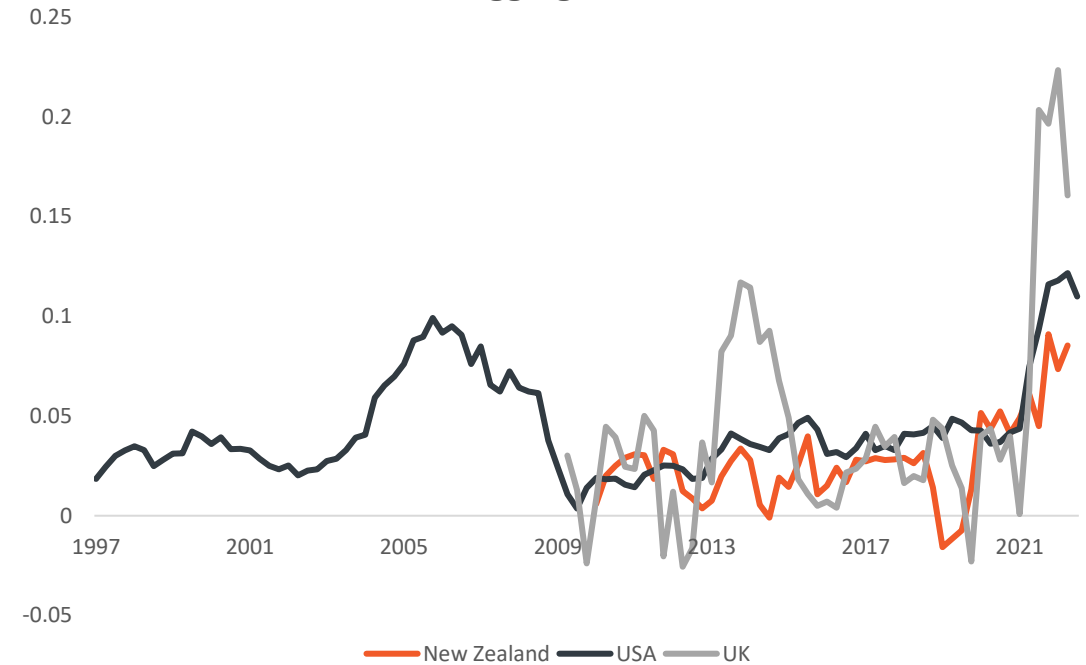
Panel A: Tradeable good

Diesel Fuel



Panel B: Non-tradeable good

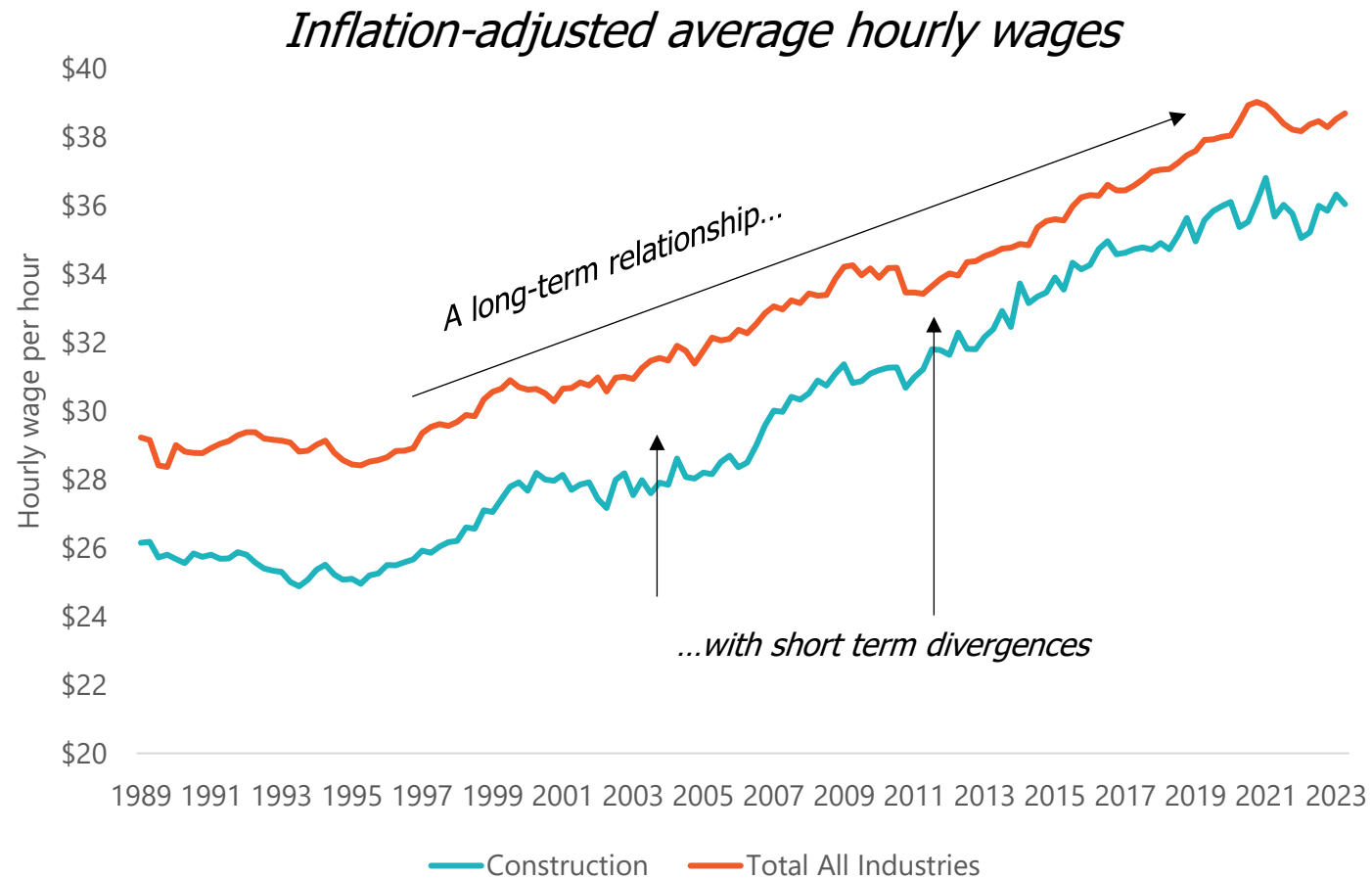
Aggregates





Supply chains

Construction wages vs economy-wide wages



Source: Te Waihangā analysis of SNZ Quarterly Employment Survey



Thank you for your time