



Submission on Draft Report

**Submission to the Commerce Commission on behalf of
the Affordable Building Coalition**

September 2022

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Definitions

ABC	Affordable Building Coalition
BCA	Building Consent Authorities
Commission	The Commerce Commission
Fletcher	Fletcher Building Limited
MBIE	Ministry of Business, Innovation and Employment
OSM	Offsite Manufacturing

Executive summary

The Commerce Commission (Commission) has prepared a Draft Report in its Residential building supplies market study (Market Study). The Draft Report is a detailed contribution to understanding some of the causes of New Zealand's high building materials costs and cost of construction. Affordable Building Coalition (ABC) represents a group of civic minded New Zealanders, building sector participants, property owners, and civil society organisations. ABC has been an active participant in the Commission's Market Study. ABC and Monopoly Watch New Zealand were two out of three submitters to provide a substantive contribution to the Commission's last round of submissions.¹

This submission makes three key points:

- The Commission's conclusions on the state of the building supplies markets are undermined by a failure to analyse New Zealand's high prices and benchmark to global norms for both prices and market structure
- Government procurement, via Kainga Ora, is a key solution to the market distortions
- The Commission has largely identified the correct range of regulatory barriers to entry. However, it missed some key issues that contribute to regulatory barriers.

Benchmarking New Zealand prices against international norms is critical

New Zealand building material prices are high. Castalia's evidence in ABC's March 2022 submission showed how New Zealand's building materials prices are systematically higher compared to other developed and developing countries. The lack of any benchmarking of New Zealand's prices and market structure against global norms risks undermining the Commission's conclusions on the causes of market distortions.

Price information is fundamental to drawing any conclusions on the state of competition. The Minister's terms of reference tasked the Commission with this study because "it is critical that Kiwis have access to fairly-priced building materials". It is impossible to determine whether materials are fairly priced without comparing those prices to benchmarks and understanding how far New Zealand is from the global cost frontier.

ABC is the only participant in the market study—including the Commission—to provide robust price information that compares New Zealand building supplies prices to international norms. Incumbent interests sponsored the Deloitte Report, which ABC previously pointed out had serious flaws that are fatal to its credibility. Is it disappointing to see it still referred to and relied upon in the Commission's Draft Report.

Benchmarking would also show how New Zealand's industry structure is inefficient. If the Commission diagnosed the market structure problems accurately, it would reach different conclusions about the role of dominant suppliers, merchants and construction firms in the sector.

¹ The third submitter was Fletcher Building Limited, a company valued at \$4.38 billion.

New Zealand lacks an economy class market segment. The Commission has accepted the incumbent firms' claims that New Zealanders prefer high-priced, luxury and premium class housing. This is wrong. The recent trend of premium and luxury house-building is a historical anomaly. The trend is slowly being undone, but happening too slowly due to the dominance of firms able to extract high prices.

Government procurement is an important part of the solution to affordable building

The government's role as a major consumer of building supplies and purchaser of houses needs to be included in the study. Kainga Ora currently accounts for around 12 percent² of house completions. It has increased its presence in the market in the past 12 years. The Commission should recognise how procurement, countervailing market power and the design of transactions could transform the market structure. Greater efficiency and lower costs are available if scalable, vertically integrated house assembly firms were present in the New Zealand market, as they are in other countries. The government has a key role to play in catalysing such an industry structure.

Regulatory barriers identified are mostly correct

The Commission has mostly identified those regulatory barriers that distort product markets and result in excessive prices paid by consumers. Its proposed solutions are mostly sound.

However, more urgency is needed in regulatory reform proposals and in the Commission's recommendations. The Plasterboard Taskforce, which was prompted by ABC's proposal to Ministers in May 2022, is a good example of how Ministerial leadership can prompt regulatory agencies to solve bottlenecks exacerbated by the regulatory regime.

The Commission's conclusion that many products enjoy large market share because these are "tried and tested" is based on incomplete analysis. A more fulsome analysis of current and historical market distortions would result in a more appropriate set of remedies.

² Analysis based on Kainga Ora's 2022 dwelling unit construction intentions (6,020 homes) and Statistics NZ estimated dwelling completions in 2022 (around 50,000).

1 Introduction

Castalia has been appointed by ABC to prepare this submission in response to the Commission's Draft Report on the Residential Building Supplies Market Study. This submission makes three key points.

Section 2 outlines how the Commission's conclusions on the state of the building supplies markets are undermined by a failure to analyse New Zealand's high prices and compare these to benchmarks. Instead, the Commission appears to have been influenced by reports prepared by incumbent interests. This leads to a failure to diagnose the key distortions in the relevant markets and a lack of structural features present in overseas markets.

Section 3 explains how the Commission should include the role of government procurement of housing and construction services in its analysis of the causes of market distortions and identify relevant remedies to solve these. It has failed to meet its promise in the March 2022 report *Additional paper on the scope of the market study*.

Section 4 offers praise for the Commission's findings on regulatory barriers to entry. However, it also identifies areas where more urgency is needed and suggests how to achieve this.

2 Commission must assess New Zealand's high prices

The Commission did not independently benchmark the New Zealand prices of building supplies or benchmark the international standards for sector productivity. This is a major gap. It risks undermining the Commission's conclusions. Benchmarks are needed to establish whether the problems in New Zealand building supplies and construction costs are symptomatic of competition issues. Without price benchmarking, the Commission cannot reach a considered conclusion on the impact of market structure on consumers.

Benchmarking would expose how New Zealand's building materials prices are high by international standards. Without benchmarks for global prices, the market study findings are undermined. This gap is exacerbated by the Commission's continued reference to a fundamentally flawed Fletcher-funded Deloitte Report. ABC has pointed out the flaws and repeats these here.

Further, the Commission did not compare New Zealand's industry structure against international markets. New Zealand has an unusual industry structure, and understanding this would lead the Commission to a different set of possible interventions and recommendations than it has reached.

2.1 Benchmarking would show that New Zealand's building materials costs are high by international standards

Benchmarking is essential to understanding the scale of the competition problem. Otherwise, the analysis is academic. It can only identify theoretical competition issues for market structure. The failure to properly compare New Zealand building supplies prices to

international norms risks undermining the Commission’s conclusions on the state of competition.

International benchmarking is critical to establishing the state of competition

Benchmarking would provide an assessment of the economic conditions which would exist if competition were not distorted. The Commission acknowledges that competition is distorted (in its analysis of regulatory barriers), but does not relate the distortions to prices. Without benchmarking, the Commission’s findings on vertical integration of suppliers and merchants and vertical integration in specific product markets (plasterboard and structural timber) are weakened.

Castalia suggested in ABC’s initial submission dated March 2022³ that benchmarking of building costs was a critical element in understanding the extent of market distortions and competition issues in New Zealand’s building supplies markets. Benchmarking would show the excessive prices that pervade in New Zealand. It would show that dominant firms can charge prices that are in excess of costs.

ABC’s analysis of publicly available cost data was not considered

The Commission appears to have overlooked all of ABC’s evidence on cost comparisons. That evidence from quantity surveying data which the Commission could have also accessed shows that New Zealand’s prices are high for many products. New Zealand prices are consistently higher than other jurisdictions such as Australia, the United States, and Great Britain. The Commission could again review ABC’s March 2022 submission. It was disappointing that benchmarking was not addressed in the Commission’s Draft Report.

Grocery market study included benchmarking—same logic applies to building supplies

Finally, in its grocery sector study Commission undertook international benchmarking for commodity supermarket goods. It compared prices of groceries in New Zealand with prices internationally⁴ and concluded that New Zealand’s prices are relatively high by international standards.⁵ To do this, the Commission analysed datasets compiled by the ICP, the OECD, and Numbeo. Commission also compared New Zealand’s expenditure on groceries with several countries using three different expenditure datasets compiled by the OECD, ICP and the USDA.⁶

³ Castalia for ABC: Building supplies market study—preliminary issues, available at: https://comcom.govt.nz/data/assets/pdf_file/0030/280569/Affordable-Building-Coalition-Supporting-evidence-for-cross-submission-on-residential-building-supplies-market-study-18-March-2022.pdf

⁴ Commerce Commission, 2022, Market study into the grocery sector final report, Page 479, available: https://comcom.govt.nz/data/assets/pdf_file/0024/278403/Market-Study-into-the-retail-grocery-sector-Final-report-8-March-2022.pdf

⁵ Commerce Commission, 2022, Market study into the grocery sector final report, Page 44 and Page 65, available: https://comcom.govt.nz/data/assets/pdf_file/0024/278403/Market-Study-into-the-retail-grocery-sector-Final-report-8-March-2022.pdf

⁶ Commerce Commission, 2022, Market study into the grocery sector final report, Page 480, available: https://comcom.govt.nz/data/assets/pdf_file/0024/278403/Market-Study-into-the-retail-grocery-sector-Final-report-8-March-2022.pdf

2.2 Commission’s evidence base for prices and costs of construction is flawed

To the extent the Commission does examine the evidence for costs,⁷ this is flawed. The Commission has continued to rely on the Fletcher Building-funded Deloitte report as a reference for international materials prices. That report is seriously flawed, biased and introduces incorrect evidence into these proceedings.

Commission has not collected evidence for New Zealand’s construction cost

The Commission cites one data point for construction costs: \$2,696 per m². The Commission notes that this average figure is impacted by region, typology and quality of housing. There is no deeper analysis of building costs or data to assess whether New Zealand’s costs are reasonable. Furthermore, the statistic on which the Commission draws the \$2,696 per m² figure is the value of residential building consents, not actual building costs. The value of consents is inaccurate because it relies on owners’ building consent applications during the period in which owners, architects/designers and builders agree on the building plan. This bias toward understating costs is not accounted for, as well as cost overruns (extremely common in residential construction).

Deloitte Report should not be used as basis for price comparisons

It should not be used as a reference for international price comparisons. The flaws also call into question the Commission’s choice to use the Deloitte Report as a basis to form views on the contribution of different materials to overall construction costs.

ABC provided a comprehensive critique of the Deloitte Report. The Commission has not acknowledged any of these points. As noted in Castalia’s preliminary issues submission:

- Deloitte systematically chose countries, cities and locations to compare to New Zealand, which provide a biased view of the level of costs in New Zealand. For example, it compares the local authority with the highest property prices in Victoria, Australia to compare against a suburb with low prices in Auckland, New Zealand
- Deloitte is selective in its choice of building supplies to compare, and when it does compare costs between countries, the results portray New Zealand’s costs as lower than they are⁸
- Deloitte’s report is therefore highly biased and unreliable as an evidentiary base for a market study of this scale and importance for the New Zealand economy.

Since those points were not acknowledged, these are repeated in Appendix A.

⁷ The Draft Report briefly refers to some international OECD comparisons of building quality and “better life index” scores at page 198. However, this is mostly irrelevant to the core question concerning this market study on whether the relevant markets are competitive and consumers are not paying excessive prices .

⁸ Castalia on behalf of Affordable Building Coalition, 2022, “Submission on residential building supplies market study preliminary issues paper, page 17, available: https://comcom.govt.nz/data/assets/pdf_file/0030/280569/Affordable-Building-Coalition-Supporting-evidence-for-cross-submission-on-residential-building-supplies-market-study-18-March-2022.pdf

Commission has not understood the relationship between concentration in building product markets and construction sector productivity

Finally, the Commission has not addressed ABC's submission that concentrated upstream markets affect productivity in the construction sector downstream. This dynamic is important because it shows how

- This relationship highlights the importance of building supplies and construction cost benchmarking to the market study.
- Building supplies markets affect downstream construction productivity, and improving competition would have a productivity dividend for consumers.

2.3 Benchmarking would illustrate how industry structure is inefficient

The Commission should compare building industry structure to countries with which New Zealand is typically compared. These include the UK, Canada, Australia, Ireland, Denmark, and other European countries. Comparator countries have diverse building suppliers and merchants. Critically, those markets have large vertically-integrated building assemblers.

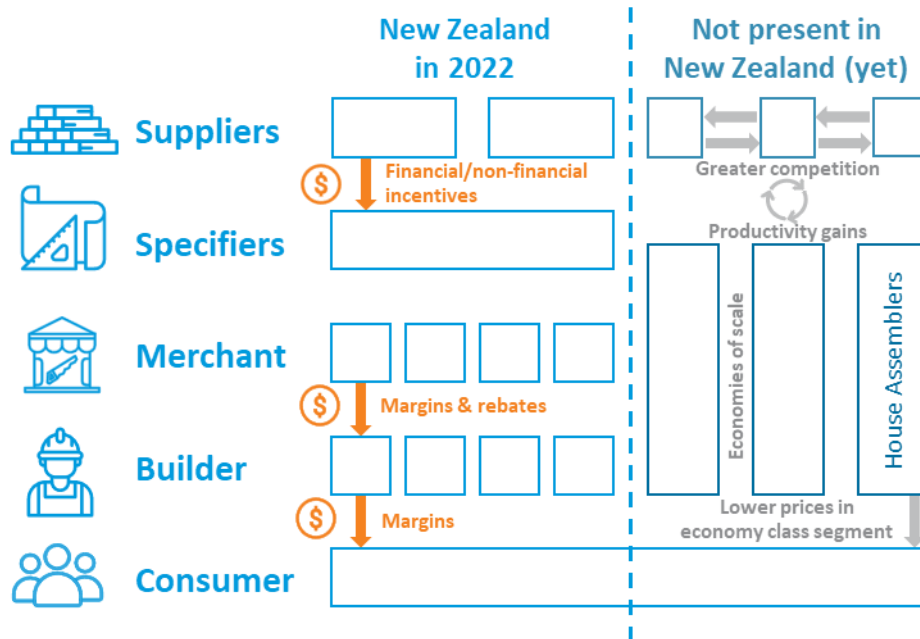
The Draft Report and analysis that preceded it did not take into account the possibility of vertically integrated assemblers—firms that internalise procurement of supplies, assembly of house components, and building of the house on-site. This can be via “offsite manufacturing” (OSM) or not. In all cases, such vertically integrated assembly firms realise economies of scale and effectively internalise the supply chain.

Unfortunately, the Commission has accepted the New Zealand market structure as it is now. It has failed to appreciate that an alternative market structure is possible, where margins are reduced, and prices fall due to scale economies and competition.

The current New Zealand market structure has many stages in the supply chain from raw materials, building supplies producers, specifiers, merchants and builders, subcontractors through to consumers. At each stage, margins are added on, and efficiency is lost. Vertically integrated house assembly firms would also lead to greater countervailing market power with suppliers.

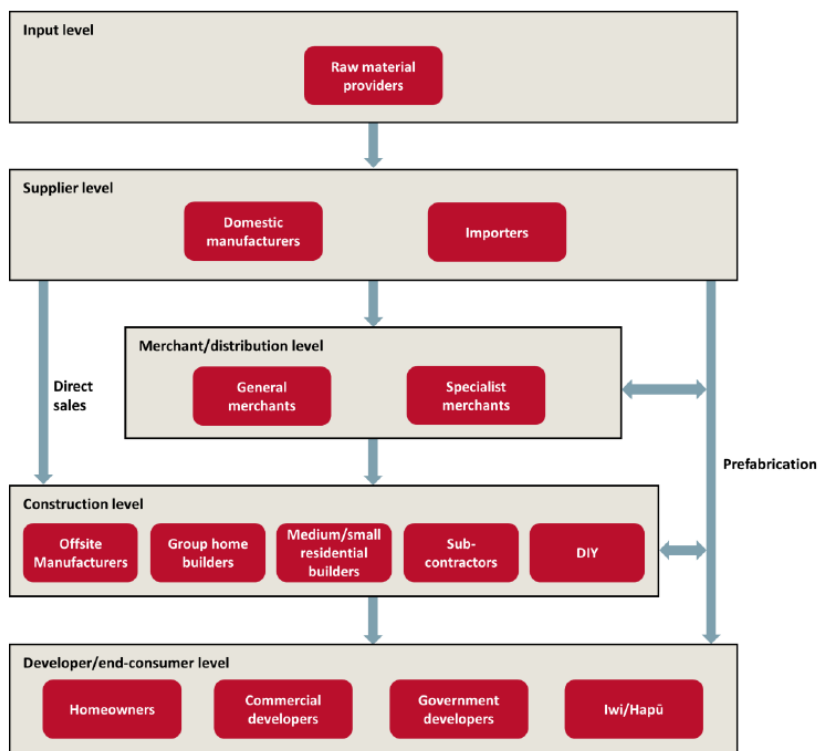
Figure 2.1 illustrates the supply chain as it exists in New Zealand (left hand side) and how vertically integrated house assembly firms reduce margins and costs in global markets (right hand side).

Figure 2.1: Model international supply chain for building supplies



The Commission’s view of the New Zealand market structure is accurate. However, the Draft Report does not anticipate how the market could, or should, develop in line with global norms. The Commission’s diagram of the current market structure (excerpted in Figure 2.2) and its diagnosis does not properly capture the impact of lack of competition on construction productivity and the role of margins.

Figure 2.2: Commission’s high-level generic supply chain



Source: Commerce Commission.⁵⁶

Source: Draft Report, page 28, Fig 2.2.

2.4 International analysis would highlight the absence of “economy class” market segment

New Zealand lacks an “economy class” market segment, where standardised housing is produced at the least-cost for the main market. The Commission has not understood how “economy class” house building would support both competition and greater efficiency in building supplies markets. There are two reasons for this error:

- The Commission incorrectly concludes that New Zealand has a prevalence and cultural preference for bespoke housing⁹
- The Commission does not make international comparisons of market structure.

Claimed preference for “bespoke housing” is a result of a distorted market and has not been substantiated

The Commission’s mistaken conclusion that New Zealanders prefer bespoke housing is material, and drives a misconception of the underlying problem in the New Zealand building supplies market. Bespoke housing has higher costs by definition.

⁹ Commerce Commission, 2022, Market study into the building supplies sector draft report, page 36, available: https://comcom.govt.nz/data/assets/pdf_file/0028/289360/Draft-report-Residential-building-supplies-market-study-4-August-2022.pdf

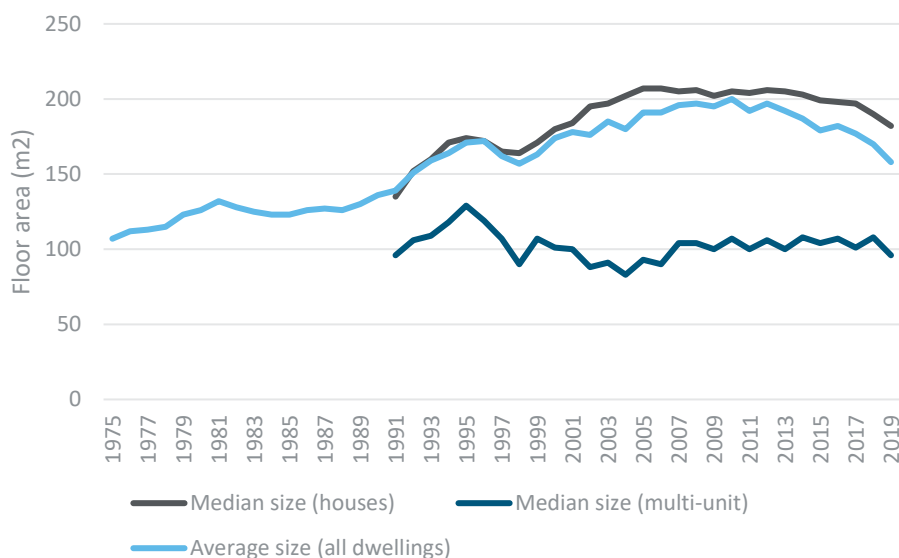
The Commission appears to be accepting the submissions of industry incumbent Fletcher Building (along with H.W. Richardson, the only two parties to make this submission) about housing preferences. Accepting this interpretation suggests the Commission is unwilling to contemplate a different industry structure than what currently exists. It also suggests that the Commission believes New Zealanders would not prefer lower prices.

In fact, New Zealand has a long history of uniform and replicable housing stock, using efficient building techniques (for their time). New Zealand historically had a major industry building uniform housing typologies. ABC has pointed this out with reference to the historical record and the observable reality of older houses in many suburbs.

Other than the largest incumbent firm’s claims, there is no evidence for the Commission’s assumption that New Zealanders systematically prefer bespoke housing. Furthermore, there is no evidence that given the choice in a market without distortions, New Zealanders would prefer more expensive bespoke housing over lower-cost, high quality replicable housing.

As Castalia points out—the recent trend of bespoke housing is a historical anomaly. Evidence suggests (observable in scale developments in Auckland, for example) that replicable building typologies are returning to the market. Since around the mid-2010s, as planning rules have slowly changed to permit more intensification (for example the Auckland Unitary Plan), more uniform and replicable housing types have been built. This is evident in the figure below. New Zealand’s median standalone new house size has decreased from a peak of around 200m² to around 170m² now. This reverses a 20-year trend for larger homes. This is because New Zealand house builders have increasingly built more uniform, replicable building typologies in the past two or three years.

Figure 2.3: Average detached and semi-detached dwelling size in New Zealand



Source: Statistics New Zealand

Economy class market segment has been absent—due to the market structure

ABC has previously submitted that the economy class market segment is critical to promoting competition and lowering building supplies prices. The Commission should reconsider why

New Zealand does not have an “economy class” market segment in the building sector. The reasons for the lack of “economy class” are:

- Lack of competition in the building supplies market
- Vertical integration of suppliers, merchants and builders, locking out scale home constructors.

In addition, compounding factors include:

- Planning barriers to large-scale development and replicable building typologies
- Massive land price appreciation due to rationing of land and infrastructure. This meant only luxury and premium were economical to build
- Reduction in the state house building programme (recently reversed).

3 Commission should include government procurement in recommendations

In its *Additional paper on the scope of this study*, the Commission stated:¹⁰

We will be considering the government’s role and influence as a scale purchaser of key building supplies.

This consideration and the role of the government in influencing prices and procurement practice do not appear to be included in the Draft Report. The Commission appears to have not taken its commitment to consider the role of government procurement any further than the short reference in the March 2022 *Additional paper*. If the Commission has undertaken the analysis of this issue and decided to dispense with it, then please publicly confirm this.

ABC requests that the Commission considers how procurement policies and transaction design could transform the market structure, thereby improving competition, lowering building supplies costs and improving social housing outcomes.

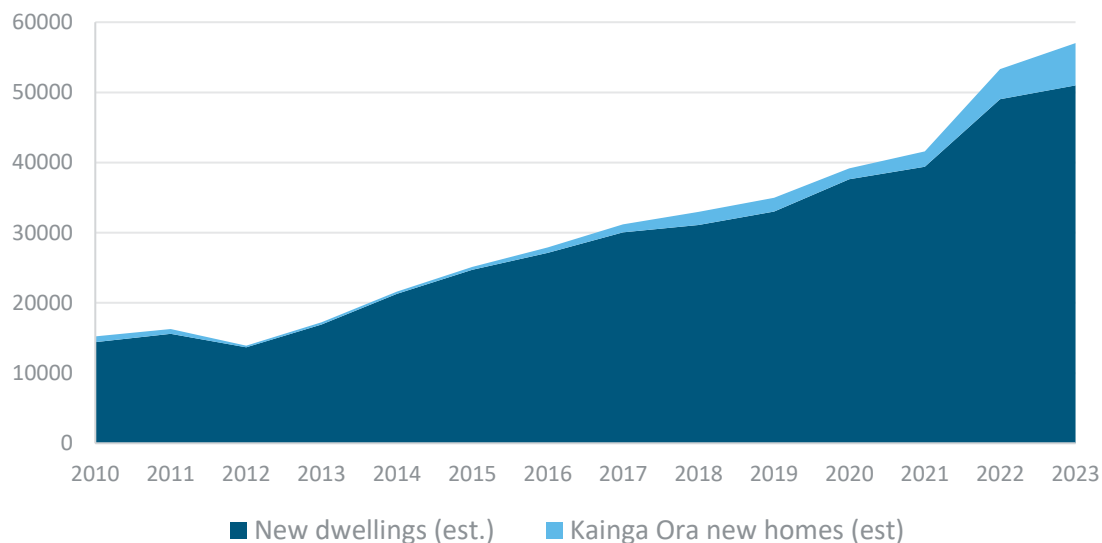
Government typically has a major role in building supplies and construction markets

The government has a major role in the purchase of building supplies. Through Kainga Ora, the government is currently building around 12 percent of all new houses.¹¹ The government is a major procurer of building supplies in other construction (defence, health, general public administration).

¹⁰ Commerce Commission, 2022, Residential building supplies market study: Additional paper on the scope of this study Page 9, available at: https://comcom.govt.nz/_data/assets/pdf_file/0029/280577/Additional-paper-on-the-scope-of-study-Residential-Building-Supplies-Market-Study-31-March-2022.pdf

¹¹ Kainga Ora website: <https://kaingaora.govt.nz/working-with-us/construction-intentions-by-region/> noting that in 2022 construction is starting on 6,025 houses. Houses under construction in New Zealand in 2022 are estimated at around 50,000 (based on Statistics NZ consent data).

Figure 3.1: Kainga Ora house construction as share of New Zealand new dwellings



Sources: Statistics NZ; Kainga Ora construction intentions

Note: New dwellings are an estimate of completed houses based on the prior year's consents. Kainga Ora new homes is based on actual Kainga Ora completed homes, and its disclosed construction completion intentions

Government procurement has been an important tool in shaping construction markets. Historically, the New Zealand government attempted to improve efficiency in the production of building supplies and state house procurement by issuing exclusive licences and partnering with construction firms. For example, Fletcher received exclusive licences in the 1930s and 40s under the Industrial Efficiency Act 1936 and was integral to Nash-led government's state house construction in the same period.

Government procurement can be a tool to improve competition

Since the government is large end-user and direct purchaser of building supplies, construction services and housing, the Commission should consider recommendations on how procurement can shape competition in markets. ABC encourages the Commission to consider how procurement policies and transaction design could promote lower cost building supplies and greater competition.

Currently, social housing tenders are issued in small consignments (typically fewer than 50 dwellings), which does not provide the conditions for building or house assembly firms to develop scale operations. This leads to competition between builders for supplies and services from the small number of (vertically integrated) merchants located in key social housing areas (for example, South Auckland). This tends to increase the cost of supplies in those geographic markets in a situation where the end-client (government) is the same.

4 Commission’s recommendations for reducing regulatory barriers are largely sound

Regulatory barriers are a key reason for uncompetitive New Zealand building supplies markets and low productivity in the construction sector. In this regard, the Commission’s recommendations are largely sound. ABC supports most of the Commission’s findings regarding the regulatory system. However, the Commission has not communicated the need to radically change the regulatory system **with urgency**.

Political ambition needed to unblock regulatory institutions

The Commission acknowledges the work of the Plasterboard Taskforce in improving access to alternative products. That Taskforce was instrumental in encouraging the regulatory policymaker (Ministry of Business, Innovation and Employment, MBIE) to identify barriers to alternative products than GIB (supplied by Fletcher with 96 percent market share). The Taskforce also prompted MBIE to prepare guidance to builders and consumers on eligible substitute products and how to carry out substitution. It also engaged with Building Consenting Authorities (BCAs), and set up an escalation mechanism where BCAs might misinterpret the guidance or fail to promptly enable product substitution.

ABC proposed the Plasterboard Taskforce to Ministers, and ABC’s members and advisors were appointed to it. ABC provided the Minister of Building and Housing and the Minister of Construction with a set of possible options for enabling greater substitution of plasterboard in May 2022. Once established upon appointment of Minister Woods as Minister of Building and Construction, the Plasterboard Taskforce rapidly identified a series of barriers to the import of plasterboard, promoting these among merchants and construction firms.

The Taskforce is a case study of how regulatory agencies will respond where political ambition to solve problems is evident. It also demonstrates what is possible when independent expertise is sought (not industry vested interests). The Commission could supplement its Draft Recommendations 1 and 3, 4, 5 and 6 to include the suggestion for the government to:

- Encourage the use of targeted expert groups that are free of incumbent influence
- Create incentives for regulatory agencies to explore ambitious policies for changes to industry structure.

“Tried and tested” conclusion needs rigorous analysis

ABC does not agree with the Commission’s conclusion that BCAs, builders and designers favour so-called “tried and tested” products. The Commission should more carefully investigate the reason for a product becoming popular or having a large market share (so called “tried and tested”). The Commission’s conclusion that many products are “tried and tested” in markets where suppliers have a significant market share is based on incomplete analysis. The Commission appears to conclude that because a product has a large market share, it must be due to durability, suitability and reliability. This is not always the case. Many products have become commonly used in New Zealand as a result of historical and ongoing distortions. ABC has only seen partial analysis of the following matters:

- Market dominance

- Vertical arrangements between suppliers, merchants and building firms
- Rebates encouraging “specification by brand”
- Other financial incentives encouraging “specification by brand”
- Non-monetary incentives encouraging “specification by brand”
- Historical protectionist regulatory barriers (for example, anti-dumping duties on plasterboard)
- Historical government procurement policies that favoured domestic firms.

As a result of these distortions, products develop a large market share which is easier to maintain due to the reinforcing mechanism of the regulatory system. This is further exacerbated by the principal-agent problem inherent in building supplies purchase transactions. Consumers’ price sensitivity is not fully reflected in the behaviours of the consumer’s agent when selecting building products (designers or builders). Fletcher’s survey evidence (cited in its Response to the Preliminary Issues Paper¹²) states that builders do not compete on building supplies prices. This suggests that the Commission has erroneously concluded that builders test the market for pricing.¹³

Including competition as an objective in the regulatory system

ABC supports including competition as an objective in the regulatory system. The inclusion of a competition objective acknowledges that serious problems exist, and that consideration of the impact on competition of regulatory decisions is needed. This should help MBIE and other regulatory agencies factor in the impact of their decisions on consumers. Unfortunately, many interventions in the building sector have the effect of adding to costs and embedding incumbent suppliers’ market power.

The purpose provision in New Zealand’s Building Act 2004 is consistent with the objectives of the Building Code of Australia to: *‘enable the achievement of nationally consistent, minimum standards of relevant health, safety (including structural safety and safety from fire), amenity and sustainability objectives **efficiently**’*.

Creating more compliance pathways for a broader range of key building supplies

ABC supports this recommendation. ABC notes that including recognition of international standards into New Zealand’s Building Code could be made consistent with the recommendation to reduce BCA discretion, and improve overall coherence of the Building Code compliance regulatory system (for example, by developing a hierarchy of decision-making with precedent value for regulatory decisions).

Promoting product neutrality in design stage

ABC supports promoting product neutrality at the design stage. One issue that the Commission has overlooked is the role of monetary and non-monetary incentives for specifiers. Architects, engineers and designers receive significant monetary and non-monetary incentives to specify particular products.

¹² Fletcher Building Limited, Residential building supplies market study: Response to the Preliminary Issues Paper, para 56.6.

¹³ Draft Report, page 95 (in Summary of preliminary findings, final bullet point)

A valuable incentive relates to product liability statements that are complex to understand. The specifier is incentivised to avoid liability risk associated with specifying products (even if the specification of the product did not cause harm). Further, significant transaction costs are involved in understanding a substitute product liability statement, which professional indemnity insurance conditions can exacerbate. This increases the cost of substitution by the specifier, switching from one product to another.

Finally, specifiers receive significant non-monetary incentives to specify products of dominant incumbent firms. Industry award sponsorships, international conferences and travel and general corporate hospitality are all examples of benefits enjoyed by specifiers that do not get passed on to consumers in any way: either through higher quality products or lower cost specifier services. ABC encourages the Commission to review these.

Reducing discretion of BCAs to prefer familiar products when equivalent quality products are available
Policy makers should explore options to reduce discretion of BCAs to require specific products (whether formally or informally). One option that ABC has suggested is a clearer hierarchy between BCAs and higher authorities. Uniformity of Building Code interpretation would lower regulatory costs, compliance costs and improve building sector confidence.

A parallel can be drawn with recent changes to urban plan-making. In 2017, National Planning Standards were introduced to improve consistency in plans and policy statements across all councils by providing a baseline standard across several plan elements. This was intended to increase the efficiency of plan-making and updating for councils and make the resource management system easier and more efficient for users. Castalia's analysis for Ministry for the Environment found that standardisation generated significant benefits.¹⁴

¹⁴ <https://environment.govt.nz/assets/Publications/Files/FINAL-Castalia-2018-Updated-Economic-Analysis-of-NPS.pdf>

Appendix A: Flaws in Deloitte Report

This Appendix addresses methodological flaws in Deloitte’s Access Economics report for Fletcher Building Limited from 2018 titled “*Cost of residential housing development: A focus on building supplies*”.

A.1 Introduction

The Deloitte report seeks to understand the costs associated with residential development in New Zealand, with a focus on building supplies and construction costs. Deloitte devotes considerable attention to the cost of land and correctly identifies it as a major cost component and driver of house prices. However, Deloitte’s analysis rests on data that is incomplete and potentially misleading. The sourcing of data should be a conscious and deliberate process. It is unclear why Deloitte has sourced and selected the data the way it has.

A.2 Selection of Australian comparators is biased

Deloitte’s selection of comparators for New Zealand’s housing market is flawed at multiple levels. Typically, the best comparison between different markets should ensure that there are as many similarities as possible in all regards other than the parameters of interest. In this case, the parameters of interest are construction and building materials/supplies costs.

Deloitte does not select appropriate comparators, as outlined below. By doing this, Deloitte introduces uncertainty and error. It has selected comparator countries, cities and local areas within cities that differ from each other in many important aspects.

In other words, Deloitte appears to have cherry-picked the comparators. The analysis Deloitte performs on these comparators is therefore fundamentally flawed, even if the methodology is correct.

A.2.1 Countries chosen by Deloitte introduce bias

Deloitte artificially constrains its analysis by limiting the set of comparator countries to Australia only. Australia could be a useful comparison due to its similarity and close ties with New Zealand. However, the housing markets in Australia’s main centres (including Sydney and Melbourne) are also unaffordable by global standards.

Deloitte finds that costs in New Zealand are not significantly different from those in Australia. Therefore, they conclude that New Zealand’s construction sector is healthy. However, this relies on the assumption that Australia’s construction sector is healthy also. This is not necessarily the case, and possibly not for all markets in Australia.

Cities across many countries that New Zealand is often compared to are much more affordable than Australian cities, as shown in Table A.1 below. Yet Deloitte’s analysis does not consider them.

Table A.1: Housing affordability in select cities (in descending order)

Country	City	Median Multiple
Australia	Sydney	15.3

Country	City	Median Multiple
Australia	Melbourne	12.1
New Zealand	Auckland	11.2
Canada	Toronto	10.5
Australia	Adelaide	8.0
Australia	Brisbane	7.4
United States	Boston	7.0
Ireland	Dublin	5.7
United States	Houston	4.5
United Kingdom	Newcastle upon Tyne	4.3
Canada	Calgary	4.0

Median Multiple = (Median House Price)/(Median Household Income)
Source: Demographia International Housing Affordability Survey

A.2.2 Cities chosen by Deloitte introduce bias

The cities Deloitte selected are not entirely comparable due to significant differences in metropolitan population. A city's population may have multiple impacts on its housing market, including efficiencies of scale, limited land supply relative to growth, overseas investor interests, and denser urban forms. Deloitte's analysis conspicuously left out several Australian urban areas that might provide for a better comparison, as illustrated in Table A.2 below.

Table A.2: Population of urban areas in New Zealand and Australia (in descending order)

City	Metropolitan population (millions)	Included by Deloitte
Sydney	5.4	Yes
Melbourne	5.2	Yes
Brisbane	2.5	No
Perth	2.1	No
Auckland	1.6	Yes
Adelaide	1.4	No
Gold Coast	0.7	No
Newcastle	0.5	No
Wellington	0.5	Yes
Christchurch	0.4	Yes
Canberra	0.4	No

A.2.3 Local areas chosen by Deloitte introduce bias

Deloitte’s selection of development locations for each building typology is flawed and incomplete. The characteristic of each local area/suburb influences the cost of building supplies due to different transport costs, ease of consent (particularly of non-typical typologies), and local preferences (for example, wealthier areas will prefer higher quality materials).

For instance, Deloitte compares costs within townhouses between areas with little in common, as shown in Table A.3 below. Deloitte is comparing somewhat disadvantaged areas in Auckland with the wealthiest local government area in greater Melbourne, and yet finds that Auckland is more expensive across all cost components. These differences (among others) can influence costs and do not allow for an objective comparison.

Table A.3: Characteristics of comparator areas for townhouses

City	Area	Distance from CBD	Socioeconomic Status	Urban Form
Auckland	Flat Bush	20km	NZDep 4, somewhat disadvantaged	Predominantly standalone houses
Wellington	Thorndon, Brooklyn	1–3km	NZDep 4, somewhat disadvantaged	Predominantly standalone houses
Christchurch	Edgware	2km	NZDep 7, very disadvantaged	Predominantly standalone houses
Sydney	Mascot	6km	SEIFA 3–4, somewhat disadvantaged	Even mix of apartments, townhouses, and standalone houses
Melbourne	City of Stonnington	3km	SEIFA 5, least disadvantaged (wealthiest local government area in Victoria)	Predominantly standalone houses

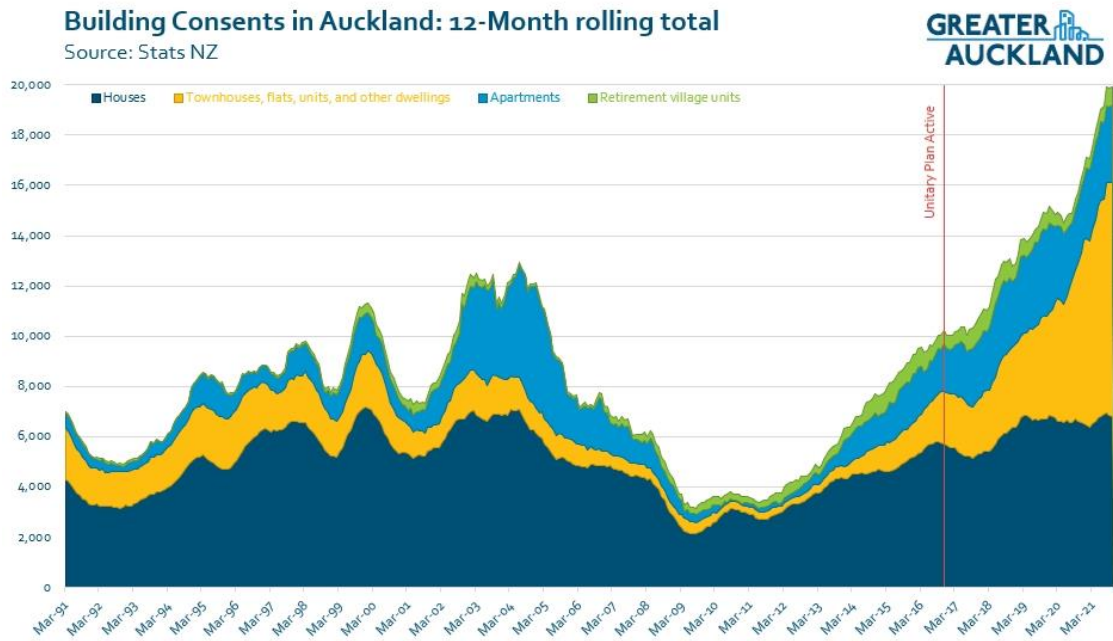
A.2.4 Building typology chosen by Deloitte introduces bias

Deloitte’s analysis uses five building typologies (double-story greenfield house, double-story infill house, townhouse, low rise apartment, and high rise apartment).

It is unclear whether these typologies are representative. For instance, most greenfield developments on Auckland’s urban periphery consist of single-storey houses, which Deloitte has excluded from its framework.

Deloitte’s treatment of typologies can be misleading. The overwhelming majority of new consents in Auckland are houses or townhouses, as illustrated below in Figure A.1. This proportion is likely to be even higher in Wellington and Christchurch. Throughout the report, Deloitte often claims them as “exceptions” within its framework, even if they represent a large proportion of housing. A weighted approach would be more representative.

Figure A.1: Building consents in Auckland by typology



Source: Greater Auckland, prepared using Stats NZ data

A.3 Selection of cost components for modelling appears biased

Deloitte’s modelling of cost components lacks transparency, and several estimates are difficult to reconcile with reality. For instance, Deloitte claims that:

- Land costs of townhouses in Flatbush, a middle-class suburb 20km away from Auckland CBD, are 16 percent higher than that of Stonnington, the wealthiest local government area in Victoria only 3km from Melbourne CBD
- Labour costs are similar across New Zealand and Australia (for example, a 13 percent labour premium for double-story greenfield in Sydney over Auckland), despite average construction sector hourly wages being over 37 percent higher in Australia than New Zealand (Australian Statistics Bureau and Stats NZ).

A.4 Selection of comparator building materials and product markets appears biased

Deloitte provides a comparative analysis of only two building materials: concrete and timber framing. It lists comparator product markets, but provides no reasons for the selection of those markets. When the results are presented, Deloitte uses a double-negative to conclude that “New Zealand prices are not unreasonably high”. For concrete, Deloitte presents two markets with higher prices than New Zealand are Uganda and Switzerland. Uganda is a landlocked African developing country with low incomes and poor infrastructure. Switzerland is one of the most expensive countries in Europe with high incomes. Figure A.2 illustrates this.

Figure A.2: Deloitte’s selective sample of comparator countries for concrete and timber

Figure 4.1 - International comparison of concrete prices (NZD, today’s value terms)

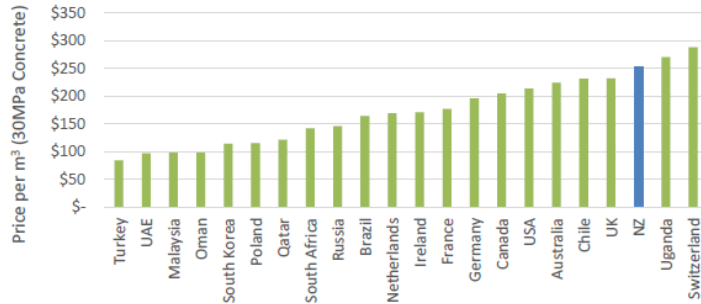
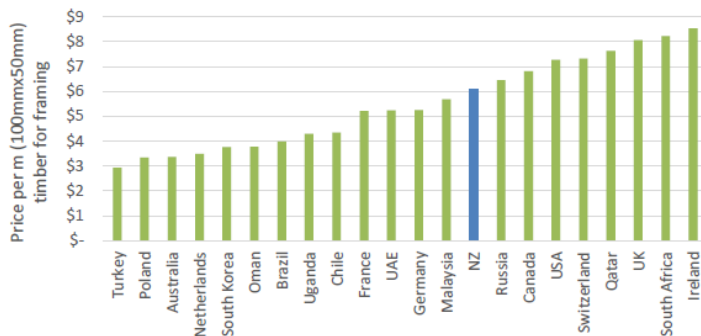


Figure 4.2 - International comparison of timber prices (NZD, today’s value terms)



Source: Deloitte Access Economics based on an international construction market survey

Deloitte Report, page 67.

A.5 Other criticisms

Other criticisms of the Deloitte Report are:

- Deloitte claims that a “like-for-like” comparison of building typologies is more “objective” due to various intangible preferences. However, it is equally possible that distortions in building costs influence consumers/developers’ preferences instead
- Deloitte repeatedly attributes costs to New Zealand’s dispersed population. Deloitte chooses Melbourne and Sydney in Australia, which also has a dispersed population. If Deloitte wanted to compare what it calls New Zealand’s dispersed geography with a relevant comparator, it could have compared Auckland, Wellington and Christchurch to Perth, one of the world’s most isolated cities. However, it did not.



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