

**STATEMENT OF EVIDENCE OF KIRDAN ROSS LEES ON BEHALF OF WELLINGTON
CITY COUNCIL**

24 May 2023

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INTRODUCTION

1. My name is **Kirdan Ross Lees**.
2. I am a Partner at Sense Partners, an economics and public policy consultancy based in Auckland and Wellington.
3. I am a PhD trained applied economist with 12 years' experience related to urban economics and policy issues in Wellington.
4. My evidence is given on behalf of Wellington City Council ("**WCC**") in relation to centres and mixed use zone activities related to the District Plan.
5. Although this is a Council Hearing, I have read the Code of Conduct for Expert Witnesses contained in the Practice Note issued by the Environment Court December 2023. I have complied with the Code of Conduct when preparing my written statement of evidence and I agree to comply with it when I give any oral evidence.
6. Other than when I state that I am relying on the evidence or advice of another person, this evidence is within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions I express.
7. Any data, information, facts, and assumptions I have considered in forming my opinions are set out in the part of the evidence in which I express my opinions. Where I have set out opinions in my evidence, I have given reasons for those opinions.

SCOPE OF EVIDENCE

8. This statement sets out a brief assessment of Wellington's Centres for planning purposes.



Evidence brief: Assessing city centres

Wellington City Council

Sense Partners 24 May 2023



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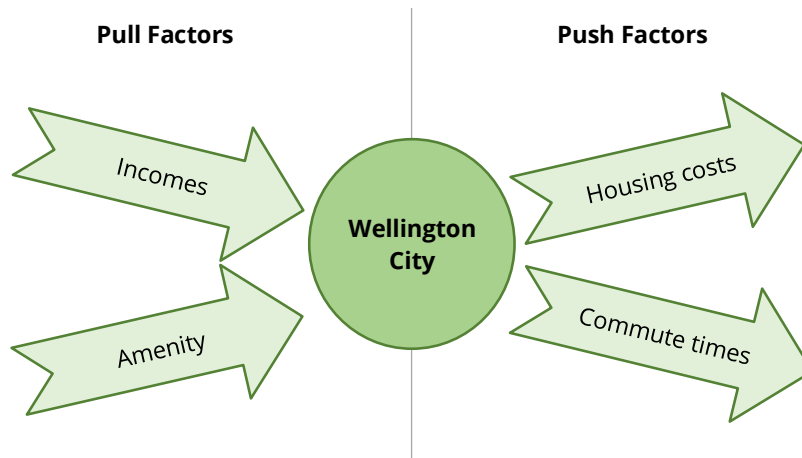


1. The city context

1.1. An economic approach

1. Before providing context to help decision-making we first set out the economic drivers of cities in Figure 1. Decision-makers seek decisions that lift incomes and increase amenities for residents, while at the same time, mitigating increases in housing costs and commuting costs. Improving these factors increases the liveability of Wellington city.

Figure 1: An economic approach stresses push and pull factors
Stylised drivers of city success – a economic approach



Source: Adapted from Glaeser 2007

2. Incomes include job opportunities that might be expanded by the agglomeration factors that draw people into the city. Amenities include open spaces, sunlight, views, and public goods. Push factors include the cost of housing (rents and house prices adjusted for quality), while commute times span public transport and moving by car.

1.2. Population expected to continue to grow

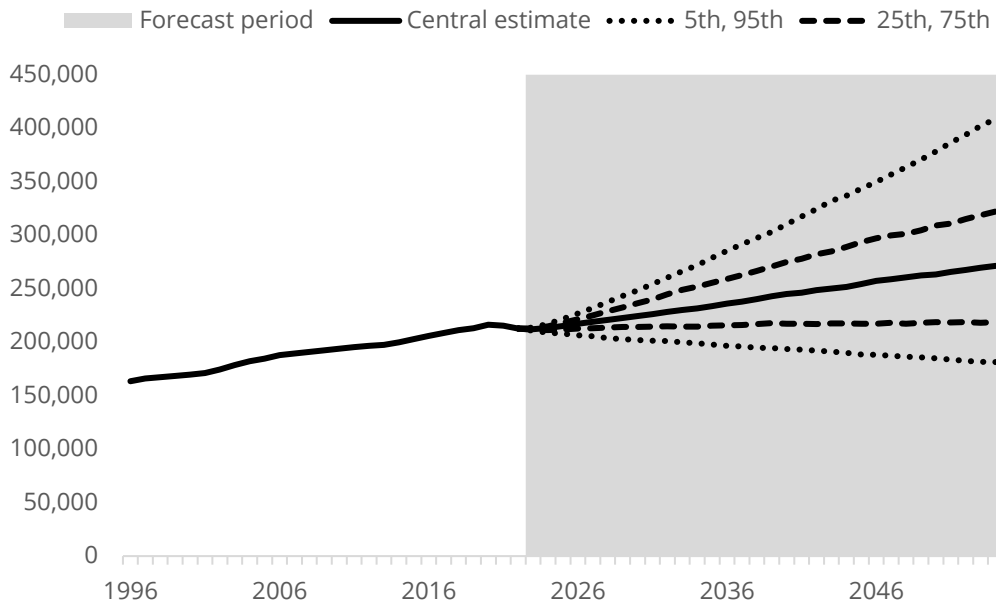
3. Although impacted by COVID, Figure 2 shows Wellington's population is expected to continue to grow, albeit less strongly than over the five years prior to COVID.
4. However, perhaps the most salient feature of the population forecasts is the range of possibilities. A 90 percent confidence interval spans a slight decrease in population and an increase in population to 400,000. Planning regulation needs to account for the costs and benefits of the range of outcomes.
5. Usefully, consenting activity has increased dramatically over recent years, providing better housing outcomes than would otherwise be the case.¹ Figure 4 shows consenting activity has

¹ New residential consents for February and March are down 22 percent on the previous year – a decline reflected in national data. This is likely the start of a moderation in activity from previous high rates.



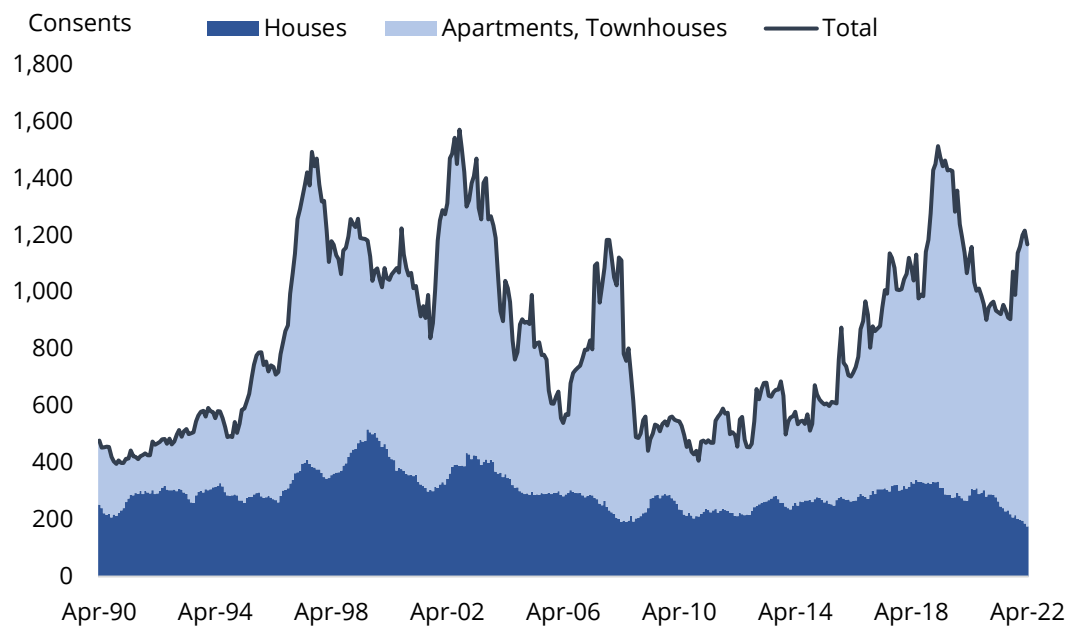
not been evenly distributed across the city. There remain opportunities to improve the push and pull factors impacting the city. Getting right centres policies can play a role.

Figure 2: Expect Wellington City's population to grow but many paths are possible
Sense Partners population forecasts, with confidence intervals



Source: Sense Partners, Business Land Demand

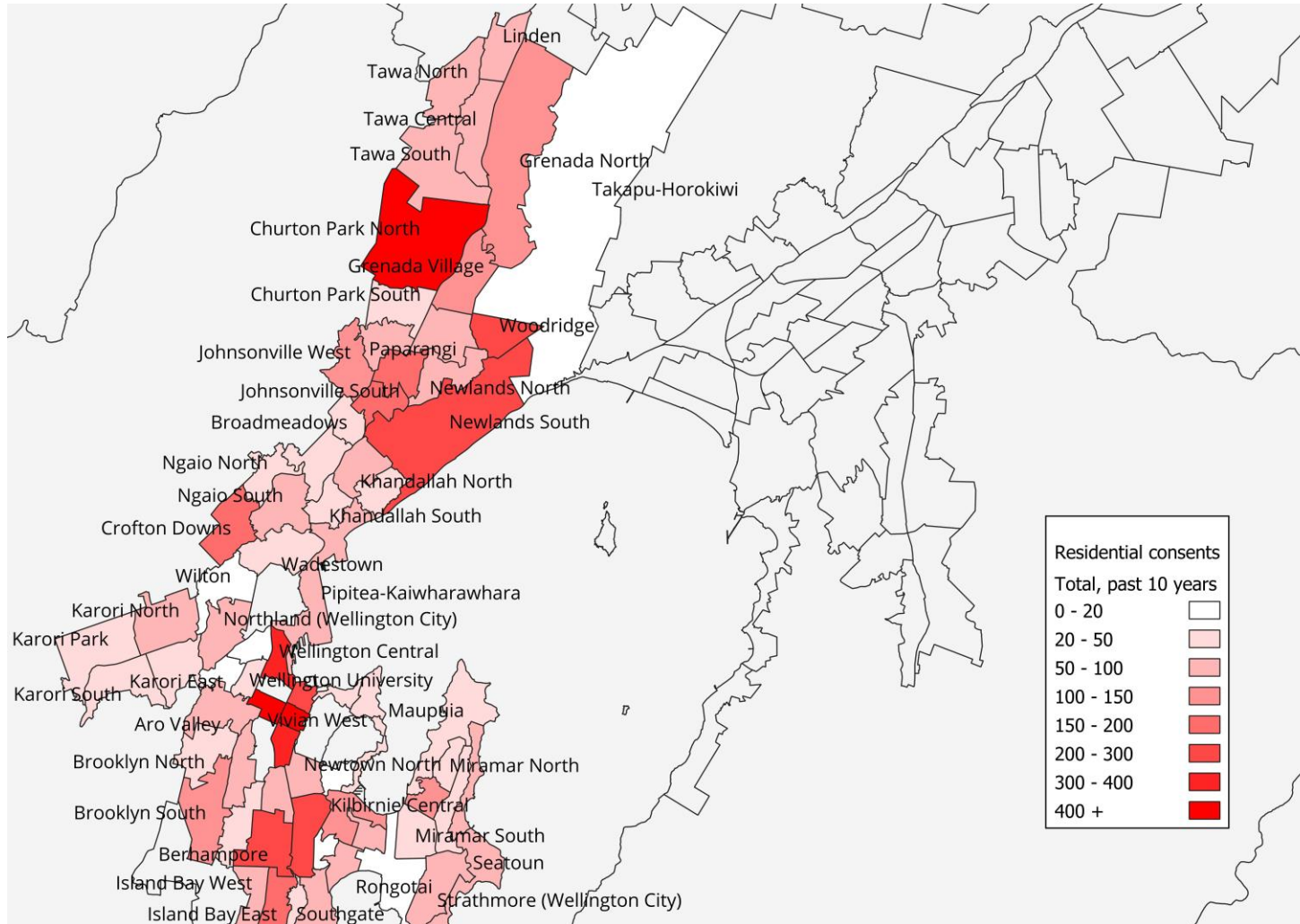
Figure 3: Consenting activity has picked up from a flat period after the GFC
Building consents, total and houses vs apartments, rolling 12 month total, new builds



Source: Sense Partners



Figure 4: Consenting activity has been accommodated in a variety of suburbs
Total consents, new builds, last ten years



Source: Statistics New Zealand and Sense Partners

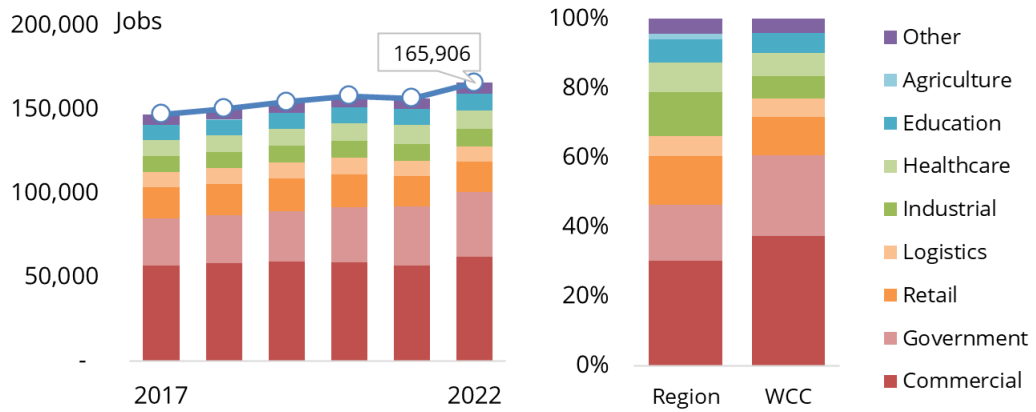


1.3. Incomes and jobs

- Wellington City's economy continues to be dominated by the government sector. Many commercial jobs locate in the city centre, supporting government activity (see Figure 5) in Wellington City.

Figure 5: Government And Commercial Sectors Dominate Employment

Filled jobs by sector 2017-2022 (left), and sector share comparison 2022 (right)

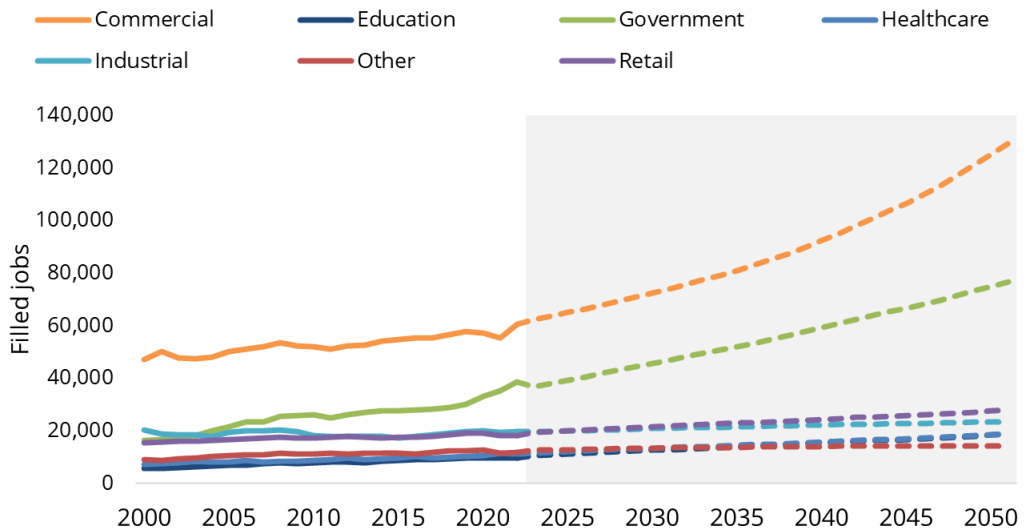


Source: Sense Partners, Business Land Demand

- We continue to expect the government sector to grow and provide the lion's share of employment across the region.

Figure 6: Government sector growth expected to drive future activity

Employment projections by sector, Wellington City



Source: Sense Partners

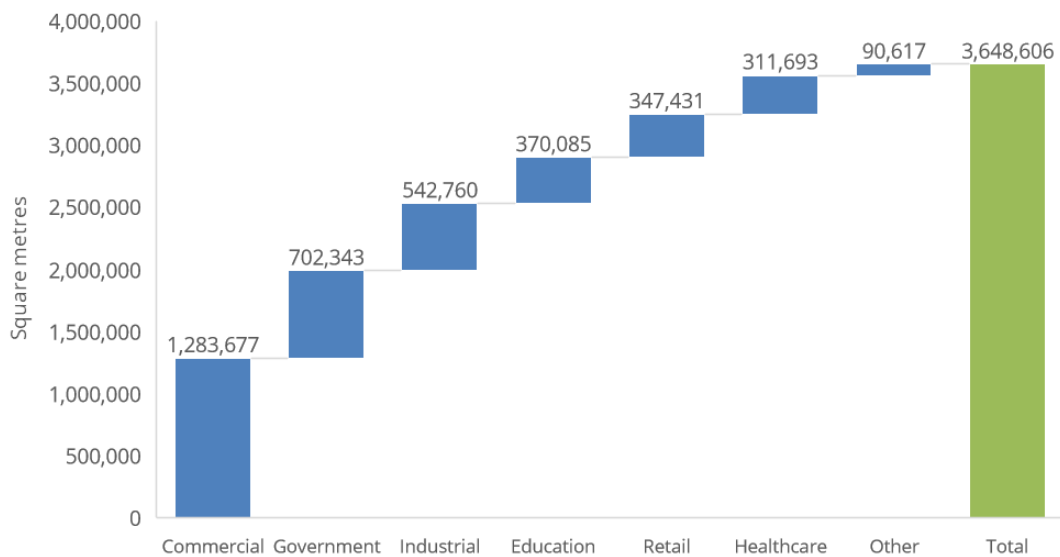
- This growth profile matters since it helps determine the types of activities and demand the District Plan will need to enable. Those parts of the commercial sector which service Central Government, such as lawyers or accountants, can also compete for expensive office space.



They can pass the cost on to Central Government through the fees charged for their services. Limited remaining commercial space means tough competition for other parts of the commercial sector, such as the tech sector.

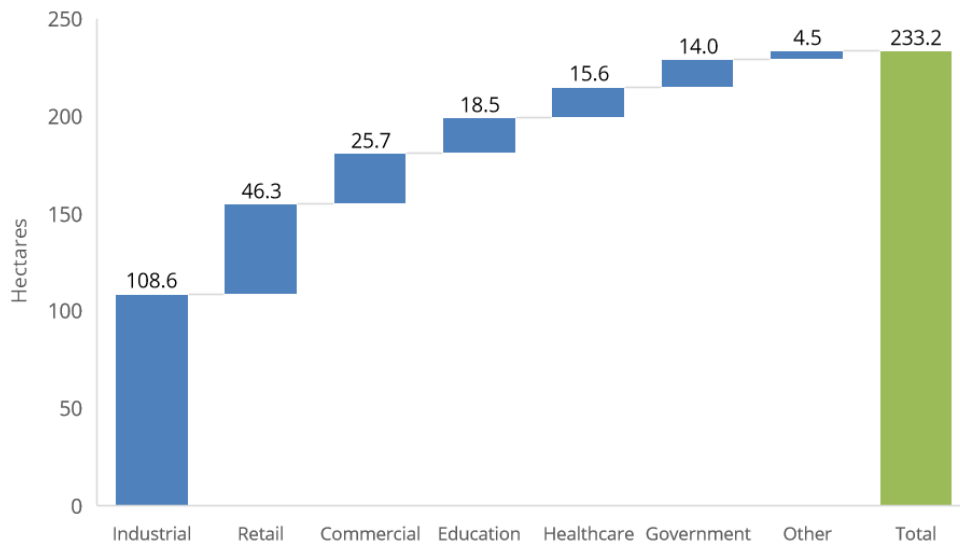
9. Results from our recent business land assessment show that effects can be expected to be strong. Commercial and government activity dominate floorspace demand (see where effects of different activities can be managed, allowing some fungibility of activity across sectors and across the region is warranted).
10. Figure 7). Figure 8 and Figure 9 show accommodating industrial land will be difficult given the strong demand from other sectors. In practice, where effects of different activities can be managed, allowing some fungibility of activity across sectors and across the region is warranted.

Figure 7: Commercial and Government sectors drive floorspace demand
 Floorspace projections by sector, 2022-2052, Wellington City



Source: Sense Partners

Figure 8: Accommodating industrial demand will be challenging
 Land demand projections by sector, 2022-2052, Wellington City

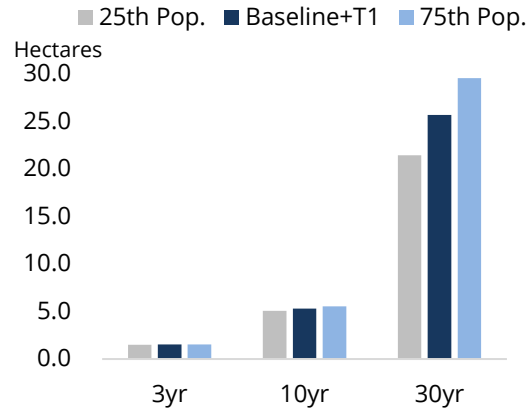


Source: Sense Partners

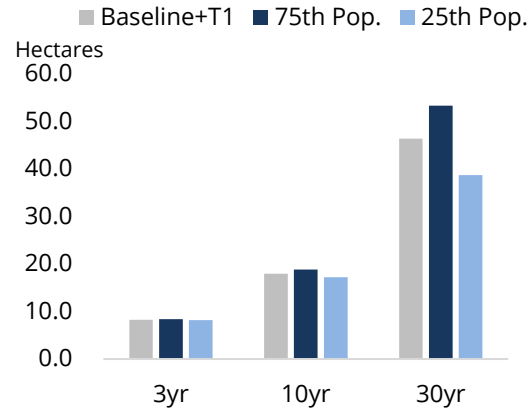


Figure 9: Commercial and government dominate baseline projections
 Land demand projections, by sector, square metres, periods from 2022, Wellington City

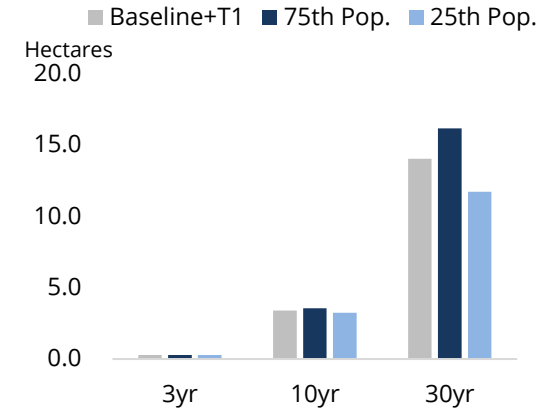
Commercial



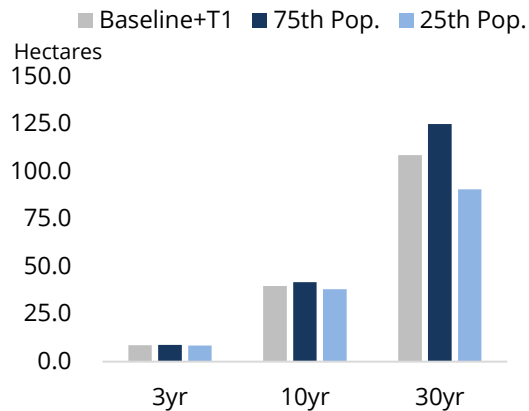
Retail



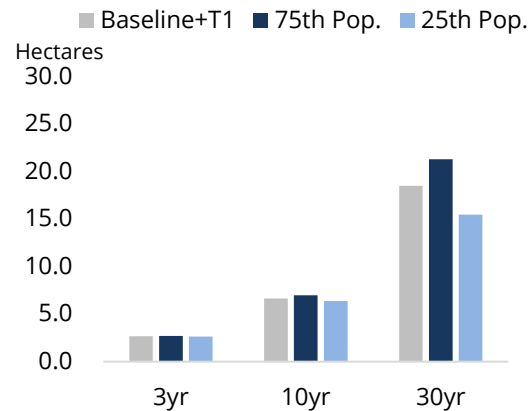
Government



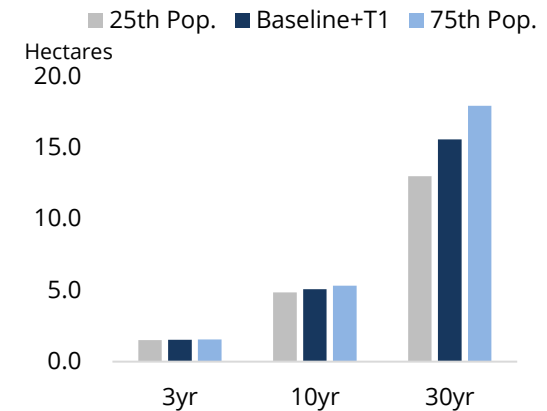
Industrial



Education



Healthcare



Source: Sense Partners

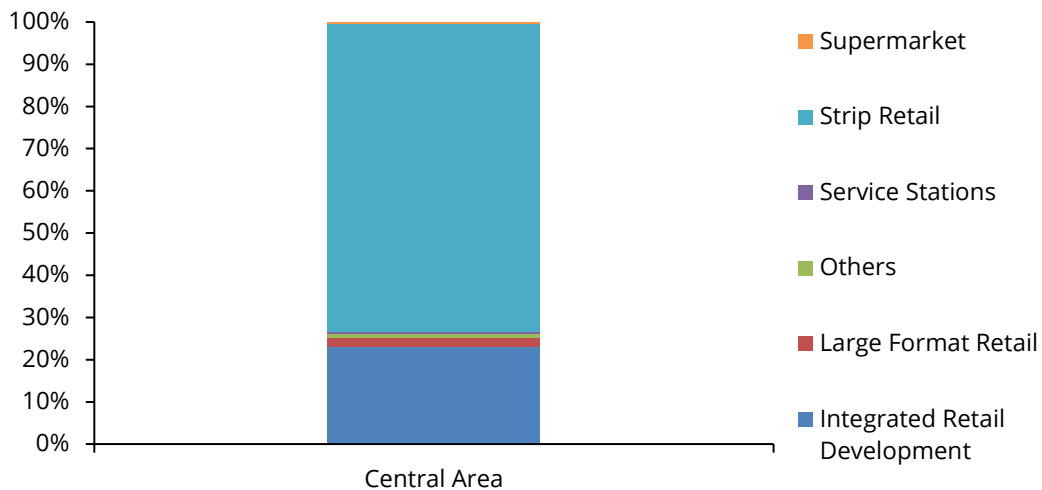


2. General centres and mixed use zones

2.1. Capacity

11. Right now, councils from around the region are assessing the existing capacity for commercial, industrial, and retail land to compare with demand.
12. Earlier work between Colliers and Sense Partners identified that the stock within the central area is comprised of 1,247 retail premises with a combined floor area of 292,199 sqm. Strip retail makes up 913 of the stores and stores within integrated retail developments make up an additional 287 tenancies (see Figure 10). The balance of stock comprises large-format retail, supermarkets, department stores, service stations and others, primarily trade retail outlets. Figure 10 data does not reflect the closure of the David Jones department store in June 2022.

Figure 10: Strip retail makes up the largest share of retail in the central area
Retail by format in the central city area



Source: Retail and Market Assessment 2020

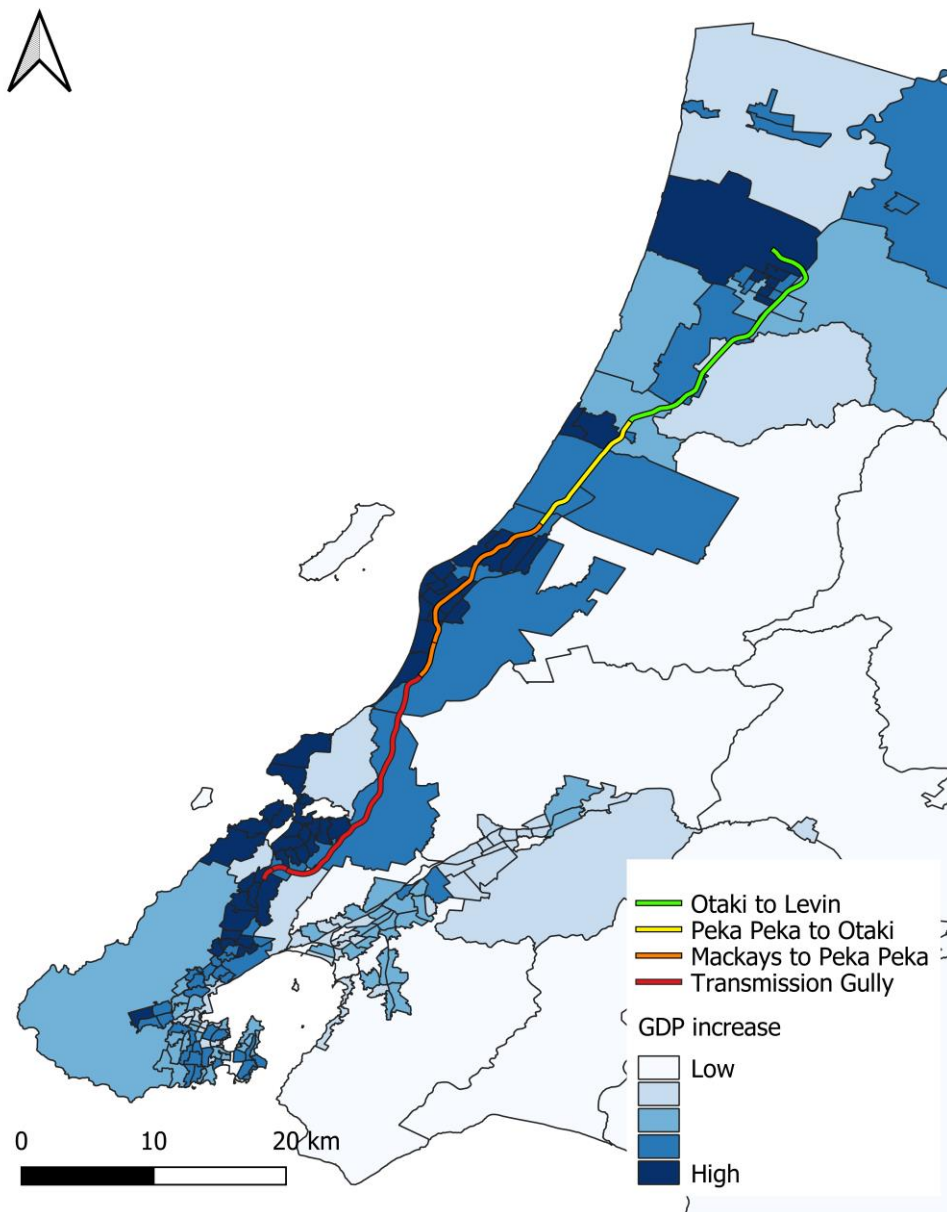
2.2. Thinking about demand

13. Our modelling suggests moderate growth in retail demand, but with minimal allowance for working from home.
14. The most recent evidence continues to suggest working from home will persist, at a rate of close to 3 days in ten for full-time work (see Box A).
15. Bricks and mortar retail is also impacted by the increase in online demand that occurred during COVID. Across New Zealand, on-line spending in 2022 was actually down a little on 2021 levels. But online spending in 2021 increased 70 percent on 2019 levels. Many New Zealanders are now comfortable making online purchases, reducing demand for in-person experiences.



16. The presence of on-line shopping has also changed the demand for industrial sites. The increase in logistics and warehousing, in part to accommodate increased on-line shopping, has lifted demand for large GFA sites close to good transport links. The cost premium of these sites has increased dramatically since the pre-COVID period. More land will be needed for logistics and warehousing. This is a new feature relative to the pre-COVID period.
17. In addition, new transport routes have changed the spatial location of demand. The opening of Transmission Gully has shifted, and will continue to shift, the location of economic activity a little. Figure 11 shows estimates from an economic model that suggests Porirua, Kāpiti and Otaki stand ready to gain from new transport routes.

Figure 11: Transmission Gully has shifted economic activity in the Wellington region
 Modelled change in GDP (\$) by SA2



Source: Sense Partners



2.3. Supermarkets face new legislative environment

Context

18. With the purpose of improving competition in the sector, new regulations are impacting the grocery sector. The Grocery Industry Competition Bill is likely to include new measures. The Government has already passed the Grocery Sector Covenants Amendment to the Commerce Act which restricts the use of covenants to stop potential competitors entering the market in spatially close locations. Resource management reform is also likely to impact the sector.
19. There are some take-aways from the new environment:
- Expect central government to continue to promote spatial competition. Clause 108 of the Natural and Built Environment Bill states that : “in preparing or changing a plan, a regional planning committee must disregard...trade competition or the effects of trade competition.”²
 - Supermarkets and other retailers may be looking to reorient how they locate spatially to take up new opportunities and respond to the more competitive environment.
20. In our opinion, this suggests the direction of travel will shift away from local decision-making and zoning that seeks to preserve a single retailer, department store or mall.
21. Supermarkets may also seek to relocate or open new stores. This might be expected to increase competition and should be enabled. This is the intent of the new legislation.
22. We note the submission by Woolworths New Zealand on the commercial and mixed-use zones in the City Centre zone that suggests the baseline for supermarket operations within the CCZ should be larger than the current threshold of 100m². There are pros and cons associated with the suggested rezoning, but the scale suggested would not appear to reduce urban amenity (traffic, light, vitality of the urban area). A supermarket of that scale might be expected to improve choice for residents living in the City Centre zone, increasing the attractiveness of living close to the city centre. Any amendment might reasonably consider whether other retail options should also be allowed to have the larger floor area suggested.

² Appeals for trade competitions reasons are prohibited under the proposed legislation.

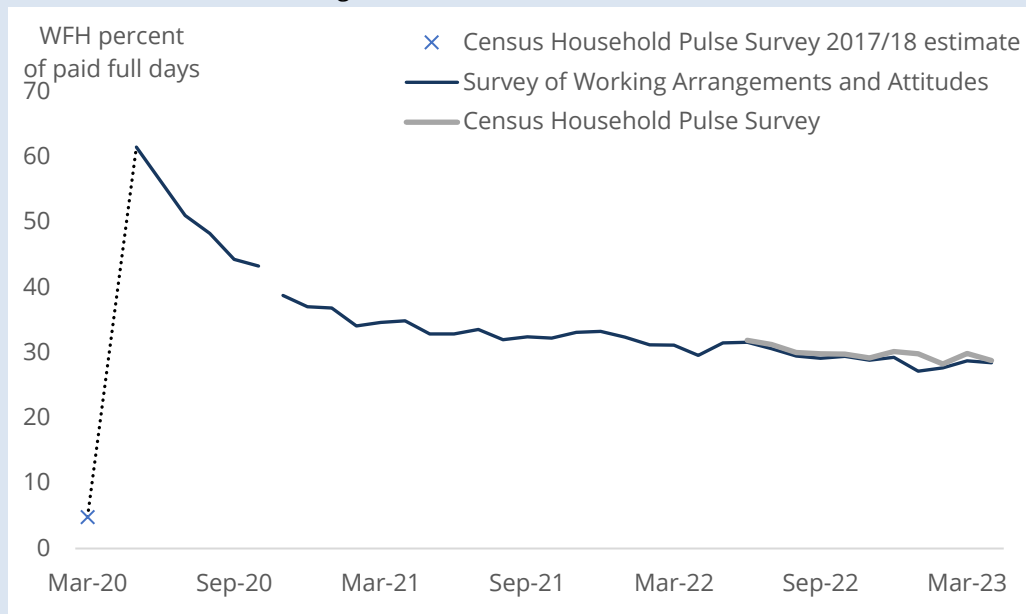


Box A: A closer look at working from home

International evidence

23. Working from home is having a marked influence on cities across the world. The experience through COVID broke down behavioural and cultural barriers to working from home. Firms and households have continued to invest in technologies and developing networks. The experimentation that began for many with COVID means WFH is here to stay that make working from home more productive, generating a profound shift in where work is done.
24. Now, working from home is here to stay. Figure 12 shows US data suggesting working from home is levelling out at about 30 percent of full-time work – up from just 5 percent pre-COVID.

Figure 12: Globally, working from home normalising to about three days in ten
Selected US indicators on working from home



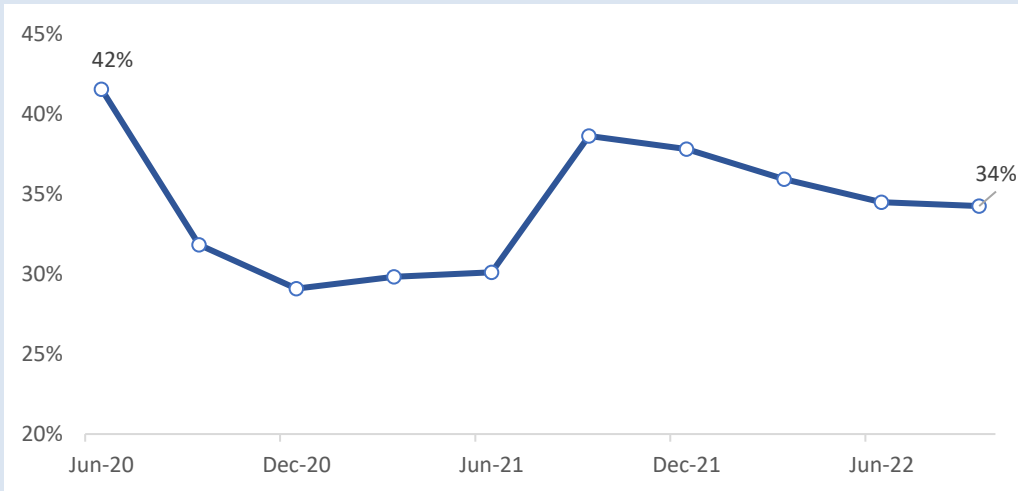
Source: Source: Barrero et al, 2021.

New Zealand evidence

25. New Zealand data also shows working from home continues. Figure 13 shows the share of Statistics New Zealand's Household Labour Force Survey respondents working from home sits a little above 1-in-3. Figure 14 uses data on the share of jobs that advertise the opportunity to work from home has more than quadrupled since COVID. Firms continue to gear up to allow working from home as a core part of their business.
26. Interestingly, the most recent observations across figures 13-15 suggest a slight decrease in working from home. But this may reflect change in the prevalence of disease. Data also suggest working from home is more likely in large cities with longer commute times, and for specific occupations, such as IT workers.

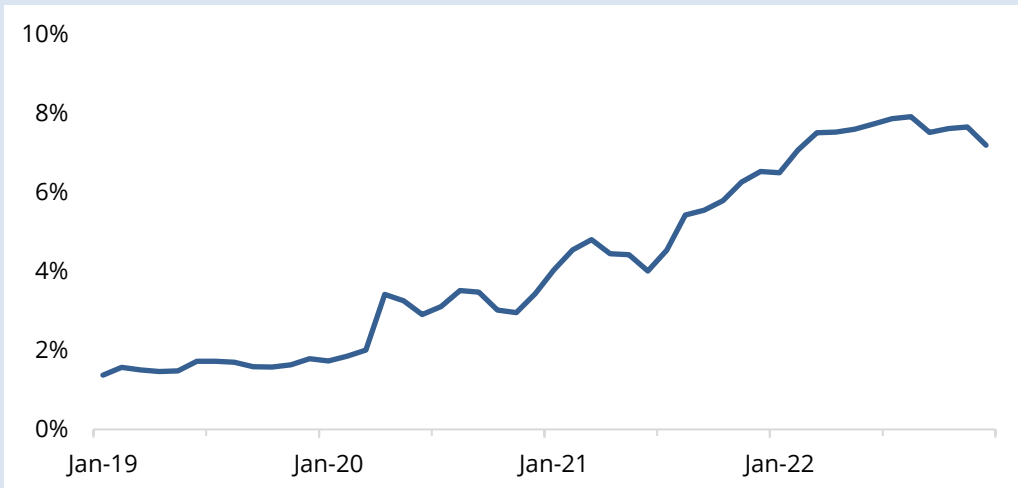


Figure 13: Remote working fluctuated with the pandemic but is persisting
Household Labour Force Survey, NZ respondents working from home, share of total over time



Source: Statistics New Zealand

Figure 14: Job advertisements also show the persistence working from home
Lightcast vacancy posting data, share of ads that explicitly offer hybrid or fully remote work



Source: Hansen et al. 2023

Implications for Wellington City

- 27. In general, working from home is good for workers. It can reduce the cost of being attached to the labour force, potentially decreasing unemployment by improving the opportunities that exist for work.
- 28. For cities, expect reduced volumes into the city centre. Commercial land prices decrease to reflect lower demand for space. House prices adjust to reflect higher demand for homes with more rooms on the edge of the city. In the city centre, prices may decrease since the premium on dwellings with low commute times declines.
- 29. There is also heterogeneity in experiences. Some evidence points to younger workers continuing to demand city experiences, consistent with cities providing consumption amenities in addition to agglomeration benefits that increase productivity.



3. Centres and mixed use zones

3.1. Metropolitan Centre Zone (MCZ)

What this might mean for the District Plan

30. Many submissions look to provide more enabling provisions across zones. In general, many of the existing provisions appear to favour restrictions -or to enable- specific activities as opposed to focussing on effects. For example, MCZ-P2 lists a wide range of activities to be enabled, including commercial activities, residential activities, community facilities, education facilities etc. MCZ-P3 then manages the scale of commercial activities.
31. In general, more could be made of provisions that manage adverse effects. With that regard, MCZ-P9 is clear on managing the impacts of higher density development on:
- (i) Shading, privacy, bulk and dominance effects on adjacent sites
 - (ii) The impact of construction on the transport network
32. From an economic perspective, these provisions would appear to have a strong attachment to preserving amenity,(including by lifting the health and well-being of residents, primarily by reducing shading) and the push and pull factors identified in Figure 1.
33. Some submitters also refer to minimum outdoor living spaces and minimum dwelling sizes. From an economic perspective, minimum outdoor space and dwelling sizes limit choices for families and reduce housing affordability.
34. With respect to retail activity, the matters of discretion identify the cumulative effect on the viability and vibrancy of the City Centre Zone and Golden Mile; the safety and efficiency of the transport network and the hierarchy of the road network. In my opinion, it is worth emphasising the vibrancy and consumer amenity provided but reducing the emphasis on the viability of the Golden Mile. From an economic lens, viability could be interpreted as preserving existing commercial activities at the expense of potential competitors.

3.2. Local Centre Zone (LCZ)

Town centres

35. Without town centres zones, there is a question about where town centres might appear within the hierarchy. Based on spending patterns and expected population growth, Karori and Tawa would appear as Local Centre Zones. Miramar and Newtown – particularly given the connection to Adelaide Road – should also be considered as local zones given their spending patterns and population growth.

Draft Recommendations

36. There are a series of draft recommendations that relate to heights across local centre zones including that the:



- LCZ applying to the Khandallah Village centre be confirmed as notified, with an 18 m height.
- LCZ applying to the Churton Park centre be confirmed as notified, with an 18 m height.
- LCZ applying to the Crofton Downs centre be confirmed as notified, with an 18 m height.
- LCZ, NCZ and MRZ applying to Brooklyn, Kingston, Mornington and Vogeltown be confirmed as notified.
- zoning and extent of the boundary of the Newtown LCZ be confirmed as notified, with a 27-metre height.
- zoning and extent of the boundary of the Miramar LCZ be confirmed as notified.
- boundary of the Tawa LCZ be amended on the western side of Main Road, either:
 - To extend to Elena Place; or
 - To extend to, and incorporate, the NCZ (Tawa South), ending at 105 Main Road.
- sites at 105, 107, 109, 111, 113, 115 Main Road be rezoned from NCZ (22 m height) to HRZ (21m).

Thinking about heights

37. Height restrictions effectively trade loss of local amenity (such as loss of sunlight) for improved land and housing markets that can accommodate growth more effectively. Particularly for most residential areas, in some New Zealand cities, earlier controls restricted growth, imposing costs on many New Zealanders.
38. These issues also extend to commercial and mixed-use zones: trade-off potential loss of sunshine with extended capacity for mixed use activities.
39. Before commenting on specific recommendations, some local context includes:
- a modest improvement in housing markets from previously very tight supply conditions
 - increases in mortgage rates have reduced appetite for taking on debt
 - additional capacity provided by the MDRS.
40. One approach to evaluating the effectiveness of local regulation is to step through the following five-step plan:
- i. Identify the problem
 - ii. Describe the policy and other options
 - iii. Identify the current state and its context
 - iv. List the costs and benefits associated with each option
 - v. Evaluate the costs and benefits of each option
41. I understand that there is the possibility of increasing heights at Miramar, Tawa and Newtown by adding a new height control area.



42. In my assessment these decisions balance local amenity – primarily sunshine and outlook – against additional opportunities for additional housing and commercial activities. Housing impacts can be large.
43. It is worth keeping in mind that the question is not the cost of building up but one of whether to accommodate growth via intensity of development at other locations in the city. Housing people at density near local amenities that might include public transport connections are likely to be strongly welfare enhancing and improve inequality.
44. But without quantifying cost and benefits it is difficult to be precise. Without quantified measures it may be difficult to justify why height restrictions are different across Local Centre Zones. But on balance, looking at the range of push-pull factors, a time limited qualitative assessment suggests the height restrictions may be appropriate. Lower restrictions would unnecessarily constrain growth increasing costs. Much higher limits might unnecessarily shade many houses, reducing amenity for many.

3.3. Neighbourhood Centre Zone (NCZ)

Rezoning

45. I note several submissions seek rezoning across the hierarchy. At times it is difficult to find a problem definition the submissions are seeking to remedy.
46. Many submissions also refer to vibrancy and character of different areas. To help gauge vibrancy across locations and over time, Wellington City Council might want to consider expanding the set of traditional indicators (such as the spend and the number of jobs) to include:
- tracing population movements across city centres;
 - using more surveys to qualitatively capture what residents value;
 - increase in the range of activities businesses offer within walking distance of the city centre (using isochrones for example);
 - Controls on the location of urban activities (such as residential or business use); and
 - Controls on density and floor area ratios (that restrict the quantity of developable floorspace).
47. These measures are consistent with consumption benefits of density.

3.4. GFA restrictions

48. Across all zones, there is a question regarding the appropriateness of GFA restrictions. For example, GFA of a maximum of 30,000 square metres in the Metropolitan Centre Zone, 20,000 square metres in the Local Centre Zone and 10,000 square metres in the Neighbourhood Centre Zone.
49. The purpose of the restrictions appears to be to control bulk and the impact of an individual building on the surrounding area. These provisions would appear to have a strong attachment to preserving amenity. But the rules appear to be a short hand for a richer set of rules that



might be used to manage effects of large buildings, such as loss of sunlight and loss of views and outlook.

50. These restrictions reduce efficiency of land use for developers and should be used carefully. In my opinion, without access to a full set of quantified costs and benefits, on balance it's not clear why GFA should be restricted at all within the Metropolitan Centre Zone. Moderate increases in GFA in Local Centre Zones to 30,000 square metres and to 20,000 square metres in the Neighbourhood zones are likely to improve the push and pull factors of Wellington City. Quantifying costs and benefits is needed to be certain about this assessment.

4. Industrial zone

4.1. Context

51. Recent employment numbers suggest a moderate increase in industrial employment numbers after years of declining job numbers, a trend that accelerated after the GFC. Some of this new activity is associated with warehousing, transport and logistics – storing then shipping consumer goods.
52. Generally, decade-long trends suggest employment is increasing in food manufacturing and other light industrial activities with employment in heavy industrial activities, such as mining, quarrying and product manufacturing reducing. Today fabricated metal manufacturing is less than a quarter of the employment at the turn of the century.

4.2. 86-94 Main Road Tawa

53. Against this context, there is a submission to rezone industrial land in Tawa from industrial to mixed use. As I understand it, existing uses are permitted activities.
54. There are pros and cons with rezoning this site. Rezoning would allow greater fungibility of the site, allowing firms, developers, and households to find ways to use the site more efficiently through alternative uses. These uses could increase amenity on the margin or in the case of residential housing, ease pressure in the market.
55. Cons include reducing land available for industrial uses. The site also has some connectivity to the main transport route north.



5. City centre zone (CCZ)

5.1. The economics of maximum height limits

Basic economic fundamentals of building up

56. For tall buildings, construction costs per additional storey increase with each storey added to the building.³ Average revenue can increase with height, as it provides amenity such as views and better access to sun.
57. Developers will build up until the marginal cost of adding an additional floor equals the marginal benefit – in terms of revenue – of adding that additional floor.
58. Since land is supplied inelastically (with little change in available land despite price increases) expect the incentive to build up over time to increase. Increasing construction costs, for labour, materials and to meet increases in building standards (such as earthquake strengthening) can act as a countervailing force on building up. However, new technology can, in turn, reduce construction costs and enable density.

Costs and benefits of building up

59. Benefits for residents and office workers include additional amenity benefits and the opportunity to locate closer to a wider range of jobs within the CBD.⁴
60. More broadly, the key benefit of relaxing height restrictions and allowing building up is an increase in housing affordability, not just within the city centre, but across the city. Figure 2Figure 15 shows a stylised example of how building up provides additional supply that reduces the cost of housing. Compared with the case of height restrictions, removing restrictions allows more people to live in the city centre. This reduces demand on the edges of the city, lowering the price of land and the cost of housing.
61. But building up can come with costs – chiefly reduced sunlight and reduced views from the shading taller buildings generally provides. Wind-tunnelling can also matter.
62. Few researchers have documented the costs of lost sunshine. But local researchers reveal an extra hour of sunlight exposure, one average, every day, is associated with a 2.6 percent increase in house prices.⁵

³ There are sweetspots depending on the requirements for foundations and structural engineering needed to withstand wind and other lateral forces, the addition of elevators that makes the assumption of increasing costs per floor an approximation only. Ahlfeldt GM and DP McMillen, 2018 provide discussion based on the case of Chicago, Ahlfeldt and Barr 2022 look at skyscrapers and Jedwab, Barr and Brueckner 2020 discuss the impacts of cities without skylines.

⁴ See also Ahlfeldt and Pietrostefani 2019 on the benefits of density.

⁵ See Fleming et al. 2018.



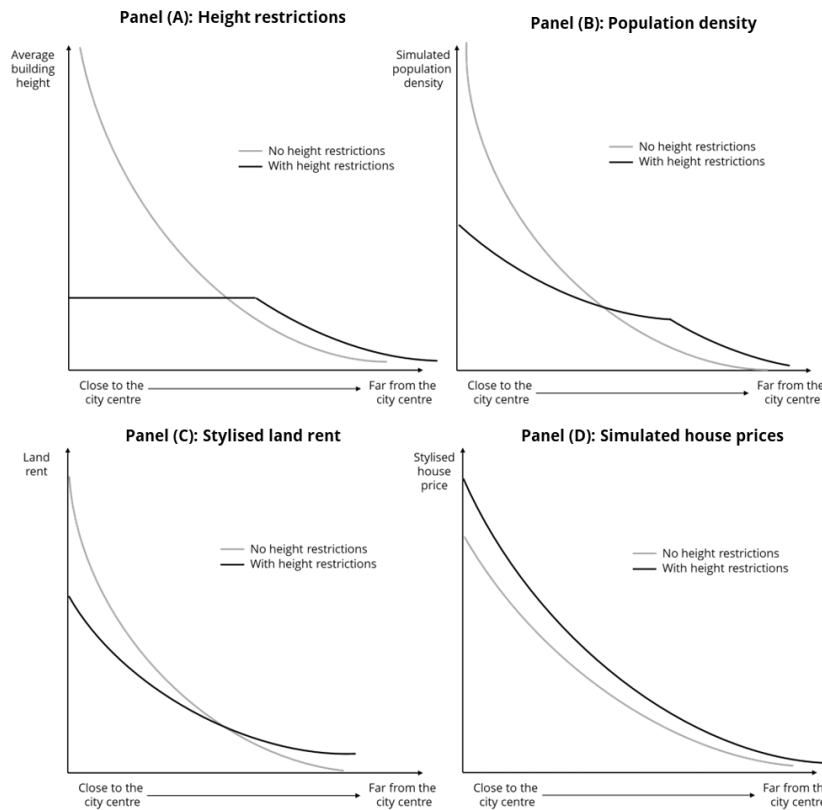
Regulation can have unintended consequences

63. Care must be taken with evaluating costs and benefits. Any counterfactual needs to consider that when growth is not accommodated by building up, growth pressure is higher at the city fringes, encouraging sprawl.

64. But rigorous cost-benefit analysis can help. Such analysis needs to combine economic costs of lost sunshine with physical models of the passing of the sun across different built form.⁶

65. As far as possible, regulation is best aligned with the key social costs such as lost sunshine rather than generic restrictions on floor to area restrictions or even straight height restrictions. Any regulation of heights should also make clear the full costs of regulation – including the impact of house prices – and assess who bears to the impacts of regulating housing supply.

Figure 15: Allowing building up reduces pressure prices right across the city
Stylised housing market representation, building up with a restricted CBD



Source: Bertaud and Brueckner 2005

66. Don't expect the issues to go away. Over time, expect the value of downtown land to continue to lift, increasing the pressure to build up.

67. In that context, it's worth noting the many submissions on height restrictions. Particularly within the city centre, in general, expect the benefits from increasing housing supply by

⁶ See for example, PWC and Sense Partners 2021, CBA for Medium-Density Residential Standards.



accommodating more people to outweigh the costs from lost amenity from sunlight and views.

68. This will not always and everywhere be true. Sunlight provides amenity and each zone or site should be tested to prove that the benefits of allowing building up are higher than lost amenity. Usefully, we have local estimates of the amenity benefits of additional sun to help form these assessments.
69. A Willis Bond submission suggests using floor area ratios relative to lot sizes relative to height limits is viewed as arbitrary. In principle, parameters or principles that shift regulations closer to regulating the true costs would be welcomed. The economics literature is silent on the social cost of bulky buildings but if these alternatives better manage sunlight by allowing more efficient use of space, then they are worth considering. This is likely to require additional analysis.

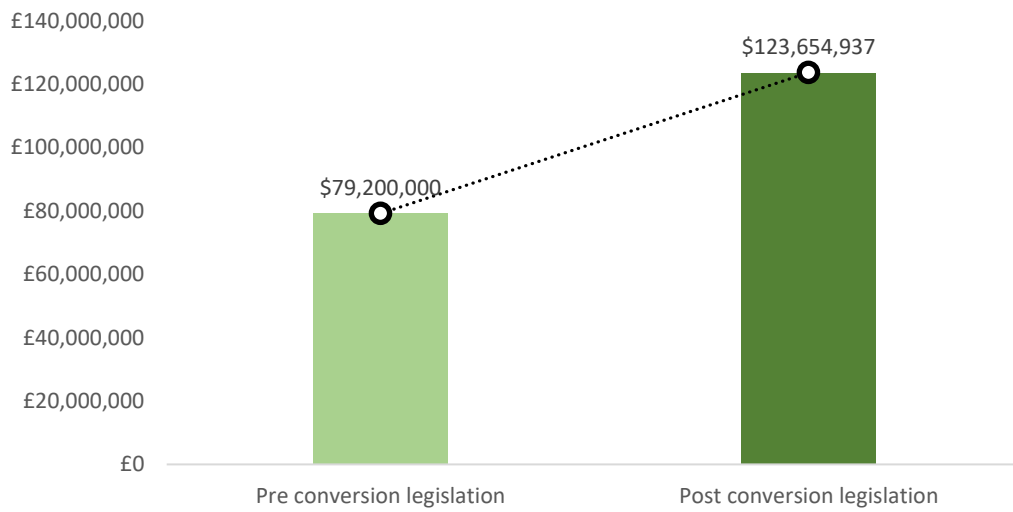
5.2. Building conversions

70. There are limited numbers of developers pursuing conversion of office buildings to residential apartments in the city centre zone. So there is a case that housing pressures are not higher than commercial pressures.
71. In general, fungibility of commercial and residential building is a good thing. It allows the city to flex and respond to demand pressures.
72. Conversions within Wellington face many issues. Office buildings tend to have deep floor plates. Often natural light can be hard to access, and utilities are typically centralised. This makes it challenging to ensure each bedroom has a window, for example.
73. Office buildings – indeed any building – are rarely built to accommodate a multitude of future needs. So, conversions can carry significant costs of conversion.
74. Other barriers can exist including building code compliance.
75. However, when housing pressures are particularly large, office conversions can make commercial sense. One British study used an uneven change in regulations to show that the potential of converting office buildings into apartments carries value, at least in the UK market.⁷

⁷ See Cheshire and Kaimakamis, 2022.



Figure 16: The UK experience shows enabling office conversions can create value
 Change in value, £, pre-legislation vs post-legislation, modelled values



76. Perhaps one of the underappreciated features of office conversions is the impact on land and house prices. By accommodating people closer to the city centre, the price of land at the edge of the city declines, improving housing affordability not just in town but at the margins of the city.



References

Ahlfeldt GM and DP McMillen, 2018, 'Tall Buildings and Land Values: Height and Construction Cost Elasticities in Chicago, 1870–2010', *The Review of Economics and Statistics*, 100(5), pp 861–875.

Ahlfeldt, Gabriel M. & Barr, Jason, 2022. "The economics of skyscrapers: A synthesis," *Journal of Urban Economics*, Elsevier, vol. 129(C)..

Ahlfeldt, Gabriel M. & Pietrostefani, Elisabetta, 2019. "The economic effects of density: A synthesis," *Journal of Urban Economics*, Elsevier, vol. 111(C), pages 93-107.

Barrero, Jose Maria, Nicholas Bloom, and Steven J. Davis, 2021. "Why working from home will stick," National Bureau of Economic Research Working Paper 28731.

<https://wfhresearch.com/data/> <https://www.nber.org/papers/w28731>

Bertaud, Alain and Jan K. Brueckner, 2005 "Analyzing building-height restrictions: predicted impacts and welfare costs," *Regional Science and Urban Economics*, 35 (2), 109 – 125

Cheshire, Paul Charles and Katerina Kaimakamis, 2022. "Offices scarce but housing scarcer: Estimating the premium for London office conversions," *Real Estate Economics*, American Real Estate and Urban Economics Association, vol. 50(3), pages 743-766, September.

Fleming, David, Arthur Grimes, Laurent Lebreton, David Maré and Peter Nunns 2018, "Valuing sunshine", *Regional Science and Urban Economics*, Elsevier, vol. 68(C), pages 268-276.

Glaeser, Edward L. 2007. "The Economics Approach to Cities," NBER Working Papers 13696, National Bureau of Economic Research, Inc.

Hansen, Stephen, Peter John Lambert, Nicholas Bloom, Steven J. Davis, Raffaella Sadun and Bledi Taska, 2023, "Remote Work across Jobs, Companies, and Space", NBER Working Papers 31007, National Bureau of Economic Research, Inc.

Jedwab, Remi, Jason Barr and Jan K. Brueckner, 2020. "Cities without Skylines: Worldwide Building-Height Gaps and Their Implications," CESifo Working Paper Series 8511, CESifo.

PWC and Sense Partners 2021, "Cost-benefit analysis of proposed medium density residential standards, report for Ministry for the Environment,

<https://environment.govt.nz/assets/publications/Cost-benefit-analysis-of-proposed-MDRS-Jan-22.pdf>