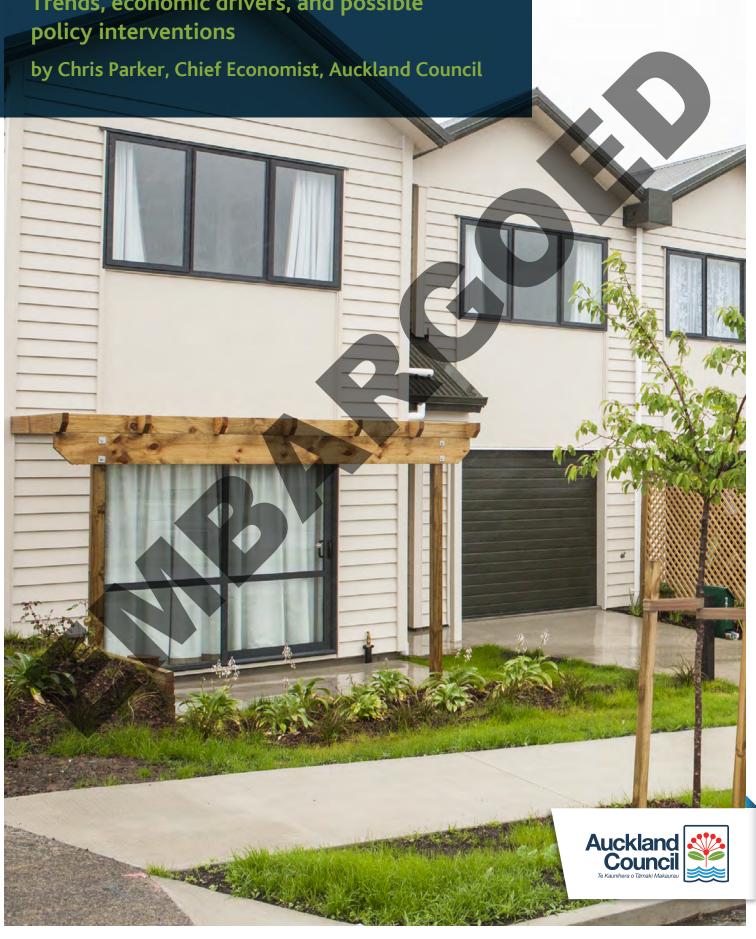


Trends, economic drivers, and possible



Disclaimer

This report is independent policy analysis undertaken by the Chief Economist and is not Auckland Council policy.

Authorship

This report was written by Chris Parker, Chief Economist.

It was externally peer reviewed by Nick Allison of NZIER.

The following council staff contributed to the content of the report. Their input is gratefully acknowledged:

- Claes Sandstrom, Eilya Torshizian (Chief Economist Unit)
- Jennifer Davies, Toby Shephard (Auckland Plan, Strategy and Research)
- Andrew Duncan (Financial Policy)
- Nadia de Blaauw (Community and Social Policy)
- David Hawkey, Murray Cameron (Transport and Infrastructure Strategy)
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Please note that this acknowledgement does not in any way imply their agreement with the analysis and recommendations in this report.

Any errors or omissions are those of the Chief Economist.

Executive Summary

"It [Auckland's house prices] is a big problem, of course, and both parties, Labour and National, are seeing that this is the major political issue of not just the year, but maybe of this decade."

Dr Bryce Edwards1

Auckland currently has a housing affordability crisis

The median house price in metropolitan Auckland is about ten times greater than the median household income. To give context, ideally it would not exceed a ratio of three to one.

This increase in prices has benefited a large number of owner-occupier households and landlords in Auckland.

For other New Zealanders, and in particular younger generations, the prospect of being able to own their own home near where they work and play in Auckland is at risk of slipping from their grasp. A range of social risks will strengthen over the years and decades to come if this is sustained as this inequality becomes more entrenched.

People across the country are anxious that Auckland's property market may bust and harm the national economy (including Auckland).

People across the country and younger generations are worried that little if anything can and will be done about it.

The good news is that with strong resolve and careful sustained management, the issues can be managed in the long-run. There is a wide range of measures on the 'supply side' that need to be undertaken (or continued) by both the council and the government.

This report advises on a long-list of possible solutions

The council's Chief Economist was requested by the Mayor and Deputy Mayor to analyse this housing affordability problem, identify causes, and give preliminary advice on a long-list of possible solutions. The advice is independent, and it does not bind the council.

Out of scope is the issue of 'affordable housing', which relates to homes at the lower end of the price spectrum.

The scope of solutions considered is wider than just the council (i.e. it includes the government, industry, and the community). This is to give a more holistic understanding of the issue and solutions, and scope for collaboration and influence.

The root causes

Auckland's current housing affordability problem is driven by the market signalling for the need to transform the housing stock to accommodate as many as one million more people over the next 30 years.

¹ Dr Bryce Edwards, Political Scientist, Otago University. Q&A, TV1 14 June 2015

The two fundamental issues are:

- demand: people expect Auckland to be a successful major world-class city in the years to come, and are buying land now in order to profit from some of that future success
- *inelastic supply and high costs*: creating new homes is slow and expensive.

Demand drivers

- Natural population growth putting pressure on prices
- strong migration driven by:
 - a worldwide trend for people to move to major regional cities
 - New Zealand's economy is currently doing well relative to Australia and Europe
 - Auckland's amenity, liveability and employment opportunities
- low interest rates
- investor confidence attractive to local and international investors because of stable government, low corruption, rule of law, ease of doing business etc
- tax incentives investors pay less income tax when they invest in loss-making properties (loss-making can be sustained when capital gains are large, and this is exacerbated when the latter is largely untaxed).

Supply drivers

- Planning constraints:
 - cost-effective redevelopment with smaller dwellings in inner suburbs is made more difficult, costly, or prohibitive
 - limiting supply of 'greenfield' (i.e. undeveloped) land development
- design requirements, such as building height limits, minimum apartment sizes, floor to ceiling heights, and environmental performance requirements, driven by:
 - making a positive net contribution to neighbourhood amenity
 - a strategic imperative to enhance quality of life by making Auckland look and feel like the 'world's most liveable city'
 - the need for the council to be trusted as a 'safe pair of hands' in ensuring that growth is managed to minimise negative spillovers

Root causes for any excessive planning constraints and design requirements relate to: (a) misalignment of incentives: growth is not as good for local communities as it is for the country and for wider Auckland; and (b) democratic deficit: a lack of democratic engagement by the losers of these regulations (perhaps because costs are widely dispersed and indirect, whereas benefits are locally concentrated and direct)

 low measured construction productivity — homes do not seem to be getting demonstrably cheaper to build. Root causes include: the need to build in progressively more difficult sites; liability rules for industry;

² Productivity Commission (2015), *Using land for housing draft report,* Chapter 9

heavy involvement by councils for various reasons; and possible market power issues (for building inputs, and land banking of subdividable sections)

- fragmented land ownership it can be hard to buy up an area to allow for more efficient larger scale redevelopments
- infrastructure (transport, three waters, community facilities) homes
 can't be built without costly infrastructure that takes time to plan and
 deliver, and there are continual funding and financing challenges.

Social and economic risks and consequences

If high house prices are sustained or continue to rise relative to incomes then then following consequences and risks will become more significant:

- a loss of social cohesion an increasingly socially divided city with a line drawn between those in the housing market and those outside
- macroeconomic instability via rapid house price deflation
- increased unemployment as businesses relocate activities to other more competitive cites locally (e.g. Christchurch, Hamilton, Tauranga) and internationally (e.g. Melbourne and Sydney)
- increased household crowding and related social ills.

The result would not be the liveable city that so many Aucklanders' aspire to.

The prize that should be pursued

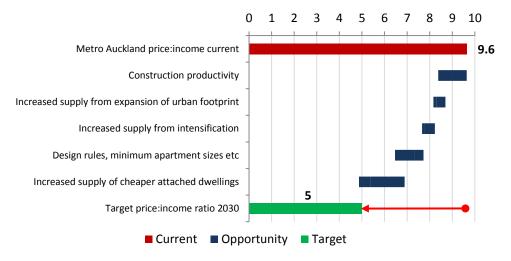
The Chief Economist recommends that the council works with the government to jointly adopt an aspirational housing affordability target. This would help to guide the development of policies, plans, regulations, etc that may relate to housing supply, either directly or indirectly. Households being able to afford to live in Auckland should be a key contributor to making Auckland the world's most liveable city.

This report has assessed the issues above and identified the long-term potential to reduce the median house price by some four to five multiples of the median household income.

A rough-order estimate of the inter-related components of this is illustrated below. (Note that some of these cannot be cherry picked; for instance, increasing the supply of attached dwellings relies on allowing more intensification and easing minimum dwelling size requirements.)

Figure 1 Summary of contributions to lowering median price:income ratio

Axis is the ratio of median house price to median household income. Most of the areas below cannot be considered in isolation



Source: Chief Economist Unit

Given the current price to income ratio is nine or ten to one, the following target is plausible:

5.0 by 2030

Auckland median house price to median household income multiple

This would be achieved primarily by reducing costs to deliver housing and increasing the scale and breadth of housing options (including attached dwellings) for the bottom half of the market. Compounding income increases over time will assist too. Note that such a target does not mean trying to sharply reduce people's wealth; intensification can potentially allow for land values to actually increase at the same time that house prices decrease.

It is doubtful that a 5.0 median price multiple could be achieved considerably earlier than 2030 (whilst avoiding a crash in house prices). The types of changes needed are structural (and change at a glacial pace), and will take many years to compound.

Before any such target could be formally adopted there would need to be further policy work to understand the implications, risks, make refinements, and outline a policy implementation plan.

In conjunction with this, the council should advocate and assist to achieve a significant productivity improvement in residential construction. This would also involve collaborating with the government, the residential construction industry, and other councils. A 25% productivity improvement in residential construction by 2030 (relative to 2015) is plausible. This would, for instance,

reduce the cost to construct an average 200m² house to about \$300,000, down from about \$400,000.

Assessment of options to address house prices

Table 1 outlines an extensive (but not exhaustive³) list of 34 possible responses, and Table 2 summarises the Chief Economist's recommendations.

The approaches that are likely to contribute the most to achieving the suggested '5.0 by 2030' home affordability target, by enabling land development, infrastructure, and reducing costs for suppliers of homes:

- Increase land for development, such as:
 - Increase greenfield land supply (#12; i.e. the council), to directly enable supply and to support scale economies in building
 - Permit more intensification in the Unitary Plan (#13; i.e. the council)
 - Ensure 'Restricted Discretionary' activity status is not less permissive than 'Discretionary' (#15; i.e. the council), so that regulatory barriers are not greater than intended
- Infrastructure and services: funding, financing, and planning, such as:
 - Local government sharing in revenue base linked to economic activity to help pay for infrastructure and services (#17; i.e. the government), to help incentivise local communities to "go for growth"
 - Targeted rates to fund and finance infrastructure for growth (#18;
 i.e. the council)
 - 'Lead' public infrastructure providers also own/develop land to capture benefits to help fund the infrastructure (#20; i.e. the council and government)
 - Collaborative review of transport policy, legislation, planning, funding to ensure it supports Auckland's housing growth (#21; i.e. the council and government), to ensure the transport planning system is responsive to Auckland's growth demands
 - Road pricing / congestion charging for roads (#22; i.e. the government), to support more land for housing by better managing existing infrastructure
- Make design and construction easier, such as:
 - Omit excessive restrictions on design unless benefits exceed costs (#27; i.e. the council)
- Residential construction productivity and supply, such as:
 - Development at scale to support more competitive industry structure and regulatory reform (#30; i.e. the government), to transform the structure, conduct and performance of the residential construction market
 - Replace joint and several liability with proportionate liability (#31; i.e. the government), to encourage larger firms in order to achieve scale and scope efficiencies, and to attract and retain construction workers.

³ Special Housing Areas is not specifically listed, which is a primary tool currently in use. This is an effective approach that the Chief Economist supports. It has been incorporated into other tools.

Table 1 Summary of tools to address Auckland house prices

Explanation for icons in last column: the council could either do something itself (hammer icon) or advocate (megaphone). Green = should do; blue = do nothing because it is adequately looked after by others; yellow = consider further, or wait for others to lead; red = stay away and advise others likewise

Ref#	Option	Description	Who	Driver	Chief Economist recommendation for the council	· ···
Revie	Review of demand-side initiatives: Reserve Bank of NZ	e Bank of NZ				
~	Official cash rate (OCR), to influence interest rates	Higher interest rates make financing harder, and reduce demand to own homes	Reserve Bank of NZ	Demand	Do not publicly comment nor advocate on the OCR setting	9
0	Macroprudential regulation (tools already floated)	Policies to ensure financial stability of the NZ economy. Includes loan to value ratios and targeted risk ratings for mortgage lending	Reserve Bank of NZ	Demand	Do nothing, except assist the RBNZ with information where requested	9
Revi	Review of demand-side initiatives: Government	nment				
ო	Macroprudential regulation (tools not being actively debated in public)	Mortgage interest-levy (can be Auckland targeted) levied during times of major risk but when national interest rates are low	Reserve Bank of NZ/ government	Demand	Support others' lead. It could be effective, but likely politically challenging	9
		Ring-fence investor losses on investment properties to not offset general income tax	Government	Demand	Support others' lead. The option has merit in the absence of a full capital gains tax	9
4	Capital gains (CG) tax	A comprehensive capital gains tax on the increase in the purchase price of land and/or building	Government	Demand	Support others' lead, but don't lead any advocacy	P
		"Bright line test" to assume properties sold within 2 years were intending to make a capital gain	Government	Demand	Note the 'bright line test' is a useful step in the right direction	9
2	Increase restrictions on foreign ownership of existing homes and residential land	Restrictions or disincentives for foreign investment in existing residential property and land	Government	Demand	Do not advocate. Note that foreign investors most likely cannot be treated differently because of NZ's Free Trade Agreements	9
9	Restrict immigration	Restrict volumes of inward-migration destined for Auckland	Government	Demand	Do not advocate for migration reductions. (It supports growth and economic development, may exacerbate construction skills shortage, and migration could reduce quickly anyway)	9
^	Incentivise more migrants to locate elsewhere in NZ	Reduce housing demand in Auckland by reducing the hurdles to immigration to regional New Zealand	Government	Demand	Do nothing	9
∞	Subsidies for first-buyers	Financial support to make owning a home easier, such as grants, favourable loans, or concessions to ease access to KiwiSaver	Government	Demand	Do nothing. Note not effective for sustainably addressing the problem as defined	P

Ref#	Option	Description	Who	Driver	Chief Economist recommendation for the council	
თ	Exempt GST for new homes commissioned by owner-occupiers	Government could exempt new houses from paying GST (fully, or partially)	Government	Demand	Do nothing. Note that any exemption of GST is equivalent to awarding a government subsidy of the same amount, which would likely not be the best use of funds	9
10	Make renting more attractive — legislation	Amend the Tenancy Act to provide more favourable terms for renters, such as longer notice periods (landlords and renters), and require good reason for giving tenants notice	Government	Demand	Advocate to government to consider this further. It helps to reduce the problems with renting such as the risk of being up-rooted from a community, particularly for those who don't rent by choice	9
Revie	Review of demand-side initiatives: Council					
±	Make renting more attractive — renter-led	Support the collective bargaining power of tenants (e.g. a Tenancy Union) to make improvements as they see fit (e.g. to the quality of homes, user ratings, rental terms etc)	Council and/or government	Demand	Consider this option further as a means to address the problems caused by high house prices	d.
Incre	Increase infrastructure-ready land supply	Ý				
Increa	Increase land for development					
12	Increase greenfield land supply	Allow more infrastructure-ready greenfield land supply, with minimal delay on zoning Allow more rural subdivision without infrastructure supply provided that: a) existing networks can cope; b) environmental spillovers are managed ⁴ ; c) there are credible commitments not to extend infrastructure further than would happen anyway	Council	Supply	Continue with Special Housing Areas, Forward Urban Land Supply Strategy, Forward Land Infrastructure Programme, and Future Urban Zone strategies. Enable more rural subdivision subject to the provisions listed	R.
13	Permit more intensification in the Unitary Plan	Permit intensification as per the Auckland Plan, and inner suburbs in particular, ideally within a run/walk/cycle commute radius of up to 10km, which is where land prices are the greatest	Council	Supply	Consider this when reviewing the council's position on the spatial application of zoning etc for the Unitary Plan Independent Hearings Panel (IHP). Also continue to review it in anticipation of the IHP possibly recommending in mid-2016 greater intensification	d.
4	Reform the RMA to address issues for urban areas of national significance	Amend (or supplement) the RMA to better address issues for urban areas of national significance, which area areas that (a) have nationally significant spillovers and (b) be at risk of a 'democratic deficit's (i.e. a lack of democratic engagement by the losers of planning regulations)	Government	Supply	The council should engage on this idea early and look to shape the direction of possible travel for the benefit of all Auckland residents and future residents	9

⁴ Including adhering to the minimum standards required in the National Policy Statement on Freshwater Management and its supplementary updates.

As described in Chapter 9 of the Productivity Commission's 'Using Land for Housing' draft report

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Undertake Continue, and where possible extend, reviews of land holdings	The council should engage with the government to review opportunities for 'give and take' to make growth more "incentive compatible" for communities The council should investigate this further with priority	The council should engage with the government to review opportunities for 'give and take' to make growth more "incentive compatible" for communities The council should investigate this further with priority The council should instead focus on option #18 of using targeted rates to capturing the benefits of improvements to fund them. Up-zoning itself is not value-adding; rather it is the cessation of value restriction	The council should engage with the government to review opportunities for 'give and take' to make growth more "incentive compatible" for communities The council should investigate this further with priority The council should instead focus on option #18 of using targeted rates to capturing the benefits of improvements to fund them. Up-zoning itself is no value-adding; rather it is the cessation of value restriction Consider this further in conjunction with more use of targeted rates (#18), and in conjunction with CCOs (including Development Auckland). Will require raising funds (#25)	The council should engage with the government to review opportunities for 'give and take' to make growth more "incentive compatible" for communities The council should investigate this further with priority The council should instead focus on option #18 of using targeted rates to capturing the benefits of improvements to fund them. Up-zoning itself is not value-adding; rather it is the cessation of value restriction Consider this further in conjunction with more use of targeted rates (#18), and in conjunction with COOs (including Development Auckland). Will require raising funds (#25) Collaborate with other transport stakeholders to identify opportunities to improve transport administration to support Auckland's housing growth. This may take the form of an independent inquiry that allows for significant public input at	The council should engage with the government to review opportunities for 'give and take' to make growth more "incentive compatible" for communities The council should investigate this further with priority The council should instead focus on option #18 of using targeted rates to capturing the benefits of improvements to fund them. Up-zoning itself is not value-adding; rather it is the cessation of value restriction Consider this further in conjunction with more use of targeted rates (#18), and in conjunction with CCOs (including Development Auckland). Will require raising funds (#25) Collaborate with other transport stakeholders to identify opportunities to improve transport administration to support Auckland's housing growth. This may take the form of an independent inquiry that allows for significant public input at key stages Continue to argue to the government the merits of a well-designed scheme to manage demand, together with a mutually acceptable plan for how to use the revenues raised
Supply	Supply	Supply Supply	kladus Vidqus Vidqus	kiddns kiddns kiddns	kiddus kiddus kiddus
Government	Council		and		
Unitary Plan prior to finalising, and ensure improved guidance and oversight for future plan changes Recycle land to its highest value use to society. Look for opportunities to support scale residential development on or above current land holdings cing, and planning Councils sharing in more of the financial benefits of growth would help fund infrastructure, lower rates, and mitigate opposition to growth. (Supported by	OECD and Productivity Commission) Expand beneficiary pays approaches by using targeted rates to create additional funding sources. This can also then support additional financing	OECD and Productivity Commission) Expand beneficiary pays approaches by using targeted rates to create additional funding sources. This can also then support additional financing sources Appropriate some or all of the increase in land value that results from zone changes. (OECD recommendation; Productivity Commission (2015) consistent with this)	Expand beneficiary pays app targeted rates to create addignate and sources Appropriate some or all of the value that results from zone recommendation; Productivit consistent with this) A public infrastructure provid benefits from infrastructure, infrastructure being committed. The land value increase ther infrastructure (see option #2)	Expand beneficiary pays approaches by using targeted rates to create additional funding sources. This can also then support additional financing sources. This can also then support additional financing sources. Appropriate some or all of the increase in land value that results from zone changes. (OECD recommendation: Productivity Commission (2015) consistent with this) A public infrastructure provider purchases land that benefits from infrastructure, prior to the infrastructure being committed or even announced. The land value increase then helps fund the infrastructure (see option #25) Government agencies, the council, and Auckland Transport (AT) collaborate to identify opportunities in the land transport system to ensure timely land supply for housing	Expand beneficiary pays approaches by using targeted rates to create additional funding sources. This can also then support additional financing sources. This can also then support additional financing sources. Appropriate some or all of the increase in land value that results from zone changes. (OECD recommendation; Productivity Commission (2015) consistent with this) A public infrastructure provider purchases land that benefits from infrastructure, prior to the infrastructure being committed or even announced. The land value increase then helps fund the infrastructure (see option #25) Government agencies, the council, and Auckland Transport (AT) collaborate to identify opportunities in the land transport system to ensure timely land supply for housing Manage roads more efficiently to enable more greenfields land to be opened up for housing
and asing financin in anomic	Targeted rates to fund and finance Expand infrastructure for growth This can	finance accrue ng land	and finance nat accrue oning land		
ncil stockte ates what re and ser nue base li itty to help structure a eted rates eten r	וו מסו מסופים יי	ax the windfal of landowners to urban use to restructure	Fax the windfal o landowners for urban use to infrastructure Lead' public in providers also capture benefit	Tax the windfal to landowners for urban use to infrastructure infrastructure providers also capture benefits funding to ensu Auckland's hou	Tax the windfall to landowners from the for urban use to infrastructure providers also or capture benefits collaborative repolicy, legislation funding to ensur Auckland's hous Road pricing / cofor roads

Ref#	f Option	Description	Who	Driver	Chief Economist recommendation for the council	=
24	Private provision of infrastructure	Public private partnerships (PPPs) are a general form of procurement whereby the private sector provides and co-funds infrastructure normally the domain of the public sector	Council	Supply	The council should further understand the opportunities for using this approach. This will be considered in the Finance division's procurement of a review of alternative sources of financing	ヘ
25	Sell down some assets to fund land investment to capture the benefits of infrastructure (support option #20)	Draw down on ratepayer equity when it is invested in assets that does not lead to higher welfare than private ownership in order to fund option #20 and/or UDA options (#29 and #30)	Council	Supply	The council should consider this, and be informed by the Finance division's review on alternative financing	く
Attra	Attract more construction					
Mak	Make design and construction easier					
26	Reduce restrictions on small buildings	Increase the size of a small dwelling that avoids the need for building consent and resource consent from 10m² to 25m² but must still follow the building code and a small number of planning regulations	Council and/or government	Supply	The council in collaboration with government should investigate this further. It will provide more cost effective and healthier housing solutions for expanding households	ヘ
27	Omit excessive restrictions on design unless benefits exceed costs	Focus 'design' requirements in plans on external impacts that pass a cost-benefit appraisal. Do not regulate internal impacts (over Building Act obligations), but do champion issues of good design (supported by option 28 below)	Council	Supply	Undertake, in conjunction with government support of option #28 below to improve understanding of urban social costs through quality research	く
28	Public sector research programme into social costs and benefits from planning	Research programme to appraise the benefits from various urban design planning requirements	Councils generally & government	Supply	Request support from the government and from other councils to co-fund a quality research programme	9
Resi	Residential construction productivity and supply	Ajddn				
29	Urban development agency, with outsourcing to the private sector	UDA that assembles land, ensure infrastructure supply, masterplans, streamlines planning and consenting, and partners with private sector developers	Council and/or the government	Supply	Continue to work on Development Auckland and look for collaborative arrangements with the government	ヘ
30	Development at scale to support more competitive industry structure and regulatory reform	Support the development of alternative means to: supply chains; building practices; product approval approaches; scope and scale efficiencies; quality and building code compliance; training	Government	Supply	Advocate to government and the public at large as a realistic way to hit the target of improving productivity by 25% by 2030	9
31	Replace joint and several liability with proportionate liability	Replace 'joint and several liability' (which can impose liability on defendants out of proportion to the harm they caused) with 'proportionate liability'	Government	Supply	Advocate to government to reconsider proportionate liability because of its impact on the structure, conduct and performance of the building industry (which has been ignored to date)	9
32	Tax land to encourage development	Tax undeveloped land and underdeveloped land primarily to encourage its development	Council	Supply	The beneficiaries pays approach to fund infrastructure (option #18) is a more robust and appropriate method to incentivise development	く

Ref#	Ref# Option	Description	Who	Driver	Chief Economist recommendation for the council	
		Set rates on the basis of land value rather than capital value to encourage the development and efficient use of land	Council	Supply	Note there is merit in this in theory, but this is not a practical option given the major rates revision just undertaken, and the effectiveness is questionable	く
Supp	Support foreign investors that wish to build					
33	Provide data on residential construction investment opportunities to foreign investors	Foreign investors that wish to develop residential and commercial property have ready access to a suite of information and general advice	Council	Supply	The council, in conjunction with ATEED and the Auckland Investment Office, should prioritise this	ベ
34	Reduce restrictions on foreign ownership of non-urban land for timely residential development	Allow foreigners to purchase 5+ ha of non-urban land, providing the land is developed into housing and resold quickly	Government Supply	Supply	Endorse, subject to receiving advice from elsewhere within the council (legal, planning etc). This would ideally occur only in the Future Urban Zone	Q

Summary

a great deal to assist supply. There is significant scope for assistance and a complementary approach from the government to tackle Auckland's house prices and meet the objectives recommended in this report. The summary of options below highlights that most of the areas where work is needed relates to supply, rather than to demand. The council can do

Table 2 Summary of priority areas

The bolded options are those listed earlier that might together contribute the most to the '5.0 by 2030' home affordability target

Who	Action	Action Demand	Supply
Council	く	11: Make renting more attractive — renter-led (collaborate with government)	#12: Increase greenfield land supply #13: Permit more intensification in the Unitary Plan #15: Ensure 'Restricted Discretionary' activity status is not less permissive than 'Discretionary' #16: Council stocktakes its land and allocates what it can to housing #18: Targeted rates to fund and finance infrastructure for growth #21: Collaborative review of transport policy, legislation, planning, funding to ensure it supports Auckland's housing growth #23: Better infrastructure data to underpin analytics and management #27: Omit excessive restrictions on design unless benefits exceed costs #29: Urban development agency, with outsourcing to the private sector #33: Provide data on residential construction investment opportunities to foreign investors
Council cont.	<		#20: 'Lead' public infrastructure providers also own/develop land to capture benefits #24: Private provision of infrastructure #25: Sell down some assets to fund land investment to capture the benefits of infrastructure (support option #20) #26: Reduce restrictions on small buildings #19: Tax the windfall gains that accrue to landowners from rezoning land for urban use to pay for infrastructure #32: Tax land to encourage development

Who	Action	Action Demand	Supply
Government	P	#10: Make renting more attractive — legislation	#17: Local government sharing in revenue base linked to economic activity to help pay for infrastructure and services #22: Road pricing / congestion charging for roads #28: Public sector research programme into social costs and benefits from planning #30: Development at scale to support more competitive industry structure and regulatory reform #31: Replace joint and several liability with proportionate liability #34: Reduce restrictions on foreign ownership of non-urban land for timely residential development
	9	#3: Macroprudential regulation (tools not being actively debated in public) #4: Capital gains (CG) tax, comprehensive	#14: Reform the RMA to address issues for urban areas of national significance
	9	 #1: Official cash rate (OCR), to influence interest rates #2: Macroprudential regulation (tools already floated) #4: Capital gains (CG) tax, bright line test #7: Incentivise more migrants to locate elsewhere in NZ #8: Subsidies for first-buyers 	
	P	#5: Increase restrictions on foreign ownership of existing homes and residential land #6: Restrict immigration #9: Exempt GST for new homes commissioned by owner-occupiers	

The recommendations of this report could input to the next major 'plan' between the council and the government to address Auckland's housing affordability. The council would likely find collaborating with the government easier and more effective if the urban economic development capabilities that reside across government entities were more aligned and integrated. In Auckland's case this could logically build on the relationships that already exist with the government's Auckland Policy Office.

Some of the regulatory initiatives that are more uncertain or have higher risk could be considered for trialling and evaluating locally to mitigate that risk (e.g. just Auckland rather than national, or just in some parts of Auckland)

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Introduction

"If nothing changes, I see this massive divide opening up in New Zealand between the landed gentry and the rest. There will be this ghettoization of the poor in fewer and fewer places, and in many cases they are going to be defined across race and ethnicity. Absolutely we can stop it; we should, and we must...The solutions are in front of us. What it requires is political courage, leadership, and conviction to be able to make it happen."

Shamubeel Eaqub6

The house price problem

Auckland house prices have grown at an extraordinary pace and are extremely high relative to incomes compared to the rest of the world.

The median house price in the Auckland metropolitan area in the month of August 2015 was \$765,000, 20.5% higher than 12 months prior. In June 2015 it was \$787,000, which was an annual increase of 28% on the previous June.

Auckland's median house price to median household income ratio is some 9 or 10, when ideally it would not exceed a ratio of three to one.⁷

House prices are also well in excess of what rents can justify, with gross rental yields on residential property in the range of 2%–4% in half of Auckland's suburbs.⁸ The fundamental determinants of house prices (i.e. rents and incomes) are totally out of kilter with current prices. This means one of two things will happen:

- Auckland will expand and redevelop large parts of the existing housing stock over the coming decades, or
- there will be a major property price correction at some stage that will be either abrupt (occurring over a period of two to three years) or more gradual (probably within around seven years).

High prices risk major inequality within and across generations, and a major housing crash that could create a national financial and economic crisis.

The terms of reference

Purpose of this report

The purpose of this report is to provide advice to the Mayor and Deputy Mayor (and by extension, all elected members and Aucklanders) on current issues relating to Auckland housing supply, choice and affordability, and advise on comparative housing policy instruments and international best practice.

Shamubeel Eaqub, economist, interviewed on *The Nation*, TV3 7 June 2015

Median house price of \$787,000 for metropolitan Auckland in July 2015 divided by household income estimate of \$79,356. The latter is estimated by increasing the annual median household income of \$76,500 from the census in March 2013 by nominal wage growth of 3.7%.

⁸ Nunns et al (2015)

The council is concerned about ensuring that Auckland has a well-functioning property market that:

- allows good housing choice relative to incomes of our residents
- is responsive to existing and emerging consumer demands for a range of attributes (location, size, quality etc)
- responds without undue delay to demand to allow greater price stability, mitigate excessive boom/bust cycles, and reduce the propensity of prices overshooting that creates undue risk to Aucklanders and the nation⁹
- provides feasible housing choices for people, such as choosing whether to own or rent, and to be able to continue living in their communities as they evolve through different stages in life (youths, migrants, retirees etc).

Achieving this will, amongst other things, support Auckland's ambition to be the world's most liveable city.

Scope of this report

This report is about housing affordability — not affordable homes (which relates to the lower priced spectrum of homes).

This report is to provide an analysis of:

- problem definition, including economic drivers that are creating pressure on housing demand, supply and prices
- potential supply side and demand side solutions
- possible policy interventions by government and Auckland Council
- recommended policy approach, working with government agencies.

Issues that are out of scope include:

- housing quality (e.g. rental warrant of fitness, sustainable design requirements such as green star ratings)
- primary research, such as new evaluations of current or past initiatives (i.e. this is predominantly a desktop exercise).

Aspects that are not controlled by the council are covered to allow a more complete understanding of the issues, drivers, and package of solutions.

Approach and limitations

This report is not an authoritative prescription on how to solve Auckland's house price crisis. The issues are too complex to be adequately covered in a single report. Instead, this report could be viewed as a rapid appraisal to decision makers, and a "strawman" contribution to a wider debate that involves stakeholders across the council, government, industry and the community. Wider stakeholders need a full opportunity to input if any plan to address house prices is to be durable.

The report was based on desktop reviews of existing data and literature, and a limited degree of stakeholder engagement to sound out issues and test ideas.

Some of the tools to address house prices are novel and would benefit from being tested across a wider range of stakeholders.

⁹ As articulated by the Deputy Governor of the Reserve Bank of NZ, RBNZ (2015)

House price problem definition

This chapter reviews the problem definition, which includes assessments of:

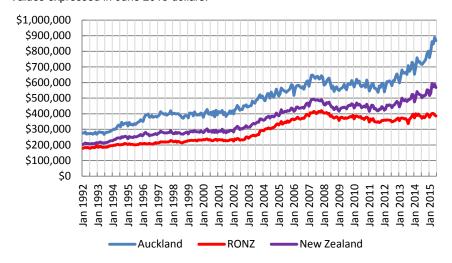
- prices and affordability of housing over time (home ownership and rental)
- the size and scale of the 'problem', including inequality, and the risk to society and the economy from a housing bust.

The following chapter reviews the drivers of house prices — i.e. their root causes.

2.1. House prices, rents and costs

Auckland house prices have been on an upward march. After excluding general price inflation, average (not median) prices trebled over 24 years, from \$276,000 in January 1992 to \$868,000 in June 2015. This is a compound average growth rate of 4.8% per annum.

Figure 2 Real average house prices, Auckland and the rest of New Zealand Values expressed in June 2015 dollars.



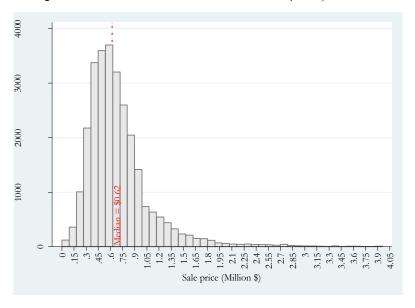
Source: REINZ, Statistics New Zealand

Average real (i.e. inflation adjusted) Auckland house values have risen 34% since the last 'peak' in April 2007. In contrast, the average house price in the rest of New Zealand has declined by 6% in real terms since the 2007 'peak'.

Auckland house prices varied considerably, with some 3000 sales in the past year below \$400,000 (Figure 3). The majority of homes sold had a price range of \$300,000 – \$1 million.

Figure 3 Range of house price sales

Sales, May 2014 – March 2015. (The median here of \$620,000 is considerably smaller than the July 2015 figure of \$787,000 because it is over an 11 month period)



Source: QV

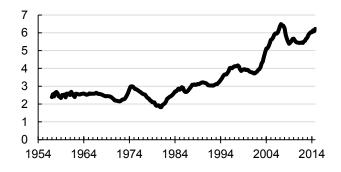
CoreLogic (2015) analysed all residential sales from 2014, and found evidence of speculation in the Auckland market. Dwellings are held in ownership for shorter periods than the rest of New Zealand, and there are a relatively high number of dwellings held for less than one year.¹⁰

House prices divorcing from incomes

The ratio of house prices to incomes has typically been in the order of 3 throughout New Zealand's history (Figure 4), and overseas (Demographia 2015), until 1995. Auckland's hovered between 6–7 in the mid-2000s, but has shot up to 9–10 since 2013.

Figure 4 House price to income ratios

New Zealand average house price to average annual household income ratio, 1957-2014.



Source: Eaqub and Eaqub (2015)

¹⁰ 31% of homes sold were held for less than five years in Auckland, compared to 22% for the rest of New Zealand.

Auckland rents and costs

Auckland rental inflation has been typically been under 5% p.a., and has been on par with the rest of New Zealand excluding Christchurch (NZIER 2015). In the last few months rents have been increasing up to 6% p.a., most likely to due to a spike in migration (described further in section 2.3.1).

Rents in Auckland have increased at about the same pace as incomes over the last 15 years (Figure 5). House prices have risen sharply relative to incomes — some 50% faster than income. The higher cost of land is the biggest driver of rising house prices, growing at twice the pace of income.

220 200 180 160 140 120 100 80 1998 2000 2002 2004 2006 2008 2010 2012 2014 Section Existing home Construction cost (135m2) ——Rent

Figure 5 Auckland housing costs relative to household income

Index (1998 = 100). June years. Section prices reaching over 200 points in 2013 means the ratio of section prices to income has doubled over 15 years

Source: Statistics NZ, REINZ, MBIE, NZIER

Rents are likely to continue to increase given Auckland's expected growth rate and the slow rate of new dwellings construction. However, Auckland landlords face competition from other cities throughout Australasia for a mobile workforce. Auckland cannot sustain the high rents that would be necessary from its current stock of housing to justify current house prices.

Construction costs for a 135 m² house have risen slightly relative to incomes. It may seem that construction costs have been a small contributor to housing unaffordability.¹¹ However over the last decade new Auckland homes have been large (200–200 m² with four or more bedrooms¹²). The average 200 m² house costs about \$400,000 to build,¹³ which is already five multiples of the median household income — even without the cost of land.

Auckland prices compared to Australia

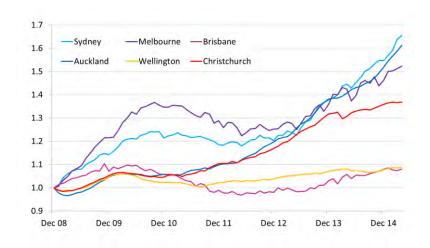
Compared to Sydney and Melbourne, Auckland values are increasing at a similar rate. They are driven by similar factors as described later in this chapter: a migration to cities, economic growth, and low interest rates and easy credit.

¹¹ Eaqub and Eaqub p32

¹² NZIER 2014c

MRCagney 2015

Figure 6 Comparison of house prices in cities across New Zealand and Australia Indexed to 1.0 in December 2008



Source: CoreLogic (2015)

2.2. What are the problems caused?

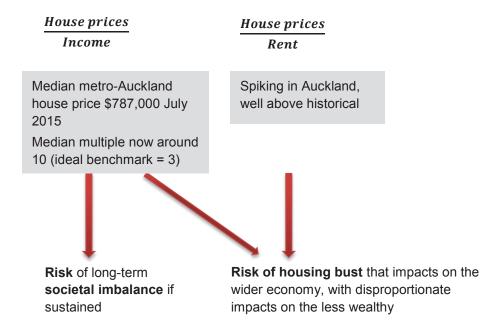
The problem is two-fold: sustained inequality (i.e. the risk to social cohesion in the future), and 'financial instability' (i.e. the risk of a housing bust that spills across the economy).

The social risks are caused by housing not being affordable (i.e. prices high relative to incomes). Eaqub and Eaqub (2015) in the new book *Generation Rent* argue that New Zealand is at risk of creating a class structure of families that are 'haves' and 'have-nots' that will echo through generations. Many renting families will not have the same security of tenure in their homes or retirement savings as home owners.

The risk of a housing bust occurs when house prices overshoot their fundamentals (i.e. when prices are high relative to both rents and incomes). This can occur either because of a 'follow the leader' herd mentality (that is, a bubble), or because the market revaluates what the future fundamentals are likely to be.

This is summarised in the figure below.

Figure 7 Summary of the public policy problem

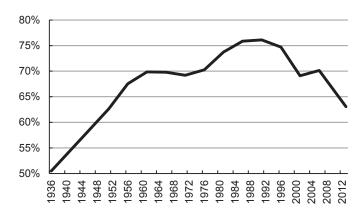


2.2.1. Inequality risks

House prices regularly rising in excess of income growth can create significant social tensions and hardships. Younger generations and others who are trying to get a foot in Auckland's property market face an enormous hurdle. They have not had their wealth rise with the tide, unlike existing property owners. This hurdle will reduce the home ownership rate (Figure 8).

Figure 8 Home ownership rate over time

Owner-occupier share of all defined tenures, excluding unidentified tenures



Source: Eaqub and Eaqub (2015)

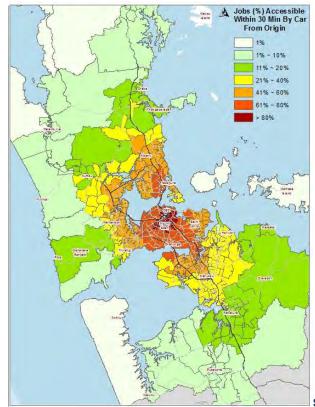
(Note, Coleman and Scobie (2009) warn of the futility of policy directly targeting the home ownership rate.¹⁴)

[&]quot;An important insight stemming from these simulations is that the owner-occupancy rate is a very poor measure of the state of the housing market. The owner-occupancy rate could be increased by 1% by any one of the following policies: the government could build (and sell) 375,000 houses; construction costs could fall by 29%, real interest rates could increase by 48%; the government could reduce the tax concession available to landlords by 29%, or approximately \$1,200 per property; or the government could increase the subsidy to owner-occupiers by 53% or approximately \$2,500 per household. The first three of these changes represent enormous interventions."

Aspiring property owners risk either being locked out, or needing to make challenging compromises. Trade-offs include:

- parenthood:
 - choosing to not have children
 - significantly deferring when they have children (with associated fertility risks)
 - having a greater reliance on childcare (with some families leaving children in day care for eleven hours a day, Hill 2015)
- living in remote areas that lack access to the labour market (Figure 9), which:
 - makes it harder to find the right (most productive) job
 - makes workers less resilient to job losses
 - causes workers to spend more time commuting, forgoing work, family, and leisure
 - reduces health and fitness (because walking, running, or cycling to work isn't an option)
- living in crowded or unsuitable accommodation. (Auckland has a significant crowded home issue, Eaqub and Eaqub)
- forgoing ownership and renting instead, which creates risks about how durable one's living arrangements can be, and may upset retirement funding plans. Insecurity of tenure can be difficult for retirees who want to stay in their neighbourhoods, and can increase the risk of truancy.

Figure 9 Access to the job market by car in a 30 minute commute AM peak, Integrated Transport Plan network 2046



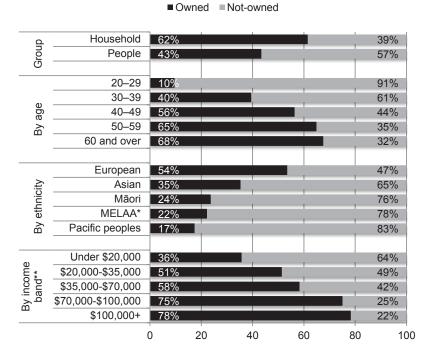
Source: Auckland Council (Transport and Infrastructure Strategy Unit)

In Auckland, 39% of households live in non-owner-occupied dwellings (Figure 10). 57% of individuals (those aged over fifteen¹⁵) rent and they have missed benefiting from the increase in wealth that rising prices have created (Eaqub and Eaqub). That rise in house prices also reduces their chances of getting onto the property ladder. Maori, Pacific peoples and recent migrants have very low home-ownership rates, as do young people under forty and people with low incomes.

Figure 10 Home-ownership rate by group, Auckland

- * MELAA = Middle Eastern/Latin American/African.
- ** Home ownership by income band is shown for New Zealand total

Over 60% of households own their own home, but they tend to be older and smaller households, meaning a smaller proportion of individual home owners (43%). Lower home ownership for non-European ethnicities mirrors similar differences in incomes and other economic measures. (Eaqub and Eaqub p68.)



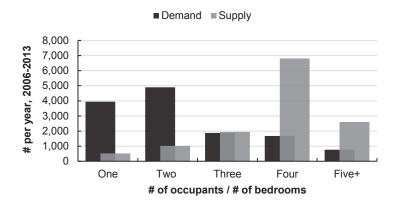
Source: Eaqub and Eaqub (2015)

In addition to the challenges of ownership and renting, it is difficult for many households to have housing options that meet their needs. Eaqub and Eaqub suggest that there is a large unmet demand for small dwellings, and an oversupply of large dwellings (Figure 11).

¹⁵ A challenge with this statistic is that this includes, say, teenagers that are still living at home with their parents.

Figure 11 Imbalance between what is demanded and what is supplied

Increase in housing supply versus demand, by size, per year (between 2006 and 2013 Censuses)



Source: Eaqub and Eaqub (2015)

Risks of worsening inequality, and thus the risk to future social cohesion, comes about from two main factors:

- the opportunities to current and future generations to get into the property market is significantly harder than what it was for existing property owners. Grievances by current and future generations would be exacerbated by many of the issues being caused by existing property owners¹⁶
- the opportunities to future generations will differ depending on whether or not they can rely on endowments from wealthy family.

Eagub and Eagub (pp67–69) describe this latter issue as follows:

"Given the growing reliance by young house-hunters on financial help from their parents, it seems inevitable that home ownership will increasingly become the provenance of the children of those that already own houses. Allowing the influence of hereditary sources of wealth to increase will exacerbate wealth inequality in New Zealand, driving a wedge between the haves and have-nots...

The trend since the early 1990s has increasingly pushed New Zealand towards a new class system, with house owners — a kind of modern-day landed gentry — at the apex. This is a serious and persistent attack on new Zealand's identity as an egalitarian society where social and economic success are open to all."

A further cause for inequality is the risk of declining job opportunities for blue collar workers. Section 3.2.3 on page 20 shows that preventing intensification in inner suburbs increases land prices on the periphery of the city. An insidious impact of this could be to price out warehousing and manufacturing jobs for low- and no-skilled workers in South Auckland in particular. More firms will face greater pressure to relocate to places like Te Rapa and Ruakura in Hamilton, stranding lower socio-economic workers in South Auckland.

See section 3.2.5 Productivity Commission's "democratic deficit" on page 29 Productivity Commission's "democratic deficit".

2.2.2. The fallout from a housing bust

This section outlines why rapid house price depreciation should be avoided.

New Zealand escaped the major housing crash that many countries suffered during the Global Financial Crisis. House prices declined by one third in major USA metro areas between 2006 and 2009.¹⁷

House price busts are particularly severe:

Housing price busts in perspective

Compared to sharemarket crashes, house price busts are on average:

- · associated with economic losses twice as large
- · last nearly twice as long
- more likely to occur following a price boom, housing booms have been followed by busts about 40 percent of the time
- · less frequent, roughly one bust a country every 20 years

The facts

- Total average output loss at around 8 percent of the level based on average growth rates before the bust
- recent findings from the US find the total direct and indirect impacts of the housing market decline comes to roughly 2.9 percent of GDP each year until recovery
- · slowdown in housing prices has on average lasted about four years
- · price corrections during housing price busts averaged 30 percent
- to qualify as a burst bubble, house price contraction shall exceed 14 percent
- a comparison of the timing of housing price busts across countries suggests that they are often synchronized

The impacts on households

House market crashes cause household welfare to fall sharply and immediately. Lower house prices curtail the ability for households to borrow more against their homes to fund large purchases. Credit ratings may suffer for households that find themselves in a negative equity situation, which reduces consumer spending.

Reduced consumer spending in the economy can lead to significant increases in unemployment. The biggest direct effect is likely to result from the decline in new housing construction and associated jobs. For example, in Ireland after the 2007/08 housing crash the number of males employed in the construction sector decreased by 27,000 over a year — 10% of the working male population. Other closely inter-linked activities such as real-estate agents, building inspectors, appraisers, mortgage lenders, insurers and home appliance firms are also strongly affected.

The impacts on the banking system

Housing price busts are associated with stronger and faster negative effects on the banking system than equity busts.²⁰ Housing price busts have larger

¹⁷ S&P Dow Jones (2015)

I.e. when the value of their mortgages exceeds the house price.

¹⁹ University of Ulster (2009)

Herring and Wachter (1999)

adverse effects on the capacity and willingness of the banking system to lend towards private investment, leading to more severe real economy implications.

Countries where banks play a more dominant role in real estate markets and hold a greater percentage of assets are the most severely affected during a house price bust.²¹ This is a somewhat worrisome fact given the high exposure of the New Zealand and Australian banking sector to real estate lending (Figure 18 on page 19). The strong ownership linkages between Australian and New Zealand banks and the fact that housing busts are commonly synchronised across countries²² highlight a commonly shared risk that may amplify negative economic outcomes.

The social impacts

The council's Community and Social Policy department undertook a literature review on the social impacts of the burst of a housing bubble. (Much of the literature relates to the recent housing crisis in the USA, and much of it relates to correlations rather than causality.) The review found disproportionate impacts on specific segments of the general population, or that it is felt differently by different groups, including: youth, elderly, men, women, minority ethnicities and socio-economic groupings as follows:

- many older aged people rely on increased property values to fund their retirement, and the prospect of significant house price decreases is a significant risk
- in the USA, lower socioeconomic groups experienced greater house price volatility (Figure 12), with a larger percentage reduction for homes in the 25th percentile. This implies a larger proportional decline in wealth for these homeowners compared to those owning higherpriced homes
- women heads of household appear to be differentially affected by the mortgage crisis due to relatively greater income instability, lower average wages, and greater child care responsibilities²³
- recently in the USA paediatric hospital admissions for physical abuse and traumatic brain injuries increased in the geographic areas that saw the most foreclosures²⁴
- homeowners who default take years to repair their credit ratings, with impacts on future borrowing (buying goods on credit and securing finance for entrepreneurial means), on being able to sign apartment leases, and sometimes being alienated from friends and family if they owe them money²⁵
- the number of homeless families in the USA rose by 30% from 2007 to 2009
- following the GFC, suicide rates increased. In Europe, men aged 15– 25 years were particularly affected. All age suicide rates in European and American men were, respectively, 4.2% and 6.4% higher in 2009 than expected if past trends had continued.

Reason for synchronised price busts is related to synchronization of monetary policy and financial deregulation across countries and general business cycle linkages.

²¹ Ibio

Human Rights Watch (2014)

²⁴ Wood et al (2012 p358)

Human Rights Watch (2014, p5)

Figure 12 Lower priced homes experienced greater price swings



Source: Bansak and Starr (2010)

2.2.3. The risk of a housing bubble

Possibly not a bubble yet, but we're not far from it

The argument in the March Auckland Economic Quarterly was that one stylised reason that Auckland's house prices are high (as well as high relative to rents and incomes) is because future capital gains are capitalised into land prices now. Those gains are not because rents will rapidly escalate, but because existing land can be redeveloped to accommodate high levels of growth in the coming decades. And more density means more potential revenue overall to each section of land — this potential is being priced in now.

The Chief Economist commissioned NZIER to run some numbers to notionally test the above idea, and their results support this — at a stretch.²⁶ This result means that it is still possible to make sense of Auckland's high house prices, and it is not necessarily a bubble just yet. Therefore it is possible to manage the problem of high prices whilst avoiding a house price bust — but prices need to level off at about where they are now.

NZIER found that without development and intensification, house prices seem about a third over 'fair value'. (Fair value is the total present value of future rental income.) But that gap could possibly be explained by land owners anticipating that:

- housing can be intensified as per the Proposed Auckland Unitary Plan as notified ('the notified Plan'), which alone would halve that overvaluation; and
- b) the cost to build homes will reduce by 10%–15% (that is, people might be anticipating average annual productivity gains of one percent per annum over the next 10–15 years); and
- c) the council can minimise risk and uncertainty to developers and builders; and
- d) intensification will be modestly greater than the notified Plan (because the final will likely have more, or because developers will seek and attain resource consent for them anyway).

²⁶ NZIER (2015b)

All of these factors that the market may be anticipating would need to be realised in order to minimise the risk of rapid house price depreciation. To assist this to happen, the public sector needs to act urgently to overcome undue costs, risks, delays and barriers to development and construction.

There are risks that this analysis highlights that need careful management in order to avoid, including that:

- the prices in housing markets tend to overshoot the sustainable price
- building productivity gains the market seems to be anticipating may not be achieved
- the market may have overestimated how much land will actually be commercially viable to redevelop
- the rate of dwelling construction may be surprisingly slow, perhaps because of capacity constraints in the construction market.

There are early indications from market commentators that the rate of house price increase is easing:27

"While the new government and Reserve Bank measures which are due to come into effect in October are likely to be having some impact on prices, as will the approach of winter, there is also a growing feeling among buyers and sellers that homes are close to being fully priced."

²⁷ Barfoot and Thompson (June 2015)

3. Drivers of house prices

This chapter supports Chapter 2 on the problem definition by assessing possible root causes of the problems. This includes drivers of house demand, infrastructure issues, construction issues, planning constraints, the practice of developers, tax incentives, and bank lending.

The drivers of house prices are reviewed in terms of cyclical (i.e. short-term) factors and structural (i.e. long-lasting ever-present) factors.

3.1. Cyclical drivers of house prices

3.1.1. Strong migration

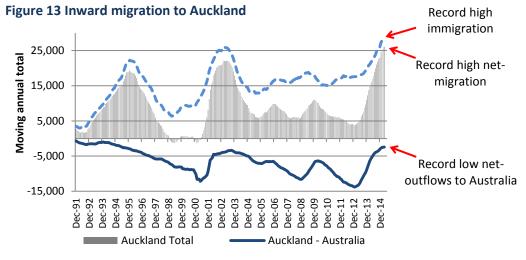
In this section we show that migration is a success story that reflects the current strength of New Zealand's:

- economy relative to Australia
- economy relative to Europe
- education sector.

Net migration is expected to remain high through 2015.²⁸ Note that migration can swing very quickly, and these trends may not be sustained.

Migration at historic highs

Annual migration at about 26,800 (June 2015), is at historic highs, and up 22,000 since the recent low in January 2013 (Figure 10). This increase is driven in equal measure by a reversal of the trans-Tasman migration and by foreign migration (each up about 11,000 since January 2013).



Source: Statistics New Zealand, International Travel and Migration

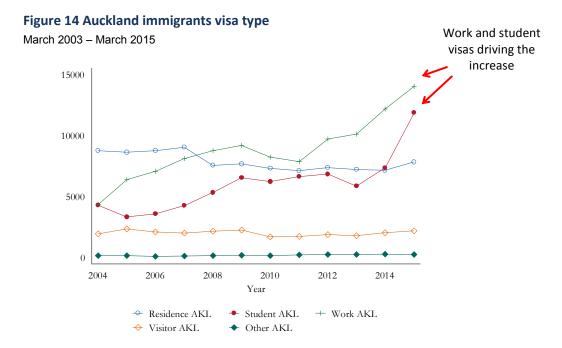
The low number of Kiwis migrating to Australia and increase in Australians coming here will be due to the relative strengths of the two economies.

²⁸ NZIER (2015)

Australia is experiencing some of the lowest levels of growth for quite some time. New Zealanders also lack access to social safety nets in Australia.

Foreign migration caused by European crisis and strong education sector

The increase of 11,000 immigrants is primarily from those with work and study visas (Figure 14). Students will only indirectly increase property purchase prices, as they soak up rental capacity. (However, this will be mitigated by the accommodation provided by tertiary education providers themselves.)



Source: Chief Economist Unit, Statistics NZ

The spike since 2013 of immigrants coming to Auckland for work are from Europe (including the UK Figure 12), which is probably due to the recent European crisis.

March 2003 - March 2015. In this figure "Asian" excludes Indians Europeans driving the increase in work visas 8000 - Asian European + Pacific → Indian 6000 4000 2000 2008 2010 2012 2004 2006 2014 Year

Figure 15 Auckland immigrants work visas

Source: Chief Economist Unit, Statistics NZ

The volume of residence visas to Auckland has not changed in recent years, but the make-up is slightly more Asians over Europeans and Pacific Islanders. Overall, Europeans have dominated work and residence visas over the past decade.

3.1.2. Low interest rates

Lower interest rates increase home buyers' ability to pay for homes because they can service higher debt levels. Long-term interest rates have been falling across the world (Figure 13).



Figure 16 10-year government bond interest rates falling across the world

Source: Bloomberg

New Zealand interest rates are currently below long-run average (Figure 17). This is in part due to the low Official Cash Rate (OCR) that is set at stimulatory levels. It was reduced to 3.00% on 23 July 2015, and the RBNZ signalled on 29 July that the OCR is likely to be lowered further. Pressure has been placed on the RBNZ by the Minister of Finance to focus on the inflation target rather than using the OCR to also address the macroeconomic risks from Auckland's house prices. Also address the macroeconomic risks from Auckland's house prices.

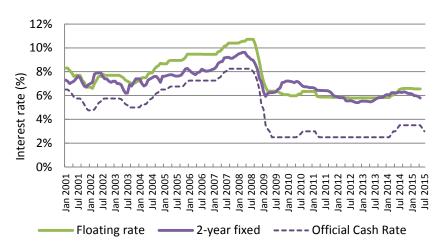


Figure 17 New Zealand interest rates

Source: Reserve Bank of NZ

3.2. Structural drivers of house prices

3.2.1. Bank lending

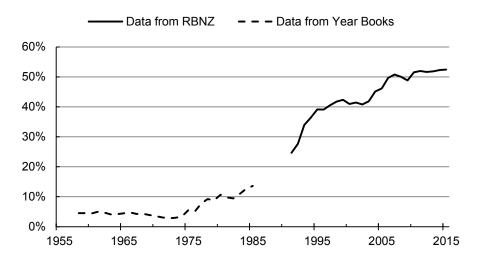
From around the beginning of the 1990s, international rules and regulations to bank lending standards deemed mortgages to be half as risky as corporate loans (Eaqub and Eaqub 2015). Immediately New Zealand banks dramatically shifted their lending away from business loans to household lending (Figure 18). This underpinned the increase in house prices relative to incomes that took off from 1995 shown earlier in Figure 4 on page 4.

²⁹ RBNZ news release 29 July 2015, "Monetary policy supporting growth and inflation goal"

[&]quot;He's been out of the zone for years now, below the midpoint for quite a long time. He's meant to be following the Policy Targets Agreement, that's the bit I look at, and one day somebody will start asking the minister of finance questions about whether he's actually following the agreement or not." Minister English commenting to Bloomberg on the RBNZ Governor's performance. Hive News, Tuesday, 23 June 2015.

Figure 18 Percentage share of total bank lending for housing

Note there is no reliable data for the period 1986-1990



Source: Eagub and Eagub (2015)

Eaqub and Eaqub argue that owners can now service very high debt levels because of looser financial standards and falling interest rates. They argue that banks used to limit mortgage payments to less than a third of household income, but are now happy for that to be higher. An income of \$100,000 could raise a mortgage of \$470,000 two decades ago, but as much as \$690,000 today.

The Reserve Bank of NZ (2015b) is currently in the process of tightening up financial standards for mortgages to landlords. It will require that banks hold greater cash reserves against that lending, and that 30% deposit rates will be required for purchases of existing Auckland homes.

3.2.2. Population and demographic drivers

Globalisation

Auckland is growing relatively quickly, from about 1.5 million now to between 2 and 2.5 million by 2045.³¹ Around the world people are flocking to major cities. They provide lots more opportunity to workers to find the right job, and more back-up options if that job does not work out.

This growth of cities is a product of globalisation and economic geography.³² One key cause is the fact that creating and selling good ideas is becoming more and more profitable. Around the world new millionaires (and sometimes even billionaires) appear all the time from knowledge-intensive industries. This occurs from technological advances to information, communications, and long-haul transport since the early 1990s. But to create and commercialise good ideas in complex environments requires teams of skilled colleagues working closely together, often face-to-face. Thus cities are becoming more important.

These worldwide forces will be sustained indefinitely. Auckland will likely see continued population growth in excess of the rest of New Zealand. However,

³¹ Statistics NZ population projections.

³² McCann (2009), Glaeser (2012)

Auckland should not rest on its laurels and assume it will come easy, as warned by the OECD (2015 page 20):

"Constrained supply [of land and housing] may reduce Auckland's ability to achieve agglomeration economies by restricting labour mobility and reducing incentives for firms to locate in Auckland."

Demographic drivers

Housing demand is driven by the number and size of households. Nationwide, the number of households has grown about by about 16,000 per year since 1945 (Eaqub and Eaqub). Natural population growth is the main driver, but changing household size and net-migration are more volatile.

If supply does not keep pace with emerging household needs, then prices will escalate. For instance, an aging population will shrink household size, and they will not live in four- and five-bedroom houses (Eaqub and Eaqub).

3.2.3. Planning constraints on land usability

Auckland's low density does not seem natural

Population densities should increase as one gets closer to a city centre (Bertaud 2015). This is illustrated for a wide variety of cities in Figure 19. City centres are usually the most attractive to the majority of households and firms because that is where they have the greatest accessibility to labour markets and goods and services.

However, Auckland's population density, at some 32 people per hectare in inner suburbs, is low internationally (Figure 19). Auckland's population density does not decline at a continuous rate the further out from the city centre (Figure 20). Auckland does not currently have an urban area as such; rather, suburbia is adjacent to the city centre.

Figure 20 also contrasts Auckland with Stockholm (a city of similar size and also constrained by harbours), but Stockholm does actually fit the standard density profile of a city (i.e. steadily declining density from the centre).

Auckland has not been free to evolve in a way a city naturally would. Auckland's current low population density in inner suburbs can be attributed to the legacy planning regulations. Figure 22 shows that the ability to redevelop land in the isthmus (outside of the city centre) is low at present, and this is despite:

- having the highest land prices
- a ratio of 2.5 Aucklanders to one in favour of "enabling more people to live in and around our town and local centres win a greater choice of homes, including terraced housing, apartments and family homes"
- a detailed survey³⁴ found that 48% of Aucklanders would choose nondetached housing (i.e. semi-detached, townhouses, and apartments) given their actual housing budgets and house prices.

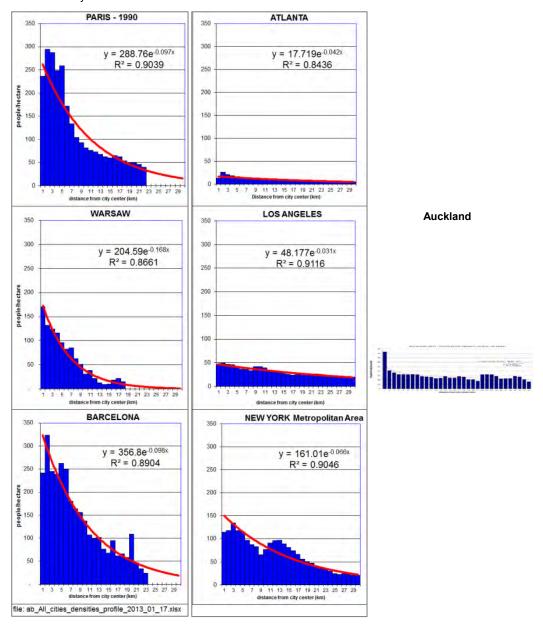
³³ Colemar Brunton (2014)

³⁴ Yeoman and Akehurst (2015)

Redevelopment opportunities in inner suburbs under the Proposed Auckland Unitary Plan (PAUP) was set to remain low (Figure 21). However, this will likely increase given the council's revised position on residential zoning to allow for more density.

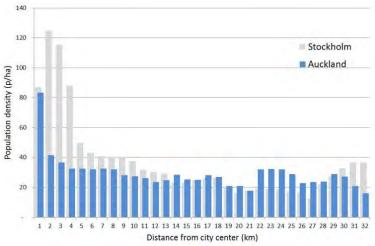
Figure 19 Comparative population densities in the built-up areas of selected metropolitan areas

Vertical axis is people per hectare. Horizontal axis is distance from the city centre (km). Auckland is shown in the next figure, but a scaled version of Auckland is to the right to provide a visual sense of relative density



Source: Bertaud (2014)

Figure 20 Densities by distance to the city centre in Auckland and Stockholm



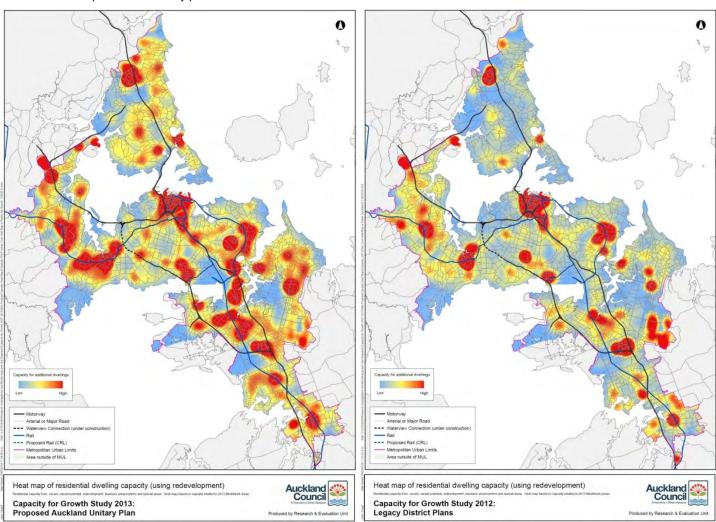
Source: Bertaud (2014)

Figure 21 PAUP capacity for residential redevelopment

Red areas have more capacity for residential redevelopment; blue areas the least. This figure does not include the impacts of the council's revised position on density provisions etc

Figure 22 Legacy plans residential redevelopment capacity

This analysis assumed that areas of full development that was relatively new does not have redevelopment capacity



Source: RIMU Capacity for Growth Study

Rules such as the notified Unitary Plan's density controls (i.e. maximum numbers of dwellings per site) will have the effect of large expensive bespoke houses being built rather than smaller more standardised homes. Figure 23 shows an example of the impact on dwellings: no density controls can allow seven 1–2 bedroom dwellings (right-hand scenario), compared to the density controls in the PAUP (left-hand scenario) allowing only two 4–5 bedroom houses for the same building mass. Density controls is a distortion that potentially contributes to the apparent mismatch highlighted in Figure 11 on page 10.

Figure 23 Impact of density controls

Left-hand picture shows the impact with density controls (that limit the number of dwellings per site); right-hand without



Source: Auckland Design Office

The Productivity Commission (2012) identified that large bespoke housing was a key barrier to productivity growth in the residential building sector. Hollowing out the volume of smaller, lower priced attached dwellings will have the effect of significantly increasing Auckland's median house price.

The council recently (in June 2015) revised its position as it heads into mediation, and relaxed some of the density controls.³⁵ Initial modelling estimates that with the council's revised position:

- constructing homes in the \$400,000 bracket will become more viable
- there will be 183,000 dwellings that are economically viable and zone-enabled within the existing urban area over the next 15 years.³⁶

The argument is still made despite the revision in the council's position because: (a) the Unitary Plan is not finalised for about another year and positions can in theory be revaluated because of further analysis, evidence and arguments emerging; (b) the controls may need to be loosened further if housing supply is not sufficiently enabled; (c) it is important to explain how and why these controls are important to housing supply; (d) the spatial application of zones (and possibly some other related provisions) has not yet been revised, and the revised spatial application may be affected by the density controls.

This is estimated as 64,000 plus 19,000 dwellings by AUP IHP 013 Expert Group (2015 p27) plus a further 90,000 from the changes to the residential provisions. Note that the council's revised position may not be accepted by the IHP.

Barriers to intensification is a complex area with high costs at stake

The restriction on Auckland's redevelopment possibilities is not the result of any one regulation; rather it results from a host of regulations. These regulations interact and differ across Auckland's zones. They include:

- · building height limits
- maximum site cover ratios
- minimum section size rules
- controls on maximum dwelling density per site
- volcanic view shafts
- historic character and pre-1944 overlays.

The Mt Eden view shaft that limits the height of the CBD to the west of the Sky Tower (number E10 in Figure 24) is estimated to have a *net cost* as high as \$440 million.³⁷ (In the best case scenario it has a net cost of about \$30 million.) The next-most constraining Mt Eden view shaft on the CBD (E16 to/from the Auckland Harbour Bridge) is estimated to have a net cost of between about zero and \$150 million. That said, a wider range of benefits may be possible that relate to Auckland's wider tourism market and cultural identity. This needs to be carefully evaluated in a detailed 'business case' for these view shafts.

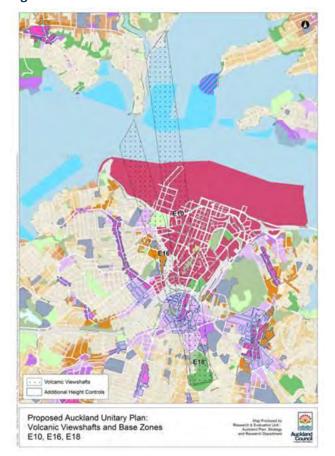


Figure 24 Mt Eden viewshafts over the CBD

Source: Rohani, Nunns, and Balderston (forthcoming)

That is, after taking account of the benefits. Rohani, Nunns, and Balderston (forthcoming)

A further potential complication is that the underlying zoning (and overlays etc) may represent a lower intensity of development because of the view shafts. If any view shaft were revised to allow for more development then the underlying zoning (that is a function of that view shaft) would require revision too.

NZIER (2014b) modelled the impacts of limiting intensification in inner suburbs, and the costs of these controls (but not the benefits). These are shown in Figure 25:

- house prices rise for all (bottom-left panel) and everyone on average lives in smaller homes (top-right panel)
- population density and land prices in inner suburbs are lower (top-left and bottom-right panels)
- in the periphery land prices and densities are actually higher (top-left and bottom-right panels).

Blue is what Auckland unconstrained; orange is with planning constraints Density Size 8K 800 0000s per sq km 600 6K Size (sd m) 400 4K 2K 200 OK 0 10 15 20 25 30 35 10 15 20 25 30 35 Distance from CBD Distance from CBD Height Population 20 **3M** 15 Population NE WE Height 10 5 OM 0 0 5 10 15 20 25 30 3540 0 5 10 15 20 25 30 35 Distance from CBD Distance from CBD Housing costs Land price 200 20K per sqm per year Land price 10K 150 100 50 5K S 0 OK 10 15 20 25 30 35 10 15 20 25 30 35 Distance from CBD Distance from CBD

Figure 25 Impact of restricting intensification in inner suburbs

Source: NZIER (2014b)

Preventing inner suburbs and the city centre from intensifying lifts housing costs by some \$1000 for every household per year.³⁸ As a present value lump sum this is in the order of \$10 billion.³⁹

The specific modelling result was \$933 every year per family. Given the simple and illustrative nature of the model this has been rounded up to \$1000.

Benefits that were not modelled by NZIER include enhancing the amenities that attract people to Auckland. These benefits would result from increased productivity from a larger agglomeration, tourism revenues, and non-market benefits to residents from a more pleasant living environment. Note though the conflict in trying to make an area more attractive (i.e. attract more people to it) by reducing the amount of people that can be attracted to it.

Extending the urban footprint

NZIER (2014d) highlight three central predictions from the standard economic model of cities:⁴⁰ that cities will decentralise as incomes rise, if transport cost fall, and as population grows.

NZIER modelled the impact on people's welfare from expanding the urban footprint (i.e. expanding outside of the 2010 Metropolitan Urban Limit) at the same modest pace as recent years. House prices across all of Auckland could decrease materially and house sizes would rise, lifting welfare by \$860 per year. (As a present value lump sum this welfare impact would be in the order of \$8.6 billion, and about \$17,000 per dwelling.⁴¹) This does not include the capital cost to build transport and water networks, nor the environmental externality costs (such as increased water pollution). The benefits and reduced house prices from expanding the urban footprint will increase further as the city's population and income grows.

In line with this, the council is planning to release land for future urban development which has the potential to provide approximately 110,000 dwellings and 1,400 hectares of new business land. The release of this land is planned to be spread out over 30 years because of the \$13.7 billion investment⁴² in bulk infrastructure required to support the development of this land.

OECD attributes Auckland's planning as a key constraint to national economic growth

The new OECD report on New Zealand (OECD 2015 page 20) says that regional housing pressures are essentially confined to Auckland (Figure 26, Panel A). The report says that restrictive land-use and planning regulations in general are a key factor behind lagging supply and the resulting high prices:

"In addition, land-use planning has become more complex and costly over time, involving considerations of infrastructure provision, environmental sustainability and economic resilience (New Zealand Productivity Commission, 2012). These regulations, including the Resource Management Act (RMA), are highly devolved, so more central guidance would be beneficial to ensure consistency with environmental goals, as well as to reduce scope for vested interests to limit competition or thwart rezoning and

Over 40 years \$1000 per household is a present value of some \$20,000 per household at a 4% real social discount rate. Auckland has approximately half a million households, which multiplied by \$20,000 equals \$10 hillion

That is, the Alonso-Muth-Mills model, which is a simple monocentric model of a city that has strong empirical support across cities around the world.

Simply, this is 86% of the \$10 billion figure and the \$20,000 figure in the footnote 39.

Note that this is not a present value figure, and so it is not comparable to the figure of \$8.6 billion in the preceding paragraph.

development that would be in the wider public interest. The perceived quality of local planning and regulation is low relative to other factors affecting the business climate (Figure 26, Panel B)."

The OECD notes the efforts to accelerate new land for development via the Auckland Housing Accord and the Housing Project Office.

On the issue of local objections to densification, the OECD (page 24) recommends (presumably to the government):

"Provide guidance to regional authorities in the implementation of environmental and planning regulations, including the Resource Management Act. Reduce their economic costs and the scope for vested interests to limit competition or thwart rezoning and development that would be in the wider public interest."

A. Population-to-dwelling ratio Ratio 3.05 2.60 Canterbury 3.00 2.55 Rest of New Zealand 2.45 285 2.40 2.80 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2.35 B. Firms' rating of infrastructure and the business climate
Balance of opinion (% good - % bad), last financial year at August 20141 Per cent Per cent Construction firms 50 50 All firms 40 30 30 20 20 10 10 0 0 -10 -10 -20 -20 Skilled labour Unskilled labour Local planning and regulation Transport Water & Business C. Auckland building permits and projected demand 14 14 12 12 10 10 Permits² - Projected demand 2005 2008 2010 2011 2012 2013 2014 2009

Figure 26 Local planning and building permits

Source: OECD (2015)

Last financial year refers to the last financial year for which businesses had results available in August. Financial years for businesses
finish on 31 March in New Zealand.

Twelve-month moving average of annualised monthly building permits.
 Auckland Council's average annual projected demand over the next 30 years.

^{3.} Auckland Council's average annual projected demand over the next 30 years

3.2.4. Planning constraints on design and construction

The previous section (3.2.3) related to planning rules that determine the capacity to develop homes from land. This section considers planning rules that can increase the amenity of homes that are developed, but in the course of doing so, increase their costs.

Gross benefits and rationale for policies on design

The primary issue being managed is negative spillovers (externalities), such as building overshadowing, localised traffic impacts, character of neighbourhoods, and risks of 'slums'.

Some policies will have strong benefits, such as managing stormwater runoff onto neighbouring properties, especially if it affects the geological stability of hilly terrain.

Estimating the benefits of other items that are (or could be) regulated, such as minimum apartment sizes, building heights, and dwelling densities is seldom done because it is difficult and resource intensive. The council does not have the resources to undertake the scale of research needed to establish benefit values to use in cost-benefit appraisals.

On the other hand, the costs of such regulations can often be straightforwardly estimated. This is useful because policy makers can consider how possible, plausible, and probable it is that the unquantified benefits to each supposed beneficiary would exceed those costs overall.

There is a risk of course from measuring costs and not benefits, and extra effort should be deployed to balancing this ledger.

There is a case that should be made to the government to help fund a significant research programme to test and assess the non-market benefit values from managing urban issues that are evidently important for many councils. This research should have a focus on quantitative impacts that can be incorporated into cost-benefit appraisals, as well as qualitative findings that can be generalised.⁴³

Gross costs imposed

The work of Grimes and Mitchell (2015) has been widely cited. They estimated the costs (but not the benefits) that planning regulations can add:

- \$32,500–\$60,000 per house from provisions governing section size, dwelling density, site coverage, and other design features (excluding the cost of Watercare and reserve an development contributions)
- \$65,000–\$110,000 per apartment from provisions governing building heights, floor to ceiling heights, dwelling mix, and other design features.

(Note that Grimes and Mitchell's gross costs reported here relate both to opportunity costs from smaller or fewer dwellings, as well as higher costs for the dwellings that are built. Grimes and Mitchell did not estimate the cost of minimum dwelling size rules.)

This relates to tool #28 Public sector research programme into social costs and benefits from planning.

MRCagney (2014) estimated that the impact of minimum dwelling size rules on the gross cost of small (city centre) apartments (i.e. those below the minimum size) was \$50,000 to \$100,000 per apartment. That was an increase of 25%–50%, and "may effectively price them out of the market". The study could not estimate quantified benefits because of no prior research done on the matter. It raised a range of risks of welfare losses to apartment dwellers and it challenged the plausibility that the benefits would exceed the costs. Reducing the volume of small apartments from the housing stock will likely significantly increase the median house price.

MRCagney (2015) considered how the gross costs of the two reports above increase the construction costs for dwellings of different size. They estimate they may more than double the cost of small apartments (56%–112% increase), raise the average apartment cost by a third to a half, and increase detached houses by 8%–15%.

3.2.5. Productivity Commission's "democratic deficit"

The Productivity Commission (2015, Chapter 9) draft *Using land for housing report* makes various suggestions on what drives the issues raised in the preceding two sections on planning constraints (section 3.2.3 for land usability and section 3.2.4 for design and construction).

They primarily identify the following (p14):

"The Commission has identified a 'democratic deficit', where homeowners have a disproportionate influence in local council processes, including elections and consultation. This creates a 'wedge' between local and national interests."

They note lower voter turnout (36% for Auckland), and that this is skewed towards property owners (who are predominantly aged Pakeha). They note similar results for engagement on the Draft Auckland Unitary Plan and the Auckland Long-Term Plan. They do, however, highlight the council's initiative to engage the community with a statistically robust and representative survey (on funding options for the transport network).

The Productivity Commission (pp246–248) also found that:

"Accommodating growth is not seen as financial beneficial to local government, but as a drain on resources...[and] as a net cost... overall the direct financial incentives on councils to accommodate growth are weak".

Overall, although growth may be good for the nation, it is often not for local communities. Moreover, wider affected parties do not engage relatively as much as local communities, possibly because the costs they face are widely dispersed and difficult to understand (because much of the impacts are very indirect).

3.2.6. Residential construction sector issues

Poor measured performance in the industry

There has been little, if any, measured productivity growth in New Zealand's construction industry for over 30 years (Figure 27 left-hand panel). This is in

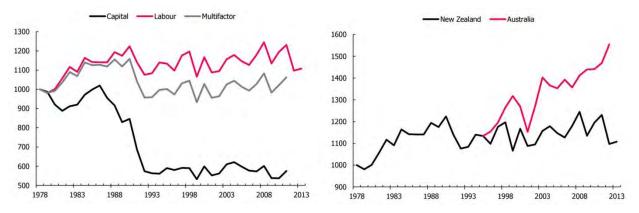
contrast to Australia's labour productivity (right-hand panel), which has grown at a compounding annual rate of 1.6%. Two important points to note:

- it is difficult to measure productivity changes because improved productivity can manifest as improved product attributes for a given cost
- that the statistics below relate to construction overall (building, both residential and non-residential heavy and civil construction, and construction services) because a more detailed breakdown of residential construction is not available.

Figure 27 Construction sector productivity

Index 1978 = 1000. Left-hand panel is New Zealand productivity components. Right-hand panel is a comparison of labour productivity between NZ and Australia.

Labour and capital equipment productivity relate to the amount of output per unit of input. Multifactor productivity relates to the managerial ability to combine capital and labour well



Source: NZIER (2013)

Productivity Commission's review on housing affordability

The Productivity Commission on Housing Affordability (2012) attributes low productivity growth performance in the residential construction industry to:

structure:

- the industry's small scale and loss of scale economies
- fragmented industry structure requiring a myriad of subcontractors and informal contracting
- skills issues

conduct:

- low levels of innovation
- 'bespoke' (tailored) nature of our homes
- inferior management skills and practice (project management, quality assurance)
- councils (as building consent authorities, or BCAs) being excessively risk averse and stymieing innovation in design, materials and construction techniques.

The Productivity Commission (pp160–161) suggested that the government policy of 'joint and several liability' (see the box below for description) may be an underlying cause of industry structure, conduct, and thus of poor performance. Joint and several liability creates a risk to builders and

tradespeople of being liable for a loss that is out of all proportion to the harm they caused. It creates additional incentive to be small and isolated to make it easier to dissolve and reconstitute the firm to avoid excessive liability. The joint and several rule would contribute to lower capital investment in the industry overall to make it easier to liquidate firms in order to avoid facing costs out of all proportion to the harm they caused.

The Commission (p166) also suggested that the joint and several liability rule may be a substantial barrier to the market entry of private providers of building consent services. They would be held liable for the full cost of building defects, and there is a lack of insurance to cover such liabilities.

Joint and several liability is a legal construct to distribute liability among multiple defendants who are found to have caused the same damage. This means that if two or more people are found to have caused the same damage, any one of those defendants can be obliged to pay up to the full amount of the loss suffered by the plaintiff. This leaves that defendant the burden of seeking contribution from other liable defendants. This policy can impose liability on some defendants out of proportion to the harm they caused.

The alternative is to move to **proportionate liability**, whereby each defendant is liable for no more than their relative share of fault irrespective of the ability of other defendants to pay their share. A further alternative is a hybrid system that takes elements from both liability regimes.

Councils faced large costs from the 'leaky homes crisis' because they were often 'the last person standing because of deep pockets'. Because of this, the Productivity Commission also suggested that councils may be excessively risk averse and be unduly reluctant to approve innovative approaches. This would help councils to reduce the risk of facing costs out of proportion to its contribution of the damage it caused. The problem is that suppressing innovation in turn suppresses productivity, and ultimately harms consumer welfare.

NZIER (2014c) interviewed builders and found:

"Liability is of major concern to many builders in the industry.

Of the builders that were aware of joint and several liability, they viewed it as having a chilling effect on investor confidence and morale in the industry. They saw it as being a key causal factor in the excessive risk-aversion by BCAs...

Some builders believe it would reduce the supply of builders in the industry (relative to proportional liability like in Australia)."

Builders are also concerned that the move to 10-year personal liability for builders has contributed to the lack of builders being attracted to the New Zealand construction market.

Council's building control

The primary driver in the development of the council's building control policies, practices and procedures is the qualitative and durable outcomes that the council wants to see in housing for its communities. The council also needs to comply with previous court judgements and MBIE (Ministry of Building, Innovation, and Employment) determinations that continue to define council's 'duty of care'.

The council's job is meant to be limited to compliance (to the building code and consent conditions) — and not extend to quality assurance. However, often quality assurance systems are lacking on the suppliers' side that spans the different disciplines (across design, building, specialist trades etc). Ian McCormick, Manager Building Control, told a parliamentary select committee that council workers were encountering serious problems at some sites:

"We have some significant industry quality issues that we are struggling with as well, as evidenced by [the fact] between 25 and 40 percent of all building inspections continue to fail."

The view of the council's Building Control department is that the council's duty of care to citizens and the absence of industry quality assurance is what drives the council's management of risk — not the liability rule.

Council building control staff fill a vacuum created by industry: they find themselves becoming the quality assurer, rather than the auditor of quality assurance processes. This in turn exacerbates the concern raised by licensed building practitioners that councils interfere too much with day to day construction matters.⁴⁴

Inadequate advice to government on liability rule

The Law Commission was tasked by government to review whether to move to proportional liability. The Productivity Commission (2012 page 161) urged the Law Commission to consider how joint and several liability impacts on industry structure, conduct, and performance.

Alas, the Law Commission failed to consider these very important issues, and as a result their recommendation to retain joint and several liability is flawed.⁴⁵

The government agreed with the Law Commission's recommendation to retain joint and several liability on 24 June 2014.46

The decision on the liability rule should be informed by a sufficient understanding of the impact on industry structure, conduct and performance. Until there is that understanding of those impacts, the commitment to retaining joint and several should be revoked. The government should review its decision and commission further advice in light of the current housing challenge.

⁴⁴ E.g. NZIER (2014c)

Law Commission (2012 pp 62–63), and Law Commission (2014). The Law Commission did acknowledge Productivity Commission's concern about joint and several liability causing councils to be more risk averse. But it dismissed that concern with an argument of theoretical interest only by saying that if councils "ensured clear information in advance about the required standard of care" and were careful themselves, then it is possible they would not be excessively risk averse.

The Law Commission also recommended capping the liability for local authorities, and the government agreed to consider this (NZ Government 2014). This, however, is unrelated to the discussion here about the impacts on the structure of firms (in particular the prevalence of very small firms) in the marketplace.

⁴⁶ NZ Government (2014)

Labour market issues

New Zealand has a problem in attracting and retaining construction workers. This is despite the high demands of the Christchurch rebuild.

Figure 28 shows that total net-migration and the net-migration of construction workers tracked quite similarly until 1990, upon which they went in different directions. This is quite concerning considering the recent concerns around skills shortages and quality issues raised above.

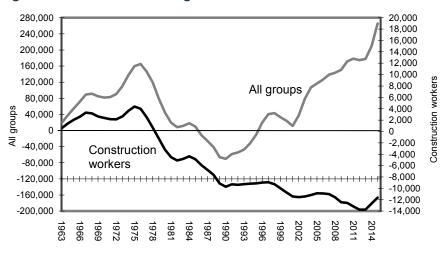


Figure 28 Accumulated net migration 1962-2015

Source: The Treasury (supplied directly)

Industry representatives advise that this issue is most likely due to the New Zealand building sector not being an attractive sector to work in relative to overseas. The issues are:

- low wages from low productivity
- punitive liability rules 10-year personal liability and joint and several (rather than proportional) liability
- too little initiative afforded to builders building inspectors do not afford builders with much leeway to use initiative and deviate from plans because of concerns about quality assurance.

Alleged monopoly power

Industry participants have shared with us their concerns about market power (i.e. one dominant market player) throughout the building supply chain that leads to excessive prices.⁴⁷ This was considered further by MBIE (2013) and Productivity Commission (2012 p177). Neither report overtly embellished many of the concerns (but that is the nature of the issue). That work did lead to the government removing tariffs and duties from building products to reduce construction costs and support competition and innovation.⁴⁸

The general guideline is that 'if any party is aware of anticompetitive conduct, including potential cartel activity, concerns should be raised with the

⁴⁷ Also, for instance, see Taylor (2014)

www.beehive.govt.nz/release/duties-and-tariffs-building-products-removed

Commerce Commission, which has responsibility for enforcing the Commerce Act'. The Commerce Commission has undertaken targeted education campaigns aimed at improving awareness of competition law in the construction sector and thereby promoting compliance and competition.

The public sector is inherently reluctant to overtly intervene to mitigate alleged market power. Rather than engaging on general market power concerns, the Commerce Commission focuses on issues of anticompetitive activity that have a high likelihood of leading to a conviction. The challenge for policy makers in the area of market power is that it tends to need to be a case of regulate heavily (like some parts of telecommunications and electricity lines businesses) or a do-minimum approach. Partial solutions have a high risk of creating more problems than they solve.

Other areas for improvement across the sector

The average size of a new standalone house in New Zealand is about 200m², and it is estimated to cost about \$390,000.⁴⁹ This is about 4.9 multiples of the median household income.

If there had have been a 1% accumulated productivity gain over the past 30 years,⁵⁰ then this would have been about 25% less and *could have saved* \$100,000 per average house. This would have instead cost 3.6 multiples of the median household income (a saving of 1.3 multiples of income).

Achieving such productivity gains requires jointly addressing many complex problems that are very interlinked, such as:

- 1) the capability of builders and designers needs to be improved (i.e. upskilling licensed building practitioners)
- more consistent design and manufacturing process (rather than bespoke design and on-site construction)
- building firms and building projects need to be larger to gain further scale economies (i.e. sharing fixed costs over more output) and scope economies (i.e. efficiencies from bundling different things together)
- 4) a wider range of means (ideally market-led) to manage risks of quality construction and design (e.g. through product assurance, accreditation, and insurance) rather than so much reliance on councils
- 5) councils (building control authorities, town planners, and resource consenters) need to be able to minimise their involvement and the resulting delays, costs and uncertainties subject to adequate quality assurance and compliance by industry
- 6) industry-wide quality assurance and project management needs to be embraced
- move to proportional liability and review builder liability durations, to impact on industry structure, conduct, and performance (long-run productivity).

As a simplification, we suggest the first four points (and the fifth too, to some extent) are implied by the sixth, which in turn is implied by the seventh. This is also illustrated in Figure 29 below.

⁴⁹ MRCagney (2015)

 $^{^{50}\,\,}$ That is, the cost each year to build the some home was 1% less than the previous year.

QA = quality assurance. PM = Project management Focus public 5) Councils policy here: 7) Liability rules 6) Construction QA and PM 1) Capability 4) Assurance and skills and insurance 2) Standardised 3) Larger firms & design and projects with construction scale and scope

Industry performance (sustained productivity growth)

Figure 29 Targeting improvements in construction sector

Source: Chief Economist Unit

3.2.7. Speculative investment

Landlords have been having an increasingly large role since 2012 in the Auckland market, trending up to 43% of purchases. (Auckland prices decoupled from the rest of New Zealand from 2012.)

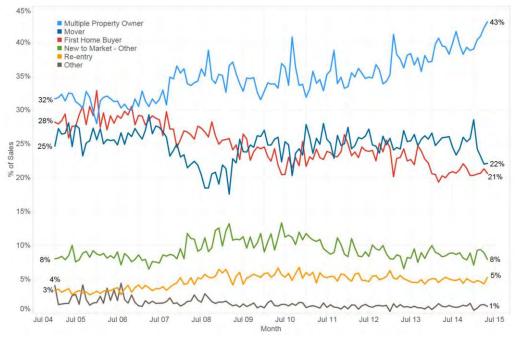


Figure 30 Auckland house buyer classification

Source: CoreLogic (2015)

Foreign investment

What proportion of purchasers are foreign owners is unclear. There is insufficient data to say how much foreign ownership of existing dwellings is driving house prices.

The government will now require foreign buyers to have an IRD number, a NZ bank account, and to disclose their home-country tax identification number and passport number. This will help to understand how much foreign ownership is driving housing demand.

The government's measures will increase understanding, but it is not expect to assist in identifying foreign purchasers that do so via family members that are New Zealand residents.

Recent reports⁵¹ are that Chinese investment has been freed up by the Chinese government, and that some \$10 billion in foreign direct investment in New Zealand is possible. This investment could be targeted at any kind of productive use, but some of it could be directed towards residential investment. Moreover, this investment would likely be leveraged. This will likely contribute to demand for Auckland homes.

To some extent this is academic, because, as explained below, New Zealand's Free Trade Agreements ('agreements') largely prohibit treating foreign investors any differently from residents.

⁵¹ Gibson, A (2015)

The (in)ability to target foreigners because of Free Trade Agreements

NZIER (2015c) advised us that singling out foreigners for restrictions might be technically feasible (although it is not clear), but it would likely be difficult and risk significant diplomatic and economic costs. Where any recent agreements treat investment more liberally, these concessions automatically flow through to most of our existing agreements. These agreements most likely do prevent New Zealand from specifically restricting foreign investment in any meaningful way, and in particular prevent New Zealand restrictions on investors from individual countries.

Why can Australia do this whilst also having Free Trade Agreements? They preserved policy space to allow them to impose measures that are excluded from the usual provisions of their agreements that relate to treating foreign investors the same as Australian investors.

Why did New Zealand not do the same? That probably relates to the facts that we did not already have such policies, and that we were already on the back foot with the number of concessions that we could bring to the bargaining table. After all, New Zealand is a small open economy that is already largely free of tariffs and not strongly aligned to defence treaties.

Note that these Free Trade Agreements are the products of multiple successive governments. They have meaningfully contributed to New Zealand's relatively strong economic performance through the tough years in the wake of the Global Financial Crisis of 2007–2008.

3.2.8. Tax treatment

The greatest advantage for landlords is that they can offset their incomes with the losses on their properties and pay less tax. Such losses occur when interest payments, rates, insurance, chattel depreciation, maintenance costs exceed rental revenue. In periods of high house price inflation, like Auckland is experiencing, this becomes lucrative because investors are more willing to make a loss as long as they can pursue the capital gain. This phenomena is called "negative gearing", and it is the feature of much debate in Australia amid Sydney's and Melbourne's house price inflation, as per the following quote regarding Australia:

"Most investors reduced their taxable income by about \$10,000 a year through negative gearing, but this figure increased to about \$13,000 a year for people earning over \$80,000 a year, and increased further to \$25,000 a year for people earning over \$180,000."52

New Zealand does not tax capital gains unless an investor purchased a property with the intent to make a capital gain. Thus most capital gains are not taxed. The government will change the ruling from October 2015 so that all investors who sell within two years will be assumed to be intending to make a capital gain.⁵³

⁵² Kelly and Donegan (2015, p100)

www.beehive.govt.nz/release/budget-2015-taxing-property-gains-fairly

3.2.9. Infrastructure

More infrastructure would support more developable capacity.

Financing infrastructure

Financing infrastructure (i.e. paying out cash) for growth, even when net beneficial to society, can be difficult.

Financing infrastructure requires debt because of the large up-front outlays. A key constraint to financing infrastructure is the council's ability to borrow without breaching its policies. The council's Treasury Management Policy is that net interest as a percentage of total revenue does not exceed 15%. The Long Term Plan has an operating policy that net interest will not exceed 12% of total revenue. To the extent this policy limit binds on the council, then finding ways to have the private sector hold this debt instead will help to deliver more infrastructure overall.

The Productivity Commission (2015) has raised the question of whether high growth councils should have even high levels of debt than 15% to finance infrastructure.

Funding and connection costs for infrastructure

Traditional council revenue sources of rates and developer contributions (DCs) are more challenging for cities that grow fast. Growth requires up-front spending, and thus it can be more costly for existing ratepayers (see section 3.2.5 on page 29 above).

Also the wider beneficiaries of new and improved infrastructure to support growth are not usually charged because they were not the exacerbater.

An alternative method to capture the benefits of infrastructure in order to pay for it in the first place is to own the land that benefits. This is not usually done by public sector entities for reasons unclear. Presumably it is because of a reluctance for the public sector to do things that it does not have an obvious advantage in doing.

The Productivity Commission (2015) raised concern that Watercare does not differentiate its connection charges depending on location-specific costs. Thus some areas of development will be unduly suppressed, whilst others will be subsidised and excessive.

Planning and appraising infrastructure

Various transport bodies were engaged as a part of this work to understand if there are opportunities for improving infrastructure provision to support land for housing supply. A wide range of issues emerged, but there was no clear consensus on a first-pass look.

Generally there are concerns that a 'business as usual' approach is not ideal for a city that has a development challenge of a similar scale (in terms of house construction and supporting infrastructure) to the Christchurch rebuild. There appears to be a need for expedited procedures for land acquisition and protection that are commensurate to the fast tracked housing provisions in Special Housing Areas.

Managing infrastructure

The council family needs to improve its use of asset metadata standards (i.e. a common way to record data at the asset component level of detail). This will support:

- interoperability of software systems and the automatic population of data into Asset Management Systems
- the development of IT systems to support various stages in the maintenance lifecycle
- analytics of infrastructure networks to inform capacity for growth, costs of growth, and future spending expectations.

There are pockets of excellence across the council family, and council staff have formed a new group called Data Analytics Governance Group (DAGG) to coordinate parties across the council family to enact best practice. Refer to option #23 on page 76 for further details.

There is also wide acknowledgement of the benefits of congestion charges for transport infrastructure (see option #22 on page 75). The existing transport network has much greater capacity to support transport demand from more housing if were efficiently priced.

3.2.10. The practice of developers

Developers face various hurdles and challenges that risk unduly suppressing the supply of homes. Background is provided in Productivity Commission (2012 and 2015). (See options # 29 and #30.)

3.3. Conclusion on drivers of house prices

This chapter has covered a wide range of drivers of Auckland's house prices. Many of these factors have led to higher costs to develop and build homes.

Some of the factors that increase the cost of construction and the price of homes are listed in Table 3 and they serve to increase house prices by some 1.5 to 2.5 multiples of the median household income.

Table 3 Comparison between construction costs and regulatory costs

Rough order of magnitude estimates

Attribute	Small apartment	Average apartment	Average house
Size (m ²)	35	80	200
Total build cost (\$/dwelling)	\$89,000	\$204,000	\$390,000
Cost of regulations per dwelling	\$50k-\$100k minimum apartment sizes \$25k construction productivity \$20k from higher house prices Auckland-wide from intensification restrictions \$17k from staged expansion of the urban limit ≈ \$110k-\$160k	\$65k-\$110k design rules \$50k construction productivity \$20k from higher house prices Auckland-wide from intensification restrictions \$17k from staged expansion of the urban limit ≈ \$150k-\$200k	\$33k-\$60k design rules \$100k construction productivity \$20k from higher house prices Auckland-wide from intensification restrictions \$17k from staged expansion of the urban limit \$\$170k-\$200k
HH income multiples ⁵⁴	1.4–2.0	1.9–2.5	2.1–2.5

Sources: MRCagney (2015), Grimes and Mitchell, Chief Economist Unit

In addition other regulatory rules distort the quantity and mix of houses and skew median house prices upwards significantly. For instance, residential density provisions that restrict the number of dwellings per section will lead to larger more bespoke homes. That is because the land price determines the amount of capital improvements made: if developers cannot build a larger number of smaller cheaper dwellings, then they will need to build fewer larger more highly-capitalised dwellings.

These distortions would hollow out the more affordable end of the market — attached housing that could be in the \$300,000–\$500,000 range. Such a range is considerably below the July 2015 median house price of \$787,000.

We are unaware of any modelling of the impact of increasing the volume of lower priced housing on the median house price. That said, the volume of construction in such housing over the next decade or two could be considerable (section 3.2.3). The median house price can be lowered not by lowering prices in the top half of the sales distribution, but by increasing the number homes in the lower half of the sales distribution. It is not implausible for the median house price to reduce by \$120k-\$160k, or 1.5-2 multiples of current household income.

A further avenue for cost reductions is increasing supply to an extent that it increases competition between developers and land owners, and can place downward pressure on land prices. There is a large scale of developable capacity inside and outside the 2010 Metropolitan Urban Limit (section 3.2.3). This is of some 160,000 dwellings inside in the next 15 years plus 110,000 outside that limit over the next 30 years. This scale of development may increase competition sufficient to lower prices by at least half of one multiple of current household income of circa \$80,000 (that is, \$40,000).

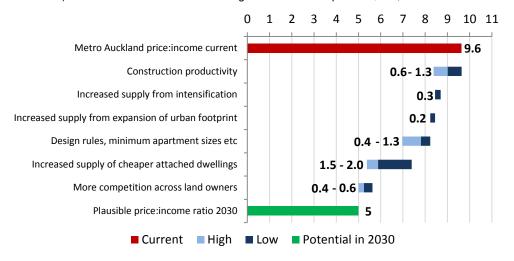
The assumed household annual income in Auckland is \$79,356, based on the \$76,500 in the 2013 Census. This was lifted by the increase in nominal weekly wages of 3.7%, based on Statistics NZ Quarterly Employment Survey.

⁵⁵ Productivity Commission (2012 p124)

Overall, the potential to improve median house prices is some 4–5 multiples of the current median household income. Thus the current ratio of some 9–10 (for median house prices to median household incomes) could potentially be reduced to approximately 5 to 6 in the long-run from the issues canvassed here. This is illustrated in Figure 31 below.⁵⁶ (Note that some of these cannot be cherry picked; for instance, increasing the supply of attached dwellings relies on allowing more intensification and easing minimum dwelling size requirements.)

Figure 31 Summary of contributions to lowering price:income ratio

Axis is the ratio of median house price to median household income (held constant at \$79,356; see footnote 54). Current ratio based on REINZ August 2015 median price of \$765,000



Source: Chief Economist Unit

Figure 1 in the Executive Summary is based on this figure, with one key difference: the benefits from more competition amongst land owners are prorated across the two items relating to increasing supply and outside of the urban footprint.

Targets, options and key contributions

The measures that are needed to tackle Auckland's housing affordability issues are extensive and challenging, and so they need to be framed by a broader objective.

This chapter recommends developing strategic targets for the public sector that relate to housing affordability. The review of 34 tools is summarised, with further details contained in the report's appendices.

4.1. Strategic targets

Housing affordability

The Chief Economist recommends that the council works with the government to adopt an aspirational housing affordability target. This would help to guide the development of policies, plans, regulations etc that may relate to housing supply, either directly or indirectly. Being able to afford to live in Auckland should be a key contributor to making Auckland the world's most liveable city.

The conclusion of Chapter 3 identified the potential to be able to reduce the median house price from 10 multiples of household income to 5–6 multiples in the long-run. (Real household incomes will also rise in the long-run, but it is unclear if house price increases would negate this.)

Given the current price to income ratio is ten to one, the following target is plausible:

5.0 by 2030

Auckland median house price to median household income multiple

Alternative measures (such as those that account for the cost of borrowing etc) could complement or substitute this measure, but simplicity is key.

Having an explicit focus on affordability would help overcome a criticism of local government, which is that "affordability is not the mandate of the urban planner" (RMBA and CSG 2015).

It is doubtful that a 5.0 median price multiple could be achieved considerably earlier than 2030. (Unless there was a substantial bust, which should be avoided, given that so much is now at stake with existing high prices and the macroeconomic risks that would result.) The types of changes needed are structural (and change at a glacial pace), and will take many years to compound.

The council could perhaps consider having a social target too, such as 'reducing household crowding for households earning in the bottom 25% of incomes; measured by the number of people per dwelling meeting or being lower than other New Zealand cities (e.g. Hamilton or Christchurch)'. Having a second target like this would help the council to focus on the supply-side issues that cause the most inequality.

Before such a target could be formally adopted there would need to be some initial policy work to understand the implications, risks, make refinements, and outline a policy implementation plan.

Also, MBIE is finalising a new housing affordability statistic, which could also feature in any target relating to house prices.

Improve residential building productivity

Key to achieving the housing affordability target is to significant improve the productivity of residential construction.

This would require a major collaborative approach from government, the residential construction industry, councils, and the community.

The conclusion of section 3.2.6 on page 34 suggested that the following target is plausible given the scale of improvements possible across the sector:

25% productivity improvement in residential construction by 2030

This would reduce the cost to construct an average 200m² house to about \$300,000, down from about \$400,000.

The council should advocate for the improvements needed to achieve this.

The types of options can fall into two groups, each targeting different members of the collaboration. These are:

- make design and construction easier: Councils and their communities can most effectively focus on planning, resource consenting, and building consenting
- reduce restrictions on design: Government and the construction industry can most focus on construction productivity.

4.2. Long-list of options and key options

Appendices A and B contain reviews of 34 potential tools, or options, for public policy makers to help address house prices. They relate to both supply and demand, and to central government as well as the council. Most of options are structural (long-term) rather than cyclical (transitory).

A summary evaluation of each option is contained in the Executive Summary. (It is not duplicated, for brevity.) Multiple options are recommended to the council to either undertake itself or to argue to the government for. Various others should be considered further.

Table 5 summarises this long-list, and highlights that most of the areas where public policy work is needed relates to supply, rather than to demand. There is a substantial role for the council in this respect. However, there is significant scope for collaboration with the government to tackle Auckland's house prices and meet the objectives recommended in this report.

The following table outlines some of the key measures to contribute to the suggested '5.0 by 2030' home affordability target.

Option	Who	Reasoning for importance
Increase land for development		
#12: Increase greenfield land supply	Council	A direct means to free up land for housing supply, with up to 110,000 dwellings possible over the next 30 years
#13: Permit more intensification in the Unitary Plan	Council	A direct means to more enable land for housing supply. This would help enable more affordable detached dwellings and a wider range of housing options, which will reduce median house prices and allow people to stay in their communities as their own housing needs evolve as they age
#15: Ensure 'Restricted Discretionary' activity status is not less permissive than 'Discretionary'	Council	Ensure that regulatory barriers are no more prohibitive than are intended. This will reduce costs and help to enable more housing development
Infrastructure and services: funding, financing, and planning	d planning	
#17: Local government sharing in revenue base linked to economic activity to help pay for infrastructure and services	Government	Local communities need to be incentivised financially to 'go for growth', to mitigate opposition to expansion, intensification, infrastructure spending, and change in general. The precise method to do this is not at all clear, but the need to go in this direction is pressing given Auckland Council's influence in Auckland's development
#18: Targeted rates to fund and finance infrastructure for growth	Council	The council needs to expand its tools to raise funds, and to support alternative ways to finance infrastructure. This option supplements development contributions by using targeted rates to capture some of the value to beneficiaries of an infrastructure investment in order to pay for that investment
#20: 'Lead' public infrastructure providers also own/develop land to capture benefits	Council & government	Much of the benefits of new or improved infrastructure is captured by land owners. There is scope for infrastructure providers to appropriate some of those gains by acquiring land in advance of the investment being announced in order to help fund the infrastructure
#21: Collaborative review of transport policy, legislation, planning, funding to ensure it supports Auckland's housing growth	Council & government	At present the strategic transport policy, legislation, and investment allocation frameworks are geared around 'business as usual' and are not tailored to Auckland's nationally significant challenges to unlock land for housing supply. The opportunities for improvement would ideally be clarified through a collaborative effort involving Auckland Transport, the council, the NZ Transport Agency, the Ministry of Transport, and the National Infrastructure Unit of the Treasury. This is distinct from the new Auckland Transport Alignment Project
#22: Road pricing / congestion charging for roads	Government	Existing networks can be used more efficiently by using congestion charges, which would enable more land for housing without large capital expenditure necessarily being required. Congestion charging also helps fund transport improvements that provide more choice (i.e. make certain housing developments more attractive to buyers and thus more economically viable). It can incentivise development where accessibility (current and future) is better, thus mitigating the need for future capital expenditure (and so support more housing development from existing infrastructure funds)
Make design and construction easier		
#27: Omit excessive restrictions on design unless benefits exceed costs	Council	The council needs to continue to be a champion of good design. However, its regulations should focus its 'design' requirements on external impacts that would pass a cost-benefit appraisal. Do not regulate internal impacts (over Building Act obligations). This will reduce construction and design costs, which will largely pass through to consumers eventually

Residential construction productivity and supply		
#30: Development at scale to support more competitive industry structure and regulatory reform	Government	Opportunity to transform market structure, conduct and performance. The government can act as an Urban Development Agency that assembles land, ensures infrastructure supply, masterplans, and helps to streamline planning and consenting. But there is an opportunity to reform supply chains, business processes and technologies, and regulatory compliance by partnering closely with new major providers and/or to develop an in-house capability for professional services and building. This is a realistic way to hit the proposed target of improving productivity by 25% by 2030
#31: Replace joint and several liability with proportionate liability	Government	Government New Zealand needs to attract and retain more construction workers and encourage larger firms to achieve efficiencies. Part of this is removing punitive liabilities, such as the joint and several liability rule (which could also be labelled 'unproportional liability'). This rule creates risks of liabilities out of all proportion to harm caused, and incentivises firms to be small, easily liquidated, lacking capital investment, and thus lacking scale and scope efficiencies. The government needs to revisit the case for changing the liability rule to proportionate liability, with a careful assessment on the expected impact on industry structure, conduct and performance

Table 5 Summary of priority areas

The bolded options are those listed in Table 4 that might together contribute the most to the suggested '5.0 by 2030' housing affordability target

	Demand	Supply
Council	11: Make renting more attractive — renter-led (collaborate with government)	#12: Increase greenfield land supply #13: Permit more intensification in the Unitary Plan #15: Ensure 'Restricted Discretionary' activity status is not less permissive than 'Discretionary' #16: Council stocktakes its land and allocates what it can to housing #18: Targeted rates to fund and finance infrastructure for growth #21: Collaborative review of transport policy, legislation, planning, funding to ensure it supports Auckland's housing growth #23: Better infrastructure data to underpin analytics and management #27: Omit excessive restrictions on design unless benefits exceed costs #29: Urban development agency, with outsourcing to the private sector #33: Provide data on residential construction investment opportunities to foreign investors
Council cont.		 #20: 'Lead' public infrastructure providers also own/develop land to capture benefits #24: Private provision of infrastructure #25: Sell down some assets to fund land investment to capture the benefits of infrastructure (support option #20) #26: Reduce restrictions on small buildings #19: Tax the windfall gains that accrue to landowners from rezoning land for urban use to pay for infrastructure #32: Tax land to encourage development

	Demand	Supply
Government	#10: Make renting more attractive — legislation	#17: Local government sharing in revenue base linked to economic activity to help pay for infrastructure and services #22: Road pricing / congestion charging for roads #28: Public sector research programme into social costs and benefits from planning #30: Development at scale to support more competitive industry structure and regulatory reform #31: Replace joint and several liability with proportionate liability #34: Reduce restrictions on foreign ownership of non-urban land for timely residential development
9	#3: Macroprudential regulation (tools not being actively debated in public) #4: Capital gains (CG) tax, comprehensive	#14: Reform the RMA to address issues for urban areas of national significance
P	#1: Official cash rate (OCR), to influence interest rates #2: Macroprudential regulation (tools already floated) #4: Capital gains (CG) tax, bright line test #7: Incentivise more migrants to locate elsewhere in NZ #8: Subsidies for first-buyers	
P .	#5: Increase restrictions on foreign ownership of existing homes and residential land #6: Restrict immigration #9: Exempt GST for new homes commissioned by owner-occupiers	

5. Conclusions and next steps

Overall findings

This report provides a wide range of options for potential public policy interventions to help address housing supply, choice and affordability. Many of the demand and supply side initiatives have merit and should be further considered.

Taken in isolation none these initiatives are likely to provide a 'silver bullet' that can solve Auckland's housing issues. Taken together this suite of initiatives has the potential to attack the problem on multiple fonts. To do this we may need to change the way that policy makers understand the complex challenge of housing in Auckland.

The review of options finds that most of the areas where work is needed relates to supply, rather than to demand. The council has a leadership role to play with supply-side policy. However, there are important opportunities for the government to assist the council further on the supply-side. Commitment from the government is necessary if the proposed strategic target of '5.0 by 2030' is to be plausible.

Next steps

This report can input to a joint council / government strategy to addressing housing affordability.

The council would likely find this easier and more effective if the urban economic development capabilities that reside across government entities were more aligned and integrated. This could relate to: general regulatory and policy capabilities; land use planning, and integrating this with infrastructure planning and asset management; urban built/natural environment; and social development. In Auckland's case this could logically build on the relationships that already exist with the government's Auckland Policy Office. More broadly speaking, such an initiative need not relate only to Auckland; it could be developed to support urban areas with positive and negative growth rates across New Zealand.

There are emerging means to more safely test some of the more novel elements, particularly relating to policy and regulation. These include 'Special Economic Zones' as described by the NZ Initiative (Crampton and Acharya, forthcoming), and a 'Social Labs' approach (Hassan 2014). Such approaches can trial and review some of the initiatives identified in this report in a controlled manner, whilst limiting downside risk. This would help to increase the potential effectiveness of the 'toolkit' whilst managing risks of policy options that proved (in hindsight) to be poor choices.

Crampton and Acharya describe Special Economic Zones as geographically defined areas that possess different policy and legislation settings. They allow for experimenting and evaluating different solutions in different places to promote urban growth. If there are possible initiatives that the government judges to be too risky or uncertain to apply nationally, such as relating to building regulation or different liability rules, then these could be trialled in, say, Auckland only. Likewise, the council could trial novel planning concepts in local wards, with the support of Local Boards.

Social Labs provide an alternative 'scientific laboratory' type methodology to design a suite of approaches for complex policy areas in local communities. These imbed experimentation and evaluation at their core also, to learn, innovate, and to right-size risk.

Some of the more complex and challenging ideas proposed in this report should be considered using such methodologies.

6. References

AUP IHP (Auckland Unitary Plan Independent Hearings Panel) 013 Expert Group (2015) *Residential developable capacity for Auckland*. A report on the 013 topic urban growth for the AUP IHP

Bansak C, Starr M A, (2010) Who pays the price when housing bubbles burst? Evidence from the American Community Survey

Barfoot and Thompson *June 2015 housing market update*, www.barfoot.co.nz/market-reports/2015/june/market-update

Bertaud, A (2014) *Markets, urban planning and local democracy*, Presentation to NZ Treasury and LEANZ, Wellington, July 29, July 31 2014

Bertaud, A (2015) *The spatial distribution of land prices and densities: the models developed by economists*. Marron Institute of Urban Management, Working paper #23, 19 February 2015

Coleman, A and Scobie G (2009) *A simple model of housing rental and ownership with policy simulations*, Motu Working Paper 09-08, and republished as New Zealand Treasury Working Paper 09/05

Colmar Brunton (Jan 2014) Awareness and support of the Unitary Plan, survey research for Auckland Council

CoreLogic (2015) *The Auckland property market July 2015*, presentation to Auckland Council 22 July 2015

Crampton, E and Acharya, K (forthcoming) *In the zone; creating a toolbox for regional prosperity*. The New Zealand Initiative

Demographia (2015) 11th Annual Demographia International Housing Affordability Survey: 2015

Eaqub, S and Eaqub, S (2015) *Generation Rent: Rethinking New Zealand's Priorities*, BWB Texts, Wellington, New Zealand

Gibson, A 'Chinese investment set to boom', *New Zealand Herald*, 23 June 2015.

www.nzherald.co.nz/business/news/article.cfm?c id=3&objectid=11469949

Glaeser, E (2012) Triumph of the City: How Our Greatest Invention Makes Us Richer, Smarter, Greener, Healthier, and Happier, Penguin Books

Greenaway-McGrevy & Philips (2015) Hot Property in New Zealand: Empirical Evidence of Housing Bubbles in the Metropolitan Centres

Grimes, A and Mitchell, I (2015) *Impacts of Planning Rules, Regulations, Uncertainty and Delay on Residential Property Development*, Motu Working Paper, No. 15-02, Wellington, January

Hassan, Z (2014) *The social labs revolution*. Berrett-Koehler Publishers Inc, San Francisco, CA. pp185

Herring R J, Wachter S (1999) Real Estate Booms and Banking Busts: An International Perspective

Hill, M (2015) 'Today's toddlers spend 11 hours or more in daycare', *Sunday Star Times*, 10 May 2015

Human Rights Watch (May 2014) Shattered Dreams: Impacts of Spain's housing Crisis on vulnerable groups

Kelly, JF and Donegan, P (2015) City Limits: Why Australia's cities are broken and how we can fix them, Grattan Institute, Melbourne University Press

Law Commission (2012) Review of Joint and Several Liability, Issues Paper 32

Law Commission (2014) Liability of Multiple defendants, Report 132

Market Economics and Research First (2015) *The housing we'd choose: A study of housing preferences, choices and trade-offs in Auckland.* Prepared for Auckland Council, May 2015

McCann, P (2009) Economic geography, globalisation and New Zealand's productivity paradox, *New Zealand Economic Papers*, 43:3, 279-314

Ministry of Building, Innovation and Employment (MBIE 2013) *Residential Construction Sector Market Study Options Paper*, 6 November 2013 www.mbie.govt.nz/pdf-library/about-us/consultations/residential-construction-sector-options.pdf

MRCagney (2014) *The Economic Impacts of Minimum Apartment and Balcony Rules*, report to Auckland Council, January 2014

MRCagney (2015) An economic assessment of residential amenity provisions in the Proposed Auckland Unitary Plan Draft Report, 7 May 2015

Nunns, P, Hitchins, H and Owen, P (2015) *To buy or not to buy? A spatial analysis of house prices and rents in Auckland, 2001-2013.* Auckland Council technical report, TR2015/002

NZ Government (2014) Government Response to Law Commission Report Liability of Multiple Defendants, Presented to the House of Representatives, <a href="https://www.lawcom.govt.nz/sites/default/files/governmentResponseAttachments/govt.nz/sites/default/files/governments/govt.nz/sites/default/files/governments/govt.nz/sites/default/files/governments/govt.nz/sites/default/files/governments/govt.nz/sites/default/files/governments/govt.nz/sites/default/files/governments/govt.nz/sites/default/files/governments/govt.nz/sites/default/files/governments/govt.nz/sites/default/files/governments/govt.nz/sites/default/files/governments/govt.nz/sites/default/fil

NZIER (2013) Construction productivity: An evidence base for research and policy issues. NZIER report to the Building & Construction Sector Productivity Partnership, 5 July 2013

NZIER (2014) Capital gains tax, Labour party policy and its implications for farmers. NZIER report to Federated Farmers

NZIER (2014b) Moving on up. Relaxing land use restrictions can lift Auckland city. NZIER report to Auckland Council

NZIER (2014c) Bespoke residential housing demand and construction innovation. NZIER report to BRANZ and the Building and Construction Productivity Partnership

NZIER (2014d) Big city life? Challenges and trade-offs for Auckland city. NZIER public discussion paper 2014/02

NZIER (2015) Quarterly Projections June quarter 2015

NZIER (2015b) *The impact of intensification on Auckland housing valuations*, report to Auckland Council, June 2015, <u>nzier.org.nz/publication/the-impact-of-intensification-on-auckland-housing-valuations</u>

NZIER (2015c) *Initial advice on Free Trade Agreements and restrictions on residential investment*, memo to Chris Parker, Auckland Council from John Ballingall, NZIER, 21 May 2015

OECD (2015) OECD Economic Surveys New Zealand, June 2015 Overview

Productivity Commission, NZ (2012) Housing affordability inquiry

Productivity Commission, NZ (2015) *Using land for housing: Draft report*. Wellington: New Zealand Productivity Commission www.productivity.govt.nz/inquiry-content/using-land

RBNZ and Treasury (2006) Supplementary stabilisation instruments; Initial report to Governor RBNZ and Secretary to the Treasury.

www.rbnz.govt.nz/monetary_policy/about_monetary_policy/2452274.pdf

RBNZ (2015) Action needed to reduce housing imbalances. A speech delivered to the Chamber of Commerce in Rotorua on 15 April 2015 by Grant Spencer, Deputy Governor

RBNZ (2015b) Adjustments to restrictions on high-LVR residential mortgage lending; Consultation paper, June 2015

Registered Master Builders Association and Construction Strategy Group (RMBA and CSG 2015) *The impact of regulation on housing affordability* www.branz.co.nz/cms show download.php?id=cbae61bc5e71db0210d044b7 795b14c79352465b

Rohani, M, Nunns, P and Balderston, K (forthcoming) Cost benefit analysis of the Auckland volcanic viewshafts overlay of the Proposed Auckland Unitary Plan: Case study of 14 viewshafts across the region. Auckland Council technical report

S&P Dow Jones (2015) *S&P/Case-Shiller Home Price Indices*, http://us.spindices.com/index-family/real-estate/sp-case-shiller

Taylor, P (2014) 'House of the rising sun', *New Zealand Herald*, www.nzherald.co.nz/nz/news/article.cfm?c id=1&objectid=11244355

University of Ulster Real Estate Initiative Research Team (2009) *The Global Financial Crisis: Impact on Property Markets in the UK and Ireland*

Wood J, Medina P, Feudtner C, Luan X, Fieldston E, Rubin D, MD (2012) Local macroeconomic trends and hospital admissions for child abuse 2000 – 2009, Policy Lab and General Pediatrics, The Children's Hospital of Philadelphia; Leonard Davis Institute of Health Economics, and Departments of Pediatrics and Biostatistics and Epidemiology, Perelman School of Medicine at the University of Pennsylvania, Philadelphia, Pennsylvania, 5 April 2012

Yeoman, R and Akehurst, G (2015) *The housing we'd choose: a study of housing preferences, choices and tradeoffs in Auckland*. Auckland Council technical report, TR2015/016. Prepared by Market Economics Ltd for Auckland Council

Appendix A Review of demand-side initiatives

A.1 Reserve Bank of NZ

1. Official cash rate (OCR), to influence interest rates

Description	The Reserve Bank of NZ sets the OCR to target inflation within a band of 1% – 3%. (Note that changes in house prices are not included in its measure of price inflation.)
	Increases in the OCR increase interest rates and thus increases the financing costs of home purchase and reduces demand
Legally viable? In play?	In play, but cannot be used to reduce house prices specifically. House prices are not a component of consumer price inflation
Demand or supply?	Demand increased if OCR lowered; reduced if raised
Who? Council or government	Reserve Bank of NZ
Structural or cyclical?	Cyclical; only used to influence the business cycle to maintain consumer price inflation within a target 1%–3% band
Pros / cons?	Pros:
	highly effective at influencing residential investment demand, but this influence is not the direct intent of the OCR
	Cons:
	 cannot be used to specifically target Auckland's high house prices, either cyclically or structurally
Effectiveness	The OCR has indirectly affected house prices and high real interest rates in the past and dampened housing demand
	Depending on a range of factors at play driving economic expansion and house prices, the OCR may be highly effective in addressing housing demand
Recommendation for the council	Auckland Council should not publicly comment nor advocate on the OCR setting

2. Macroprudential regulation (tools already floated)

Description	Policies to give effect to the RBNZ's requirement to ensure financial stability of the NZ economy
	Various tools have been devised, including those that moderate the level of finance to borrowers and/or to ensure adequate "rainy day provisions" are made by banks to cope with a significant market downturn
Legally viable? In play?	Currently in play or soon to be applied:
	 limitations on the amount of high loan to value ratios (LVRs) lending. This helps reduce the risk of negative equity of home owners if a housing bust happens, which supports banks viability. Auckland-specific "LVR speed limit" policy to be in effect (proposed from Oct 2015)
	 requirement for investors to have 30% deposit if buying an existing dwelling within the Auckland Council area
	 setting a higher risk rating for investors, which would reduce the total amount lent to them
	Not currently being discussed — covered further in next section :
	 ring-fencing losses on investment properties (national or Auckland-specific)
	mortgage interest levy (national or Auckland-specific)
Demand or supply?	Demand reduced
Who? Council or government	Reserve Bank of NZ
Structural or cyclical?	Both structural and cyclical. Can affect the amount of credit in the economy in the long run. Can also specifically moderate the boom part of the business cycle
Pros / cons?	Pros:
	 can reduce the probability of a bust by limiting the extent of financial leverage that buyers (particularly investors) have, and helping prevent the prevalence of "negative gearing"⁵⁷ that is the prominent debate in Australia
	can reduce the costs of a given bust
	 can be devised to target specific issues in the banking system, and these may be targeted:
	geographically (such as Auckland-only)
	 during stages of the boom/bust cycle (e.g. LVR speed limits reduced elsewhere)
	to specific participants (e.g. to investors)
	Ons: often novel, and will likely have administration costs for
	banking participants
	 socially regressive policy as LVR rules can be avoided by those with access to family loans
	 the Auckland-specific policies will have higher distortion costs (e.g. boundary effects and workarounds)
Effectiveness	Likely to be effective, but this dissipates over time
Recommendation for the council	Do nothing, except assist the RBNZ with information where requested

Negative gearing is when an investor makes a loss on a property because the interest costs (from being so indebted) exceed the revenues. Thus these losses are netted off from other income to lower their overall tax obligations. One estimate is that negative gearing by property investors reduced personal income tax revenue in Australia by \$600 million in the 2001-02 tax year, \$3.9 billion in 2004-05 and \$13.2 billion in 2010-11.

3. Macroprudential regulation (tools not being actively debated in public⁵⁸)

Description	Two additional tools that are worth debating are:
2000.1p.::011	ring-fencing losses on investment properties (national or
	Auckland-specific)
	mortgage interest levy (national or Auckland-specific)
	Descriptions based on RBNZ and Treasury work:59
	Ring-fencing: Given the absence of a full capital gains tax on housing, but the existence of taxes elsewhere, investor demand for housing may be artificially high. Currently, landlords who are highly leveraged, investing for (allegedly unintended) untaxed capital gain, and are sustaining direct losses on their rental income can reduce their taxable income and pay less tax. With ring-fencing, investors could only use losses to offset future profits from the property, and so reduce the excess demand for ownership by leveraged investors. Could apply NZ-wide, or possibly even Auckland
	Mortgage interest levy: a charge placed on all residential mortgages (i.e. not just new mortgages) to raise interest rates without raising it for non-residential investment. Would apply when housing markets are at risk of being materially overvalued, and when interest rates are stimulatory (i.e. low) but nonetheless higher than foreign interest rates. Revenue raised might be held in a dedicated fund so it is not used as a revenue-raising device. Could be targeted to Auckland, so that Auckland faces an unchanged interest rate, but the rest of NZ enjoys the lower interest rate that may have happened in the absence of Auckland's house price crisis. (The prospect that interest rates are higher because of Auckland's housing market is diminishing now that the RBNZ and government have introduced changes and RBNZ is lowering the OCR; e.g. refer to sections 3.1.2, 3.2.1, and 3.2.8)
Legally viable? In play?	Legislative change required for both
Demand or supply?	Demand for house purchase reduced
Who? Council or government	Government
Structural or cyclical?	Ring-fencing would be structural. Mortgage rate levy cyclical
Pros / cons	Pros:
Ring-fencing	increases tax take to the government, and reduces excess demand for housing (noting that less indebted investors may take up some of the slack), thus moderating its price
	 fairer to everyone else who currently bears a higher tax burden as a result and also faces higher house prices Cons:
	may increase rents and reduce stock of rental properties, but rents are low relative to house prices, and stock of housing won't be affected in the medium term

⁵⁸ As at 5 June 2015.

⁵⁹ RBNZ and Treasury (2006)

Mortgage interest levy	 mitigates the risk of the Auckland housing market having a major distortion on the country's economic output
	has the advantages of other price-based tools
	Cons:
	 implementation and design issues, including who would run it (RBNZ or Govt?) and enforcement challenges as people borrow from non-NZ banks and borrow against property elsewhere in New Zealand
	 it may have significant community, political and regional acceptability challenges given the targeting on just one segment of the NZ population (i.e. Auckland)
	 Coleman and Scobie (2009) show that reducing tax concessions to landlords would modestly lower house prices in the short and medium term, but also raise rents in the medium and long-term too. This would be a double whammy for people struggling to purchase and forced to rent, because their financing costs increase, and so do rents
Effectiveness	Ring-fencing investor losses may be effective in reducing excess demand in the absence of a full capital gains tax
	Mortgage interest rate levy would likely be effective during periods of excessive exuberance. Coleman and Scobie show that higher interest rates would significantly lower house prices in the short and medium term, but also significantly raise rents in the medium and long-term too
Recommendation for the council	Support others' lead on both matters, but do not champion for change

A.2 Government

4. Capital gains (CG) tax

Decemention	A tay on the increase in the conital value (i.e. murchase miss)
Description	A tax on the increase in the capital value (i.e. purchase price) of land and/or building. Usually levied at the time of sale for practical and political feasibility
Legally viable? Being used now to reduce house prices?	Yes viable, and common overseas. Not uniformly applied in NZ, but it does apply if the intent is to make a capital gain
	A new government "bright line test" is to automatically assume dwellings sold within two years was intended to make a capital gain, and so is taxed
Demand or supply?	Would reduce demand to own real estate, particularly for rental investors
Who? Council or government	Government (The Treasury)
Structural or cyclical?	Structural, sustained impact
Pros / cons?	Pros:
	might reduce speculative investment, given the problems with enforcing the current CG tax based on intent to make a CG
	 may reduce price of owner-occupied houses, because homes otherwise sold to investors may be supplied to owners
	 given foreign investment cannot be specifically targeted because of NZ's FTAs, this may be one of the few ways to moderate foreign investor demand. This is a pro only to the extent that supply is unresponsive to demand (which it is)
	might reduce excessive distortions across the economy if it reduced taxes elsewhere, but not otherwise Cons: ⁶⁰
	complicated, many work-arounds, lots of exemptions, and not much revenue would be raised
	may raise rents because demand from investors decreases, harming the welfare of lower income Aucklanders
	 would likely suppress the turnover of existing properties, which would stymie attempts by (re)developers to purchase neighbouring properties for larger scale redevelopments
Effectiveness	This might reduce house prices slightly, but it is not likely to materially dent Auckland's house prices, unless the tax was material
	there are risks of its effectiveness in the long-run given the inevitable political concessions that would be made
	 like some other demand-side measures it is palliative — temporarily treating symptoms of excessive demand and not working on the route supply-side causes of high land/house prices
Recommendation for the council	Support others' lead for a comprehensive, but don't lead any advocacy ourselves
	Note the 'bright line test' is a useful step in the right direction

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⁶⁰ NZIER (2014)

5. Increase restrictions on foreign ownership of existing homes and residential land

Description	Create or strengthen restrictions or disincentives for foreign investment in existing residential property and in land in and around urban areas.
	Could relate to:
	investment in rental property by people that don't live in New Zealand
	investment in 2 or more properties by non-New Zealand citizens that do live in New Zealand
	landbanking.
	The types of restrictions include:
	prohibition (for existing homes)
	stamp duties for purchase
	targeted capital gains tax (CGT), regardless of intent to make a capital gain
	 requirements on how the homes must be used (e.g. can't sit empty)
Legally viable? In play?	NZIER's preliminary advice is that it would run counter to the Free Trade Agreements (FTAs) we have with the majority of our major trading partners
	Other countries such as Australia do target foreign ownership, such as allowing foreign ownership only for new dwellings. But they retained additional foreign investment policy space in their FTAs over time, rather than negotiating it away like NZ. The reason NZ gave this away probably stems from the lack of bargaining power NZ had (being a small open economy that is already largely free of tariffs and not strongly aligned to defence treaties) (Note the government recently announced requirements for foreign purchasers to have an IRD number and a New Zealand bank account. This will provide further data and an evidence
	base for any future policy development, as well as aid the prevention of money laundering)
Demand or supply?	Demand reduced
Who? Council or government	Government. (Overseas Investment Office perhaps)
Structural or cyclical?	Structural
Pros / cons?	Pros:
	 may moderate elements of excessive demand for existing homes and thus prices, and redirect that demand towards (re)development
	Cons:
	 would reduce, or preclude, the entry of scale foreign funded housing developers (note, facilitating such entrants is covered in options #33 and #34)
	 even if any legally-viable restrictions on foreign investment could be found, there could be retaliatory actions on Kiwi investors and exporters
Recommendation for the council	Do not take the initiative to advocate for restrictions or disincentives for foreign investment in residential property and in land in and around urban areas
	Note that foreign investors most likely cannot be singled out for treatment (at least not without that the agreement of the respective country's government), and that we live in a globalised world

6. Restrict immigration

Description	Restrict volumes of inward-migration destined for Auckland
Legally viable? In play?	Yes viable. NZ has full discretion over immigration decisions for non-NZ and non-Australians
	Immigration NZ has a points system, and currently assigns additional points for locating elsewhere in NZ if there is a skill shortage
Demand or supply?	Demand reduced
Who? Council or government	Government, Immigration NZ
Structural or cyclical?	Both. Cyclical measures could address the sharp spike in migration to Auckland currently. However, this is hamstrung by approximately half of net-migration being reduction in net Auckland to Australia migration Sustained immigration policies help underpin the extent of
	Auckland's long-term population growth rate, which will affect house prices
Pros / cons?	Pros:
	short-term measures to alleviate high demand may reduce:
	 the risk of an unduly large housing market boom/bust cycle, given that supply response is sluggish, and in the short-run is extremely unresponsive
	 excessive levels of transport network congestion that cannot be curtailed in the short-run through capital investment
	Note these pros only come about given a supply shortage in housing and infrastructure. If supply was responsive, then these pros would be vastly reduced
	Cons:
	 may stymie Auckland's short-run and long-run growth, by reducing access to skilled labour and entrepreneurship, fewer links to overseas markets, and the productivity and consumption positive spillovers from agglomeration
	in particular it may reduce the number of new migrants to support the construction sector, and increase house construction cost
	will impact negatively on the welfare of those skilled migrants who would otherwise be future citizens of Auckland
Recommendation for the council	Do not advocate for migration reductions because migration supports Auckland's growth and economic development and it could reduce quickly anyway

7. Incentivise more migrants to locate elsewhere in NZ

Description	Reduce housing demand in Auckland by reducing the hurdles to immigration to regional New Zealand. (The government has recently announced such a policy, which involves increasing the number of 'points' skilled and entrepreneurial migrants get if they locate outside of Auckland. ⁶¹)
Legally viable? In play?	Yes
Demand or supply?	Demand
Who? Council or government	Government
Structural or cyclical?	Cyclical
Pros / cons?	Pros (in relation to Auckland): • may alleviate some pressure on housing demand, but this will be marginal because the focus is attracting migrants that would not have had enough points to come in anyway Cons (in relation to Auckland): • minor, if not nil
Effectiveness	Note the government's recently announced policy is primarily focused on supporting regional growth. It is not targeted at reducing Auckland house prices
Recommendation for the council	Do nothing

⁶¹ www.beehive.govt.nz/release/improving-spread-skills-investment-across-nz

8. Subsidies for first-buyers

Description	Financial support to make owning a home easier, such as grants, favourable loans, or concessions to ease access to KiwiSaver
Legally viable? In play?	Yes, government has the following schemes: Welcome Home Loan: Housing NZ underwrites mortgages to allow first home buyers to have only 10% deposit if the house price is below thresholds (\$550k Auckland) and income is below thresholds (\$80k and \$120k if single or multiple borrowers respectively)
	KiwiSaver HomeStart grant for first-home buyers, between \$3k and \$20k with no need for repayment if owner stays
	KiwiSaver first-home withdrawal to withdraw all of one's KiwiSaver funds to purchase a first home
Demand or supply?	Demand increased
Who? Council or government	Government (Housing NZ)
Structural or cyclical?	Structural, as impacts will be sustained in the long-run
Pros / cons?	Pros:
	alleviates some of the financial barriers to home ownership for a given level of house prices
	Can be used to target housing inequalities Cons:
	may increase house prices because demand is increased, but this is not expected to be material
	exposes more lower income people to the risk of a house price bust and massive losses in what equity they do have, especially in Auckland
Effectiveness	Not effective for lowering prices or reducing the risk of a bust. Effective for inequality if home ownership is important, but if renting could be made better (see below), then this becomes less important Not effective for reducing inequality relating to the fallout of a
	bust
Recommendation for the council	Do nothing. Note not effective for sustainably addressing the housing affordability problem as defined

9. Exempt GST for new homes commissioned by owner-occupiers

Description	Government could exempt new houses from paying GST (fully, or partially). This could be NZ wide, or just Auckland. Equivalent to providing a subsidy for new home builds 'GST subsidy'
Legally viable? In play?	Legislation change required. NZ's GST system is renowned for the lack of exemptions that apply
Demand or supply?	Demand (reduces the price, and increases quantity demanded)
Who? Council or government	Government
Structural or cyclical?	Structural
Pros / cons?	 Pros: would not only lower the price of new homes, but it would reduce the price of second-hand homes (because it is a substitute) Cons: the GST subsidy would quickly be captured or embedded into land prices of new sections and subdivisions exempting housing will be resisted because it is a slippery slope (e.g. food would be next) reduces tax revenue to government, meaning it needs to raise more elsewhere and/or spend less. Exempting GST is functionally equivalent to awarding a government subsidy of the same amount, and that would no doubt not be the best use of government funds
Effectiveness	Likely to be ineffective, including just transferring some or all of the GST subsidy into increased land prices, which exacerbates the problem
Recommendation for the council	Do nothing

10. Make renting more attractive — legislation

Description	Amend the Tenancy Act to provide more favourable terms for renters, such as longer notice periods (landlords and renters), and require good reason for giving tenants notice. Eaqub and Eaqub (EE 2015) <i>Generation Rent</i> argue that countries such as Germany and Switzerland have significantly more renter-friendly legislation. 57% of Aucklanders rent (EE) (Note that the Housing Project Office (HPO) and Community Development, Arts, and Culture (CDAC) is in a joint initiative with MBIE through the Co-Design Lab process to investigate options to improving renting)
Legally viable? In play?	Require legislation change
Demand or supply?	The effect on either demand or supply for homes would depend on the details of the policy, in particular how favourable the terms for renters were made Reduce demand to own homes by owner occupiers, and increase demand for rentals, and may reduce supply of rentals
Who? Council or government	Government
Structural or cyclical?	Structural
Pros / cons?	Pros: reduces the problems with renting such as the risk of being up-rooted from a community, particularly for those who don't rent by choice. This supports people (amongst other things) to better engage with their communities Cons: may affect the supply of rental accommodation. However, this may not be significant given the housing stock will not change much in the medium term
Effectiveness	Would likely effectively address some problems for 'Generation Rent'
Recommendation for the council	Advocate to government to consider this further

A.3 Council

11. Make renting more attractive — renter-led

Description	The council could undertake a 'self-regulatory' approach to support the collective bargaining power of tenants, e.g. a Tenancy Union, by assisting renters to coordinate amongst themselves through administrative support and information provision. This could create initiatives such as user ratings for landlords and tenants, and more consumer-led advocacy This could lead to renters increasing their influence on landlords to improve the quality of dwellings and to provide more security of tenure and of rents (Note that the Housing Project Office (HPO) and Community Development, Arts, and Culture (CDAC) is in a joint initiative with MBIE through the Co-Design Lab process to investigate options to improving renting. A report is due late June)
Legally viable? In play?	Yes legally viable. Not currently in play. Unaware of it being used elsewhere
Demand or supply?	Does not have a major effect on either demand or supply for homes Reduce demand to own homes by owner occupiers, and increase demand for rentals, and may reduce supply of rentals
Who? Council or government	The council, but could collaborate with MBIE and Tenancy Tribunal
Structural or cyclical?	Structural
Pros / cons?	 Pros: increasing the attractiveness of renting as a substitute, thus mitigating societal imbalance from lack of home ownership supports a market-led approach to ensure the market provides what consumers demand (want and are willing to pay for), as and where those demands emerge. Benefits of a market-led approach include not needing to specify improvement areas (such as a rental WOF), as they will naturally arise from consumers' demands if and where the benefits exceed costs Cons: implementation risks (it is innovative, and the chance of failure is unknown). It would need to be trialled carefully, perhaps in geographical areas may not reduce house prices per se, because increased demand to rent may increase landlords' demand to buy homes
Effectiveness	Could be quite effective, but this could/should be trialled first
Recommendation for the council	Consider this option further as a means to address the problems caused by high house prices

Appendix B Review of supplyside initiatives

B.1 Increase infrastructure-ready land supply

The primary set of options relates to the supply of land. This is not limited to new / greenfield land, but to how existing land is able to be used — this is covered in the following subsection. The key limitation is infrastructure provision, both the connections to networks, and the impact on the wider established network — this is covered in the next subsection.

B.1.1 Increase land for development

12. Increase greenfield land supply

Description	Continue progress with allowing more infrastructure-ready greenfield land supply, with minimal delay on zoning
	Allow more greenfield land supply in rural areas (i.e. rural subdivision) without infrastructure supply provided that:
	natural environmental externalities are managed to maximise welfare economic net-benefits
	 existing networks (particularly roads) have the capacity to cope with that growth
	there are binding and credible commitments between owners of those properties (current and future) and the council that infrastructure will not be provided any quicker than would have occurred anyway (unless, of course, beneficiaries pay fully)
Legally viable? In play?	Many initiatives already underway:
	the Auckland Plan and the Unitary Plan target a minimum of 5 years supply and a maximum of 10 years supply of unconstrained (i.e. zoned and with bulk service capacity) development capacity for housing
	the Metropolitan Urban Limit is no longer a binding constraint. (The 2010 MUL will exist for the purpose of administering the 70:40 split of inner and outer urban development.) The Rural Urban Boundary has been created that will accommodate virtually all urban growth, with up to 40% of Auckland's growth outside of the 2010 MUL over the next 30 years, and staged release in the Future Urban Zone to the extent supportable by infrastructure
	the Housing Accord, Housing Accords and Special Housing Areas Act (HASHAA), Special Housing Areas, the Forward Urban Land Supply Strategy, and the development of the Forward Land Infrastructure Programme are key approaches in this area currently (and for option #13)
	Council staff are considering (or will need to consider) the Unitary Plan Independent Hearings Panel's interim guidance to ease restrictions on rural subdivision. (Note the interim guidance is not the final decision)
Demand or supply?	Supply
Who?	The council
Structural or cyclical?	Structural

Pros / cons?	Pros:
	will help reduce the housing shortage
	 will help reduce prices across Auckland and may address speculative activities such as land banking (to the extent that housing on the outskirts is a substitute for inner suburbs)
	Cons:
	 will increase transport and 3-waters infrastructure costs (connection capex, interconnection capex, opex, and congestion externalities)
	It would likely increase rural land prices, and at the margin displace rural production, but there are no market or government failures apparent that would lead this to be net-welfare reducing
Effectiveness	Potentially highly effective given the very large price differentials that existed on the urban boundary
	However, effectiveness is very dependent on size and creditability of future land supply growth. If the market perceives that the council cannot follow through with expansion plans then speculation inside the urban area and land banking outside will continue to be worthwhile
Recommendation for the council	Continue with current Forward Urban Land Supply Strategy, Forward Land Infrastructure Programme, and Future Urban Zone strategies and ensure that it is credible to the market
	Look to enable more rural subdivision subject to the provisions listed above to minimise externality costs (natural environmental, and infrastructure costs to general ratepayers)

13. Permit more intensification in the Unitary Plan

Description	Permit intensification in inner suburbs, ideally within a run/walk/cycle commute radius of up to 10km, which is where land prices are the greatest. Supported by areas that have the greatest infrastructure capacity, existing or planned (supported by option #23) Encourage densities that gradually decline from the city centre (like international cities), rather than abruptly revert to suburban densities
Legally viable? In play?	Yes; determined by the Auckland Unitary Plan in development
Demand or supply?	Supply
Who? Council or government	Council
Structural or cyclical?	Structural
Pros / cons?	Pros: • possibly provide in the order of \$10 billion lump-sum benefit (refer to footnote 39 on page 26) to all Aucklanders in the reduced costs of housing and travel (excluding capital costs to reinforce existing infrastructure networks) • minimal measured loss in residential satisfaction expected, after
	 household adjustments, despite arguments to the contrary⁶² amenity losses can be avoided by good design, which can be supported through non-regulatory approaches such as championing, advice, and information support
	 aligns with Aucklanders who are 2.5:1 in favour of "enabling more people to live in and around our town and local centres win a greater choice of homes, including terraced housing, apartments and family homes"⁶³
	 48% of research participants would in reality chose attached dwellings such as joined units and apartments⁶⁴
	Cons:
	 inner city home owners will not have as high price rises (but land prices will increase to compensate)
	 may have some implications for the application for world heritage status for the volcanic cones
Effectiveness	Cities evolve very slowly, and so the benefits would take years to accumulate.
	However, gains within the next few years can accrue by targeting accelerated development of inner city apartments
	Inner city community opposition will be strong. They need:
	to be convinced that it is right for Auckland
	 that growth and change can be made to work for their local communities
	 to have ownership over how it is done, rather than have it imposed on them
Recommendation for the council	Consider this when reviewing the council's position on the spatial application of zoning etc for the Independent Hearings Panel. Also continue to review it in anticipation of the IHP possibly recommending markedly greater intensification

Based on the empirical PhD thesis research of Eilya Torshizian, Economist in the Chief Economist Unit

⁶³ Colemar Brunton (2014)

⁶⁴ Market Economics and Research First (2015)

14. Reform the RMA to address issues for urban areas of national significance

Description	Amend the RMA to better address issues for urban areas that are of national significance They would be identified on the basis that the land use plans of those zones (a) have nationally significant spillovers (or extremely important regional spillovers) and (b) are at risk of 'democratic deficit' challenges as identified in Chapter 9 of the Productivity Commission's 'Using Land for Housing' draft report There is a need for improved quality of research and regulatory impact analysis of a high quality, including a focus on welfare economic impacts (local, regional, national), and consult with all affected parties (including those that are under-represented) (Greenfields development that requires fast-tracked planning and infrastructure could be covered by the Urban Development Agency options #29 and #30.)
	The urban areas of national significance could be identified by a range of wider parties, including perhaps the Governor of the Reserve Bank of NZ for input on matters of macroeconomic stability
Legally viable? In play?	Legislation change required
Demand or supply?	Supply
Who? Council or government	Government
Structural or cyclical?	Structural
Pros / cons?	Pros: • potentially addresses issues identified in Chapter 9 of Productivity Commission's 'Using Land for Housing' draft report from being able to deliver on what is in the wider regional and national interest Cons: • residents in potentially affected areas will be immediately subjected to greater uncertainty about the future nature of their neighbourhood. Careful messaging and clear expectations would need to be given
Effectiveness	Could be quite effective
Recommendation for the council	The council should engage on this idea early and work up suggested details to possibly influence the direction of travel for the benefit of all of Auckland residents and future residents

15. Ensure 'Restricted Discretionary' activity status is not less permissive than 'Discretionary'

Description	The council needs to ensure that the 'restrictions' for 'Restricted Discretionary' (RD) activity status are set to ensure that it is not materially more difficult to be granted a resource consent for a given activity than it would be if it were 'Discretionary' (D). This includes a review of current draft RD restrictions in the Unitary Plan, and providing more guidance, oversight, and training for planners when developing those restrictions Research by the Chief Economist Unit has found that over the past 11 years (across the legacy councils and the current council) it is significantly more difficult in Auckland to be granted a resource consent if an activity is designated RD rather than D. The chance for a given activity in a given location to be granted a consent is some 20% lower if RD than if it was D, and this is significant to a 99% level of confidence. This anomaly is only evident since the council was amalgamated, but this could be a coincidence (i.e. RD was 10% more permissive than D prior to amalgamation, but 30% less permissive post amalgamation). (The planning rules have not yet changed significantly since amalgamation) This finding is also after controlling for the type of activity, where that activity occurs, the characteristics of each neighbourhood, and self-selection issues. This finding might be caused by multiple factors, such as that the plans are too precautious and the lists of factors to consider for RD applications are frequently too long and then applied too stringently. Another possibility is that the focus may be unbalanced towards predetermined types of detriments rather than the overall merit of projects. This could be exacerbated by projects becoming more challenging as easier growth opportunities are exhausted first. There may have been a change in case law that affected interpretation over this period (Industry best practice guidelines are available on how to set activity statuses. So Notes that the guidelines do not describe the policy intent for each activity status)
Legally viable? In play?	Yes viable
Demand or supply?	Supply
Who?	Council
Structural or cyclical?	Structural
Pros / cons?	Pros: it would improve the quality of planning policy, and significantly increase growth and development reduce uncertainty for people wishing to build or develop, thus increasing the economic viability of development Cons: staff resources will need to be allocated to this at a time when council staff are already working at capacity
Effectiveness	Likely to be effective. The Chief Economist Unit is still finalising the analysis and interpreting it with other council staff, but the quantitative findings will not be affected
Recommendation for the council	Review criteria set in restricted discretionary activities across as many rules as possible in the Unitary Plan that affect (or may affect) housing supply to ensure they are as permissive and balanced as possible whilst still addressing critical issues. Report back in sufficient time to update the Unitary Plan prior to finalising. Ensure guidance, training, and oversight is in place to ensure the quality of future plan updates

⁶⁵ www.qualityplanning.org.nz/index.php/plan-steps/writing-plans/writing-effective-and-enforceable-rules

16. Council stocktakes its land and allocates what it can to housing

The council is reviewing its surplus land and the ability to use it for housing. Panuku Development Auckland and the new Development Programme Office will continue to look to maximise benefits and opportunities from existing land holdings. There is a target to sell down in the order of \$700 million of assets over the next ten years. Also the council's Finance division is procuring advice on a review of alternative sources of financing, which will include general advice on asset recycling (including partial or full sale of assets).

There is possibly scope to better harness some council land assets to allow for scale development, such as apartments. This includes car parks, and the airspace over bus/train interchanges.

Developers may be aided by the council deferring when payment is required to purchase council land. The benefits of de-risk developments and lowering costs may exceed the finance costs to the council; but this should be the subject of further analysis.

The Chief Economist is concerned that some land holdings have social opportunity costs considerably greater than benefits to the community, and also have a weak case on equity grounds. A systematic assessment of council ownership of land across the full breadth of assets should be undertaken without undue delay.⁶⁶

B.1.2 Infrastructure and services: funding, financing, and planning

The following options consider ways to support private sector debt-financing and to capture the benefits of infrastructure that enables growth and development. The approaches complement each other, and may best be considered as a bundle with other initiatives to raise the initial capital to get the schemes fully underway.

The list is not exhaustive.

Note that the council's Finance division's procurement of a review of alternative sources of financing should encompass consideration of all alternative financing sources available to council, including but not limited to: joint ventures; private-public partnerships (PPPs); leasing arrangements (e.g. re-negotiating commercial leases to improve returns, etc.); asset recycling (including partial or full sale of assets); iwi partnerships; management contracts and outsourcing opportunities.

For instance, Eaqub and Eaqub note that the council owns 13 golf courses. Why is the market expected to substantially undersupply the welfare maximising number of golf courses?

17. Local government sharing in revenue base linked to economic activity to help pay for infrastructure and services

Description	Argue to the government to consider changing incentives for local communities, to help them to want to be more embracing of growth. If ratepayers could profit financially, say by sharing in some of the tax take from increased regional economic growth, this would help to fund infrastructure, lower rates, and mitigate opposition to expansion and intensification The OECD (2015) recommended that councils could consider greater use of debt financing to support growth infrastructure (to support land supply for housing), but then share in more of the financial benefits of growth in order to fund that investment The Productivity Commission (2015 F9.9, pp246–248) found that "Accommodating growth is not seen as financial beneficial to local government, but as a drain on resources[and] as a net cost overall the direct financial incentives on councils to accommodate growth are weak". (This is based in part on the work of the NZ Initiative and Local Government NZ)
Legally viable? In play?	Legislation change required
Demand or supply?	Supply
Who?	Government
Structural or cyclical?	Structural
Pros / cons?	Pros: by helping make growth financially beneficial for ratepayers, it could mitigate community opposition to develop in turn, this could help provide planners and elected members with incentives to be more accommodating of growth this could all manifest in more growth-enabling land use regulation, quicker consent processing, more growth and more affordable house prices Cons: any government would require careful management of this to ensure councils indeed were incentivised to achieve this culture shift, and that it was not just a transfer of money to councils
Effectiveness	Could be quite effective, if governance and accountabilities were appropriately developed
Recommendation for the council	The council should engage with the government to review opportunities for 'give and take' to make growth more 'incentive compatible' for communities

18. Targeted rates to fund and finance infrastructure for growth

This is based on the work of Andrew Duncan, Manager Financial Policy

Description	Expand beneficiary pays approaches by using targeted rates, in addition to development contributions, to create additional funding sources. This can also then support additional financing sources
	Background
	Developing a new funding tool to allow the private sector to borrow against a secure and certain revenue stream from the council will help address the problem of exceeding the council's interest to revenue ratio limit. A targeted rate:
	 allows for a more certain revenue stream than development contributions (DCs), because they are not dependent on whether development actually happens
	 provides more of an incentive for land owners to develop land (because they apply regardless of whether land is developed)
	 can be levied on a wider pool of beneficiaries than DCs, the latter of which can only apply to new subdivision or construction despite existing property owners potentially benefiting from infrastructure
	This funding tool (i.e. an ultimate means to raise revenue) is a solution to a financing problem (i.e. the need to raise a lump sum of cash to pay for infrastructure) and expands the payer base by capturing all beneficiaries
	The targeted rate could be based on a beneficiaries-pays basis (either on demand/benefit before the fact, or by land price increase after the fact). This means that beneficiaries are not made worse off compared to an alternative case of no infrastructure
Legally viable? In play?	Targeted rates are viable and currently in limited use, and can be applied to the properties that are provided with a service, or where the service is available, or in a set area (for example). The council cannot do this based on change in land price (i.e. actual benefit) without legislative change
Demand or supply?	Supply, indirectly. A lack of infrastructure worsens supply, and this would alleviate that
Who?	Council primarily, but government too
Structural or cyclical?	Structural
Pros / cons?	Pros:
	can help increase infrastructure supply, and thus housing
	allocate the cost of infrastructure equitably across beneficiaries
	Cons:
	 may worsen community aversion to growth, especially relative to having the infrastructure anyway but not needing to pay
	 additional administration cost if based on land value change because it requires a detailed analytical basis for differentiating value changes arising from infrastructure investment from other factors affecting value. Thus more prone to challenges, and so the process would require high standards of robustness to be acceptable
Effectiveness	Value capture may only be acceptable to communities if:
	 it causes a higher level of service from the infrastructure and the community expects that the growth that results will make the community better off (directly, or with concessions)
	 respective communities have sufficient input to managing their growth and intensification
	Note that this approach is easier the more land that would be subject to the targeted rate that the infrastructure provider owns
Recommendation for the council	The council should investigate this further with priority. Note complementarities with option 20 on page 73 of investing in land

19. Tax the windfall gains that accrue to landowners from rezoning land for urban use to pay for infrastructure

Description	Appropriate some or all of the increase in land value that results from zone changes (as distinct from resulting from improvements that are paid for by the council)
	This is recommended in OECD (2015 p22), and the Productivity Commission (2015 pp295–303) is consistent with this
Legally viable? In play?	Legislation change required
Demand or supply?	Supply (may fund more infrastructure)
Who? Council or government	Council
Structural or cyclical?	Structural
Pros / cons?	Pros:
	will raise funds required to support infrastructure services development
	 increases the alignment of incentives of the council to act in the interest of potential new home owners, who cannot access land at reasonable cost
	would capture economic rents that have arbitrary arisen from past suboptimal zoning for the benefit of the wider community, rather than these rents going to land owners
	 to the extent that it leads to more capacity for housing supply, this will dampen land banking and speculative activity
	Cons:
	 will be extremely contentious, because the "value created" is comes about from planning rules relieving needless restrictions that reduce value
	 it would likely exacerbate community opposition to plan changes, and ironically reduce the ability for councils to upzone (i.e. to increase development capacity)
	 creates a real or perceived risk of moral hazard, whereby a council that does this may actually create more arbitrary restrictions in order to profit later from relieving them
	will make it harder to gain community acceptance to undertake other initiatives to capture value from infrastructure and amenity improvements that have more merit (because in those cases the council would actually be adding value)
	a relatively complicated way to rate with significant administrative burden
Effectiveness	If it were done, it would likely raise significant revenue
Recommendation for the council	Do not consider The council should only focus on capturing the benefits of infrastructure and amenity improvements that incur capital cost in order to be able to pay for them. Using a targeted rate to capture value to recover the costs of related infrastructure investment may be a better approach; see option #18.

20. 'Lead' public infrastructure providers also own/develop land to capture benefits

Description	Public infrastructure providers acquire (via market transactions — not compulsory acquisitions) the property rights to land that benefits from infrastructure <i>prior to</i> the infrastructure being committed, or even announced for the purpose of appropriating the increase in value of the land. Land prices will appreciate in accordance with how beneficial the infrastructure is. The infrastructure provider then afterwards either sells the land, leases the land with development rights and air rights, or develops the land and then sells/leases The approach lends itself most to 'lead infrastructure', whereby infrastructure is provided because of anticipated demand, rather than 'lag infrastructure' that occurs after demand is already evident This is a funding tool solution, rather than a financing tool <i>per se</i> . However, it can assist financing (i.e. debt) constraints by allowing the private sector to finance the infrastructure in return for the funding stream the public entity secures
Legally viable? In play?	Yes legally viable; requires more investment in land by the public
	sector. Not in play most probably because:
	budget constraints (driven primarily by debt limits) preclude land
	purchase and holding costs (time value of money)
	 ruled out by the operating parameters of the public entity (presumably on the basis that land ownership is not an activity the public sector has a comparative advantage in)
Demand or supply?	Supply, as it helps enable more infrastructure to provide developable capacity
Who? Council or government	Council and government
Structural or cyclical?	Structural
Pros / cons?	Pros:
	 can fund (and indirectly help finance) development reliant on infrastructure without having to increase rates, which helps to reduce public opposition
	 as such, it reduces "government failure" of the propensity to fail to provide socially net-beneficial infrastructure because of public sector constraints
	more pragmatic than value capture approaches because it overcomes some of the contentiousness problems Cons:
	requires development of skills and capabilities of the public infrastructure provider
	would require to be endowed with a 'fighting fund' to finance the land purchase (see option #25)
	hold-out — if land owners are aware of the council's purchase intentions
Effectiveness	Much of the effectiveness relies on the public sector infrastructure provider purchasing land without the previous sellers being aware of the intention to develop infrastructure (e.g. see Productivity Commission 2015 p279 for a fun and quirky story about Walt Disney). Thus the entity would need to be more sophisticated in how and when they signal infrastructure intentions, and the trade-offs associated
Recommendation for the council	The council should investigate this further as a package with value capture mechanisms, and with the establishment of an endowment to allow the financing of land purchase. The council should look to leverage off of Development Auckland as one possible means to implement (in conjunction with Auckland Transport and Watercare)

21. Collaborative review of transport policy, legislation, planning, funding to ensure it supports Auckland's housing growth

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Description	Government agencies, the council, and Auckland Transport (AT) collaborate to identify opportunities in the land transport system to ensure timely land supply for housing. This would relate to:	
	 transport strategic policy emphasis on land supply for housing (including the Government Policy Statement on Land Transport Funding, or GPS) 	
	 legislation to support timely land acquisition and protection at a pace commensurate with, say, the needs of Special Housing Areas (SHAs) and an urban development agency 	
	the absence of strategic transport policy on metropolitan rail	
	 investment assessment and funding allocation frameworks, recognising that growth projects have greater challenges (such as uptake uncertainties and less well-developed forward planning in fast growing areas) 	
	 how projects are co-funded (council, NZ Transport Agency (NZTA), developers), and the timing of payments from developers to reduce their holding costs 	
	 alignment with the Forward Land and Infrastructure Programme approach 	
	 other opportunities for better integrating the Unitary Plan (and future changes) with transport area and corridor strategies 	
	Background	
	Discussions with AT, council staff, Ministry of Transport staff and NZTA staff highlight a range of challenges, anomalies and opportunities for improvement across the system. For instance:	
	 the GPS does not acknowledge Auckland's house price issues (also noted by the Productivity Commission 2015 pp204–206), and a relative need for new and improved local roads that support housing developments and the SHAs 	
	 there is not a lack of funds from national sources for local roads; rather, it is the ability for AT to supply investment cases with local share funding secured that meet the NZTA's needs. It seems that business as usual approaches may be inadequate for Auckland's growth needs 	
	 NZTA does not fund capital upgrades for passenger rail, so funding cases are not streamlined in normal transport planning processes The new Auckland Transport Alignment Project⁶⁷ may go some way, 	
	but a focus argued for here relates to land use development	
Legally viable? In play?	Yes, but some legislation changes may be required, e.g. HASHAA	
Demand or supply?	Supply	
Who?	Government and the council	
Structural or cyclical?	Structural impact (i.e. will be sustained)	
Pros / cons?	Pros: will support the fast pace of growth in Auckland	
	Cons: will reduce the emphasis on non-growth investment (e.g. fixing up existing problems). But provided the adjustments are done to maximise net-benefits, the opportunity costs will be smaller than the additional benefits	
Effectiveness	Effective	
Recommendation for the council	Collaborate with other transport stakeholders to identify opportunities to improve transport administration to support Auckland's housing growth. This may take the form of an independent inquiry that allows for significant public input at key stages	

⁶⁷ www.transport.govt.nz/land/auckland/atap

22. Road pricing / congestion charging for roads

Description	Charge users of roads a higher fee if travelling during congested periods in order to curtail excessive use
	The existing transport network can cope with the transport demands from more land supplied for housing if it is managed more efficiently through pricing. This will support the spatial application of zoning and decisions around SHAs if transport networks can better cope with transport demand. It would also raise funds that supports transport improvements to better support the economic viability of more land for housing supply.
Legally viable? In play?	Legislation change required
Demand or supply?	Supply (as it makes infrastructure more effective)
Who? Council or government	Government
Structural or cyclical?	Structural
Pros / cons?	Pros (when a scheme is well designed):
	 reduces excessive use and day-to-day costs from existing networks
	 would reduce traffic, and so support more regional growth from the existing network and delay the need for major upgrades
	 may induce more community input during the business case process of major projects to improve the quality of transport investment decision making
	 may provide 'location price signals' to encourage more development to occur in accessible places, and to discourage development in areas that will be more congested and have higher road user charges Cons:
	more costly to design, implement and administer than prevailing revenue raising tools
	if it is poorly designed (see effectiveness below), then it can create additional congestion costs
Effectiveness	A scheme is most effective and easiest to sell to the public when:
	the funds raised are recycled back to road users (actual and perceived), either by cuts to fuel excise duties (FED) and road user charges (RUC) or by valuable projects being developed that wouldn't otherwise be done
	 it does not cause excessive distortions to unpriced parts of the network (such as rat-running on a clogged local road to avoid a motorway charging point)
Recommendation for the council	Continue to argue to the government the merits of a well-designed scheme to manage demand, together with a mutually acceptable plan for how to use the revenues raised

23. Better infrastructure data to underpin analytics and management

Description	Adopt "metadata industry standards" (i.e. a common way to record data) at an individual asset ID level. This will underpin the way that infrastructure is designed (such as via Building Information Modelling, or BIM), and that data is input to Asset Management Systems. This has been recognised by the Minister of Finance, Auditor General, and Productivity Commission, the new National Infrastructure Plan, amongst others. The government has just approved funding for a business case for the development of national data standards for Water and Buildings
Legally viable? In play?	Legally viable. Watercare has metadata requirements, but they are not an industry standard. Auckland Transport uses RAMM (like all road controlling authorities), but transport capital investment is weak in its use of BIM and standardised metadata. Auckland Council has established a new group called Data Analytics Governance Group (DAGG) to coordinate parties across the council family to enact best practice
Demand or supply?	Supply
Who? Council or government	Council (and Watercare and Auckland Transport), in coordination with government and other councils
Structural or cyclical?	Structural
Pros / cons?	 Pros: provides administrative efficiencies throughout the infrastructure lifecycle, because systems are interoperable, and they enable IT systems to fast-track operations supports the eventual acquisition of high quality data of network to underpin valuable analytics to support infrastructure network planning and investment, maintenance and operations, and wider growth and development planning identifying where growth intensification can be accommodated by infrastructure should underpin the spatial application of zoning and resource consenting Cons: requires a change in practice, which will be resisted by practitioners (e.g. consultants) that benefit from the nonstandard approach at present
Effectiveness	It will contribute to high quality analysis and management of infrastructure in future, which will indirectly assist with better quality decision making about enabling land for housing supply
Recommendation for the council	Prioritise the adoption of metadata standards across infrastructure domains (for reasons not just related to housing)

24. Private provision of infrastructure

Public private partnerships (PPPs) are a general form of procurement whereby the private sector provides and co-funds infrastructure normally the domain of the public sector. The council should further understand the opportunities for using this approach. This will be considered in the Finance division's procurement of a review of alternative sources of financing (as mentioned in the introduction to section B.1.2 on page 69.

25. Sell down some assets to fund land investment to capture the benefits of infrastructure (support option #20)

Where ratepayer equity is invested in assets that does not lead to higher welfare than private ownership, then this can be drawn down. The proceeds can help fund option #20 of allowing public infrastructure providers to capture the gains of their investment through market transactions. The council should consider this in conjunction with option #20, and be informed by the Finance division's review on alternative financing.

B.2 Attract more construction

B.2.1 Make design and construction easier

26. Reduce restrictions on small buildings

Description	Allow an increase in the size of small permanent buildings erected without the need for a building consent, from 10m² (currently) to 25m², with height allowances for short mezzanine floor. Allow these buildings to be self-contained permanent housing (i.e. permit kitchens and bathrooms). Require that they have to comply with the building code, so they will be healthy and safe. Exclude them from complying with zoning regulations, except for the building envelope requirements (to address negative impact on neighbours, unless they give permission) and site coverage ratios (to address stormwater issues). (Or make them a controlled activity if not a permitted; do not make it Restricted Discretionary) Currently dwellings such as sleep-outs can be built without a building consent if it does not exceed 10 m² and does not have cooking or sanitary facilities, or facilities for storing drinkable water	
Legally viable? In play?	If it were implemented by Government, it would likely need legislation change. In 2008, Schedule 1 of the Building Act 2004 was expanded to include the 10m² sleep out rule If the council took the lead, as a Building Consenting Authority, it could perhaps just enact a policy. We are seeking further advice on this International examples include Sweden (Stockholm) and Canada (Vancouver) which have equivalent housing market pressure to Auckland In Sweden since 2014 a small house (Attefallshus) can be built without any planning permission up to 25m². This rule allows permanent	
	housing and the inclusion of cooking and sanitary facilities. The buildings have to comply with the building code and they can't be built closer to a neighbour's land lot than 4.5 metres without that neighbour's permission Vancouver introduced a new policy in 2011 which allows small houses	
	(Laneway House) to be built behind any single-family house in the city that has a lot wider than 33 feet as well as access to a lane or road In Vancouver the public are at a rate of two-to-one in favour	
Demand or supply?	Supply	
Who? Council or government	Either/or. Government through Building Act could mandate nation-wide approach. Council, as a Building Consenting Authority, could create its own policies	
Structural or cyclical?	Structural	

Pros / cons?	Pros:
	 provides affordable options and choice, by allowing families to increase their homes as their families grow, without the relatively very high cost of compliance
	 provides more home and income opportunities for families to offset the high cost of home ownership
	 families may be able to more easily adapt to multigenerational community living; e.g. offspring live in the small dwelling whilst saving for a deposit, or elderly parents live in the small dwelling with their offspring and help raise the grandkids
	 provides more dwellings for households to address the housing shortage
	 provides more options to overcrowded households that may have people living in ad hoc shelter (e.g. garages)
	 may create greater baseload work for the residential construction sector, mitigating the effects of the boom/bust cycle that exacerbates their small scale structure and, in turn, lack of productivity
	Cons:
	 there will be concern at the risk of lower quality design and construction, but this can be managed through enhanced information and support for home owners
Effectiveness	Would reduce the overall cost of design and construction substantially and immediately. A self-contained $25m^2$ dwelling could be constructed for perhaps \$30k–\$100k without red-tape, saving perhaps at least \$10k in planning, design, compliance charges, compliance effort and uncertainties, and higher cost building labour. Cost savings could be considerably more for households if wider Unitary Plan requirements were avoided
	If planning permission was required, it is advised that this be a non- notified controlled activity rather than restricted discretionary (RD). In- progress research by the Chief Economist Unit is finding that RD is surprisingly prohibitive, more so than discretionary
Recommendation for the council	The council in collaboration with government should investigate this further

27. Omit excessive restrictions on design unless benefits exceed costs

Description	Omit any design requirements in plans that relate to the interior functioning of homes, and rely on the Building Act to regulate for safe healthy homes. These include attributes such as lighting, minimum dwelling sizes, floor to ceiling heights, outdoor space, sustainability requirements. (See Productivity Commission 2015 recommendation R5.5)
	Focus on managing external impacts (like stormwater runoff and water quality) whilst minimising costs to homes. These are the aspects that are likely to create larger benefits to society than costs
	Look to use non-regulatory measures (such as the Auckland Design Manual) to support and champion issues that have merit such as good design
	Rely on the research results from option #28 below to support future guidance and plans to help mitigate the risks of bad outcomes arising from plans that are too liberal
Legally viable? In play?	Yes legally viable
	In fact the Productivity Commission (2015) finding F5.7 suggests that setting internal design controls more stringent than the Building Act may be unlawful
Demand or supply?	Supply
Who? Council or government	Council
Structural or cyclical?	Structural
Pros / cons?	Pros:
	will lower the cost of construction when costs exceed the benefits to consumers, and thus improve housing affordability
	provided the council's non-regulatory efforts are effective, good design and energy efficiency will be retained
	Cons:
	 there is a chance that homes will be built that contrast with existing homes and that this upsets existing residents
	 there are claims that this will create "slums", although this claim is anecdotal and should be the subject of quality research (see option 28 below)
Recommendation for the council	The council should undertake this in conjunction with government support of option 28 below to improve understanding of urban social costs through quality research

28. Public sector research programme into social costs and benefits from planning

Description	The government and councils could fund a significant research programme to test and assess the non-market benefit values from managing urban issues (like 'urban slums' and the 'character of a community') that are evidently important for many councils and planners but not well understood or appreciated by general policy advisors This research should have a focus on quantitative impacts that can be incorporated into cost-benefit appraisals, as well as qualitative findings that can be generalised This would help mitigate pressures on councils to pursue housing affordability at all costs, and risk creating undue costs on society
Legally viable? In play?	There is no general research programme on this at the moment
Demand or supply?	Supply
Who? Council or government	Government and councils
Structural or cyclical?	Structural (it will help inform planning policy and the judgements about whether resource consents should be notified and how community input should be taken into account)
Pros / cons?	Pros: will help address a major knowledge shortcoming, and mitigate the risks of any pressures to excessively liberalise planning regimes, or risks of having planning regimes that excessively serve vocal minorities Cons: time and cost to do good quality research
Effectiveness	Research is always uncertain, but a more robust evidence base will no doubt support higher quality planning
Recommendation for the council	Request support from the government and from other councils to co-fund a quality research programme to provide robust understanding and evidence of the social costs and benefits of a more liberal planning regime

B.2.2 Residential construction productivity and supply

29. Urban development agency, with outsourcing to the private sector

Description	An urban development agency (UDA), such as Panuku Development Auckland, that:
	assembles land (i.e. common ownership) of a required scale, with possible compulsory acquisition powers
	coordinates and integrates the delivery of infrastructure
	spatially masterplans large-scale residential development projects
	partners with private sector developers to deliver those projects
	operates under streamlined planning and consent processes
	There would be a separation of powers for planning and development to reduce the risk of compromising environmental considerations. It would operate in both brownfields and greenfield settings (e.g. on Productivity Commission 2015 pp 292–293)
Legally viable? In play?	Auckland Council's Panuku Development Auckland launched in September 2015
	Productivity Commission recommends (R10.2) that legislation would be required to establish and give powers such as compulsory acquisition of land. It may be desirable for such acquisition to be permitted within areas designated by Order in Council for development or redevelopment
Demand or supply?	Supply
Who? Council or government	The council and/or the government
Structural or cyclical?	Structural (can be a sustained solution)
Pros / cons?	Pros:
	would help reduce the supply shortage by quicker development of homes, at a cheaper cost, and with more densification to improve affordability
	the land price appreciation from the improvements can help self-fund the infrastructure Cons:
	citizens could be evicted from their homes if land
	compulsorily acquired (but the loss would be compensated)
	if it is set up to fail because it is undercapitalised, lacks powers and functions, the government/council is unwilling to designate sites it can operate in, or it is confused by having wider public objectives rather than behaving in a commercial way
Effectiveness	Can be effective if well governed, resourced and supported
Recommendation for the council	Continue to support Panuku Development Auckland and look for collaborative developments at scale with the government

30. Development at scale to support more competitive industry structure and regulatory reform

Description	By developing residential dwellings at scale, the government (as a potential UDA itself or in partnership with Panuku Development Auckland, and as owner of Housing NZ estate) can explicitly support the development of more competitive supply chains and alternative regulatory systems and practice This could include: • being a large scale developer and builder (could be done in partnership with major overseas providers, via a competitive process, through to in-house) • enabling or supporting investment in new production technologies, such as offsite prefabrication and Building Information Modelling (BIM) • opening up new supply chains to mitigate any market power in the current industry (such as importing material from the USA), and making this accessible to the wider industry as appropriate
	developing new avenues for product approval as per the Building Code, including adopting overseas product testing
	creating new housing typologies and design formats
	encouraging multiple trades under one roof for economies of scope and of scale
	developing new effective project management approaches and quality assurance
	 developing new processes for building compliance, including private accreditation systems and private sector insurance to help protect consumers from risk
	supporting more investment in skills training
	Nearly all of this would be able to be used by the rest of the industry. Much of this would set a precedent an give confidence to private sector developers (demonstration effect)
Legally viable? In play?	Would likely require policy and legislation change to support the alternative approaches to product approval and building compliance
Demand or supply?	Supply
Who? Council or government	The government
Structural or cyclical?	Structural (can be a sustained solution)
Pros / cons?	Pros:
	a possible opportunity for the building industry to meaningfully alter industry structure and conduct and to reform the regulatory regime to create the needed step change in industry performance
	Cons:
	a large scale endeavour would have significant risks and would require a high level of support from the government to ensure it works. Elements might take some years to work through the policy and legislation hurdles, but using a Special Economic Zone approach (Crampton and Acharya, forthcoming) could help mitigate risks
Effectiveness	If it works it could be significantly effective in lowering costs right across the industry
Recommendation for the council	Advocate to government and the public at large as a realistic way to hit the target of improving productivity by 25% by 2030

31. Replace joint and several liability with proportionate liability

Description	Replace 'joint and several liability' (JSL, which can impose liability on defendants out of proportion to the harm they caused) with 'proportionate liability' Background:
	NZ has a policy of using JSL to distribute liability among multiple defendants who are found to have caused the same damage. This means that if two or more people are found to have caused the same damage, each defendant can be obliged to pay up to the full amount of the loss suffered by the plaintiff
	The option is to move to proportionate liability, whereby each defendant is liable for no more than their relative share of fault
	The issue is that there has been little if any measured productivity growth in residential construction sector for over 25 years
	The Productivity Commission ⁶⁸ attributed some of the blame for poor industry performance on JSL, claiming that JSL exacerbates:
	the small fragmented nature of industry (i.e. its structure)
	the myriad of subcontractors and informal contracting ('conduct')
	councils (as building consent authorities, or BCAs) being excessively risk averse and stymieing innovation in design, materials and construction techniques
	ProdCom urged the Law Commission to consider all of this when advising on whether to retain JSL. Alas, the latter failed to do so ⁶⁹ , and thus its advice to retain JSL is incomplete
Legally viable? In play?	Law change required. Government has been actively considering this (although it accepted the Law Commission's main recommendation to retain joint and several liability)
	In play in Australia since late 1990s
Demand or supply?	Supply of homes
Who?	Government
Structural or cyclical?	Structural; sustained impact on the market
Pros / cons?	Pros:
	can underpin sustained compounding productivity growth, by addressing a key underlying determinant of industry conduct, structure and performance Consider Cons
	creates some risk to plaintiffs, who may not recover all of their losses. However, for house construction, plaintiffs as commissioners have significant control over risk (with procurement, design input and decision making), and can seek insurance to cover risk
	makes lawyers' and judges' jobs tougher to proportion liability across defendants
Effectiveness	No careful study has been done on the impact of a liability rule change, and so the effectiveness is not certain. However, industry stakeholders identify it as a key issue ⁷⁰ , including the Productivity Commission. Any impact would emerge over the long-term, as many people would wait to see the impact on court rulings
Recommendation for the council	Advocate to government to revisit the case for changing the liability rule from joint and several to proportionate liability, with a careful assessment on the expected impact on industry structure, conduct and performance

⁶⁸ Productivity Commission (2012), pp 160–161

 $^{^{69}}$ $\,$ Law Commission (2012 pp 62–63), and Law Commission (2014). See 45 on page 32

⁷⁰ E.g. NZIER (2014c)

32. Tax land to encourage development

Description	Two variants of taxing land to encourage development:
	tax undeveloped land and underdeveloped land primarily to encourage its development
	 set rates on the basis of land value rather than capital value to encourage the development and efficient use of land (Productivity Commission 2015 finding F9.20)
	(These are distinct from #18 because the latter is not primarily about incentivising development)
Legally viable? In play?	To be advised
Demand or supply?	Supply
Who?	Council
Structural or cyclical?	Structural
Pros / cons?	Pros:
	reduce the incidence of land-banking and of under-utilisation of land, which would increase supply and lower house prices
	Cons (of taxing undeveloped land and underdeveloped land):
	the level of the taxes would inevitably be arbitrary because the value of the externality (presumably relating to inequality and macroeconomic stability risks) could never be quantified robustly. Thus there are high risks of creating new distortions. The approach would not be robust to frequent legal, political, and reputational challenges
	Cons (of rating on land value only):
	the council has only just undertaken a significant rates equalisation process across the wider region that has been challenging for parts of the community to accept. Revising this fundamentally again risks creating a distraction from other areas that may be of more importance
	the Financial Policy department advises that the impact of basing rates on land prices only would not have a material impact on land prices and thus development
	overall property value estimates are more accurate than land value estimates because there are more observable market transactions for the former
Effectiveness	Taxing land to encourage development:
	if it could be done and be sustained (which is dubious), then the higher the tax, the more effective it would be to increase housing supply
	Rating on land value only:
	likely to be moderately effective
Recommendation for the council	The council should not set arbitrary taxes to encourage land development. Pursuing the beneficiaries pays approach to fund infrastructure (option #18) is a more robust and appropriate method of providing monetary incentives to develop underutilised land
	The next time the council undertakes a major review of rates it should consider the case to base it on land value only
<u> </u>	•

B.2.3 Support foreign investors that wish to build

33. Provide data on residential construction investment opportunities to foreign investors

The council, in conjunction with ATEED and the Auckland Investment Office, should provide a suite of readily accessible information and general advice for foreign investors that wish to develop residential and commercial property.

At the moment requests for this kind of information from foreign investors is treated as a Local Government Official Information and Meeting Act request in order to coordinate adequate and timely responses.

The type of data that could be proactively made available is illustrated below:

Investors (some of which are willing to develop housing with investments of \$500 million) will differ in their information demands, but may be interested in long term data (10–15 years) on:

- house prices
- new constructions
- rents and average household income in the city centre and the suburbs.

Such long-term data helps reveal the resilience or the lack thereof to downturns. They may be interested in the transport infrastructure being planned to connect suburbs to the city centre and the number of high tech companies in the region.

The information and format etc should be based on customer demands.

34. Reduce restrictions on foreign ownership of non-urban land for timely residential development

Description	Exempt the foreign investment screening regime for developers purchasing land, providing the land is developed into housing and resold within an acceptable timeframe (Productivity Commission 2015 recommendation 10.1) The Overseas Investment Act 2005 requires foreigners to receive consent if they wish to purchase sensitive land, such as 5 or more hectares of non-urban land
Legally viable? In play?	Require a change to legislation
Demand or supply?	Supply
Who? Council or government	Government
Structural or cyclical?	Structural
Pros / cons?	Pros: • helps to avoid unnecessary costs and delay to acquire land for development, provided that land is developed Cons: • the government would need to check and ensure that the council is not constrained in its ability to regulate land because of the free trade agreements and avenue for compensation from lost profits • the requirement to build and sell houses within a limited period of time may be hard to enforce unless there was a significant bond required to ensure performance
Effectiveness	In Auckland's case this would ideally occur only in the Future Urban Zone (FUZ) that is planned to have infrastructure networks provided. It is also not clear from the Official Information Act whether FUZ land is regarded as non-urban, and this should be clarified
Recommendation for the council	Consider endorsing this recommendation, subject to input from other specialist areas within the council as appropriate (e.g. legal, planning etc)

