



**Infrastructure**  
New Zealand

# Enabling City Growth: Lessons from the USA

JUNE 2018



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# Executive Summary.

New Zealand cities have growing pains.

Failure to deliver infrastructure and housing in step with population has increased relative demand, pushing up asset prices while an increasing number of New Zealanders struggle for adequate homes and services.

High growth centres have attracted the most attention, but urban areas across New Zealand are struggling with housing undersupply, rising land prices and transport and water infrastructure needs which exceed affordability and environmental limits.

What's going on?

## US urban growth management.

The United States of America can give us some idea. It has cities which are growing in step with population growth and cities which are not. What do cities which deliver infrastructure and housing to meet demand do which others don't, and are the trade-offs worth it?

Infrastructure New Zealand led a delegation of New Zealand representatives to four growing US cities – Portland, Denver, Dallas and Houston. Each is growing more affordably than Auckland, but Dallas and Houston more responsively and affordably than Portland and Denver. How are they doing what they're doing and what can we learn?

There are two principal differences in the growth management system of American versus New Zealand cities.

## Incentives and flexibility.

First, the American system is better incentivised. Cities and city governments want growth. They need it to attract federal, state and private investment, without which America's thinner social welfare system will leave cities carrying the cost of unemployment, homelessness and crime.

Second, America's growth management system is more flexible. Cities have more tools in the tool box to meet growth. Property, sales and income taxes give local authorities multiple funding options. Bond markets are the first choice to finance infrastructure. Different tools mean financial and development risks and costs can be better allocated to beneficiaries.

Where funding or financing constraints limit the ability for cities to invest, even governance arrangements themselves have the flexibility to evolve. Special districts are resident authorities with the power to finance, tax, fund and operate infrastructure independent of councils.

## Collaboration.

Incentives and flexibility make US cities more responsive to growth by influencing the attitudes of leaders and the culture of institutions. Authorities collaborate, locally and regionally, to achieve shared objectives. Community engagement is direct and comprehensive. Long term planning is regional and vision is bipartisan.

Competition between cities drives a focus on value above cost. Cooperation within cities is encouraged by state and federal funding. If cities as a whole do not thrive, prosper and grow, private and public capital will gravitate elsewhere.

## Competitive urban land markets and taxes.

But even with improved incentives for city growth and greater scope to meet need, some cities still struggle to deliver affordable housing. Portland and Denver are confronted with housing unaffordability and projections are for the situation to worsen. Gentrification has become a major political issue in Portland and funding challenges across both cities are significant.

Portland has greater physical constraints, but also materially lower growth. Population growth and geography are otherwise similar across all cities and do not explain variations in performance. Instead, two major policy differences account for housing supply and infrastructure affordability performance in the Texas cities.

First, Dallas and Houston have competitive land markets. There is no urban boundary and developers can purchase large land holdings on the urban periphery as an alternative to zoned land. This generates scale efficiencies and delinks land price from planning processes which lag the market.

Competition in land supply enables commercial development to move to where populations are growing and vice versa. This leaves city centres less vibrant and increases private vehicle dependency, but lessens congestion by reducing convergence on the network. It also enables homes to be built at under three times median household income.

Second, Texas cities have higher taxes on property and lower taxes on income. Property tax is generally levied in proportion to capital value and averages 2 per cent across Texas, most for funding schools. Increasing property values lead to more tax being levied, sending a price signal to property owners and a political signal to decision makers regarding urban value and performance.

Denver and Portland have implemented legislation to delink property taxes from changes in property values. Property owners feel less financial impact from rising home prices and council revenues increase more slowly. Higher land costs drive council activity costs higher and, with limited added revenue, public investment achieves less. Funding pressures squeeze resources, resulting in less real investment, limiting developable land and perpetuating urban price dysfunction.

## New Zealand growth management.

New Zealand cities operate similarly to Denver and Portland. Land supply is constrained to limit environmental impacts and council costs. Unlike Houston and Dallas, growth does not provide sufficient revenue for councils to pay for infrastructure. Rates are a cost allocation method, whereas in Houston and Dallas ad valorem taxes (based on a fixed percentage of property value) increase revenue.

New Zealand cities lack the incentives and flexibility of US cities. Council revenues are largely divorced from economic performance, providing local authorities with limited incentive to support growth. Central government covers the cost of urban failure via its responsibilities for housing, welfare and justice.

With few direct costs from failure and little benefit from success, councils have few reasons to want growth and work collaboratively to achieve it. A culture of cost minimisation prevails over a desire for value creation. Leadership, vision, cooperation and integrated long term planning and investment are undermined. Siloed decision making and politicisation of projects are major issues.

Councils that do want to grow do not have the funding and financing tools to do so. Property rate increases hit ratepayers in the pocket and the few funding alternatives which exist, like development charges, impact supply. Developers held back by constrained councils and government agencies have no alternatives under a rigid governance system framed around portfolios, not outcomes.

Council efforts to charge ratepayers – those with homes – more to deliver services for people without homes has met with growing public opposition to growth and investment. Reprioritised spending to existing residents is increasing amenity and with it property values, but not resulting in more revenue. Increasing transport charges and congestion are materialising as higher land values closer to amenity as wealthier residents seek to limit transport costs.

Beneficiaries are not paying across the system and, as a result, inefficient growth decisions are being made. Costs are rising, inequality is growing and our cities are not investing enough in growth.

## Incentivising growth.

The US urban growth system shows that New Zealand cities can grow responsively and affordably without large public subsidies. It is the policies we are pursuing which are undervaluing investment in growth and pushing up land prices.

There are some good reasons why we are pursuing these policies. American cities are widely criticised for their urban form, low relative liveability and weak sustainability.

However, the risks of current policies are not evenly spread. The urban growth system needs realigning so that beneficiaries of growth pay for growth and beneficiaries of poor growth management incur the costs.

Until these issues are addressed, New Zealand cities will not meet the needs of the growing populations they themselves require to support existing and future services.

Long term, fundamental reform of the structures, responsibilities and resourcing of cities and regions is required. There is broad support across public and private organisations for a major review of planning legislation and the structures of funding and governance across New Zealand. A bipartisan approach by political parties is critical to delivering an integrated, planning, governance and funding system.

This review needs to be accelerated and integrated with the Tax Working Group and the Local Government Funding review. A shift away from income taxes towards “ad valorem” property tax would better align the costs and benefits of growth decisions. Property tax provides a means to capture value, would realign investment away from housing and into productive activities and balance taxes on labour and capital.



## Competitive land markets.

Short term, central government must use its dominant position to change the incentives driving local government growth policies:

- ✓ Councils need to be rewarded for increasing housing and development supply by:
  - Enabling councils to share in taxes that the Government receives from growth through city or regional deals.
  - Greater use of competitive grants and transfers to councils, like the Provincial Growth Fund, to encourage city-regions to compete for growth and invest in their future.
- ✓ Councils need to carry the costs of growth failure by incurring funding and responsibility for some central activities, for example, homelessness.
- ✓ Municipal water services need to be unshackled from councils' debt constraints. Structural separation from councils and water metering will provide scope to leverage capital investment and unlock billions of dollars of water investment and land development.
- ✓ Use of direct voter revenue funding approval for specified programmes should be investigated. A public debate on a specified initiative along with its cost and funding mechanism helps depoliticise investment over the long term.
- ✓ Greater use of toll roads and project financing entities to issue project bonds independent of debt constrained councils. Managed motorways and tolled express lanes can guarantee flows and speeds to ease congestion for those who pay and those who don't, and provide a revenue stream to attract private capital.

## Enhancing flexibility

Long term, flexibility for cities and regions requires change to responsibilities and accountability. Short term, the Government must intervene with tools it has at its disposal:

- ✓ Crown Infrastructure Partners (CIP) and similar special purpose vehicles should be broadened into MUD-type infrastructure financing and delivery agencies with the ability to levy rates and/or user charges. Developers should be able to apply to access CIP finance, allowing them to get paid out once the development is proven.

Urban land markets need to be made more competitive. The benefits of hard regulatory instruments, like metropolitan boundaries, accrue to existing residents while costs and risks are pushed onto future residents. Development contributions do not always cover council costs. The costs and risks of urban growth need to be realigned.

- ✓ The ability for councils to constrain urban growth with regulation should be substituted by a system which ensures the costs of infrastructure are borne by the beneficiaries. If existing governments, councils, communities or residents do not want suburban sprawl, they need to provide for a superior alternative, at a similar price point, rather than preventing homes from being built at an affordable price. We must incentivise what we want, not prevent what we don't want.

In 2017, Infrastructure New Zealand costed housing on unzoned raw land between Drury and Pukekohe at \$375,000 (before GST and development margin), including infrastructure, development and land. Located along the rail corridor, the Paerata satellite city presents the opportunity for major transit oriented development at scale with direct connectivity to employment centres.

- ✓ An urban development authority master planning, consenting and delivering a satellite to Auckland's south would provide an attractive alternative to low density urban expansion.

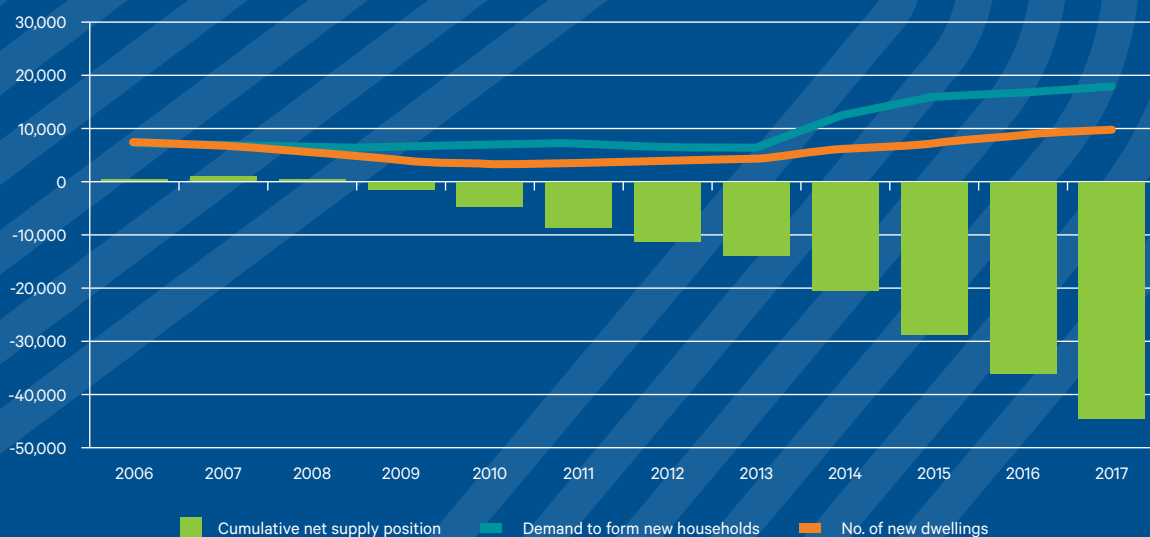
# Introduction: The urban growth system in New Zealand is not working.

## Houses are not being built.

Something is wrong with New Zealand cities. Urban economies are firing and jobs are being created, but the homes and infrastructure thriving populations need are not keeping up. In Auckland, over 45,000 homes have not been built over the past decade that would have if supply had kept up with population growth. This is equivalent to 8 per cent of the region's total housing stock and 5 years supply of new housing.

It's not just Auckland. In Wellington, the Ministry of Business, Innovation and Employment estimates a deficit of 10,000. If population growth stopped today, it would take the region 4 years to catch up to historic housing levels.<sup>1</sup>

Figure 1: Auckland's housing deficit<sup>2</sup>  
Demand vs supply in Auckland (Annual to June)



<sup>1</sup> [https://www.nzherald.co.nz/business/news/article.cfm?c\\_id=3&objectid=11940328](https://www.nzherald.co.nz/business/news/article.cfm?c_id=3&objectid=11940328)  
<sup>2</sup> MBIE, Briefing to Incoming Minister of Housing and Urban Development, 2017.



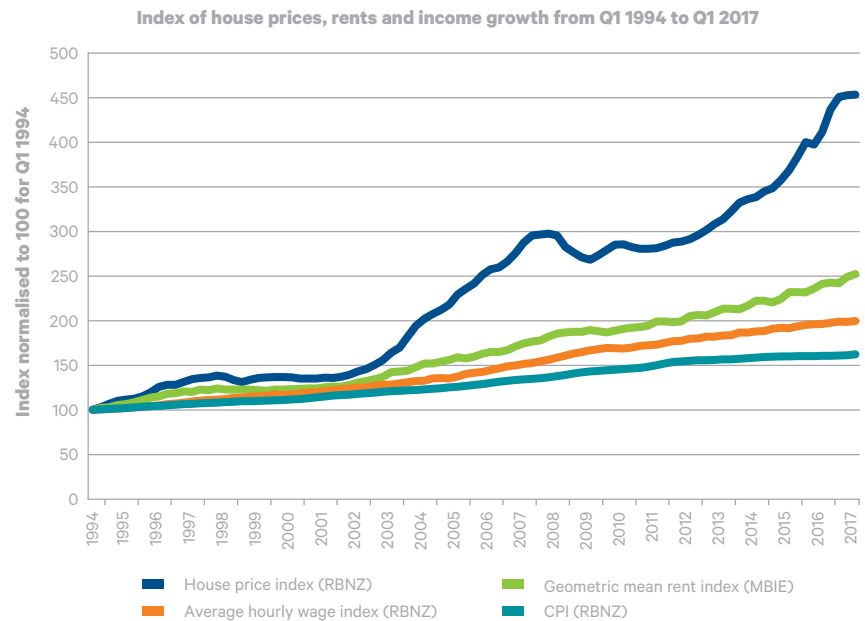
## Housing undersupply is fuelling inequality.

Inadequate housing supply is contributing to severe housing deprivation and homelessness. There are now around 40,000 people in New Zealand without a safe and secure home, including in temporary accommodation, half of whom are in Auckland.<sup>3</sup>

Home price inflation over the past two decades has outpaced inflation and incomes. Low income families now spend half their income on housing, up from 29 per cent in the late 1980s.<sup>4</sup>

Wage increases over the last two decades have been exceeded by increases in rent, leaving many New Zealanders worse off even as the economy has grown (Figure 2).

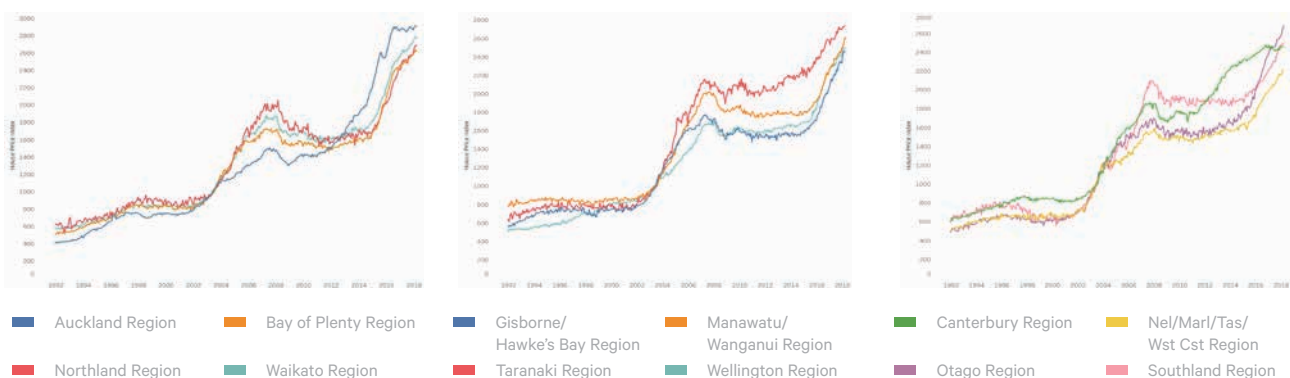
Figure 2: New Zealand indexed house prices, rents and inflation 1994-2017<sup>5</sup>



## It is not getting better.

In Auckland, price increases have in recent months slowed, but in the last year supply increased at under 9000 units when around 14,000 are needed. Across the rest of New Zealand, with the exception of post-earthquake Canterbury, prices continue to rise.

Figure 3: House prices in major centres<sup>6</sup>



<sup>3</sup> Amore, K, Severe housing deprivation in Aotearoa/New Zealand 2001-2013, 2016.

<sup>4</sup> MBIE, Briefing to Incoming Minister of Housing and Urban Development, 2017.

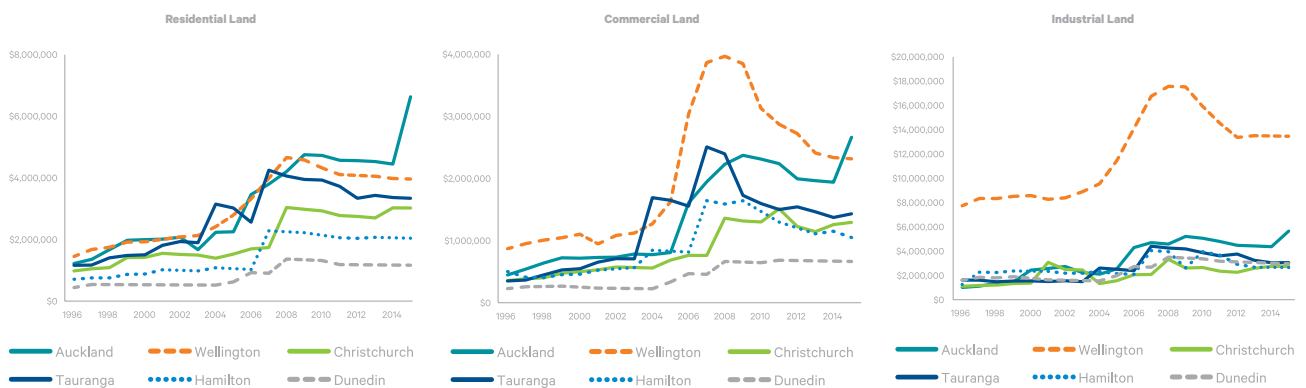
<sup>5</sup> MBIE, Briefing to Incoming Minister of Housing and Urban Development, 2017.

<sup>6</sup> REINZ, Housing Price Index, May 2018.

## It's not just a housing crisis.

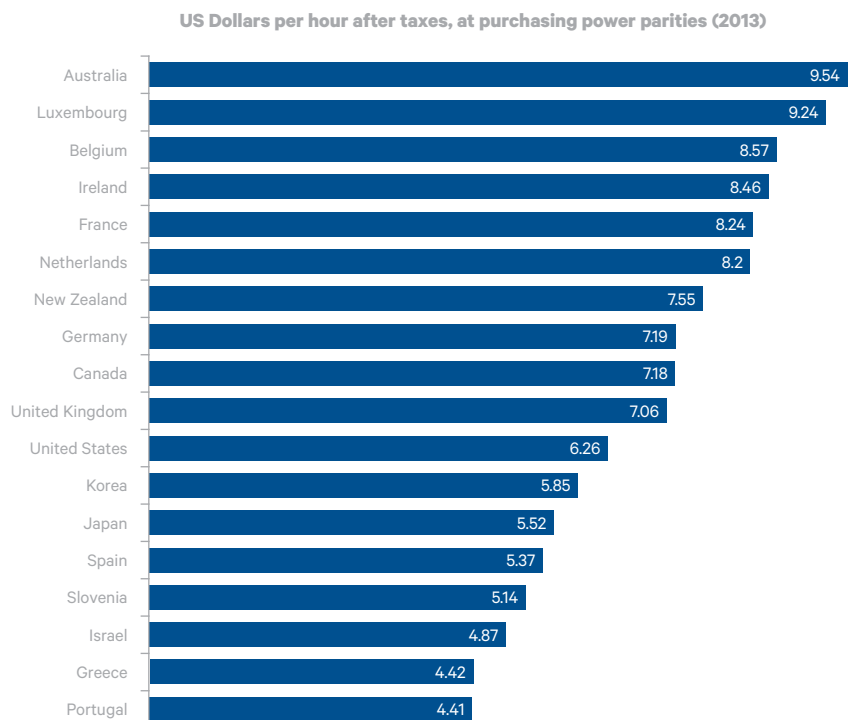
Housing is the face of New Zealand's urban growth crisis, it is not the crisis itself. Rising land values across commercial property indicates that problems are more fundamental. Not only do rising land prices across the board suggest a wider issue with urban land supply, higher business land costs will over time drive the cost of living higher and reduce New Zealand's international competitiveness.

Figure 4: Urban land prices rising<sup>7</sup>



Authorities are responding by lifting wages, which further compromises New Zealand competitiveness. In 2013, New Zealand had the seventh highest minimum wage in the world at NZ\$13.75, when the country ranked 20th in the OECD for GDP per capita. The Government has since increased the rate by 20 per cent to \$16.50. Current policy is to increase the rate to \$20 by 2021, but New Zealand remains 20th in GDP per capita, despite record terms of trade, and there is no sign of relative upward movement.

Figure 5: The World's highest minimum wages 2013<sup>8</sup>



<sup>7</sup> Productivity Commission, Better Urban Planning, 2017.

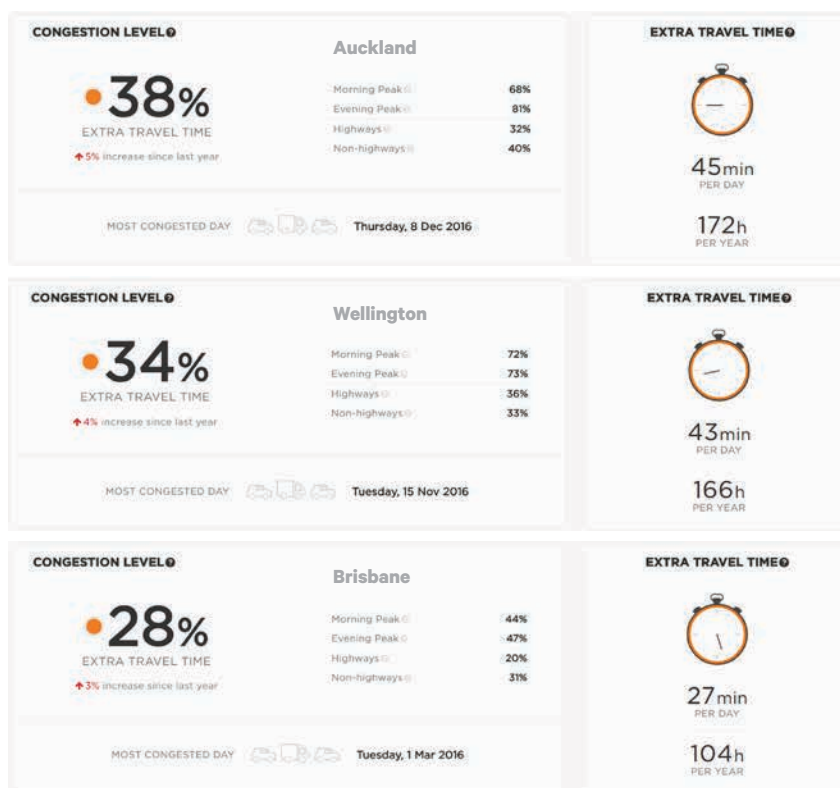
<sup>8</sup> <https://www.weforum.org/agenda/2016/04/where-are-the-world-s-highest-minimum-wages/>

## Transport performing poorly.

Key performance indicators for transport are equally disappointing. Congestion in New Zealand cities is chronic compared to similar sized cities elsewhere. Travel time delay in Auckland is the second worst across Australasia's major centres after the much larger Sydney, but more congested even than there during the evening peak.<sup>9</sup>

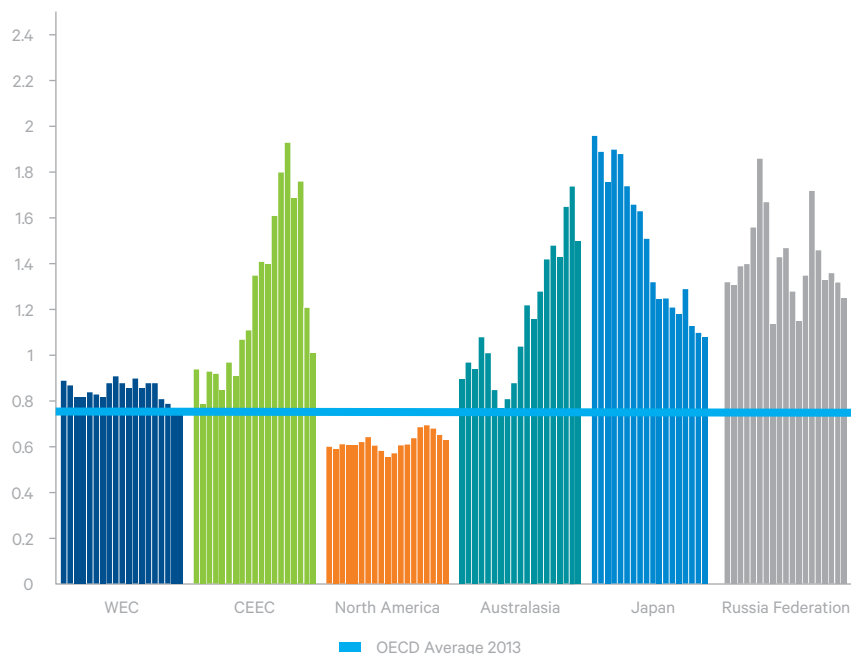
Wellington has the worst congestion of Australasian cities under 800,000 population. Christchurch is third and even slow-growth Dunedin experiences more travel time delay than the Gold Coast, Newcastle and Canberra.<sup>10</sup>

Figure 6: TomTom comparison of select New Zealand and Australian cities



Poor transport performance comes at a surprisingly high cost. New Zealand is now spending significantly more than most OECD countries on transport and the amount is increasing. Severe underinvestment in the latter part of the 20th century explains part of the need, but does not explain why outcomes are declining so rapidly now. Transport investment is achieving a level of value well below other countries.

Figure 7: Investment in inland transport infrastructure by region (%GDP)<sup>11</sup>



<sup>9</sup> Congestion is not the only transport outcome pursued by cities, but since travellers without alternatives will generally revert to private vehicles it is the best indicator of whether policy is keeping pace with demand.

<sup>10</sup> TomTom Traffic Index 2016.

<sup>11</sup> International Transport Forum, <https://www.itf-oecd.org/sites/default/files/docs/2015-07-spending-infrastructure.pdf> (WEC=western Europe, CEEC=eastern Europe)



# The Infrastructure NZ Delegation to the USA April 2018.

New Zealand's urban growth challenge is severe, but not unique. Many cities across the developed world, especially the English speaking world, are experiencing similar problems. Australia, Canada and UK cities are all battling high housing unaffordability and worsening congestion.

Another such country is the United States of America. Cities like San Francisco and New York are almost as famous for extreme house prices as Los Angeles is for extreme congestion. A feature of the US, however, is that urban growth challenges are not uniform. Some cities seem to be able to grow affordably, while others do not. What are they doing differently and what do they tell us about the way New Zealand cities are managing growth?

The US governance, tax and legal system, not to mention the country's sheer scale, make direct comparison to New Zealand difficult. To learn from US experience, but overcome substantial contextual differences, Infrastructure New Zealand led a delegation to four US cities in three different states to examine and compare urban growth approaches. We wanted to compare across different US cities, rather than with New Zealand cities. We wanted to understand the actions cities which meet growth take which differ from those cities that do not grow well take.

## Where the delegation went.

The delegation comprised 42 delegates from across the public and private sector and took place between April 2 and April 13.

The delegation visited four growing US cities: Portland, Denver, Dallas-Fort Worth and Houston – defined in this report by their metropolitan or regional areas, rather than by their municipal boundaries.

Two of the cities, Portland and Denver, are renowned for their liveability, but also increasingly costly standard of living. Dallas-Fort Worth and Houston are more affordable cities, but consistently rank lower on indices comparing liveability. In addition, around half the delegates also visited San Francisco for a briefing on that city's growth and transport technologies.

## What the delegation saw.

The delegation spent between 1.5 and 2 days in each city. Urban growth, particularly local and regional planning and water and transport infrastructure funding, financing and delivery were the priority topics of interest. The following briefings and site visits were arranged:

Portland	Denver	Dallas-Fort Worth	Houston
Local and regional urban and strategic planning	Local and regional urban and strategic planning	Regional urban and transport planning	Regional transport and urban planning
South Waterfront TOD	Regional transport planning	Dallas Area Rapid Transit	Woodlands development
Zidell Yards regeneration	Eagle P3 commuter rail	Next generation transport systems	Municipal Utility Districts (MUDs)
Portland aerial tram	Road X managed motorway	Transport-development integration	Woodmere development
SoWa central district	Central 70 PPP	Smart Cities	Generation Park business development
State transport planning	Stapleton urban regeneration	American PPPs	Infrastructure funding and financing tools
Oregon road pricing		Southlake town development	SH288 toll lanes
MAX light rail		LBJ expressway	
Hassalo TOD			
Trimet Yellow line			

## City definition, overview and comparison.

“Cities”, as defined in this report, are metropolitan areas. In all cases (except Auckland), they cover multiple governing jurisdictions, including both “city” and county governments. Where reference is made to a city government or its jurisdictional area, the terms City of Portland, City of Denver, City of Dallas, City of Fort Worth and City of Houston, will be used. “Dallas” and “Dallas-Fort Worth” are both used in reference to the Dallas-Fort Worth metro area.

Appendix 1 on page 38 provides an overview of each of the four principal cities visited by the delegation. Table 1 below sets out headline statistics for the cities, as well as San Francisco and Auckland.

City	Portland, Oregon	Denver, Colorado
Metro population <sup>12</sup>	2.5 million	2.9 million
Total pop. growth 2010-2017 <sup>13</sup>	10% (30,000 residents p/a)	13.5% (60,000 residents p/a)
Median household income <sup>14</sup>	US\$70,000	US\$74,000
Median home price	US\$389,000	US\$418,000
Home/income ratio	5.5	5.7
Congestion <sup>15</sup>	34mins	24mins
Unemployment <sup>16</sup>	4.1%	2.8%

City	Dallas-Fort Worth, Texas	Houston, Texas
Metro population	7.4 million	6.9 million
Total pop. growth 2010-2017	15% (150,000 residents p/a)	16.5% (150,000 residents p/a)
Median household income	US\$65,000	US\$63,000
Median home price	US\$249,000	US\$234,000
Home/income ratio	3.8	3.7
Congestion	24mins	32mins
Unemployment	3.7%	4.6%

City	San Francisco, California	Auckland, New Zealand
Metro population	4.7 million	1.7 million
Total pop. growth 2010-2017	9% (50,000 residents p/a)	15% (30,000 residents p/a)
Median household income	US\$99,000	US\$67,000 <sup>17</sup>
Median home price	US\$900,000	US\$586,000
Home/income ratio	9.1	8.8
Congestion	39mins	45mins
Unemployment	2.7%	4.6% <sup>18</sup>

<sup>12</sup> Wikipedia

<sup>13</sup> Wikipedia

<sup>14</sup> Household data from Demographia, 14th Annual Housing Affordability Survey 2018.

<sup>15</sup> Minutes delay if travelling for 1hr per day at peak, TomTom, Traffic Index 2016.

<sup>16</sup> March 2018, US Bureau of Labor Statistics, <https://www.bls.gov/web/metro/laummrk.htm>

<sup>17</sup> Converted to \$US from \$NZ at current exchange rate (\$1NZ=US\$0.7)

<sup>18</sup> December 2017, Infometrics.

# Key finding 1: The US urban growth system is better incentivised.

There are two key strengths of the US urban growth system which delegates highlight. The first is that the US system for responding to and supporting urban growth better aligns incentives with responsibilities and accountabilities. Key institutions, agencies and economic settings more closely allocate benefits from risk taking and investment to the entities which take those risks and make those investments. Likewise, the costs of policy failure are more closely attributed to the parties which fail, rather than transferred to other parts of society:

## US cities receive the benefit of growth.

US cities have a number of funding mechanisms tied to economic performance. Denver, Dallas and Houston use sales taxes to fund general activities and each has levied a 1 per cent sales tax to deliver an improved public transport system. Dallas and Houston also have property taxes with a strong link to property value. In each case, the revenue of the city and its component institutions increases with the success of the city in growing the economy and delivering homes.

Portland, the city with the greatest growth challenges, also has the fewest incentives to grow. There is no sales tax in Oregon, removing this option also for Portland. Instead the state relies on comparatively high income and corporate taxes, but so far has not extended the ability for Portland to levy these direct. Property taxes in Portland have been tied to inflation since the early 1990s. Thus, property values have now become detached from property rates and the two are only reviewed when properties are significantly changed or redeveloped.

## How is New Zealand different?

Under the New Zealand growth model the benefits of growth, together with much of the accountability, accrue to central government. GST, income and corporate tax increases make the Government hungry for growth and public perception that central government is accountable for overall national economic performance translates to votes on election day.

Local government, the core funder of transport and water services for new development, has property rates tied to council costs – not the economy or total land prices. Increased costs mean increased rates, irrespective of economic performance. Councils are not incentivised to go for growth to get more revenue and increases in rates meet wide public opposition.

Councils are instead incentivised to petition government for more investment. Central government is the only major source of revenue for councils other than increasing rates. Politically, it can be safer to hold back investment and wait for central government assistance than increase taxes.

Expectation that national taxpayers will eventually respond with local projects has recently been satisfied, with the Provincial Growth Fund, Housing Infrastructure Fund and other initiatives each underpinning the importance of attracting central government attention. Patience while growth issues turn chronic have left many behind and private capital which could have filled the gap has been left searching for opportunities overseas.



## US cities shoulder the cost of urban failure.

Growth not only means more revenue for successfully growing cities, it also means fewer problems. A much less comprehensive social welfare system overseen by the federal government transfers the cost of poor growth management to cities and states. Higher house prices will not necessarily result in larger federal or state transfers to subsidise housing costs. Poor access to employment will not be compensated with long-term unemployment benefits from Washington.

If housing and transport is not provided by well-functioning markets, local agencies and investors, cities will incur the cost in two ways. First, they will be hit with less revenue from sales taxes, tolls and other growth-related taxes to invest in core services. Second, new spending priorities emerge. Housing subsidies, policing and justice expenditure all tend to increase with poor economic performance and each impact local government activities in the US.

### How is New Zealand different?

In New Zealand, central government carries the overwhelming cost of additional law enforcement, housing, congestion and other responses resulting from urban growth failure. Again, these costs are double-edged and include additional spending on rent subsidies and justice, for example, as well as lost revenue benefits which accrue to central government via its broad tax base.

Knowledge that central government will carry the great majority of costs for urban growth failure has reduced the incentive for councils to respond to problems. Guaranteed revenue via the linking of rates charges to council costs, not to property values or the economy, insulates the council from the negative impacts of flawed growth policy. Little if any responsibility for public services linked to deprivation and social welfare distances councils from the negative effects of poor policy.

#### MPOs.

Metropolitan Planning Organisations are regional transport planning and investment agencies. They consist of all participating city and county governments within a metropolitan area. They are voluntary and have exclusive right to manage federal transport funding transfers.

## Cities compete for growth.

An outcome of enhanced responsibility on cities is greater competition between cities and states. Relative, as well as absolute, growth is important in the US. Cities which develop economically, socially and environmentally better than their competitors attract more skills and investment. Cities compete for private investment in the general absence of a large central actor redistributing national resources. Major cities in recent years have lobbied and courted Tesla, for location of its Gigafactory, AT&T for 5G rollout, and Amazon, for a major new headquarters, among others.

Competitive tension between cities is further encouraged by federal and state government activities. Rather than delivering services themselves, higher levels of government use funding transfers to lower levels to advance policy. Most notably, federal transport investment, which may comprise around 10 per cent of transport budgets, is not delivered by a central agency. It is distributed to metropolitan planning organisations (MPOs) who compete with other metro areas for these federal funds. Without a compelling case for investment, other cities receive federal grants and losing cities will have to cover more of their own transport costs.

### How is New Zealand different?

Competition between New Zealand cities for growth is limited. Auckland has no peer, leaving smaller centres to compete largely with each other. For the recent awarding of the America's Cup for example, there was little serious consideration given to any New Zealand centre other than Auckland. This left the city competing only with foreign cities for the right to host a Team New Zealand defence. By comparison, Bermuda beat Chicago, San Diego and San Francisco to host Oracle's 2017 defence, paying around \$77 million for the right.<sup>19</sup>

Even competition between New Zealand's second tier cities is limited. Wellington is the seat of government and Christchurch the commercial centre of the South Island. Each fills a distinct niche which is difficult to challenge.

Central government's dominant role in economic development further softens competition. Cities may win hosting rights or new investment for minor activities, but to target a major corporate or recreational investment, central government support is required. Central government, however, has generally focused its attention on non-spatial underlying macroeconomic efficiency. This has given New Zealand comparative advantage in general economic efficiency,<sup>20</sup> but may be holding back cities from attracting investment aligned with strategic direction, relative to the US.

<sup>19</sup> Wikipedia

<sup>20</sup> The World Economic Forum ranks New Zealand ninth most competitive country in the world for "efficiency enhancers", but this metric includes size of the economy, where New Zealand ranks 64th.

## Local governments within cities collaborate.

Competitive tensions which are evident between US cities are much less obvious within cities. The grants and transfers approach of the federal and state governments to city investment appears to assist with regional collaboration.

It is strongly in the interests of all municipalities and counties comprising a metropolitan area to work together to attract federal transport and other funding. The process has been successful enough that some MPOs now participate in a wider range of activities than just transport. Portland's MPO, Metro, for example, is now involved in land use planning, parks, rubbish and venues.

Collaboration is occurring across political lines, as well as government boundaries. There is less debate over different modes and solutions for transport and land use in US cities. Agreement over Portland's compact model seemed to have a similar level of support across the city as Houston's market-driven approach. Changes of government from Democrat to Republican and vice-versa were notable for not contributing to radical changes in transport policy.

## How is New Zealand different?

New Zealand councils across the same metropolitan area have a poor history of collaboration. Auckland's pre-2010 inability for councils to respond effectively to the region's growth need precipitated the recommendation for amalgamation. District and city councils across New Zealand have a litigious and confrontational approach to growth. Environment court processes are extensively used to resolve issues like shifts of an urban boundary.

Central government has established regional councils to plan regionally, but has not provided them with the funding necessary to achieve regional cooperation and alignment. There are no central grants or transfers in New Zealand which require councils to work together to receive additional funding. In transport, the only sector where local and central government share responsibilities, NZTA allocates funding to each council. Funding is not available at a metro scale, other than to support regional council public transport services. Territorial authorities compete with each other for road and other improvement funding.

## Cities focus on value.

Confronted with greater competition and accountability, US cities have inherited a dual mandate to keep costs down and add value. The added value of not only new homes and jobs, but also increased tax revenue, forces cities to think about what investment and growth will deliver in the long term in balance to what it will cost in the short term. This appears to influence public debate over the importance of investment, enhances public understanding of the benefits of growth and improves long term vision.

In Denver, for example, an identified need to upgrade the city's airport was turned into a multi-generational, multi-billion dollar economic and urban development opportunity. The old Stapleton Airport was replaced with a major new facility to position Denver as a transport hub. Its six runways over 13,500 hectares make it the largest airport in the US, leveraging Denver's strategic location close to the geographic centre of the US and meeting point of major roads, railways and pipelines.

### Stapleton redevelopment.

The Stapleton redevelopment is a 1600 hectare urban regeneration of contaminated former airport land, which includes 400 hectares of open space. Using a combination of special districts and TIF, a master developer has partnered with public agencies to deliver public infrastructure and a mix of affordable and market housing. Launched in 2000, Stapleton will be nearing completion in 2025. It is already home to 26,000 residents and has created \$4.8 billion in value.

The old Stapleton Airport was decommissioned. Its location 10 km from downtown Denver and midway between the city centre and new Denver International Airport, made it a key strategic redevelopment opportunity. Contaminated land made the site uneconomical to develop conventionally, so a TIF model was employed to de-risk private investment and catalyse growth.

TIF itself is a mechanism which requires authorities to think about and acknowledge the long term value of public investment. Extensively used throughout the US to renew urban areas which otherwise would go under-developed, TIF links future land value improvement (and taxable revenue) to today's investment (see page 21).

## How is New Zealand different?

The rates-based approach has not only impeded councils' willingness to invest, it has established a mentality and approach to city growth framed around costs, not around value. How much growth costs is the debate, not what value it delivers.

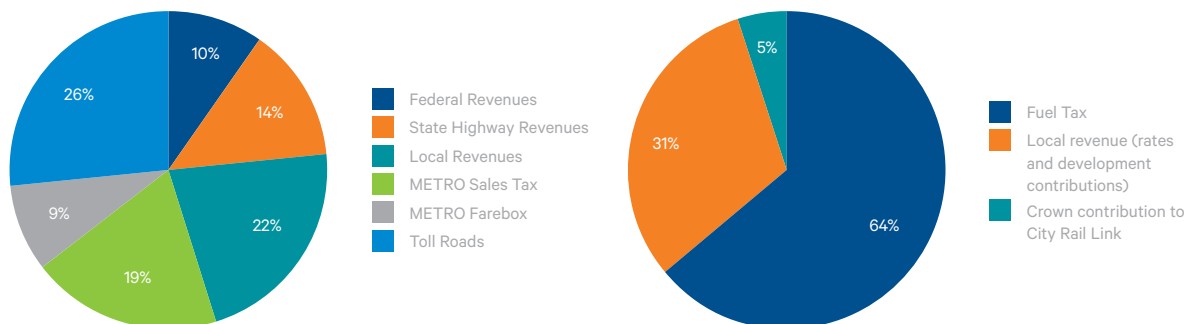
Councils' efforts to avoid higher costs has resulted in a high dependency upon regulation, irrespective of value. Urban growth boundaries and density restrictions have stymied the supply of developable land. Minimal infrastructure investment has left large developable land holdings underutilised.

### Transport incentives.

Transport incentives in the US system contrast starkly with those in New Zealand. Tax on petrol is very low in the US by global standards, costed at just 18.4 cents per gallon (3.8 litres) for federal tax and, in Texas, 20 cents per gallon for state tax. This equates to approximately NZ14 cents per litre compared to NZ66 cents per litre in New Zealand, before 10 cents per litre for GST is added.

US fuel tax is inadequate to cover all transport costs and a number of other sources are used, including local taxes and charges, sales taxes, tolls and farebox recovery. New Zealand tools are more limited, with a much higher proportion dependent upon fuel tax and only the Government's share of the CRL (allocated from the consolidated account) tied to economic performance.

Figure 8: Houston transport funding vs Auckland<sup>21</sup>



The US funding system subsidises all transport modes. Surprisingly, Houston's vast motorway network was fully funded with only the 38.4c/gallon tax until around 2011. Local roads are not subsidised by fuel tax at all and Houston recovers less than 20 per cent of the cost of operating public transport from farebox revenue. In New Zealand, around half of public transport operations are recovered from users and roughly three quarters of road costs.

The effect of comparatively higher transport subsidies in a city like Houston than in cities across New Zealand is a willingness to travel further. Longer distances allow residents to access cheaper land, so living costs are not necessarily increased (and may in fact fall). However, carbon emissions are high and long trip lengths have made citizens extremely sensitive to fuel tax increases. In New Zealand, the high proportion of funding contributed by private vehicles has distorted transport priorities. Rather than being viewed as a catalyst for economic development and connectivity, transport has become a debate about what mode best reduces congestion. Light rail in Auckland, for example, has been marketed as a solution to gridlock, rather than its real purpose which is urban regeneration, because the funding source is private vehicle users.

<sup>21</sup> Houston-Galveston 2040 Regional Transport Plan and Infrastructure NZ from ATAP 2018 data.



## Conclusion.

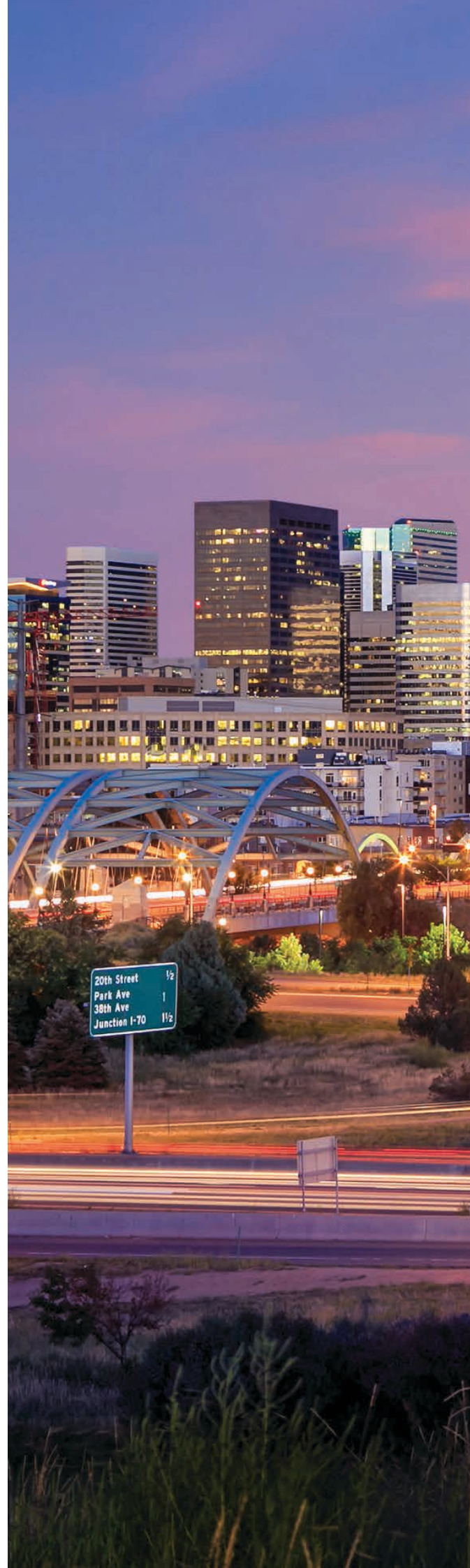
US cities want growth and governing bodies target policies and investment to attract it. They do this because there is a financial imperative to do so. More residents and businesses mean more investment, more jobs and more taxes. Slower growth means less investment, higher unemployment, lower taxes and higher costs.

New Zealand cities are much less motivated to attract growth. High upfront infrastructure charges fall disproportionately on local councils, while taxation benefits from new investment and economic performance accrue to central government. Higher local obligations require rates increases which hit ratepayers – those with homes – in the pocket, making them resistant to investment, ultimately impacting those without homes. Perversely, lower investment and slower housing supply materialise as higher property values. Risks are poorly allocated across the New Zealand urban growth system.

The Government has attempted to compel councils to be more responsive to growth through legislation, but it has had little positive effect. Councils have lacked the will to overcome barriers and the electorate has been slow to support higher rates. Local government has pointed the finger at central, central at local and the housing, infrastructure and urban growth system has deteriorated.

Until local government in New Zealand is motivated by growth, councils and leaders will not overcome the challenges US cities find a way to address. Collaboration, leadership, vision, planning and community engagement will be undermined. These are the underlying strengths which made the US system work, in spite of other challenges.

Long term, changes need to be made to funding and taxation to allow councils to support growth. Short term, central government can accelerate and enhance programmes underway which increase competitive grant funding to councils who align with government policy. The Provincial Growth Fund is one example. Other initiatives like city or regional deals which tie local funding to economic performance are comparatively straight forward, proven and can be effected in the near future.







# Key finding 2: The US urban growth system is more flexible.

## Decision making is “lower” and “flatter”.

The second system-level strength of the US model for responding to and supporting urban growth is its flexibility. Institutions have at their disposal a wide range of tools to overcome funding, financing, planning and delivery challenges as they arise. When existing tools or even the institutions themselves fail to support growth, the US system itself has shown an ability to adapt with new institutions and governing solutions.

Governance and decision making structures affecting US cities are arranged very differently to New Zealand. The federal government plays a comparatively small role in domestic affairs and state governments are more legislative and regulatory in their purpose than infrastructure-oriented (compared to, for example, Australia).

This leaves county, and especially city, councils as strong, empowered place-based urban investment organisations. They have material responsibilities covering urban planning, transport, water services, schools, police, courts, rubbish, parks, social housing and local facilities like town halls and sports centres.

The broad remit of municipal and county governments is enabled by equally broad funding and financing tools. Property taxes, sales taxes, income taxes (these are less common at the city or county level and are only imposed in Portland of the cities visited), tolls and charges are all used.

The combination of wider responsibilities and greater funding capacity gives greater scope for cities themselves to respond to local challenges. Different levers can be pulled to address different issues and authorities can improvise to meet need.



## Governance is fluid.

### How is New Zealand different?

In New Zealand, central government is the predominant investor and actor in cities. There is no intermediate governance equivalent to states, as regional councils do not sit “above” territorial authorities, but “alongside” them. They each provide different services and all have less authority than their American equivalents. Local and community boards also have less autonomy than lower levels of government in the US.

The extremely strong position of central government sees it collect more than 90 per cent of all tax revenue in New Zealand. The federal government collects under half of all taxes. States collect a little over a quarter and local government the remainder. The overall tax take is equivalent to around a quarter of US GDP and a third of New Zealand GDP.

The quantum of tax gathered centrally in New Zealand understates central government’s full influence, as many key functions are monopolised by Government bodies. Public health, education, state highways, law enforcement and justice are all planned, funded and delivered by agents of the Crown. In the US, the federal government tends to influence these activities more through transfers to states, cities, counties and private providers.

The result for New Zealand is a strongly vertically integrated decision making system aligned by portfolio, not by place. Central and local government do not have interlocking and shared responsibilities, except in transport. Separate responsibilities allow councils to operate independent of central direction. Urban water, urban planning and clearly defined environmental management and consenting responsibilities – all critical to urban development – sit with councils with little substantive government oversight or participation.

Cities experiencing local issues have limited scope to reassign core public services to meet need. Central government must be engaged to effect change. Once committed, central government has very strong capability to address issues, but is compromised when issues are local. Most recently, central government has been politically challenged to respond to chronic Auckland housing and transport issues without providing equivalent funding for regions with lesser problems.

City governments in the US not only have greater scope to improvise with the wide range of tools they have access to, the governments themselves can change. This can take the form of boundary changes, so that territory overseen by counties can be and is incorporated into cities. The ongoing evolution of local government can therefore be aligned with the continual evolution of cities.

Additionally, new governments can arise to address gaps in public service delivery. **Special districts**, including municipal utility districts, and school districts can emerge or be disestablished with relative frequency. There are some 50,000 such entities in the US, which in addition to cities, counties and townships comprise the vast majority of America’s 90,000 units of government.

### Special districts.

Special districts are independent units of local government that can enable programmes or projects to be financed and the debt repaid over time. Repayment is made by ring-fencing user charges and special taxes to repay project bonds and do not require a guarantee from wider taxpayers or councils. They can be established to fund, finance and operate a wide range of local services, including water services, roads, public transport, parks, libraries or recreational facilities.

Finally, umbrella governments can be established (or expanded) to provide services across different territories. Portland’s Metro and Denver’s Regional Council of Governments have both been established and enhanced to integrate and align across their respective city-regions.



# Cities have more tools in the toolkit.

The combination of broader responsibilities and resourcing of those responsibilities gives cities a wide range of options to prioritise and deprioritise programmes. Different funding sources can be used for different activities and the scope provided by state governments allows local authorities to pursue innovative funding and financing options.

## How is New Zealand different?

In New Zealand, governance is comparatively rigid. There is scope for districts to transfer development areas to city councils without significant legislative change, but other changes to existing structures require complex legislation.

In Auckland until major legislative reform in 2010, and still across Wellington today, a single urban area can include multiple city councils. This is not inconsistent with the US where, for example, the cities of Dallas and Fort Worth operate as part of a single city-region. However, the umbrella organisation which could facilitate integration and collaboration – the Wellington Regional Council – is weakly empowered to perform this function.

In the US system, the Wellington Regional Council would have broader and overlapping responsibilities with other Wellington councils. It would also receive funding from higher levels of government to perform its function, giving it greater influence over territorial authority decisions.

To deliver core infrastructure to enable growth, cities use different tools. In greenfield areas, new special districts may be created. Houston's use of **MUDs** is the most famous example. Cities and counties around Houston do not deliver new water infrastructure, MUDs do. As debt used to finance the MUD is paid off, Houston may incorporate the community and its water network into its system, but the funding and delivery of the network in the first instance is passed over to the special district.

### MUDs.

A Municipal Utility District is a special district of the State of Texas established to fund, finance, own and operate public infrastructure for new developments. They levy a property tax across a serviced area to repay investors who financed initial capital costs, as well as cover the ongoing costs of the network. MUDs allow developers to be repaid earlier and avoid the usual long and risky processes of council planning and investment. Asset ownership can be vested in prevailing local authorities, with the district serving just a funding and financing function for the original investment.

The advantage of the special district approach is that it removes both financial and delivery responsibility from the local council. Capital costs are financed via the bond market and investors lend against the revenue stream of the district. Risk is transferred away from general taxpayers, as is the balance sheet liability.

Where a special district may not be applicable, such as if the beneficiaries of investment are more dispersed, governments have little hesitation going direct to the ballot box. Proposition specific voting is common in the US to levy a new tax tied to a project or programme. For example, Denver, Dallas and Houston have all implemented a 1 per cent sales tax to fund public transport, most notably light rail.

### Revenue bonds.

Revenue bonds are a form of project financing where investors lend against a revenue stream linked to a project. They are distinct from traditional – 'general obligation' – bonds in that they are 'non-guaranteed', that is, they are not tied to a local council's overall taxation capability. The specific revenue bond will have a rating from a major ratings agency to estimate investment risk. In the US, no federal or state tax is payable on municipal bonds, which helps to keep financing costs low for public projects.

Implemented in the form of revenue bonds, this type of approach improves transparency and accountability for delivery. It also appears to help separate party politics from project politics. Proponents of an identified initiative can take the proposal directly to the electorate and debate the merit of the project, rather than the manifesto of the wider party. Changes of political direction do not result in major changes in transport policy in the USA.

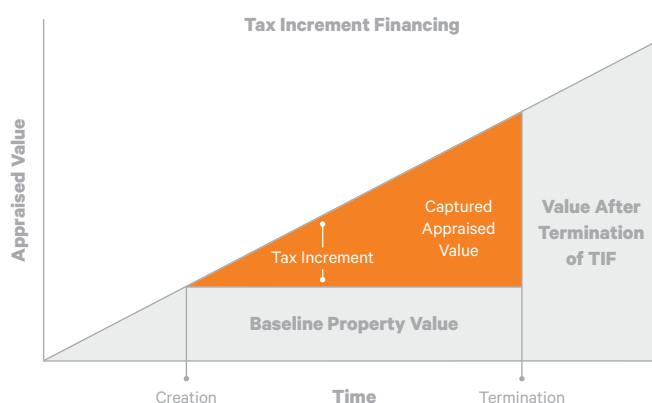
## Denver FasTracks.

In 2004, the Regional Transportation District – a special district established by eight of Denver’s twelve counties to oversee regional public transport – successfully received ballot box support for a 0.4 per cent increase in sales tax to fund a substantial expansion of rapid transit across the city. GFC-related revenue deficits and cost escalation has since caused the completion date to be pushed back, but has not terminated the programme. At a 2017 bond issuance for the next phase of FasTracks construction, Moody’s rated \$86 million of debt as Aa2.

Revenue bonds do not necessarily require a new tax. A long standing and successful American infrastructure tool is tax increment financing. It uses future tax revenue (normally additional property rates generated from increased land value) to repay the cost of services.

## TIF.

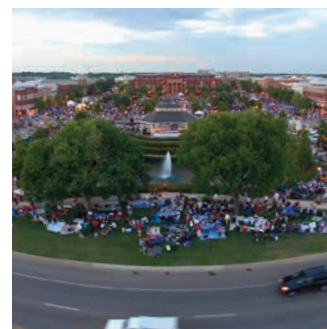
Tax increment financing (TIF) is a tool to finance urban and economic development. A TIF is a special district that ring-fences additional property taxes to repay revenue bonds. “Incremental” taxes are generated when the public activity financed by investors improves the value of property within the district. TIF is predicated on the tax being additional to what would otherwise have been possible.



TIF has been used extensively across the US, particularly in states where legislation is required to increase taxes or levy a new tax. It has received criticism in some instances, including in Portland, where additional property taxes and values have been perceived to gentrify previously affordable neighbourhoods. However, it has also been used successfully to deliver projects which otherwise could not be funded.

## Southlake.

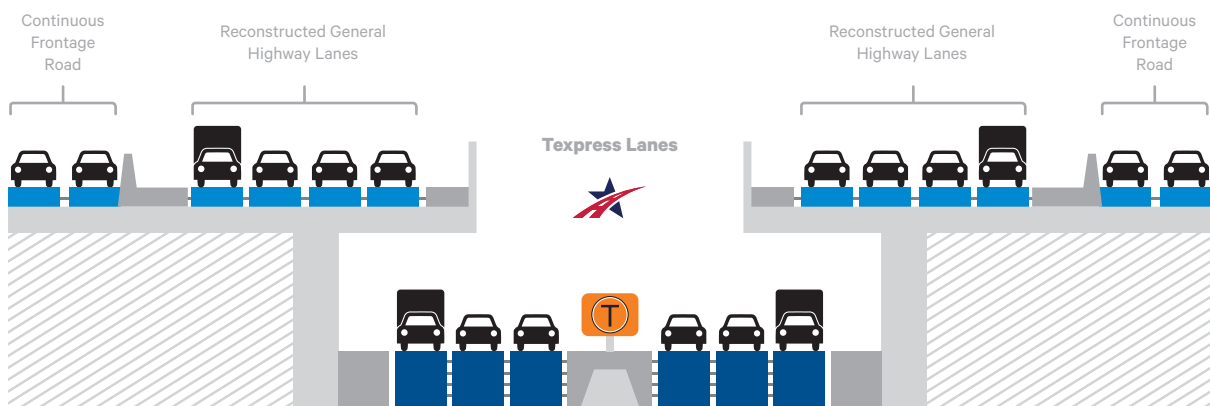
Southlake is a new town centre development just over 5km from Dallas-Fort Worth International Airport. Traditional residential development had proceeded in the area through to the 1990s, but there was no town centre or community focal point. In 1997, developer Cooper and Co. entered into a TIF agreement with local councils to jointly fund development infrastructure and a new town hall. A successful intensive mixed use development has occurred which, without TIF, could only have proceeded as conventional low density housing and commercial strip development.



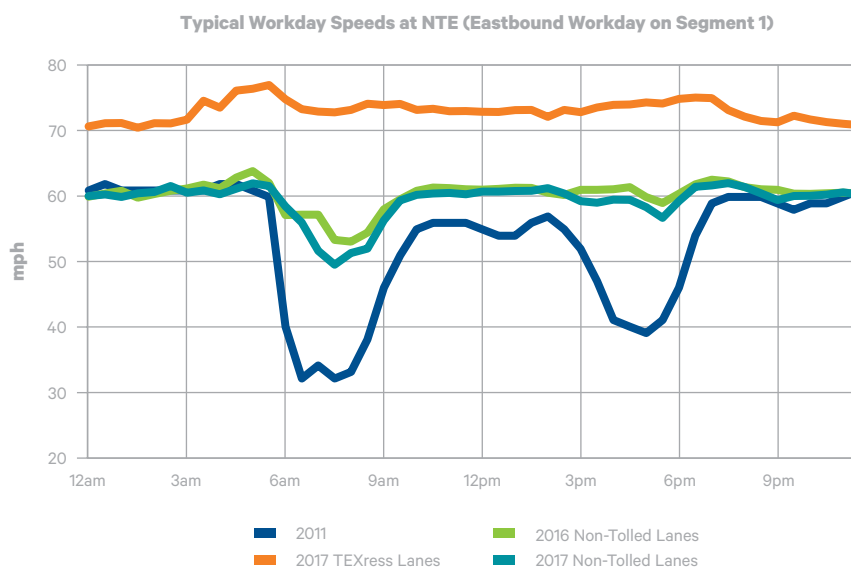
In circumstances where a private revenue stream can be generated, US cities, and especially state highway agencies, have made frequent use of public private partnerships (PPPs). Highways agencies have added both general traffic and express lanes (paid toll lanes distinct from general traffic lanes) across wide parts of the Denver, Dallas and Houston areas.

## LBJ Texpress PPP.

The Lindon B. Johnson Freeway is a major eight-lane freeway in the north of Dallas. Approaching capacity, the Texas Dept of Transport tendered expansion of the road via a PPP. The objectives were to find an innovative solution to capacity constraint, noting public opposition to broadening the highway or constructing a viaduct. The successful North Tarrant Expressway consortium constructed a six-lane expressway corridor within and under the existing motorway.



Tolls are dynamic, delivering speeds of at least 110km/hr through peaks by varying toll charges to ensure flows. Speeds on both the express lanes and general traffic lanes have improved with delivery of the project. The private partner has taken toll (demand) risk, requiring just an 18 per cent public contribution on the \$2.6 billion 20km project.



## How is New Zealand different?

The one clear area in the US system where flexibility is demonstrably constrained is fuel tax. The federal government has not increased fuel tax since 1993, leaving inflation to reduce by over half its effective rate. The federal government also requires that fuel tax allocations are invested in road initiatives.

Political challenges increasing fuel tax have resulted in the emergence of different funding tools. Most commonly, authorities have resorted to conventional tools like general taxes and tolls, but Portland is now experimenting with the radical OReGo system. Recognising the impact not only fixed federal funding is having on the system, but also increasing vehicle efficiency, Oregon is leading US states with the first steps towards replacing fuel tax with road pricing.

### OReGo.

OReGo is a voluntary trial initiative to price road use by distance for 5000 vehicles. Volunteers are charged 1.7 cents per mile (under NZ4 cents per km) and receive the tax back on fuel purchased. Various mileage options are available to address security. The objective is to begin the shift towards road pricing in response to improving vehicle efficiency, declining fuel tax revenue and an inability for the state to cover maintenance.

New Zealand cities have fewer and more restricted options for responding to growth.

Funding tools are severely limited. Councils have rates and growth related charges. Some cities have water metering and NZTA has private vehicle taxes. Economic taxes, such as GST and income tax are used to fund schools, but are otherwise used intermittently by central government, such as to fund half of the Auckland City rail Link and Wellington's new units.

Financing options have been equally limited. Councils have been reluctant to exceed debt to revenue ratios of 2.75, which may jeopardise ratings and therefore borrowing costs. This has impacted not just general council debt, but also the ability to access tools like TIF and private finance. PPPs qualify as debt and are only applicable where significant risk transfer can be achieved. They have been employed just twice for growth related projects (excluding schools), both times by NZTA. NZTA itself has restricted access to debt so funds most projects on a pay-go basis.

Councils do have options at their disposal and are beginning to expand their range of tools. Auckland is moving closer to a direct democracy-style revenue approach, via use of targeted rates like the now expired transport levy.

Central government is also broadening its approach. Its Crown Infrastructure Partners operates in a similar way to a MUD, taking debt and delivery away from responsible councils for core growth infrastructure.

## Conclusion.

Urban governance arrangements in the US are “horizontally” integrated. Councils manage a wide range of functions with an equally wide range of funding and financing tools with a high degree of autonomy. This gives cities and their leaders myriad options to respond to urban growth challenges. If these are inadequate, the system provides scope to adapt with new solutions. The responsibility is on leaders to manage their place well, not on sector bodies to manage their portfolios well.

Urban governance in New Zealand is “vertically” integrated. Portfolios are allocated to different agencies and responsibility is placed on those agencies to manage the entire chain of service delivery. Collaboration is not essential to providing defined services, creating siloes across public services and making integrated decision making more difficult.

There is little doubt that the New Zealand governance approach contributes to the country's very low level of corruption and high standard of public services. However, it is also undermining urban growth systems which by their nature are complex and require whole of government alignment. Local government leaders are not empowered to solve problems themselves and a “begging bowl” approach to central government is often the most effective policy. Leadership, integration and a long term commitment to working together are all undermined.



# Key finding 3: Land markets and taxes impact affordability.

## Texas cities deliver more affordable housing.

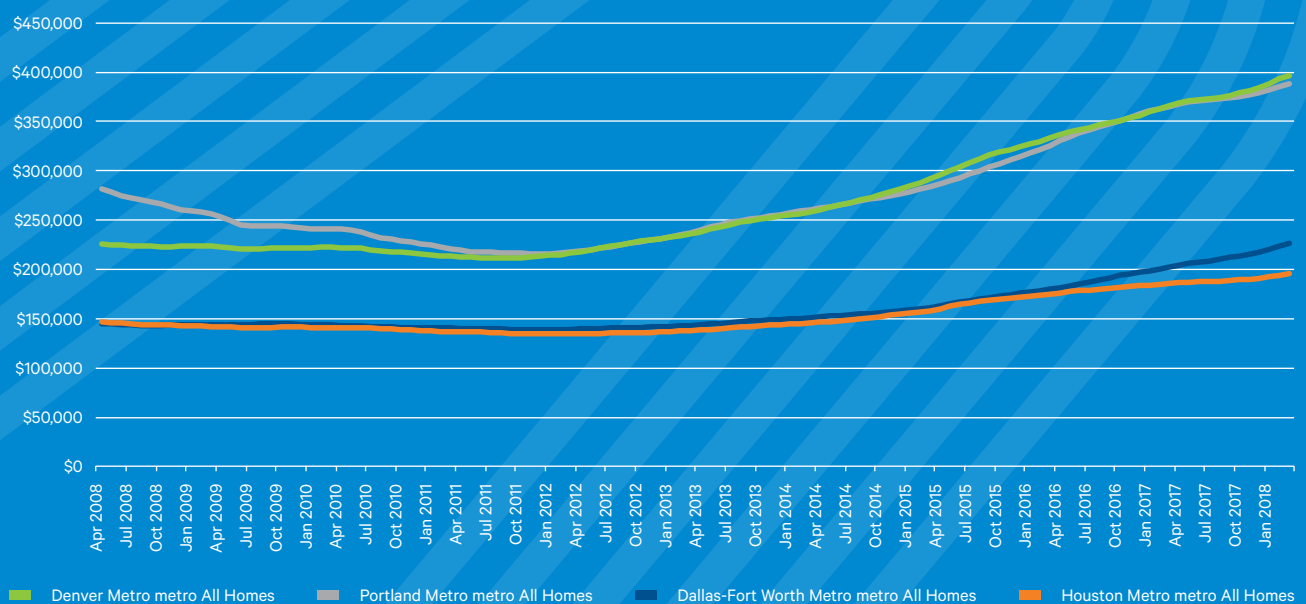
Cities which are incentivised to go for growth and have the tools to respond to challenges will better manage growth. Each of the US cities performs better than Auckland (the only New Zealand city large enough to be broadly comparable) in terms of measured congestion, has materially lower home prices and is ramping up more rapidly to meet demand. They each generally show signs of improved integration across different urban activities, including transport and land use planning.

However, Portland and Denver are struggling with housing affordability. In both cities, home prices have remained higher and increased faster than in the Texas cities, in spite of equivalent or lower growth. Home prices have also shown greater fluctuation.

Portland and Denver residents have higher incomes, though the relatively small difference does not seem to justify home prices of around twice the value. If it did, greater variation should be expected between Denver (which has the higher incomes) and Portland.

Each city has a plentiful supply of developable land and each city has geographical impediments. Portland with its productive soil and in some places challenging topography clearly has the greater challenge, but Houston and Denver are very similar.

Figure 9: Median home prices by sale (US\$)<sup>22</sup>



<sup>22</sup> Zillow

# What do Houston and Dallas do differently?

There are two major policy differences separating Houston and Dallas from Denver and Portland:

## 1. Fewer development restrictions.

Neither Dallas nor Houston employs an urban growth boundary. Portland, and its state government Oregon, has enforced through legislation a “hard” urban boundary since 1979. Participating Denver governments have agreed a “soft” voluntary, though binding, urban boundary since 2000.

### The Mile High Compact.

The Mile High Compact is an agreed land use plan signed by 46 different governing authorities across the Denver region. It commits signatories to link their own plans to the metro vision and work collaboratively to guide growth. Included in the Mile High Compact are a series of growth management tools, including zoning, an urban growth boundary and development codes.

Portland, Denver and Dallas also have zoning, designating some areas for single housing, others for apartments and others for commercial activities. Houston has no zoning code, though across a quarter of the city deed restrictions are in place. These are temporary (though long-term) constraints placed by developers or communities on areas to protect their character. Outside of these areas, apartments can in principal can be constructed in traditional, single housing suburbs, businesses can locate to residential areas and greenfields can be converted to urban development.

Very similar housing price and supply indicators across Dallas and Houston suggests Houston's no zoning approach has not made a substantive difference in terms of supply and price. Thus the implementation of urban growth restrictions is the dominant regulatory difference between cities visited which have affordable housing and resilient supply versus those which do not.

### Competitive urban land markets

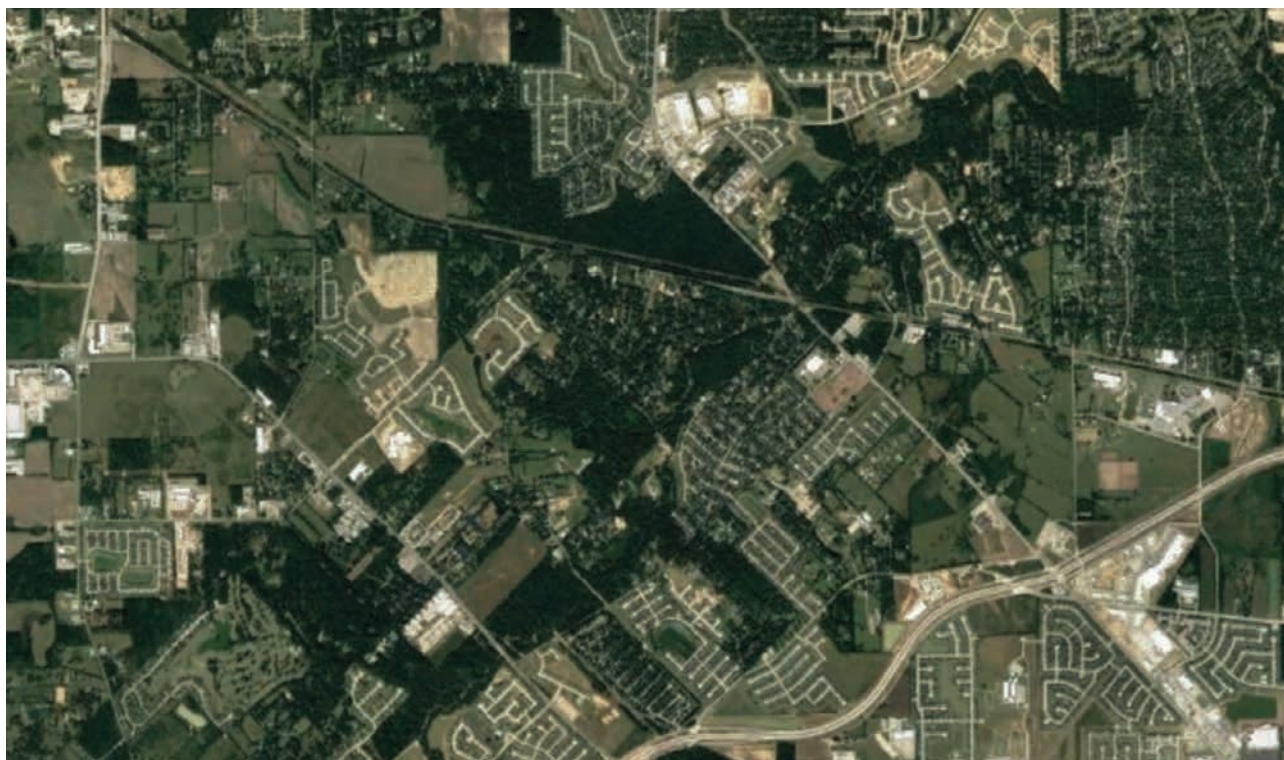
Observable land use on the periphery of Houston and Dallas indicates that land is readily accessible to both buyers and sellers. There is extensive evidence of “leap-frog” or out of sequence development where land unavailable for development has been passed over and development has proceeded further from the urban core (Figures 10-11). Lot sizes are a mix of large and small, with smaller lot developments generally collocated with transport.

Figure 10: Typical land use on the Dallas urban periphery





Figure 11: Typical land use on the Houston urban periphery



In contrast, land use on the periphery of Portland and Denver presents fewer signs of land accessibility to large developers. Development can in general (particularly in Portland where the growth boundary has been in effect longer) be seen in a single continuous stretch from the city centre outwards to the edge of development. Intensive development is occurring next to open fields, where it might be expected that property owners trade off proximity to amenity for cheaper land (Figure 12).

Figure 12: Typical land use on the Portland urban periphery



Development restrictions on land use on Portland's periphery limit the extent of urban expansion and should enable more comprehensive public transport. However, the limit placed on access to land reduces the number of sellers in the market. Planning priority given to zoned "in-sequence" land transfers development priority to an even smaller number of land owners, increasing their bargaining power.

The controls encourage land to be more intensively developed, as higher land prices reduce the willingness of developers to deliver large lots. But higher land prices also increase the cost of housing. More limited access to large land holdings by developers inhibits scale, reducing construction efficiency and adding a further layer of cost. To successfully sell higher priced houses, developers target the top end of the market, building bigger, more expensive homes. Affordable housing supply slows, increasing house prices across the market.

High priced housing becomes less accessible to average income earners, slowing demand for available product. Developers limit delivery to maximise margins, rather than meet demand. Planning restrictions are loosened when capacity is projected to be exhausted. Slowing sales send a false signal to authorities about real underlying demand in the market, causing much needed land to be held back from development.

In Dallas and Houston, the absence of an urban boundary increases the number of sellers in the land market. More options undermine land banking and encourage developers to respond to demand, rather than target anticipated future price rises. Larger land holdings can be accessed, partly because land is more available and partly because the cost of buying land is less. Bigger developers have greater capacity to endure slowdowns in the market and can achieve economies of scale. Lower section prices, higher construction productivity and more flexible supply result.

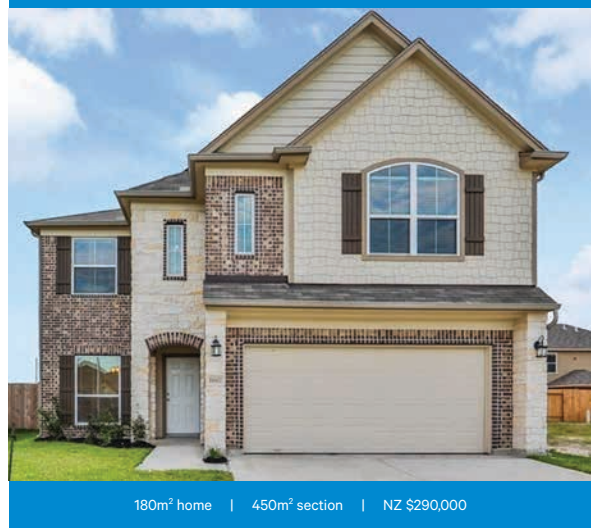
## Competitive land markets in action: Woodlands and Woodmere.

Houston's competitive land market has given rise to one of the most successful suburban developments in the US – the Woodlands. Set across almost 12,000 hectares, the single developer and masterplanner Howard Hughes Corp has established a thriving high end city of 116,000 residents, 43,000 homes and 67,000 jobs. Multiple special districts were used to create a new major community inside a forest and the equivalent of a mega-body corporate regulates land use, including the right to remove trees across the area.

Figure 13a: Woodlands Town Centre



Figure 13b: New housing at Woodmere, Houston



Woodlands first emerged as a satellite of Houston where the developer could purchase land at scale. Its enormous success has attracted new developers, including Woodmere. Home builders LongLake established Woodmere to provide an affordable option for people working in or wanting to live near Woodlands, but who could not afford the 30 per cent premium Woodlands property commands. New housing at Woodmere is delivered at under three times Houston's median household income.



## 2. Higher taxes on property.

The second major policy difference between the more affordable Texas cities and those of Denver and Portland is the preference for taxing land over income. The state of Texas has no tax on income. Instead, Texas residents pay higher property taxes (and comparatively high sales taxes). Property taxes are on average 2 per cent in Dallas and Houston, and may be over 3 per cent of a property's capital value. Property taxes in Denver, by contrast, are around 1 per cent.

Thus, a \$700,000 home in the new Stapleton development in Denver pays approximately \$6600 per annum in property taxes. A property of the same value in Houston would likely pay almost \$14,000 per annum – more if it was part of a MUD or other special district (approximately half of which would go to a local school district).

In Portland and Denver, taxpayer opposition to increasing property taxes has in both cities (and states) resulted in legislation which links property tax rates to the previous year's amount paid. That is, similar to New Zealand, increasing property values do not result in increasing taxes on residents or revenues to authorities.

Property rates in Dallas and Houston are assessed in relation to the property's value. Increasing property values, in general, increase the amount of revenue taxing authorities receive and property owners pay. Various tax provisions ensure taxing authorities can raise at least the same amount of revenue if property values fall.

Although higher property taxes will provide a disincentive to invest in property, this is somewhat counterbalanced by reduced income taxes. Residents in the three states pay broadly equivalent amounts in tax overall.

It is the application of 'ad valorem' (i.e. in proportion to value) property tax, rather than the quantum of tax paid, which appears to have the larger effect on Dallas and Houston property markets. The impact is three-fold.

First, taxing authorities receive more income as properties increase in value, providing a revenue stream to invest in new services. Authorities in Dallas and Houston appeared to have fewer financial concerns than authorities in Denver, and especially Portland.

Second, property owners pay more if property values increase. Higher tax bills reduce the benefit of increasing property values to property owners. Public feedback over increasing taxes to elected representatives provides a strong political incentive to manage costs down or facilitate supply.

Finally, annual reassessment of property value and re-estimation of tax paid provides a relatively dynamic price signal to property owners about the best use of their land. Land banking is discouraged as property value increases are met with proportionate increases in annual tax. Developers are incentivised to deliver homes faster and land benefitting from new accessibility or other amenity becomes more attractive for urban redevelopment.

## How is New Zealand different?

New Zealand cities operate more closely to Portland than the other cities. Hard regulatory tools are used to regulate both urban expansion and intensification. Property taxes in both cities are delinked from total property values, providing no price signal to existing residents regarding the true value of developable land, and leaving authorities with less revenue. Growth costs are consequently passed on to new residents in the form of slow and unresponsive housing supply, high levels of homelessness and falling availability of affordable housing.

In Auckland, property rates are presently around one-quarter of one per cent of a property's value each year, depending on property value and location. Price signals fall far below those necessary to trigger the speed and scale of land use change required to meet housing needs.

Across New Zealand, but especially in Auckland, land markets are uncompetitive. Inflexible zoning controls encourage land owners with development rights to hold, not develop land. Land development comes with high upfront development charges, consenting costs and market demand risk. Holding land only carries the low cost of rates and council land containment prevents land prices from falling.

Staged and uncertain release of land combined with high prices from scarcity undermine development scale. Smaller scale development reduces efficiencies across physical works, increasing lot prices. Fewer lots staged over a longer timeframe reduce investment certainty in home building at scale. Home building at scale is needed to increase construction productivity and speed of supply.

## Conclusion.

Urban land markets are uncompetitive in New Zealand. Planning regulations restrict land supply, reducing the ability for developers to access raw land, as well as land close to amenity where high land values can be offset with more density. Weak land supply is increasing prices and development risk, while reducing competition. Higher risk and less competition is leading to undersupply of new homes and, especially, affordable homes.

Planning restrictions are also associated with higher levels of urban design and liveability. All residents benefit from a more liveable city, but when hard regulatory instruments are used to achieve this goal it is overwhelmingly new home owners, through high upfront housing prices, who carry the cost. The absence of ad valorem land or property taxes means existing property owners are not being sent price signals regarding the value of their land or the impact of public policy.

Risks and benefits from urban growth must be realigned to the parties that pay. New brown and greenfield development needs to cover the cost of infrastructure. Where these costs are met, development restrictions need to be removed.

Charging rates in proportion to property value could encourage more responsive and efficient use of land, but will change price signals and incentives across the entire economy. They need to be considered as part of the Tax Working Group review and should be considered a longer term policy initiative.

Removal of development restrictions, including urban boundaries and density limits, will improve competitive land supply if supported with infrastructure funding tools. More flexible and affordable housing will be achieved. However, urban form will be impacted as low land prices provide a competitive alternative to brownfield redevelopment.

Urban boundaries should be replaced with integrated development at scale. Well-designed, masterplanned development which uses increased amenity to incentivise growth which benefits the city should replace hard regulatory tools.

# Weaknesses in the US urban growth system.

The US urban growth system achieves more flexible and responsive development by aligning the incentives of government, giving tools to infrastructure agencies, facilitating competitive land markets and taxing capital in proportion to value. This approach successfully enables new infrastructure and homes to be delivered, but also results in a number of negative externalities.

## Less attractive cities.

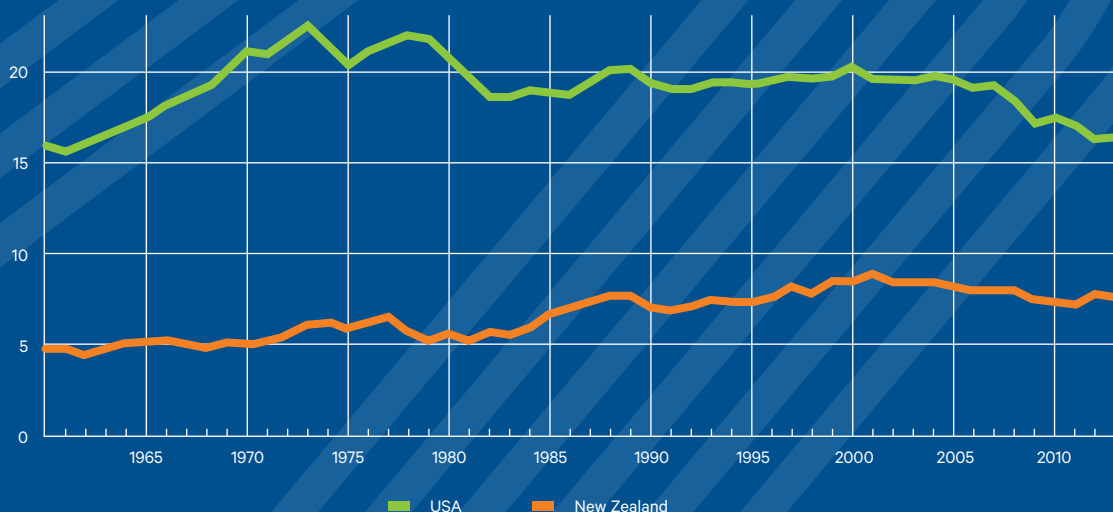
US cities rarely feature in indices of liveability. The Economist Intelligence Unit in its annual survey, for example, has no US city in its top ten.<sup>23</sup> This is surprising considering seven of the top ten are cities in countries and environments closely resembling the US: New Zealand, Australia and Canada. Mercer's index makes a similar finding, with San Francisco the top ranked US city at number 30.<sup>24</sup>

Multiple factors influence these and other surveys, but what they each point to are US cities which perform less well in terms of natural and urban environment, in particular. Heavy private vehicle dependency has left most US CBDs lacking activity outside business hours and in places dangerous. No city visited by the delegation had a city centre as vibrant as Auckland or Wellington, despite their much larger populations.

## High carbon footprint.

The low cost of fuel and generally more flexible supply of urban land has facilitated urban expansion. Longer distance trips are required and private vehicles provide the only realistic transport option for most journeys. Lower fuel efficiency from private vehicles converts to higher greenhouse gas emissions. The US leads the world in CO<sub>2</sub> emissions, partly as a result of lower density cities.

Figure 14: CO<sub>2</sub> Equivalent emissions per capita: USA vs New Zealand<sup>25</sup>



<sup>23</sup> Economist Intelligence Unit, The Global Liveability Report 2017.

<sup>24</sup> Mercer, Quality of Living Survey 2018.

<sup>25</sup> Google, from World Bank data.

## Higher land consumption.

Lower density living in US cities requires more land to be converted from existing activities to urban activities. Where pre-urban land use is being used, for example, in the production of food or as a natural environmental asset, its addition to the city carries costs. Once converted, land is unlikely to be transformed back to its original state, effectively making the change permanent and food production or other uses cease.

## Less housing variation.

US cities tend to offer a predominance of detached single housing, with fewer options for medium and high density living. The low cost of travel undermines the commercial viability of urban redevelopment, while plentiful land supply allows both employment and homes to locate further from the core.

## Gentrification.

In an effort to contain urban expansion, cities like Portland and Denver have constrained land release on the periphery. So far this has had limited impact on the vibrancy of city centres, but in both cities house prices are climbing rapidly as home delivery has slowed.

Efforts to regenerate and intensify neighbourhoods as an alternative to urban expansion have come at high cost. Rapid transit services in Portland, in particular, have been well integrated with planning so that zoning reflects new levels of access. However, the result has been the pushing out of existing, lower income residents into areas further from the core and which are poorly serviced by transport. Gentrification has become a major issue in Portland as affordability changes the social makeup of the city's residents.

## Transport alternatives are limited and losing competitiveness.

Public transport patronage is flat to falling across the US. Between 2014 and 2016 it declined 4.5 per cent nationwide.<sup>26</sup> Even in Portland, where growth is being contained and directed into a well-planned centres and corridors strategy, and where road congestion is chronic, public transport patronage is in total falling. Mode share across each of the four cities is above 90 per cent private vehicle.

Many factors are at play. Zoning around public transport in Portland has struggled to get the speed and momentum of development expected. Zoning alone has not catalysed significant redevelopment. Improved connectivity to urban centres where new rapid transit is targeted tends to favour people who work in the CBD, who also tend to earn more. Subsequent gentrification is pushing people who are fully dependent on public transport into poorly serviced areas, while new residents use public transport as part of their travel mix. On call transport providers like Uber and Lyft are providing alternatives to public transport operations.

<sup>26</sup> <https://www.citylab.com/transportation/2017/11/denver-public-transit-growing-pains/544472/>



## Incentivisation and flexibility is not without cost. Conclusion.

A more appropriately incentivised and flexible urban growth system is key to meeting America's urban growth challenge. However, incentivisation and flexibility also carry costs. The desire for growth and to meet resident demands has led to an evident preference for investing in new capital projects over good asset maintenance. All cities visited maintained road networks materially and demonstrably in worse general condition than New Zealand roads. Transport officials in Portland acknowledged that at least one of its bridges is not expected to survive a modest earthquake.

In New Zealand, the lower drive to attract and achieve growth has almost certainly contributed to benefits in other areas. Environmental management appears stronger, if more costly, but it could also be the case that New Zealand's prioritisation of its national system over state, regional or local systems has improved and simplified economic settings.

New Zealand frequently tops a variety of indices relating to, for example, ease of doing business.<sup>27</sup> Sales and income taxes are comparatively simple. New Zealand authorities have focused on ensuring macro-settings are well geared to need, rather than competing at a lower level for investment.

Equally, flexibility in the US system has come with a high degree of complexity. Including special districts, there are at least four levels of government and five if counties are considered "below" cities. Some 90,000 units of "government" exist across the US, each with their own taxation powers in 50 different states, each with their own laws. Sales taxes change within cities, as well as between them. Typical Texas homeowners pay at least half a dozen dozen different authorities property taxes.

Flexibility does not necessarily support capacity and capability. Project procurement tends to be very conventional in the US, even if funding and financing structures are more advanced. Half of PPPs initiated in the US have been cancelled before reaching financial close.

New Zealand's rigid governance structures and heavy top-down management of the economy and society is also likely responsible for the country's extremely low levels of corruption.<sup>28</sup> New Zealand always ranks at or near the top of global indices comparing institutional performance.<sup>29</sup> Flexibility creates options and opportunities, but not all options and opportunities are beneficial.

The US system of growth management is more responsive and efficient, but it is not perfect. New Zealand is a world leader in activities as diverse as asset management and institutional settings. New Zealand cities outperform American cities on multiple fronts, including carbon emissions and general perceptions of liveability.

In learning from the US, we want to identify and incorporate the policies which provide a net benefit to New Zealand, not just policies which replace one problem with another.

<sup>27</sup> <http://fortune.com/2016/10/26/new-zealand-easiest-place-for-business/>

<sup>28</sup> [https://www.transparency.org/news/feature/corruption\\_perceptions\\_index\\_2017](https://www.transparency.org/news/feature/corruption_perceptions_index_2017)

<sup>29</sup> See, for example, World Economic Forum, Global Competitiveness Report 2017/18.







# Learnings for New Zealand.

## Urban growth problems are the result of policy.

Findings from US cities shows that high growth can be met with adequate housing and transport. It is the policies implemented by governing bodies which are responsible for limiting housing supply and increasing congestion. It is not independent factors.

### It's not geography.

Geography does not explain poor urban growth management. Denver has a similar geographical setting to Houston. Both cities are located on extensive plains with limited agricultural value and both are hitting natural features on one side of the metro area. Yet, Denver performs better in terms of congestion and Houston in terms of housing.

Portland is undoubtedly impacted by major rivers, mountains and valuable agricultural land, not unlike Auckland. In both cities, these barriers are permanent. They were overcome in the past with infrastructure investment (for example, bridges) and flexible land use. These cities used to be affordable and they used to enjoy greater mobility and accessibility. Policies have changed, geographies have not.

### It's not population growth.

Portland, Denver, Dallas-Fort Worth and Houston are all growing strongly. In fact, the city with the slowest growth, Portland, seems to be confronted by the biggest challenges. Counterintuitively, the fastest growing city, Houston, has the best housing affordability.

Faster population growth increases the cost of misfiring urban growth. It is not responsible for it.

### It's not the macroeconomy.

All of the cities and states considered in this report are successful. Unemployment is low and economic growth is positive. Incomes are comparable and if the comparatively small variances explain the difference between Denver and Houston then they do not explain the equivalence of Denver and Portland. Auckland's very similar incomes cannot explain such high home prices.

Interest rates are the same for the US economy as a whole and are, furthermore, materially lower than those in New Zealand. Low interest rates have increased the confidence of New Zealanders to borrow, but they have been forced to borrow more due to a widening gap between housing supply and demand.

## New Zealand cities are constraining growth.

The comparison of cities with contrasting urban growth performance under the same broad political and economic system illustrates the importance of urban growth policy in meeting housing supply and travel needs. It is the actions of Houston, Dallas and Texas which are central to these cities supporting rapid growth affordably.

Likewise, it is the urban growth policies being implemented in New Zealand which are responsible for housing and infrastructure undersupply and unaffordability:

- **We are not investing in growth:**

Infrastructure is not being funded and financed and as a result land is under-serviced and scarce.

- **We are preventing people, places and partners from overcoming growth challenges:**

Developers want to develop, investors want to invest, builders want to build, but a rigid and inflexible system is holding back urban growth.

- **We are constraining land:**

Hard regulatory instruments are being used to control growth and are contributing to undersupply of land, infrastructure and housing.

- **We are taxing property lightly:**

The Tax Working Group has shown that New Zealand taxes income and consumption, but not wealth. There is no general capital gains tax, nor land tax.<sup>30</sup> The low relative tax on property weakens incentives to make best use of land, making land banking and general underutilisation of land more attractive.

## Cities are constraining growth for a reason.

New Zealand's urban growth policies are not inexplicable. They are the outcome of the structures and resourcing put in place by legislation:

- **Councils are poorly incentivised:**

Councils in New Zealand play a critical role in growth management, but their revenue is weakly linked to performance. Council revenues are instead linked to cost and councils feel compelled to manage costs down even if wider value to New Zealand is undermined.

- **Cities have little flexibility:**

To deliver core services, let alone promote economic, social and environmental well-being, councils only have rates and regulation. Low debt ceilings prevent leverage. Developers depend on councils. Central government must avoid making exceptions for unique local circumstances. The system is locked up, it is not clear who is responsible and limited progress is being made to grow urban areas.

- **Residents do want liveable cities:**

Residents in New Zealand's cities want transport and housing choices, sustainable urban and natural environments and they want attractive, well-designed places to live. There is concern that unlocking growth will undermine these objectives.

- **Politicians do need to get elected:**

Rates and debt are headline priorities for all councils and increasing either meets strong resistance. Growth does bring challenges and can compromise existing amenities. Removing planning restrictions risks changing communities and NIMBYism cannot be overlooked by decision makers.

## Until we tackle the reasons, we won't tackle the problem.

Examination of US cities has highlighted issues embedded within New Zealand's urban growth system. The structures of decision making, including the allocation of responsibilities and funding across central and local government, are the major impediment to our cities growing efficiently, affordably and fairly. It is these structures which shape the "soft" strengths of the American system – collaboration, leadership, vision and the will to succeed.

<sup>30</sup> Tax Working Group, Submissions Background Paper, 2018.

# Conclusion: Policy priorities.

New Zealand cities are challenged by unresponsive housing supply, increasing prices and rising infrastructure costs. The root cause of these issues is an urban growth system which is not functioning efficiently. The system misallocates incentives, is inflexible and is helping to sustain policies which undermine a competitive supply of urban land.

Changing the incentives and flexibility of our urban growth system requires changes to institutions, accountabilities and resourcing. Cities must want growth and they must have the ability to respond to it, otherwise institutions will not collaborate, leaders will not lead and barriers will prove insurmountable. New Zealand will not tackle homelessness, congestion and other priority issues.

Over the medium-long term:

- ✓ **Decision making for cities and regions needs to be reformed. Governing bodies have to want growth and have the tools and resources to support it. Institutions, responsibilities and funding need to be part of a substantive review of governance.**

There is broad support across public and private organisations for a major review of planning legislation and the structures of funding and governance across New Zealand. A bipartisan approach by political parties is critical to delivering an integrated, planning, governance and funding system.

This review needs to be accelerated and integrated with the Tax Working Group and the Local Government Funding review. A shift away from income taxes towards “ad valorem” property tax would better align the costs and benefits of growth decisions. Property tax provides a means to capture value, would realign investment away from housing and into productive activities and balance taxes on labour and capital.

As New Zealand works through how best it can reconfigure decision making structures to make incentives and flexibility work in the local context, short term policy initiatives are required to encourage councils to respond to growth:

- ✓ **Councils need to be rewarded for increasing housing and development supply by:**

Enabling councils to share in taxes that the Government receives from growth through city or regional deals.

Greater use of competitive grants and transfers to councils, like the Provincial Growth Fund, to encourage city-regions to compete for growth and invest in their future.

- ✓ **Councils need to carry the costs of growth failure by incurring funding and responsibility for some central activities, for example, homelessness.**



Short term policy responses to give cities more flexibility are:

- ✔ **Crown Infrastructure Partners (CIP) and similar special purpose vehicles should be broadened into MUD-type infrastructure financing and delivery agencies with the ability to levy rates and/or user charges.**

Developers should be able to apply to access CIP finance, allowing them to get paid out once the development is proven.

- ✔ **Greater use of toll roads and project financing entities to issue project bonds independent of debt constrained councils.**

Managed motorways and tolled express lanes can guarantee flows and speeds to ease congestion for those who pay and those who don't, and provide a revenue stream to attract private capital.

- ✔ **Use of direct voter revenue funding approval for specified programmes should be investigated.**

A public debate on a specified initiative along with its cost and funding mechanism helps depoliticise investment over the long term.

- ✔ **Municipal water services need to be unshackled from councils' debt constraints.**

Structural separation from councils and water metering will provide scope to leverage capital investment and unlock billions of dollars of water investment and land development.

Improved incentives and flexibility will help urban areas grow, but as long as land markets are uncompetitive affordable housing will not be delivered without public subsidy and government intervention. Urban land markets need to be made more competitive. The benefits of hard regulatory instruments, like metropolitan boundaries, accrue to existing residents while costs and risks are pushed onto future residents. Development contributions do not always cover council costs. The costs and risks of urban growth need to be realigned.

- ✔ **The ability for councils to constrain urban growth with regulation should be substituted by a system which ensures the costs of infrastructure are borne by the beneficiaries.**

If existing governments, councils, communities or residents do not want suburban sprawl, they need to provide for a superior alternative, at a similar price point, rather than preventing homes from being built at an affordable price. We must incentivise what we want, not prevent what we don't want.

In 2017, Infrastructure New Zealand costed housing on unzoned raw land between Drury and Pukekohe at \$375,000 (before GST and development margin), including infrastructure, development and land. Located along the rail corridor, the Paerata satellite city presents the opportunity for major transit oriented development at scale with direct connectivity to employment centres.

- ✔ **An urban development authority master planning, consenting and delivering a satellite to Auckland's south would provide an attractive alternative to low density urban expansion.**

# Appendix: City overviews.

## Portland, Oregon.

Portland is a mid-sized city-region in the north-west of the USA, located between San Francisco and Seattle. Portland city is the largest local authority (650,000 population) and the metro- region has a total population of around 2.4 million. The metro area cuts across two states and includes the city of Vancouver in the state of Washington.

The region is growing reasonably quickly, at around 2/3 the speed of Denver, Dallas, Houston and Auckland. It has a strong economy with low unemployment, but with visible deprivation. It is the home of Nike and over the 20th century its economy diversified away from port-based heavy industry to apparel and manufacturing. It is now developing a significant technology sector as population priced out of California migrate to what remains the most affordable major city on the western coast.

Although more affordable than California, housing in Portland has become increasingly unaffordable on local incomes. Its house price to income ratio of 5.5 is equivalent to Denver and is considered a major issue. Affordable housing has become scarce and gentrification a growing source of public concern.

Transport is also a major issue. Congestion is severe in Portland with drivers experiencing around a third more travel time delay than Denver. The city has invested in light rail and dedicated bus lanes, but public transport patronage has for a number of years tracked downward, in spite of population growth and development policy.

Portland has become well-known for its urban growth planning. Oregon requires that each city in the state implement an urban growth boundary and Portland's boundary has been in place since 1979. No boundary is in effect on the Washington side of the region, providing both an alternative to more restrictive land use policies in Portland but also challenging wider regional planning.

Urban planning is not the only issue with a delicate interface across state lines. Portland has no sales tax so attracts retail shoppers away from Vancouver. The loss of tax revenue has appeared to impact transport policy, with Vancouver recently opposing improved connectivity across the Columbia river.

## Portland strengths.

Portland's clear strength is integrated urban planning. Although some issues are evident at the interface with Vancouver and Washington, Portland has advanced a collaborative and attractive urban growth vision based on principles of economic prosperity, human and environmental health, equity and resilience.

At the centre of the growth vision is a compact city with the majority of growth planned for centres and corridors within the City of Portland. A high emphasis is placed on complete neighbourhoods and good urban design. The plan appears to have achieved wide public-support and has made the Portland approach world-renowned.

## Portland weaknesses.

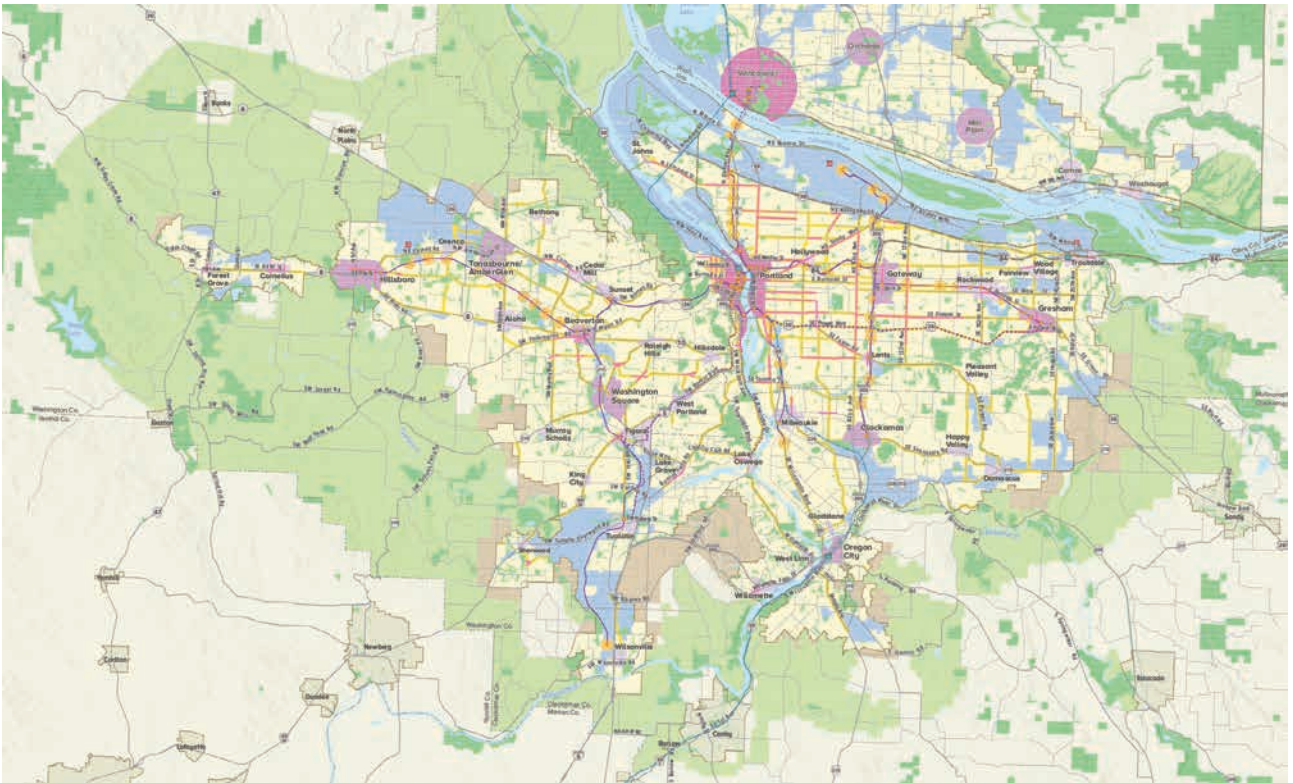
Despite the apparent success of Portland's planning approach, the region is struggling to respond to growth. Housing supply is meeting just 60 per cent of demand, public transport patronage is falling and congestion is rapidly worsening. In one recent poll, homelessness, congestion, affordable housing and roads/ infrastructure were found to be the biggest residential concerns.

Portland's homelessness crisis is large and visible. Gentrification has become a significant public concern and has become associated with several light rail developments.

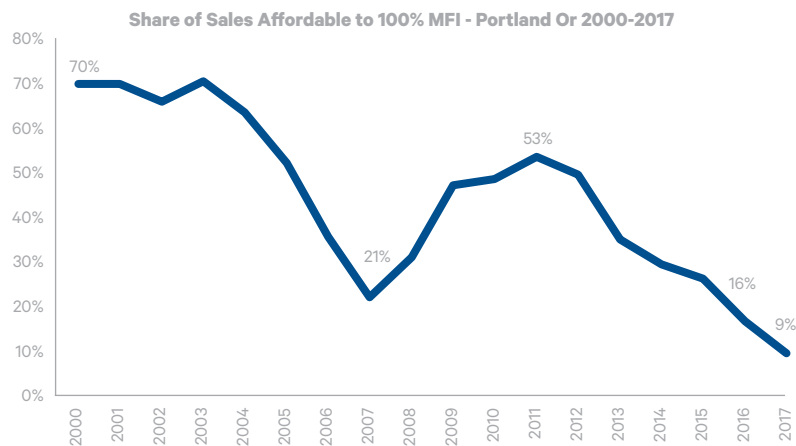
Portland is stretched financially. Property taxes were tied to inflation in 1998 and additional charges can only be levied with a popular vote. It now has a maintenance funding gap so cannot sustain current levels of service, let alone expand schools and infrastructure to meet growth.

<sup>31</sup> [http://www.oregonlive.com/business/index.ssf/2018/01/portlands\\_economy\\_is\\_getting\\_m.html](http://www.oregonlive.com/business/index.ssf/2018/01/portlands_economy_is_getting_m.html)

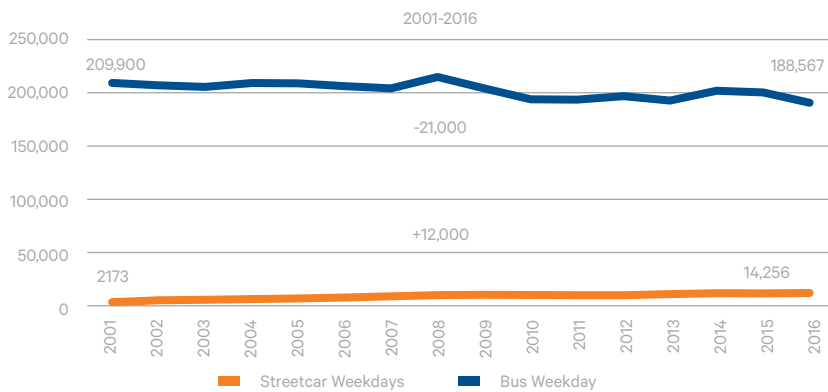
## Portland 2040 Growth Concept



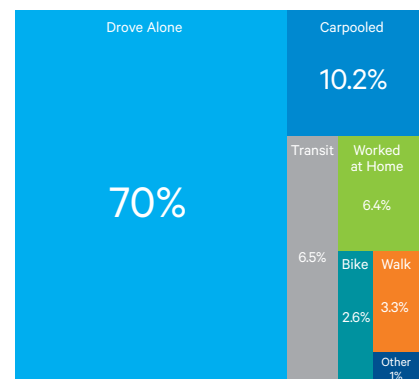
## Proportion of affordable home sales in Portland metro<sup>32</sup>



## Weekday bus and streetcar patronage<sup>33</sup>



## Portland region commuting mode share<sup>34</sup>



<sup>32</sup> City of Portland.

<sup>33</sup> Trimet.

<sup>34</sup> Oregon Household Activity Survey 2011.

## Denver.

Denver is a fast-growing city located at the foot of the Rockies, close to the geographic centre of the US. The city itself has a population of 700,000 and almost 3 million live in the greater Denver area. Its central location has made the city an infrastructure hub, with major roads, railways, pipelines and a large airport all located in and around the region.

Denver is growing rapidly. Like Portland, it is attracting a number of professionals priced out of California and looking for a high quality of life. Denver's proximity to the Rockies and outdoor activities has made the city attractive to urban professionals.

The Denver economy is very strong with unemployment under 3 per cent. Population growth has averaged 60,000 people per annum over the last decade, but the region's housing supply has struggled to meet demand. Housing affordability is a major issue in Denver and, other than San Francisco, is the worst of the cities visited.

Although the region is challenged by housing, it performs well on transport indices. Congestion travel time delay is the best equal of the cities visited. Extensive investment has been made in light rail, heavy rail, buses and a comprehensive motorway network.

### Denver strengths.

Denver has a strong history of implementation. Dating back to the 19th century when the city paid for its own rail spur, a number of contentious yet visionary decisions have been made which are not often seen elsewhere. In 1969 the region decided to levy a 1 per cent sales tax to fund a regional public transport system. In the late 1980s it made a strategic decision to deliver the largest airport in the US to position itself as a major transport hub. More recently it has delivered the Union Station integrated development and is redeveloping its old airport into a home for 30,000 residents.

Bold decision making appears to be linked to empowered decision making. The Mayor of Denver city has comparably strong executive powers and the sales tax has given the dedicated public transport operator, the Regional Transportation District, independent funding and delivery capability.

The region has pursued a wide number of strategies to support growth, making extensive use of TIF, PPPs, sales taxes and other funding tools. In terms of planning, it has moved forward with urban intensification and urban expansion. In terms of investment, it has promoted public transport, roading, active transport and integrated growth management.

The region operates with a high degree of consensus. The metropolitan boundary, for example, is not implemented via a regional directive. Local councils within the region have agreed to set intensification targets and are rewarded via the investment programme for achieving objectives.

### Denver weaknesses.

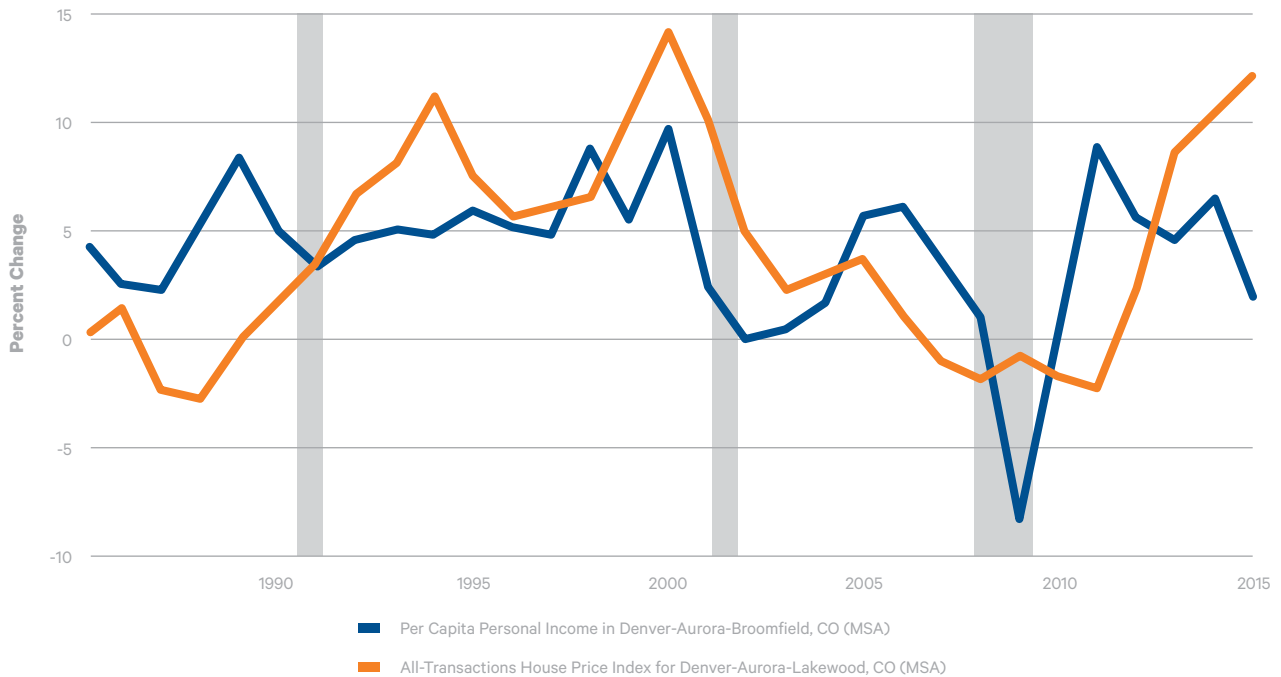
Denver is not producing enough homes. Between 16,000-18,000 homes are needed to meet the region's growth each year, but even with a 22 per cent surge in new home starts in 2016, the region delivered 2/3 of this figure.<sup>35</sup> Housing affordability is now among the worst in the US and is projected to get consistently worse.<sup>36</sup> Recent increases have come at the same time as falling wage growth, creating a concerning combination of lower incomes and higher housing costs.

<sup>35</sup> <https://www.denverpost.com/2017/02/12/denver-new-home-construction/>

<sup>36</sup> Zillow, Denver Metro Home Prices and Values.



Figure 15: Home prices and incomes are diverging<sup>37</sup>



Unlike some cities, Denver's failure to deliver housing supply is not related to geography. The region is pushing up against the Rockies in the west, but has effectively an infinite supply of unproductive, flat land to the east. Neither is the city particularly dense, suggesting redevelopment of brownfield areas is also being impeded.

Denver is coming under increasing infrastructure funding pressure due to a rigid tax system. In 1992, the state of Colorado passed TABOR – the Taxpayer Bill of Rights. The Bill sets taxes in Colorado at 1992 levels plus inflation (CPI) plus population growth. Government input prices have tracked ahead of CPI inflation, gradually reducing the real tax take. Restrictions on new taxes have made governments reluctant to remove out of date taxes because new tools may not be forthcoming. The result is a growing unfunded forward transport programme.

<sup>37</sup> Federal Reserve of St Louis.

## Dallas-Fort Worth.

With a population of 7.4 million, Dallas-Fort Worth is the largest city-region visited by the delegation and the fourth largest in the US (it will likely overtake Chicago in the late 2020s). Previously separate cities 50km apart, Dallas (1.3 million) and Fort Worth (900,000) now form one vast metropolitan area 100km from north to south and east to west.

The region is not only big, but fast growing. Over the 2000s it has grown at the same relative speed as Auckland, but due to its much larger size is expanding at around 150,000 people per annum.

Growth is fuelled by a strong economy and high levels of affordability. Unemployment is under 4 per cent and median house prices are just over NZ\$300,000. A median income equivalent to Auckland gives the region a very low income to home price ratio of 3.8, well under half that of Auckland.

Home prices are kept affordable by abundant supply of new housing. The region is currently delivering around 50,000 new homes per annum and in 2017 consented 62,000 new dwellings, by far the largest of any metro area in the US.<sup>38</sup>

Growth is largely accommodated by urban expansion. The region has no geographical constraints, other than a series of lakes, and no urban growth limits. However, only just over half of new dwellings consented in 2017 are detached homes and Dallas consented more multi-dwelling units than any region other than New York in 2017.

Transport is mainly delivered via a large web of high-capacity motorways, but Dallas also boasts the longest light rail network in the US. In 2014, 91 per cent of commuting across the urban area was by car and just 2 per cent by public transport.

## Dallas-Fort Worth strengths.

Dallas-Fort Worth has the most forgiving geography of all the cities visited. There are few natural barriers to urban growth in any direction for hundreds of kilometres. Yet, the region has also ensured that planning, funding or other restrictions do not impede the supply of housing.

The region has a demonstrable strength in forward land use and transport planning. Travel time delay is extraordinarily low for a growing city of its size and is not declining with high growth. The region successfully anticipates and supports new housing and employment with transport.

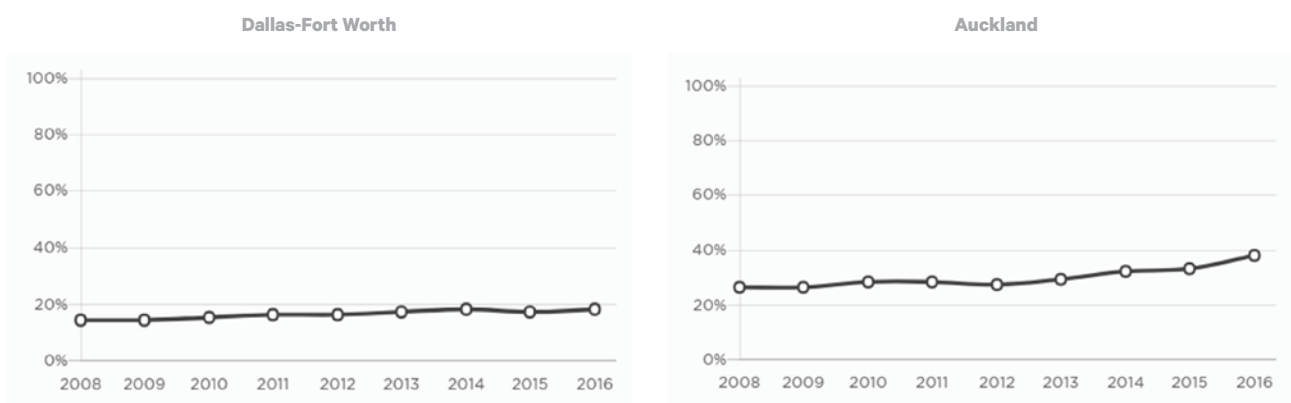
Infrastructure capital investment is flexible and responsive. Sufficient water, transport and other services are delivered to development areas when required and funding issues are less evident than in Portland or Denver. Different funding and financing models as well as different infrastructure solutions are applied depending on need.

Texas has no state or local income tax, so instead relies comparatively heavily on property tax to fund services. Property taxes across Dallas-Fort Worth average between 2 and 3 per cent of the property's capital value.<sup>39</sup> In application, these taxes are a set rate based on a property's value and so tend to rise with property values, but also guarantee annual revenue. This approach ensures taxing authorities gather more revenue to invest in services when property values rise, potentially providing new infrastructure funding to unlock land for development. In addition, the price signal sent to potentially cash-poor property owners about rapidly increasing capital values enhances public sensitivity to capital gains.

<sup>38</sup> US Census Bureau.

<sup>39</sup> <http://www.providencegrouprealty.com/DFW-property-tax>

Figure 16: Dallas-Fort Worth vs Auckland history of travel time delay<sup>40</sup>



## Dallas-Fort Worth disadvantages.

Dallas-Fort Worth is an extraordinarily large metropolitan area and travel distances are long. The region is heavily motor-vehicle dependent and requires major ongoing expansion of its extensive motorway network. Road maintenance has not kept pace with capital investment and in many cases roads are in poor condition.

The dependency on long distance private vehicle travel appears to have made residents hypersensitive to fuel levy increases. The state's gas tax has not been increased since the early 1990s. Fuel taxes (38 cents per gallon, or around NZ14 cents per litre) have to be supplemented by land, sales and other tax revenue to deliver transport services. The effective discounting of fuel likely supports a land use pattern which would otherwise not exist, including a city centre which lacks vibrancy.

<sup>40</sup> TomTom.

## Houston.

Greater Houston is the fifth largest city-region in the US and has a population of 6.9 million, one third of whom live in Houston city. The region is the fastest growing of those visited and its rate of growth has exceeded that of Auckland over the past decade.

Houston is the energy capital of the US and the major hub for the oil and petrochemical industries. Its economy is strong, though unemployment of 4.6 per cent is the highest of the cities visited. This may partially reflect the devastating floods of 2017 when Hurricane Harvey dropped a metre of rain on the area in just four days and inflicted over \$100 billion of damage.

Houston is well known in planning circles as the “city with no zoning”. There is no urban growth boundary nor government-imposed density restrictions across the area. However, around one-quarter of the city has in place deed restrictions which developers and communities place on local areas to limit the pace and scale of change.

The extremely flexible approach to growth has enabled the city to have the lowest home price to income ratio of all the cities visited (3.7) and median home prices of just NZ\$300,000. Housing supply is very responsive and there has been little upward or downward movement in property prices over the past decade. Growth in Houston has been assisted by a generally unencumbered geography, though the region is now pushing up against water barriers on its eastern side.

Transport in Houston is heavily oriented to private vehicles. This partly reflects very high humidity and daytime temperatures through summer months which make active transport less attractive. Over 90 per cent of commuting across the region is by car and 3 per cent by public transport. Houston’s extensive motorway network and dispersed land use has kept measured congestion comparably low, with around half the delay per day experienced by drivers in Auckland. Travel distances are however long and alternatives to private vehicles limited.

## Houston strengths.

Houston urban land supply and development is highly responsive to changes in price and market trends. Slower growth tends to be matched with reduced housing and development and higher growth sees a rapid increase in supply to meet demand. This sees price declines moderated through economic slowdown and price increases moderated through periods of rapid growth.

Flexible zoning is enabled by equally flexible infrastructure funding and financing tools, without which developable land could not be unlocked. Houston has made extensive use of MUDs, as well as a local variant of TIF and PPPs. These tools provide scope for developers and governing authorities to access private capital and support urban growth.

Houston’s efficient urban growth model has flowed through into a lower cost of living for residents, driving up relative incomes. After adjusting earnings for the cost of living, Houstonians enjoyed materially higher incomes in 2014 than residents in Dallas, San Francisco, New York and Los Angeles.

## Houston weaknesses.

Houston suffers many of the same externalities from its growth model as Dallas-Fort Worth. It’s urban form is likely influenced by fuel tax policy which sees all modes of transport heavily subsidised by land, sales and other taxes. Houston city centre lacks the vibrancy that would normally be expected of a city of 7 million and residents almost certainly make housing and employment decisions based on a low cost of travel.

Although Houston performs much better than Portland, San Francisco or Auckland in terms of travel time delay, it does not perform as well as Dallas-Fort Worth or Denver. There are a number of factors influencing this outcome, but it is possible that Houston’s ultra-flexible planning system makes servicing development with transport more difficult. New growth across the region is more difficult to anticipate under the Houston model and may require more expensive solutions.

<sup>38</sup> US Census Bureau.

<sup>39</sup> <http://www.providencegrouprealty.com/DFW-property-tax>



Figure 17: 2014 Earnings adjusted for cost of living

Average Annual Earnings Per Job, Adjusted for Local Cost of Living, 2014, For Selected Metro Areas

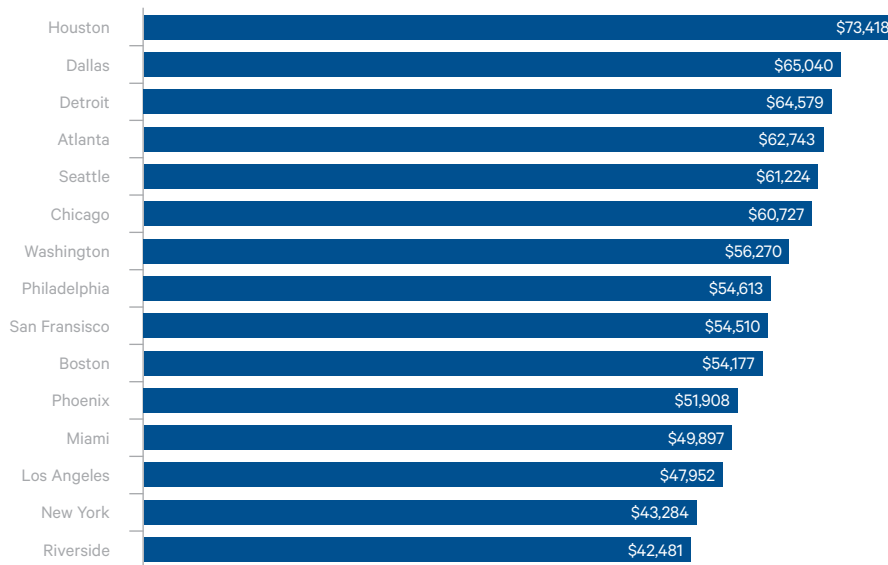
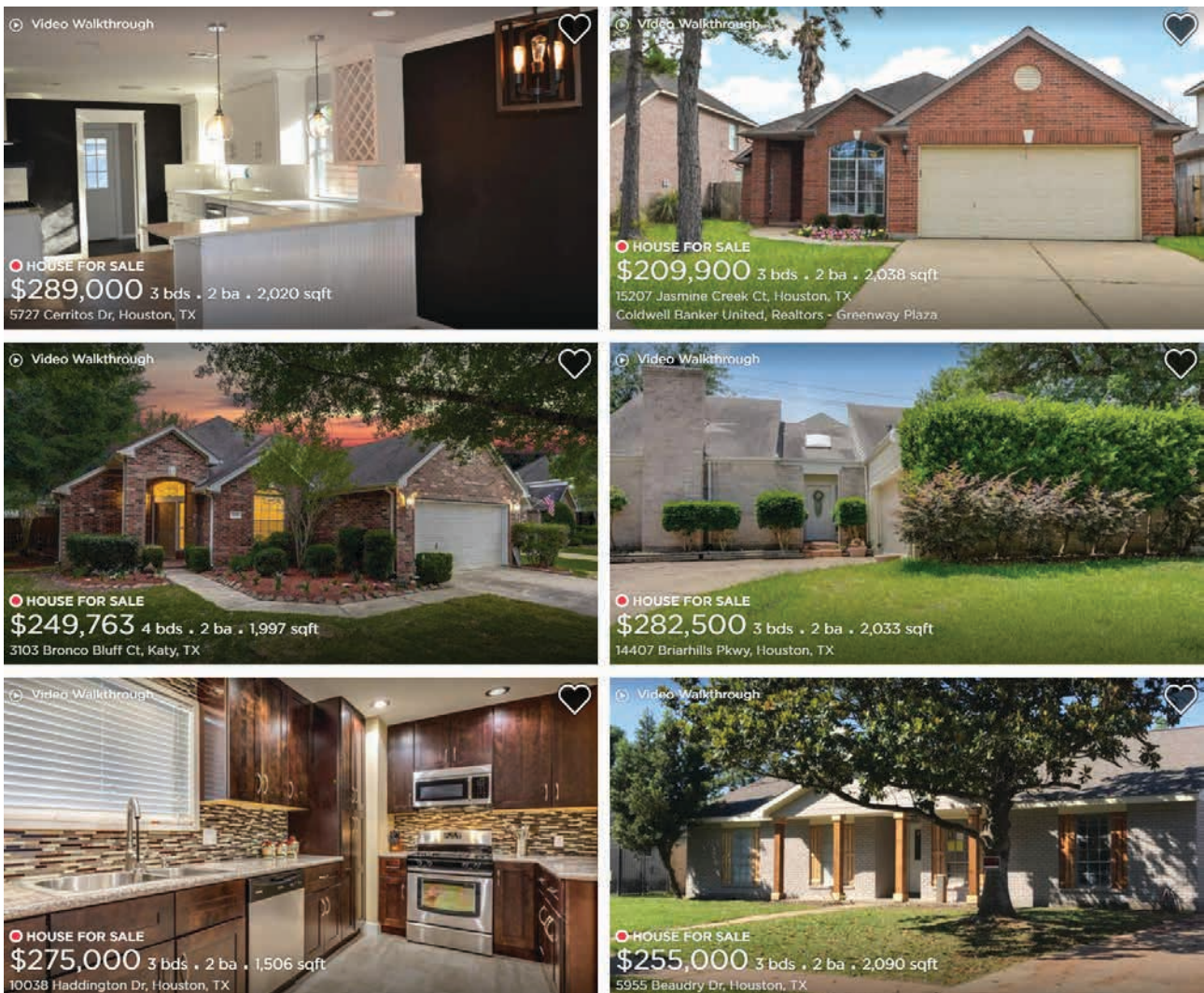


Figure 18: Housing for sale in Houston today<sup>41</sup>



<sup>41</sup> Zillow.



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