

Home Truths Special Edition

14 May 2015

- We propose an explanation for Auckland's recent house price surge that matches the facts.
- Recent liberalisation of housing supply rules has stoked expectations that Auckland housing will become denser as the population grows.
- This has driven up the perceived value of land.
- Liberalising supply is necessary for delivering affordable housing in future.
- But for now, first home buyers have been forced into competition with developers.
- While this helps explain market behaviour, only time will tell if today's prices are justified.
- Prices could still fall if expectations for Auckland population growth or housing supply policies change.

Landlocked

Auckland house prices have taken off again over the past six months, in a fashion completely distinct from the rest of New Zealand. The divide between Auckland and the rest is now much more striking than in 2013 – as is the sheer pace of price increase in Auckland.

A number of possible reasons have been advanced. Some help explain a portion of the recent price surge. But existing popular theories cannot explain the whole picture. We argue that another factor is at play:

The recent liberalisation of housing supply rules, combined with a widespread expectation of population growth, has pushed up the perceived value of land.

This may sound counterintuitive, but as this bulletin shows, the idea is actually quite simple, and is well supported by the available evidence.

Valid in theory, inadequate in fact

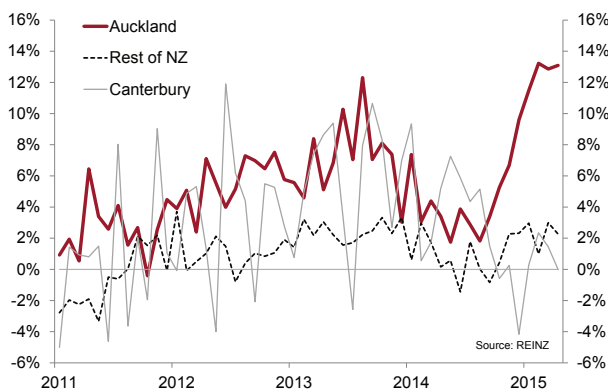
We will start by reviewing four factors that are often cited in relation to rising house prices in Auckland. Each factor may be playing a role, but together they do not explain what has happened to Auckland house prices over the past six months.

1. Auckland house prices are rising because of strong population growth and a legacy of underbuilding.

Auckland construction activity has certainly been inadequate relative to population growth for some time. Logically, this shortage of supply must be affecting the price of accommodation.

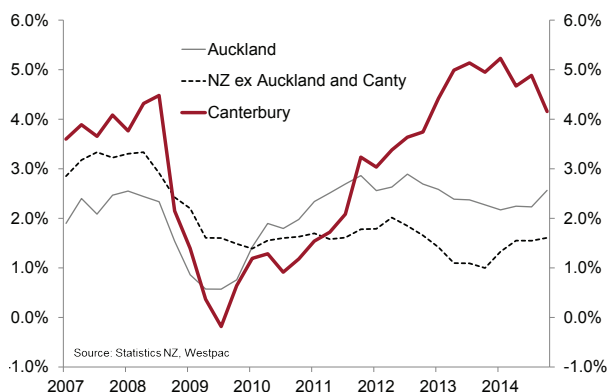
But any such impact should be felt in rents as much as in house prices. Rents in Auckland have in fact risen only 2.6%¹ over the past year. If a simple shortage of accommodation was the main issue at play, rents would be more commensurate with house price inflation.

Figure 1: Six-month changes in house prices



¹ Based on the Consumers' Price Index, which we regard as definitive because it is quality adjusted. Ministry of Housing (MOH) median rents have risen 6.1% over the past year, but this could partly reflect a lift in the median quality of the houses being let.

Figure 2: Annual rent inflation in Auckland, Canterbury, and the rest of New Zealand



Canterbury after the earthquakes gave an excellent example of how a housing market behaves in a shortage situation. Rent inflation shot up from 1.3% to 5.2% in short order. Now that replacement housing stock is being built, the pace of increase in Canterbury rents is coming off.

True, rents in Auckland have been rising slightly more rapidly than in many other parts of New Zealand. But the degree of rent outperformance is slight, suggesting that accommodation shortages are playing a similarly modest role for house prices.

One occasionally hears proponents of the population growth explanation protest that the owner occupier market is distinct from the rental market. This is simple to dismiss – the prices landlords pay for rental properties are rising just as rapidly as prices for owner occupied housing.

A more sophisticated version of the population growth explanation argues people are paying high prices for Auckland properties because they expect rents to skyrocket in future. This is sound in theory but implausible in practice, given the sheer magnitude of the increase in rents that would be required to justify today's prices.

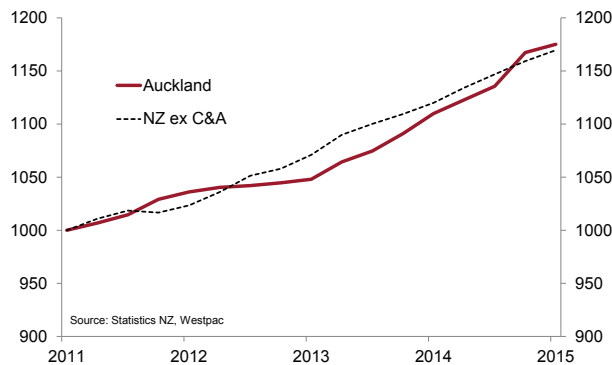
2. Rising construction costs and excessive development levies are causing Auckland house prices to rise.

Construction costs have been rising, but not rapidly enough to explain the recent performance of house prices. In fact, most of the increase in Auckland house prices is due to sharply rising land values.

The Consumers Price Index measures directly the price of building a new dwelling on an empty piece of land. The price includes development levies, consent fees, building materials, architects fees, building costs and so on. In Auckland, this has risen by 17.5% since 2011, or at an annual average rate of 4.1% per annum. Considering that buildings accounted for

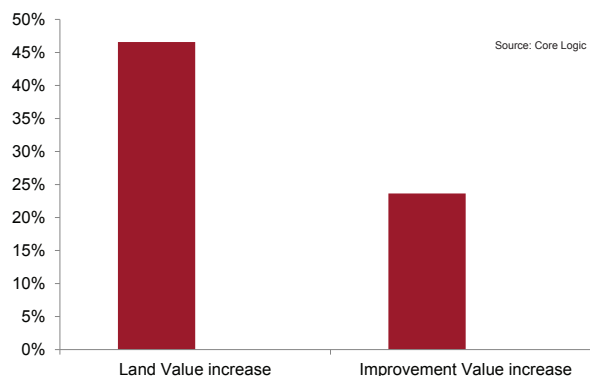
only 43% of the average house's value in 2011, this suggests that rising construction costs contributed only 7.5 percentage points of the 51% increase in Auckland house prices over the past four years.

Figure 3: CPI new dwelling prices, Auckland and New Zealand ex Canterbury and Auckland



Official valuation data² roughly mirrors this analysis. The value of “improvements” (mainly buildings) on the 457,000 Auckland properties that were valued in both July 2011 and July 2014 rose by 24% between those two dates. Over the same period, land values for the same properties rose 47%. This implies that rising land values were responsible for three-quarters of the 33% increase in official values over that three-year period. We doubt this pattern has changed much in the past six months.

Figure 4: Components of increase in official valuations, Auckland, July 2011 to July 2014



The final strike against rising construction costs is the fact that construction costs have risen everywhere in New Zealand, not just in Auckland.

² Supplied by Core Logic.

3. Falling interest rates are driving house prices higher.

We do not doubt that low interest rates played a role in driving up house prices earlier this decade. Moreover, falling interest rates are consistent with house prices rising faster than rents. But our analysis suggests that the most recent drop in fixed mortgage rates was far too small to explain the current pace of house price inflation in Auckland. Besides, other regions face the same interest rates but sport very different housing markets.

4. Auckland prices are being driven up by foreign speculators, or the market is simply a bubble.

Given that the above three factors cannot explain what is happening, it would be easy to conclude that the market must be a speculative bubble, driven by either foreigners or locals. This amounts to avoiding the question rather than answering it. We still need to explain why the alleged speculators are so focussed on the central parts of Auckland. Why have bubbles or foreign speculation not emerged in Wellington, Tauranga, or Invercargill?

An additional explanation for the sudden rise in Auckland house prices

Each of the explanations above may be playing a role in today's housing market, but none explains all of the key features of the market. We propose that an additional factor is at play: House prices in Auckland are rising because expected population growth, combined with the recent liberalisation of building regulations, has pushed up the price of land.

Auckland is experiencing a New Zealand version of the global trend towards greater centralisation of economic activity. The digital age has caused a greater proportion of economic activity to agglomerate into fewer, larger, cities – especially central business districts. In line with this global agglomeration trend, Statistics NZ projects that Auckland's population is set to grow by around 740,000 people over the coming thirty years (about 50%). This is expected to create unprecedented demand for dwellings located within striking distance of a major Auckland centre of employment, most notably the CBD.

At present, much of the relevant area is occupied by single dwellings on relatively large plots of land. In the past, zoning restrictions, building regulations, obstructive consent processes and uncertainty about future regulation made it difficult or expensive to intensify the use of that land.

But in the recent past there has been a strong push from both central and local government to liberalise housing supply rules, from zoning rules to removing tariffs on imported building materials. These recent regulatory changes – and perhaps an expectation of further liberalisation to come – may have created a perception that it will be easier and cheaper to subdivide today's properties, and intensify Auckland's housing, than it seemed in the past. This has boosted the perceived future value of the land upon which today's houses stand – thus pushing property prices higher.

If a young couple wants to buy what is today considered a standard house-plus-land package in central Auckland, they

first have to outbid a developer who (1) understands that in the future the same land will accommodate multiple families, and (2) perceives fewer obstacles to development than in the past.

Our proposal may explain the disconnect between house prices and rents. It is implausible to suggest that rents on individual dwellings will in future rise sufficiently to justify today's prices – incomes simply would not support that. But rent per square metre of land may well rise in future, as the land is subdivided or converted to apartments. Today's rents reflect only the value of land to the current occupants. The price to buy a property reflects an expectation that the land will accommodate multiple households in the future.

Our proposal is also consistent with the fact that land values are rising faster than house values. Today's housing stock will not be of much use when the time comes to squeeze extra people into Auckland – but the land will. Short of reclamation, we cannot increase the supply of land within striking distance of a major employment hub – but we can increase the supply of dwellings on the land.

Finally, our proposal is consistent with the geographic pattern of land value increase. The more that Auckland intensifies, the less it will grow in extent. This implies that land values should be rising fastest in already-established areas, and slowest on the outskirts. Figure 5 shows that this was indeed the pattern observed from 2011 to 2014. Separate data for land values is unavailable for the past seven months. But figure 6 does show that house prices have been rising fastest in central areas recently, suggesting that land values are doing the same.

Figure 5: Land value changes in areas of Auckland, 2011 to 2014, arranged geographically from North to South

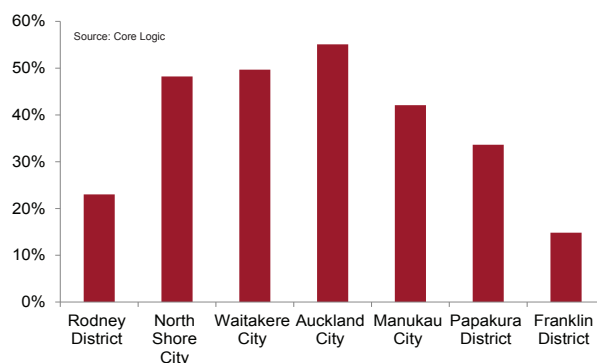
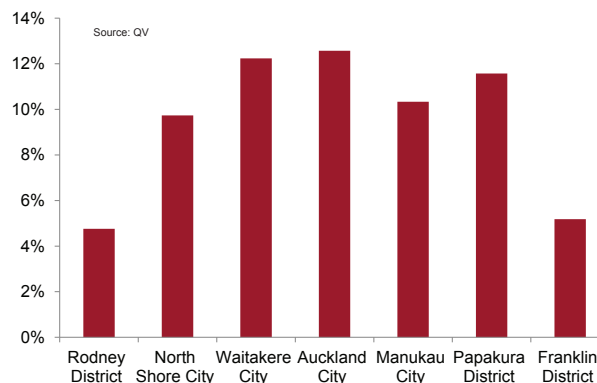


Figure 6: Change in QV monthly house price index, Sep 2014 to Apr 2015, regions of Auckland



Policy considerations

We hasten to emphasise that easing the squeeze on Auckland's housing supply rules is necessary for ensuring that Auckland can build the affordable accommodation it will need in future.

If the liberalisation of building restrictions has affected prices, then presumably it has affected the property development industry. We would expect to see a rash of building activity in the near future. Indeed, Auckland residential construction activity is already running at double the pace of three years ago, and all indications are that building activity will increase further. So far, building consent data indicates that the building activity is more concentrated on intensive housing options such as apartments, which is what we would have expected. And we would expect the building activity to concentrate on already-established parts of the city, rather than the outskirts.

This extra housing supply should, in time, provide affordable accommodation options for Auckland's burgeoning population. Eventually, we would expect the median dwelling price to fall relative to incomes – not necessarily because today's owners have lost their shirts, but because in future the median house will use less land than today's median house. Similarly, the increase in dwelling supply wrought by strong building activity should prevent rents from rising excessively.

From diagnosis to prognosis

Our proposal may help us understand why people are paying such high prices for Auckland land. But there is no way of telling whether the expectations underlying peoples' behaviour are actually justified or not. The question of whether Auckland land is currently overvalued remains unanswered. In our view, bold proclamations that the market is a bubble are just as dubious as dogmatic claims that today's market prices are justified.

Our proposal does, however, give clues as to what types of factors might influence the trajectory of Auckland land prices going forward. The market will be sensitive to any further change in building regulations – looser regulations would drive central Auckland land values even higher, and could depress land values elsewhere.

Expectations about Auckland's future population, and the income-earning potential of that population, will matter. This year, we would expect ongoing strong economic growth and population growth to continue stoking ebullient expectations of Auckland's future population and prosperity. But we are forecasting a significant economic slowdown later in the decade, and a corresponding slowdown in the rate of population growth. Such a slowdown might take people by surprise, and could dent expectations about Auckland's future. That would prompt a bout of falling land values.

Crucially, we are suggesting that an economic slowdown could cause land values to fall even before today's housing shortage is rectified, because what matters is expectations. Proponents of the "housing shortages are driving house prices higher" theory would predict that house prices will fall only once housing supply is physically brought online.

Figure 7: GDP growth forecast

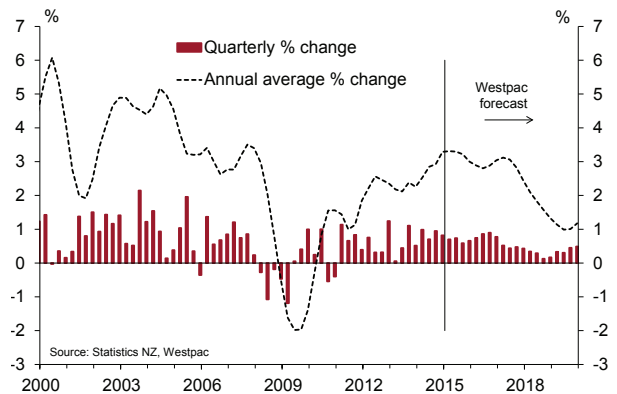
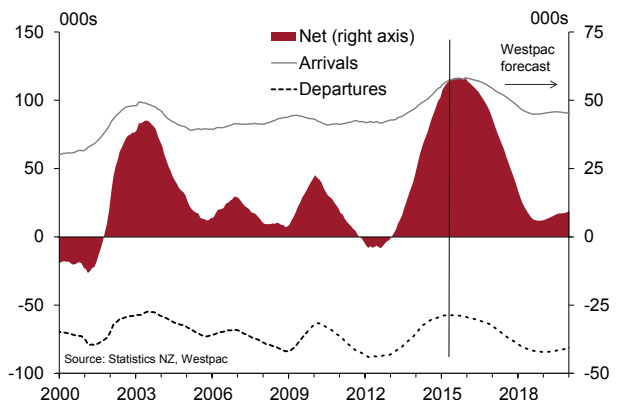


Figure 8: Migration forecast



Of course, financial factors like taxes and interest rates will always matter for land values. The introduction of a capital gains tax would sharply reduce the price of land, by reducing the benefit of holding onto land until it is intensified. A rise in interest rates would reduce the price of land by increasing the cost of holding onto land until it is intensified. However, neither of these seems imminent.

We are forecasting ongoing strong house price inflation in Auckland for 2015, translating to national house price inflation of around 10%, on the back of the ongoing strong economy. From 2017 onwards we expect the economy to slow, population growth to slow, and house prices to fall.

Figure 9: Westpac house price forecast



Dominick Stephens

Chief Economist (09) 336 5671

Westpac economics team contact details

Dominick Stephens, Chief Economist
+64 9 336 5671

Michael Gordon, Senior Economist
+64 9 336 5670

Felix Delbrück, Senior Economist
+64 9 336 5668

Satish Ranchhod, Senior Economist
+64 9 336 5669

Any questions email:
economics@westpac.co.nz

Disclaimer

Things you should know: Each time someone visits our site, data is captured so that we can accurately evaluate the quality of our content and make improvements for you. We may at times use technology to capture data about you to help us to better understand you and your needs, including potentially for the purposes of assessing your individual reading habits and interests to allow us to provide suggestions regarding other reading material which may be suitable for you.

If you are located in Australia, this material and access to this website is provided to you solely for your own use and in your own capacity as a wholesale client of Westpac Institutional Bank being a division of Westpac Banking Corporation ABN 33 007 457 141 AFSL 233714 ('Westpac'). If you are located outside of Australia, this material and access to this website is provided to you as outlined below.

This material and this website contain general commentary only and does not constitute investment advice. Certain types of transactions, including those involving futures, options and high yield securities give rise to substantial risk and are not suitable for all investors. We recommend that you seek your own independent legal or financial advice before proceeding with any investment decision. This information has been prepared without taking account of your objectives, financial situation or needs. This material and this website may contain material provided by third parties. While such material is published with the necessary permission none of Westpac or its related entities accepts any responsibility for the accuracy or completeness of any such material. Although we have made every effort to ensure the information is free from error, none of Westpac or its related entities warrants the accuracy, adequacy or completeness of the information, or otherwise endorses it in any way. Except where contrary to law, Westpac and its related entities intend by this notice to exclude liability for the information. The information is subject to change without notice and none of Westpac or its related entities is under any obligation to update the information or correct any inaccuracy which may become apparent at a later date. The information contained in this material and this website does not constitute an offer, a solicitation of an offer, or an inducement to subscribe for, purchase or sell any financial instrument or to enter a legally binding contract. Past performance is not a reliable indicator of future performance. The forecasts given in this material and this website are predictive in character. Whilst every effort has been taken to ensure that the assumptions on which the forecasts are based are reasonable, the forecasts may be affected by incorrect assumptions or by known or unknown risks and uncertainties. The ultimate outcomes may differ substantially from these forecasts.

Transactions involving carbon give rise to substantial risk (including regulatory risk) and are not suitable for all investors. We recommend that you seek your own independent legal or financial advice before proceeding with any investment decision. This information has been prepared without taking account of your objectives, financial situation or needs. Statements setting out a concise description of the characteristics of carbon units, Australian carbon credit units and eligible international emissions units (respectively) are available at www.cleanenergyregulator.gov.au as mentioned in section 202 of the Clean Energy Act 2011, section 162 of the Carbon Credits (Carbon Farming Initiative) Act 2011 and section 61 of the Australian National Registry of Emissions Units Act 2011. You should consider each such statement in deciding whether to acquire, or to continue to hold, any carbon unit, Australian carbon credit unit or eligible international emissions unit.

Additional information if you are located outside of Australia

New Zealand: The current disclosure statement for the New Zealand division of Westpac Banking Corporation ABN 33 007 457 141 or Westpac New Zealand Limited can be obtained at the internet address www.westpac.co.nz. Westpac Institutional Bank products and services are provided by either Westpac Banking Corporation ABN 33 007 457 141 incorporated in Australia (New Zealand division) or Westpac New Zealand Limited. For further information please refer to the Product Disclosure Statement (available from your Relationship Manager) for any product for which a Product Disclosure Statement is required, or applicable customer agreement. Download the Westpac NZ QFE Group Financial Advisers Act 2008 Disclosure Statement at www.westpac.co.nz.

China, Hong Kong, Singapore and India: Westpac Singapore Branch holds a wholesale banking licence and is subject to supervision by the Monetary Authority of Singapore. Westpac Hong Kong Branch holds a banking license and is subject to supervision by the Hong Kong Monetary Authority. Westpac Hong Kong branch also holds a license issued by the Hong Kong Securities and Futures Commission (SFC) for Type 1 and Type 4 regulated activity.

Disclaimer continued overleaf.

Disclaimer continued

Westpac Shanghai and Beijing Branches hold banking licenses and are subject to supervision by the China Banking Regulatory Commission (CBRC). Westpac Mumbai Branch holds a banking license from Reserve Bank of India (RBI) and subject to regulation and supervision by the RBI.

U.K.: Westpac Banking Corporation is registered in England as a branch (branch number BR000106), and is authorised and regulated by the Australian Prudential Regulatory Authority in Australia. WBC is authorised in the United Kingdom by the Prudential Regulation Authority. WBC is subject to regulation by the Financial Conduct Authority and limited regulation by the Prudential Regulation Authority in the United Kingdom. Details about the extent of our regulation by the Prudential Regulation Authority are available from us on request. Westpac Europe Limited is a company registered in England (number 05660023) and is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority. This material and this website and any information contained therein is directed at a) persons who have professional experience in matters relating to investments falling within Article 19(1) of the Financial Services Act 2000 (Financial Promotion) Order 2005 or (b) high net worth entities, and other persons to whom it may otherwise be lawfully communicated, falling within Article 49(1) of the Order (all such persons together being referred to as “relevant persons”). The investments to which this material and this website relates are only available to and any invitation, offer or agreement to subscribe, purchase or otherwise acquire such investments will be engaged in only with, relevant persons. Any person who is not a relevant person should not act or rely upon this material and this website or any of its contents. In the same way, the information contained in this material and this website is intended for “eligible counterparties” and “professional clients” as defined by the rules of the Financial Services Authority and is not intended for “retail clients”. With this in mind, Westpac expressly prohibits you from passing on the information in this material and this website to any third party. In particular this material and this website, website content and, in each case, any copies thereof may not be taken, transmitted or distributed, directly or indirectly into any restricted jurisdiction.

U.S.: Westpac operates in the United States of America as a federally licensed branch, regulated by the Office of the Comptroller of the Currency. Westpac is also registered with the US Commodity Futures Trading Commission (“CFTC”) as a Swap Dealer, but is neither registered as, or affiliated with, a Futures Commission Merchant registered with the US CFTC. Westpac Capital Markets, LLC (“WCM”), a wholly-owned subsidiary of Westpac, is a broker-dealer registered under the U.S. Securities Exchange Act of 1934 (“the Exchange Act”) and member of the Financial Industry Regulatory Authority (“FINRA”). This communication is provided for distribution to U.S. institutional investors in reliance on the exemption from registration provided by Rule 15a-6 under the Exchange Act and is not subject to all of the independence and disclosure standards applicable to debt research reports prepared for retail investors in the United States. WCM is the U.S. distributor of this communication and accepts responsibility for the contents of this communication. If you would like to speak to someone regarding any security mentioned herein, please contact WCM on +1 212 389 1269. All disclaimers set out with respect to Westpac apply equally to WCM.

Investing in any non-U.S. securities or related financial instruments mentioned in this communication may present certain risks. The securities of non-U.S. issuers may not be registered with, or be subject to the regulations of, the SEC in the United States. Information on such non-U.S. securities or related financial instruments may be limited. Non-U.S. companies may not be subject to audit and reporting standards and regulatory requirements comparable to those in effect in the United States. The value of any investment or income from any securities or related derivative instruments denominated in a currency other than U.S. dollars is subject to exchange rate fluctuations that may have a positive or adverse effect on the value of or income from such securities or related derivative instruments.

The author of this communication is employed by Westpac and is not registered or qualified as a research analyst, representative, or associated person under the rules of FINRA, any other U.S. self-regulatory organisation, or the laws, rules or regulations of any State. Unless otherwise specifically stated, the views expressed herein are solely those of the author and may differ from the information, views or analysis expressed by Westpac and/or its affiliates.

For the purposes of Regulation AC only: Each analyst whose name appears in this report certifies that (1) the views expressed in this report accurately reflect the personal views of the analyst about any and all of the subject companies and their securities and (2) no part of the compensation of the analyst was, is, or will be, directly or indirectly related to the specific views or recommendations in this report.