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# **PALMERSTON NORTH CITY COUNCIL**

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## **ATTACHMENT ECONOMIC DEVELOPMENT COMMITTEE ADDITIONAL ITEM**

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**1PM, WEDNESDAY 8 DECEMBER 2021**

**COUNCIL CHAMBER, FIRST FLOOR,  
CIVIC ADMINISTRATION BUILDING  
32 THE SQUARE, PALMERSTON NORTH**

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## **ECONOMIC DEVELOPMENT COMMITTEE MEETING**

**8 December 2021**

### **Additional Item**

- 10. Summary report on the September 2021 Quarterly Economic Monitor, Annual Population report and Annual Business and Employment report**
  4. Quarterly Economic Monitor Pamerston North September 2021  
(replaces attachment 1 item 10)

Page 4



# Quarterly Economic Monitor

## Palmerston North City September 2021

### Overview of Palmerston North City

Infometrics provisionally estimates that economic activity in Palmerston North fell 2.6%pa in the September 2021 quarter reflecting the effects of the August 2021 lockdown. However, growth in the September 2021 year remained robust at 4.6%pa compared with 4.4%pa across the Manawatu-Whanganui Region and 3.7%pa growth nationwide.

Job growth in the construction, hospitality, health, and retail sectors saw employment of Palmerston North residents grow 1.1%pa in the September 2021 year. Job growth has taken the unemployment rate down to 3.9% for the September 2021 year. The number of Jobseeker Support recipients grew 7.8%pa in the September year. However, Jobseeker Support recipients have been on a downward trajectory reaching 3,108 for the September 2021 quarter – the lowest quarterly result since the March 2020 quarter.

Consumer spending in Palmerston North remains buoyant with electronic card transactions growing 8.9%pa in the September 2021 year. Tourism spending grew 16%pa over the same period, and car registrations rose 11%pa indicating consumers' willingness to make major purchases.

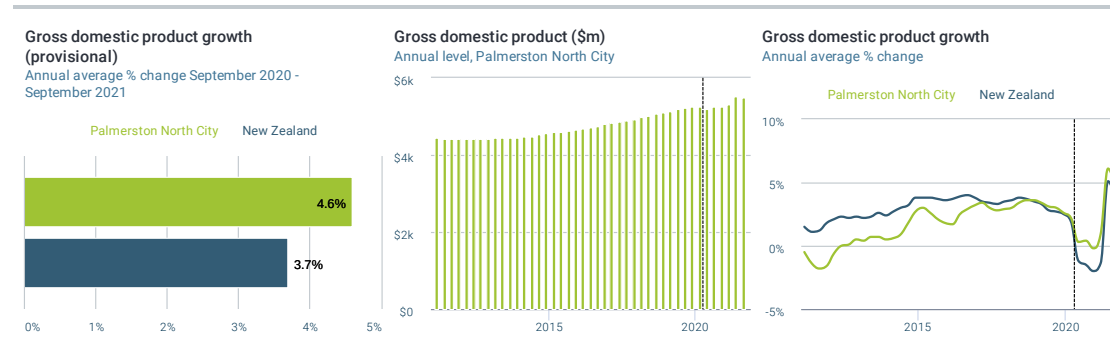
House price inflation in Palmerston North continues unabated with house values rising 37%pa in the September 2021 quarter. The Palmerston North population grew only 0.1% in the June 2021 year. But this followed several years of strong population growth, which has contributed to house value growth climbing steadily since 2015. Residential consents are responding to population growth. The September 2021 quarter saw 127 consents issued, which was well above the 10-year average of 83. Consents in the September 2021 year grew only 0.2%. This weak growth was largely due to a spike of just over 200 consents in the June 2020 quarter.

Non-residential consents in Palmerston North remain elevated but fell 14%pa in the September 2021 year. Factories and industrial buildings accounted for one-third of non-residential consents (by value) in the September 2021 year with storage buildings, education buildings, and shops, restaurants and bars also making notable contributions.

Indicator	Palmerston North City	Manawātū-Whanganui Region	New Zealand
<b>Annual Average % change</b>			
Gross domestic product (provisional)	4.6 % ▲	4.4 % ▲	3.7 % ▲
Traffic flow	11.3 % ▲	10.0 % ▲	7.1 % ▲
Consumer spending	8.9 % ▲	6.9 % ▲	4.7 % ▲
Employment (place of residence)	1.1 % ▲	1.6 % ▲	0.6 % ▲
Jobseeker Support recipients	7.8 % ▲	6.2 % ▲	15.0 % ▲
Tourism expenditure	15.7 % ▲	12.4 % ▲	4.2 % ▲
Health enrolments	1.1 % ▲	0.9 % ▲	1.1 % ▲
Residential consents	0.2 % ▲	18.6 % ▲	25.4 % ▲
Non-residential consents	-13.5 % ▼	6.1 % ▲	10.3 % ▲
House values *	36.5 % ▲	38.3 % ▲	29.5 % ▲
House sales	1.8 % ▲	-1.1 % ▼	21.6 % ▲
Car registrations	10.6 % ▲	12.9 % ▲	8.5 % ▲
Commercial vehicle registrations	-8.0 % ▼	4.0 % ▲	13.0 % ▲
<b>Level</b>			
Unemployment rate	3.9 %	4.0 %	4.2 %

\* Annual percentage change (latest quarter compared to a year earlier)

## Gross domestic product



### Highlights for Palmerston North City

- GDP in Palmerston North City was provisionally up 4.6% for the year to September 2021 compared to a year earlier. Growth was higher than in New Zealand (3.7%).
- Provisional GDP was \$5,483 million in Palmerston North City for the year to September 2021 (2020 prices).
- Annual GDP growth in Palmerston North City peaked at 6.1% in the year to June 2021.

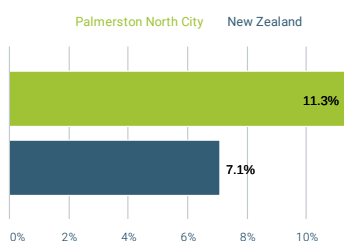
### National overview

The Delta lockdown and extended economic restrictions in Auckland dragged economic activity in the September quarter lower. Provisional estimates from Infometrics point to a 3.7% fall in national economic activity in the September quarter compared to September 2020, with a strong six-week stint before the Delta lockdown softening the economic blow. The economy has started to bounce back from the Level 4 hit, but this bounce is more subdued than after the original lockdown. This latest economic setback has pulled down annual economic activity, with growth slowing from 4.2%pa higher over the 12 months to June 2021 to growth of 3.7%pa in the 12 months to September 2021. Although the supply of goods and services has been constrained, demand continues to be strong, causing rising inflationary pressures and intense labour market tightness that will persist into 2022, with the New Zealand economy still showing resilience in the face of the pandemic.

## Traffic flow

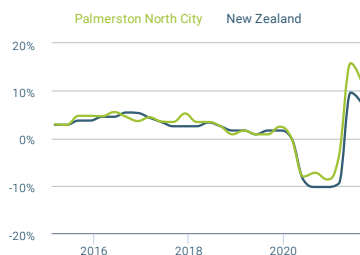
### Annual change in traffic flows

Annual average % change September 2020 - September 2021



### Traffic volume growth

Annual average % change



## Highlights for Palmerston North City

- Traffic flows in Palmerston North City increased by 11.3% over the year to September 2021. This compares with an increase of 7.1% in New Zealand.

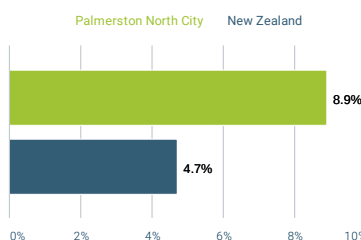
## National overview

Traffic activity fell 14%pa in the three months to September 2021, as Level 4 and 3 restrictions kept motorists off the roads and limited freight movements. This fall in quarterly traffic flows saw annual flows grow at a slightly slower pace of 7.1%, as the weakness in the September quarter, and the weakness in the June 2020 quarter, throw traffic volume comparisons around. Some of the recent traffic falls in tourist hotspots undercook the decline, given current activity is being compared to a lower base given the pandemic. Strong traffic growth in the North Island last year is also exacerbating the drop in traffic in the September 2021 quarter. Looking ahead, construction and export strength will bolster freight activity, although supply chain restrictions and still-low tourism activity will counteract some of this strength.

## Consumer spending

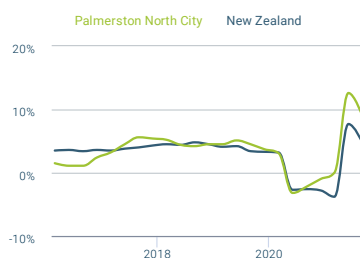
### Growth in consumer spending

Annual average % change September 2020 - September 2021



### Consumer spending

Annual average % change



### Consumer spending

Quarterly spending (\$m), Palmerston North City



## Highlights for Palmerston North City

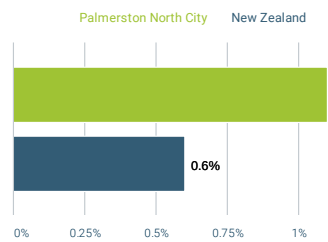
- Electronic card consumer spending in Palmerston North City as measured by Marketview, increased by 8.9% over the year to September 2021 compared to the previous year. This compares with an increase of 4.7% in New Zealand.

## National overview

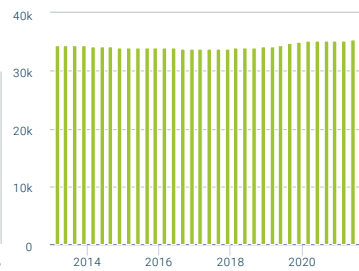
The Delta lockdown delayed a net \$1.2b in card spending in the September quarter, an 8.5% drop from the rebounding September 2020 quarter and nearly 6% below a pre-pandemic September. Marketview card spending data also shows that again, metro regions and tourism hotspots have been hit hardest, with Auckland, Otago, Wellington, and the West Coast all seeing steeper spending falls. Prior to the Delta lockdown in late August, strong demand and spending was apparent, with spending across New Zealand sitting 4.7% higher on average than pre-pandemic. Although spending bounced back at Level 2, extended restrictions, COVID-19 in the community, and lower consumer confidence are likely to limit the speed and size of the spending bounce.

## Employment (place of residence)

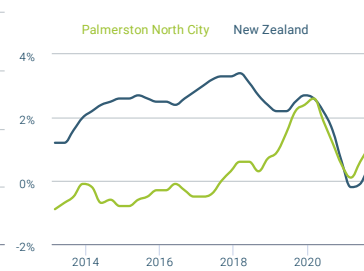
**Employment (place of residence) growth**  
Annual average % change September 2020 - September 2021



**Employment (place of residence)**  
Annual level, Palmerston North City



**Employment (place of residence) growth**  
Annual average % change



### Highlights for Palmerston North City

- Employment for residents living in Palmerston North City was up 1.1% for the year to September 2021 compared to a year earlier. Growth was higher than in New Zealand (0.6%).
- An average of 35,542 people living in Palmerston North City were employed in the year to September 2021.
- Annual employment growth for Palmerston North City residents peaked at 2.6% in the year to March 2020.

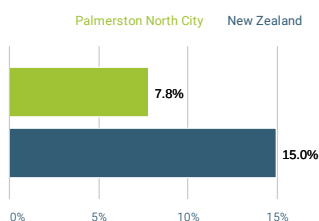
### National overview

The labour market remains incredible hot, with unemployment falling to record lows as employment rises fast. Filled jobs by residences rose 3.1% in the September 2021 quarter, the fastest rate in nearly four years. This strength in employment has bolstered employment on average over the 12 months to September to sit 0.6% higher than a year earlier. Healthcare, construction, professional services and the public sector all continue to drive higher employment, but gains are being seen across the board. Pay rates are heading higher, job ads remain high, and firms report the most difficult period to find staff, as well as the highest levels of job turnover, since the 1970s. Labour market pressures are intense and set to continue, with skills shortage increasing in scale and scope.

## Jobseeker Support recipients

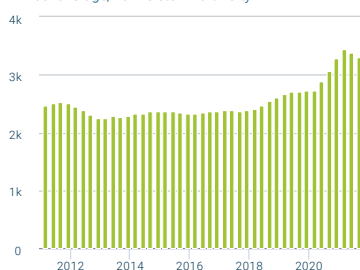
**Annual change in Jobseeker Support recipients**

Annual average % change September 2020 - September 2021



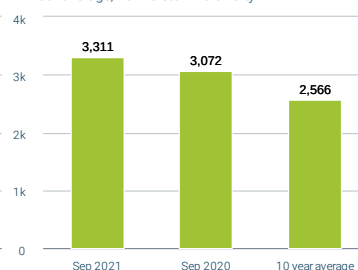
**Jobseeker Support recipients**

Annual average, Palmerston North City



**Jobseeker Support recipients**

Annual average, Palmerston North City



### Highlights for Palmerston North City

- Jobseeker Support recipients in Palmerston North City in the year to September 2021 increased by 7.8% compared with previous year. Growth was lower relative to New Zealand (15.0%).
- An average of 3,311 people were receiving a Jobseeker Support benefit in Palmerston North City in the 12 months ended September 2021. This compares with an average of 2,566 since the start of the series in 2012.

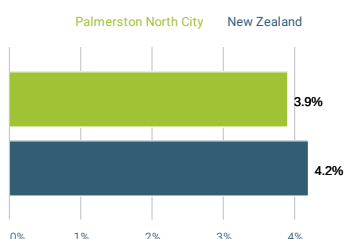
### National overview

Improving Jobseeker Support levels suffered a setback during the Delta lockdown, with nearly 6,800 more people on this benefit at the end of September compared to pre-Delta (a 3.6% boost). This setback erased around four months of falling Jobseeker Support improvements. However, the sustained fall in benefit numbers throughout 2021 means that average Jobseeker Support recipient growth over the last year has slowed further to 15%pa (down from over 27%pa reported last quarter). The downwards trend in benefit support has recommenced, with the tight labour market helping to get people into jobs. However, there were still 193,600 Jobseeker Support recipients at the end of September 2021, nearly 51,000 more than pre-pandemic.

## Unemployment rate

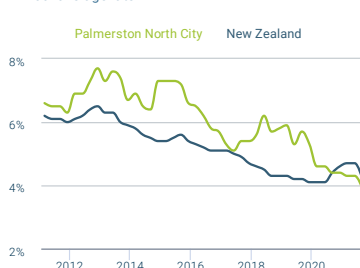
**Unemployment rate**

Annual average % change September 2020 - September 2021



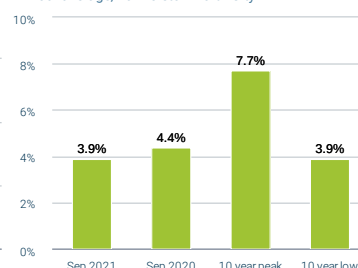
**Unemployment rate**

Annual average rate



**Unemployment rate**

Annual average, Palmerston North City



### Highlights for Palmerston North City

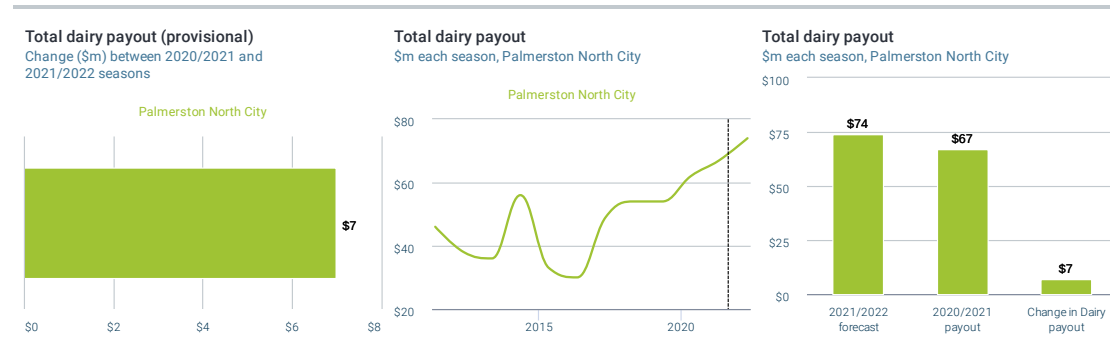
- The annual average unemployment rate in Palmerston North City was 3.9% in September 2021, down from 4.4% 12 months earlier.
- The unemployment rate in Palmerston North City was lower than in New Zealand (4.2%) in September 2021.
- Over the last ten years the unemployment rate in Palmerston North City reached a peak of 7.7% in December 2012.

### National overview

The unemployment rate plunged further to 3.4% on a seasonally adjusted basis in the September quarter. This unemployment rate is the equal lowest on record (since 1986), in line with the December 2007 result ahead of the Global Financial Crisis. Underutilisation has also fallen to a 14-year low of 9.2%, underscoring the intense heat in the labour market. The labour cost index grew 2.4%pa, as the tight labour market is forcing employers to pay more to attract and retain staff. However, labour costs are still rising slower than pre-pandemic levels and are certainly slower than the 4.9%pa inflation recorded in September.



## Dairy payout



### Highlights for Palmerston North City

- Palmerston North City total dairy payout for the 2020/2021 season is estimated to have been approximately \$62 million.
- Palmerston North City's dairy payout for the 2021/2022 season is expected to be approximately \$67 million, \$5 million higher than last season, assuming that production levels from last season are maintained.
- The total dairy payout for New Zealand is estimated to have been approximately \$13,537 million in the 2020/2021 season, and is expected to be \$1,148 million higher in the 2021/2022 season.

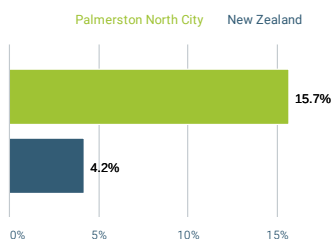
### National overview

Strong demand and more limited supply has sent dairy prices spiralling upwards. Fonterra has revised their midpoint farmgate milk price to \$8.40/kgms, which would be a record-equalling pay-out. Milk production remains high, despite slowing growth in recent times and coupled with the higher milk price means that the total pay-out could total more than \$16.2b in the 2021/22 season, more than \$1.5b higher than the 2020/21 season. Our internal estimates suggest that the farmgate milk-price could go 10c/kgms higher, although we're still early in the season. The stronger milk price will be important for farmers facing higher input costs, with feed costs sitting around 43%pa higher over the last 12 months.

## Tourism expenditure

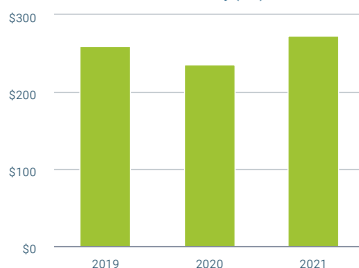
### Tourism expenditure

Annual average % change September 2020 - September 2021



### Tourism expenditure

Annual total, Palmerston North City (\$m)



## Highlights for Palmerston North City

- Total tourism expenditure in Palmerston North City increased by 15.7% in the year to September 2021. This compares with an increase of 4.2% in New Zealand.
- Total tourism expenditure was approximately \$273 million in Palmerston North City during the year to September 2021, which was up from \$236 million a year ago.

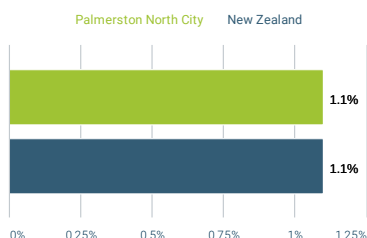
## National overview

Visitor spending over the 12 months to September 2021 was sitting 4.2% higher than a year earlier, given the strength in domestic tourism activity over 10 of those 12 months. However, relative to 2019 (pre-pandemic) levels, tourism spending is still down nearly 8%, with over \$1b less being spent. The Eastern and Northern parts of the North Island continue to have the strongest regional tourism activity, as domestic tourists concentrate their trips nearer to home. The popping of the Trans-Tasman bubble has deflated expectations for stronger tourism activity until into the new year, and all eyes are now on how confident Kiwis are feeling to spending over summer, with COVID-19 now in the community.

## Health enrolments

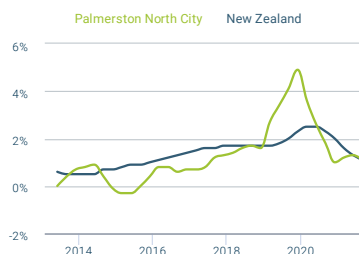
### Annual change in health enrolments

Annual average % change September 2020 - September 2021



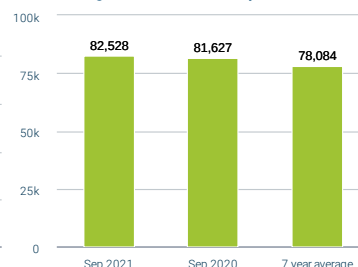
### Health enrolments

Annual average % change



### Health enrolments

Annual average, Palmerston North City



## Highlights for Palmerston North City

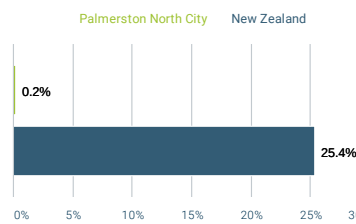
- The number of people enrolled with a primary health organisation in Palmerston North City in the year to September 2021 increased by 1.1% compared with previous year. Growth was the same as in New Zealand (1.1%).
- An average of 82,528 people were enrolled with primary healthcare providers in Palmerston North City in the 12 months ended September 2021. This compares with an average of 77,625 since the start of the series in 2014.

## National overview

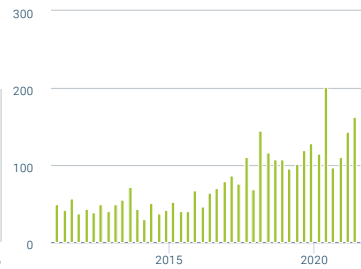
Population growth continues to slow even further, as annual net international migration drops into the hundreds not tens of thousands. Health enrolments, a proxy for population growth, rose 0.8%pa in the September 2021 quarter, a further slowdown. This growth is the slowest in seven years, and comes as the population continues to age and MIQ limits restrict inbound migration. Recent Stats NZ subnational population estimates back up these slowing trends, and also highlight the sustained focus of regional migration into provincial centres and out of metro areas.

## Residential consents

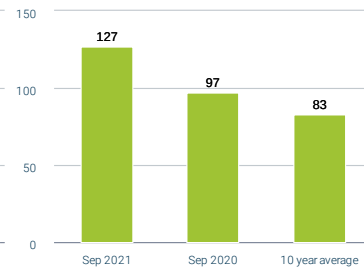
**Growth in number of new dwelling consents**  
Annual average % change September 2020 - September 2021



**Residential consents**  
Quarterly number, Palmerston North City



**Number of new dwelling consents**  
Quarterly number, Palmerston North City



### Highlights for Palmerston North City

- A total of 127 new residential building consents were issued in Palmerston North City in the September 2021 quarter, compared with 97 in the same quarter last year.
- On an annual basis the number of consents in Palmerston North City increased by 0.2% compared with the same 12-month period a year ago. This compares with an increase of 25.4% in New Zealand over the same period.

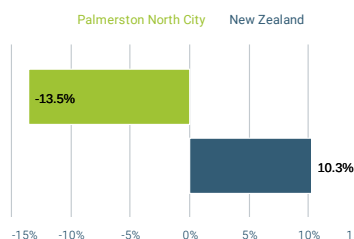
### National overview

Residential consents continue their record climb, with 47,331 consents issued over the 12 months to September 2021 – another new record high, up 25% on the same period a year earlier. Townhouses continue to rise, becoming a larger portion of consents. Recently announced bipartisan policy will make townhouse consents even easier, with consents for three dwellings on an individual property no longer requiring additional resource consent. Despite record consents, capacity constraints in the industry will make translating rising building intentions into actual activity more difficult. Migration forecasts are now higher because of the 2021 Resident Visa, making underlying demand stronger, keeping expectations of consents stronger for longer.

## Non-residential consents

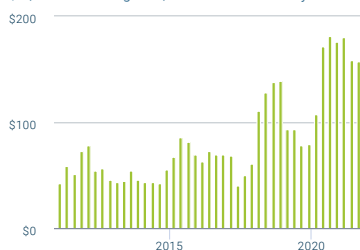
### Growth in value of consents

Annual average % change September 2020 - September 2021



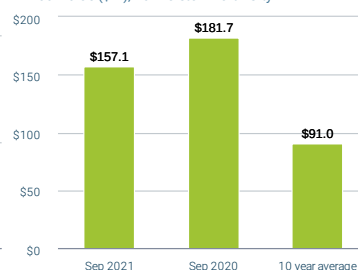
### Non-residential consents, Palmerston North City

\$m, annual running total, Palmerston North City



### Non-residential consents

Annual value (\$m), Palmerston North City



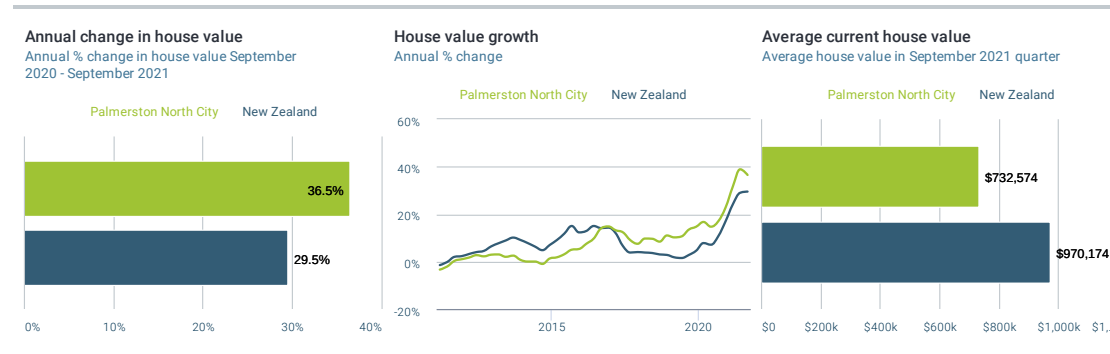
## Highlights for Palmerston North City

- Non-residential building consents to the value of \$157.1 million were issued in Palmerston North City during the year to September 2021.
- The value of consents decreased by 13.5% over the year to September 2021. By comparison the value of consents increased by 10.3% in New Zealand over the same period.
- Over the last 10 years, consents in Palmerston North City reached a peak of \$181.7 million in the year to September 2020.

## National overview

The value of non-residential consents climbed 10% over the year to September 2021. However, we have begun to see more softness these last few months, particularly in Auckland, as lockdown makes firms more likely to delay large investment decisions until they have some more certainty. Non-residential building consents in the September quarter alone were up by only 2.2%. We don't expect this weakness is likely to be an abandonment of consents, but rather a deferral until a more normal level of activity returns. Public consents remain strong, up 30% over the year. Private consents comparatively are starting to soften, up a modest 4.0% in the same period.

## House values



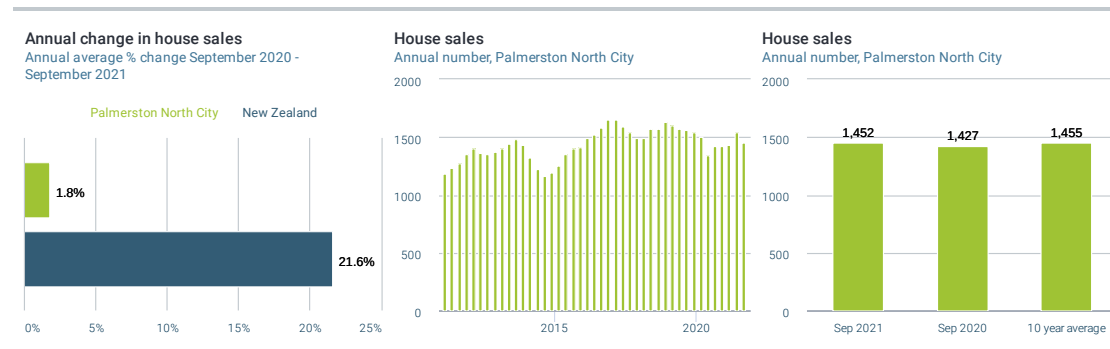
### Highlights for Palmerston North City

- The average current house value in Palmerston North City was up 36.5% in September 2021 compared with a year earlier. Growth outperformed relative to New Zealand, where values increased by 29.5%.
- The average current house value was \$732,574 in Palmerston North City in September 2021. This compares with \$970,174 in New Zealand.

### National overview

House values continue to grow, up 30% on average over the year to September 2021. House price inflation continues to trend upwards and remains widespread across the country. The limited supply of housing remains a considerable contributor to the growing prices. These record high prices remain the result of low property availability, coupled with strong demand driven by low interest rates. However, growing inflation concerns have resulted in the Reserve Bank lifting the official cash rate, with further rate raises likely to come. Increasing interest rates, coupled with harsher loan-to-value ratio restrictions, and likely incoming debt-to-income restrictions will help to flatten price growth going forward.

## House sales



### Highlights for Palmerston North City

- House sales in Palmerston North City in the year to September 2021 increased by 1.8% compared with the previous year. Growth underperformed relative to New Zealand, where sales increased by 21.6%.
- A total of 1,452 houses were sold in Palmerston North City in the 12 months ended September 2021. This compares with the ten year average of 1,455.

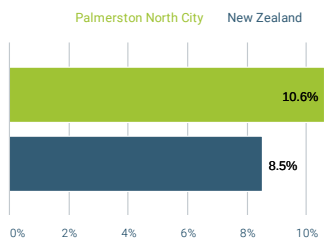
### National overview

House sales over the year to September 2021 are up 22%. However, despite the strong annual result, in recent months sales have begun to soften, being impacted by both a limited supply of housing and COVID restrictions. The impact of COVID restrictions is most apparent in Auckland. Sales in Auckland over the September quarter have fallen by 24% in those three months compared to a year earlier. However, these latest lockdowns make it difficult to identify how much of the recent softening in sales is driven by COVID restrictions and how much is being driven by supply issues – which will remain once restrictions are lifted.

## Car registrations

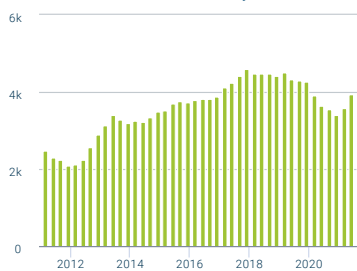
### Car registrations

Annual average % change September 2020 - September 2021



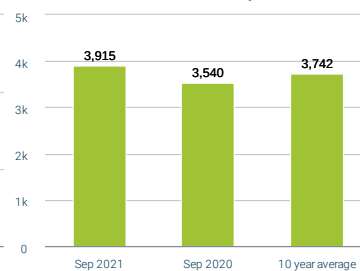
### Car registrations

Annual number, Palmerston North City



### Car registrations

Annual number, Palmerston North City



### Highlights for Palmerston North City

- The number of cars registered in Palmerston North City increased by 10.6% in the year to September 2021 compared with the previous 12 months. Growth was higher than in New Zealand (8.5%).
- A total of 3,915 cars were registered in Palmerston North City in the year to September 2021. This compares with the ten year average of 3,742.

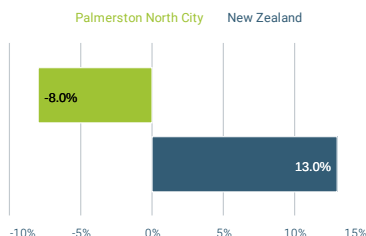
### National overview

The nationwide lockdown in August was a blow to car sales that have otherwise been booming, which limited car sales. However, strong growth over the rest of the year means that total car registrations still grew 8.5%pa in the 12 months to September. Ongoing restrictions in the upper North Island appear to be slowing sales but nowhere near to the degree that happened during the original COVID-19 outbreak. New car registrations have been performing better than used cars, with this trend appearing to be driven largely by available supply. Rental car registrations have recovered slightly, but tight border controls and ongoing lockdowns are still severely limiting rental vehicle demand.

## Commercial vehicle registrations

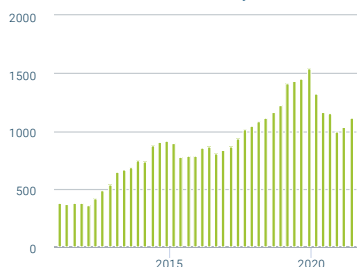
### Commercial vehicle registrations

Annual average % change September 2020 - September 2021



### Commercial vehicle registrations

Annual number, Palmerston North City



### Commercial vehicle registrations

Annual number, Palmerston North City



### Highlights for Palmerston North City

- The number of commercial vehicles registered in Palmerston North City decreased by 8% in the year to September 2021 compared with the previous 12 months. Growth was lower than in New Zealand (13.0%).
- A total of 1,063 commercial vehicles were registered in Palmerston North City in the year to September 2021. This is higher than the ten year annual average of 952.

### National overview

The recent lockdown was merely a blip for commercials registrations, and annual registrations are now sitting 13% higher than in 2020. More recent commercial registrations data also supports this trend of resilience. Strong construction activity continues to support solid demand for commercial vehicles. General road freight has been supported by strong domestic spending and very low unemployment. Some buyers are also bringing forward commercial vehicle purchases ahead of the introduction of fees for higher-emitting vehicles in April next year, which is particularly the case for light commercials.

## Technical notes

### Building Consents

Building consents data is sourced from Statistics New Zealand. The number of residential consents issued for new dwellings is the measure for residential consents. For non-residential consents, the measure is the value of both new buildings and alterations.

### Consumer Spending

The consumer spending data is sourced from Marketview. It measures total electronic card spending using spending through the Paymark network and adding to it an estimate of non-Paymark network spending using the pattern of BNZ card holder spending at non-Paymark retailers. For further breakdown of the data by storetype and other variables contact Marketview.

### Employment (place of residence)

Employment data is based off a range of Stats NZ employment datasets, and represents the number of filled jobs, based on the area of residential address for the employee (rather than workplace address). This place of residence location means that the employment series reflects trends in employment of an area's residents, which may be different to trends in employment at businesses in an area, particularly when there are strong commuting flows. The most recent quarter is based off the average of Monthly Employment Indicator (MEI) filled jobs from Statistics New Zealand for the past three months, with previous quarters being backcasted using the percentage change in the quarterly Business Data Collection dataset published by Statistics New Zealand.

### Gross Domestic Product

Gross Domestic Product is estimated by Infometrics. A top-down approach breaks national industrial production (sourced from production based GDP measures published by Statistics New Zealand) to TA level by applying TA shares to the national total. Each TA's share of industry output is based on labour market data from LEED. GDP growth in recent quarters is based on a model which uses the various partial economic indicators presented in this report as inputs. Estimates of GDP for these most recent quarters are provisional until Infometrics updates its annual GDP series in the Regional Economic Profile at the beginning of each year. Gross domestic product is measured in 2020 dollar terms.

### Health Enrolments

Health enrolments are sourced from the Ministry of Health. They record the number of people in each area who are enrolled with a Primary Health Organisation (PHO). Enrolment is voluntary, but most New Zealanders enrol at a general practice for health reasons and for the benefits of enrolment, such as cheaper doctors' visits and reduced costs of prescription medicines. Changes to how the Ministry of Health recorded this data led to Infometrics revising our approach to health enrolment figures for the March 2019 Quarterly Economic Monitor onwards. Our new approach completely revises our timeseries of health enrolments, so care should be taken when comparing the March 2019 report with previously downloaded reports.

Previously, the data provided was only for those people whose addresses are able to be accurately recorded by the Ministry of Health. We have now switched to breaking down TA-level health enrolments based on trends in stated health enrolments by area, to ensure that the total number of enrolees published in the Monitor align with the national-level figures published by the Ministry of Health. A new system for classifying and recording health enrolment addresses from March 2019 onwards by the Ministry means significantly higher numbers of unallocated enrolees, resulting in the need to review our model.

### House Sales

The number of house sales is sourced from REINZ. The indicator measures the number of house sales at the point when the sale becomes unconditional. The unconditional date is the date when all the terms of an agreement have been satisfied and the sale and purchase can proceed to settlement.

### House Values

House values (dollar value) are sourced from CoreLogic. The levels quoted in the report are average values for the quarter.

## Jobseeker Support Recipients

In July 2013 the New Zealand's welfare system changed to better recognise and support people's work potential. As part of this the Jobseekers Support benefit was introduced. This benefit is for people who can usually look or prepare for work but also includes people who can only work part-time or can't work at the moment, for example, because they have a health condition, injury or disability.

Data presented for the September 2013 quarter onwards is provided by the Ministry of Social Development (MSD). Data prior to September 2013 are Infometrics estimates based on re-grouping pre-July 2013 benefit categories to be consistent with the post-July 2013 benefit categories. The pre-July 2013 benefit categories used to estimate the number of Jobseekers Support recipients are: Unemployment Benefit and Unemployment Benefit Hardship; Unemployment Benefit Training and Unemployment Benefit Hardship Training; Sickness Benefit and Sickness Benefit Hardship; Domestic Purposes Benefit - Sole Parent (if youngest child is 14 or over); Women Alone and Widow's Benefit (without children or with children 14 or over)

## Tourism Expenditure

New Tourism Electronic Card Transactions (TECTs) are an interim replacement for the Monthly Regional Tourism Estimates (MRTes). We have removed our previous timeseries of MRTes and published the three annual snapshots provided in the TECTs. The TECTs reflect the expenditure for all electronic card transactions (ECTs) in New Zealand related to tourism. Marketview use a base of spending on the Paymark network (approximately 70 per cent of total ECT spend) to scale up to total ECT spend.

## Traffic Flow

Traffic flow growth rates are calculated from the number of vehicles passing approximately 110 sites monitored by New Zealand Transport Agency. Each of the sites has been mapped to a territorial authority.

## Unemployment Rate

Regional level unemployment rates are sourced from Statistics New Zealand's Household Labour Force Survey. Trends in the number of Jobseekers are used to break down regional unemployment rates to TA levels. The TA level unemployment rates are benchmarked on census following the release of each census. To reduce volatility the unemployment rate is presented as an average for the last four quarters.

## Vehicle Sales

Car and commercial vehicle sales data are sourced from New Zealand Transport Authority. Sales are based on new registrations which include the first time registration of new vehicles and used vehicles imported from overseas.

## Weekly Rents

Rents (\$ per week) are sourced from monthly data provided by MBIE and averaged across each quarter or year using weighted geometric means. Rental data pertains to averages from data collected when bonds are lodged and does not control for specifications of the home (eg. size, number of bedrooms, age of home, etc).