RedBook

Q3

EDITION Q3.3 / OCT 2021

Market Update

In this issue

- Volumes
- The Road to Electrification
- Global EV News
- The Chips are Down
- Future State

Editor: Nick Auld
General Manager
RedBook New Zealand
email: **nick.auld@redbook.co.nz**

New car sales are on target to exceed 150,000 and, should STILL break all previous records.

NZ will finish the year well up on 2020 car registrations and we should still have a very strong final quarter if we can open more fully during October.

The high September volumes speak for themselves, dealers are telling us that even through level 3 they have been busy, and that demand is still very strong. They just can't get the stock. The simplest economics of supply and demand are keeping used values very high and the demand for EVs has soared, as expected, with ever growing public acceptance supported by Government intervention. The Tesla 3 was second only to Ranger in September, outselling Outlander, Hilux and Rav4.

The Motor Trade Association (MTA) has outlined proposals for introducing a scrappage scheme to support the aims of getting greener and safer cars onto our roads and to reduce the average age of the NZ fleet. Its proposals include offering consumers up to $2,500 to replace older models as an incentive towards affording safer and greener models.

The delay until April 2022 (at this stage) of the more Co2 focused drive of the Government's Clean Car Programme have been widely welcomed in allowing slightly more time to prepare for such a major shift. There will be some fallout to come going forward.

The combination of pressures on global production, our lowly place in the automotive pecking order and the fractured supply chain will peg back availability and mean that demand outstrips availability until at least the latter stages of 2022, if not into 2023.

The automotive industry is being disrupted by both invention and intervention.

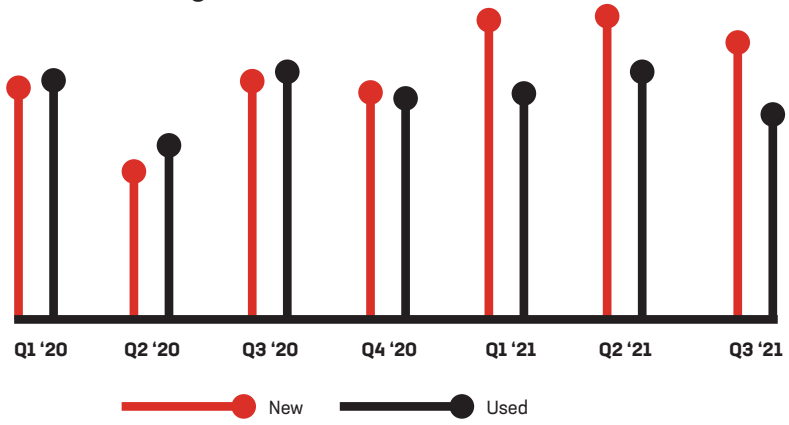
Volumes / Key Models:

- Ford Ranger (8,641) and Toyota Hilux (6,534) make up the top two selling vehicles of 2021, YTD.
- Mitsubishi Triton (3,811) at number five and Nissan Navara (2,383) at number 9 keeps utes as the biggest sellers in the top 10.
- Mitsubishi Outlander (4,280), ASX (4,115), and Toyota's Rav4 (4,090) keep up the charge of the SUV's.
- Corolla's rental registrations making up 25% of their sales moves the Toyota passenger flagship to 7th with 2,891 units while CX-5 (2.638) is 8th and Swift (2,270) takes 10th.

YTD there have been over 123,000 new vehicles registered (40% up on 2020) and over 100,000 used imports registered 30% up on 2020).

YTD there have been over 123,000 new vehicles registered (40% up on 2020) and over 100,000 used imports registered 30% up on 2020).

NZ Vehicle Registrations



NZ's love affair with SUV's is still strong with 49% of all new vehicle registrations YTD

- **Ford Ranger remains the top selling model in NZ**
- **Utes continue to make up 22% of YTD registrations**
- **Saloon and hatchback registrations have increased slightly on the back of rental fleets stocking up for summer.**

The top 20 makes YTD are below:

MAKE	Q1 '20	Q2 '20	Q3 '20	Q4 '20	Q1 '21	Q2 '21	Q3 '21
Toyota	5,280	3,611	5,880	5,976	6,762	6,768	6,941
Mitsubishi	2,745	1,540	2,831	3,191	4,796	5,428	4,815
Ford	3,402	1,618	3,583	3,720	3,812	3,917	4,422
Kia	2,057	1,397	2,255	2,260	3,456	3,125	1,709
Mazda	2,139	1,311	2,367	2,278	3,041	2,562	2,083
Nissan	1,927	959	1,453	1,846	2,096	2,350	1,353
Suzuki	1,485	1,127	1,711	1,617	2,005	2,265	1,944
Hyundai	1,605	1,045	1,786	1,615	1,940	2,048	1,743
Volkswagen	1,068	714	1,219	803	1,519	1,750	1,204
Honda	1,079	565	1,028	555	1,192	959	806
Mercedes-Benz	859	530	863	737	760	825	737
Isuzu	597	511	589	682	979	1,204	857
Subaru	756	438	678	557	862	836	542
MG	239	144	360	655	808	783	1,049
BMW	427	284	457	424	525	566	457
LDV	183	195	396	362	625	808	620
Audi	367	277	445	407	486	491	395
Ssangyong	305	224	378	422	455	312	318
Land Rover	299	151	350	271	430	437	186
Jeep	259	100	239	194	399	427	230
Others	5,595	4,065	4,828	3,508	4,863	4,893	4,5,926
New	32,673	20,806	33,696	32,080	41,811	42,754	38,338
Used	33,353	23,987	34,005	30,669	31,087	34,404	29,111

The Road To Electrification

The momentum continues to ramp up in NZ. The Clean Car Discount scheme came into effect on 1 July 2021.

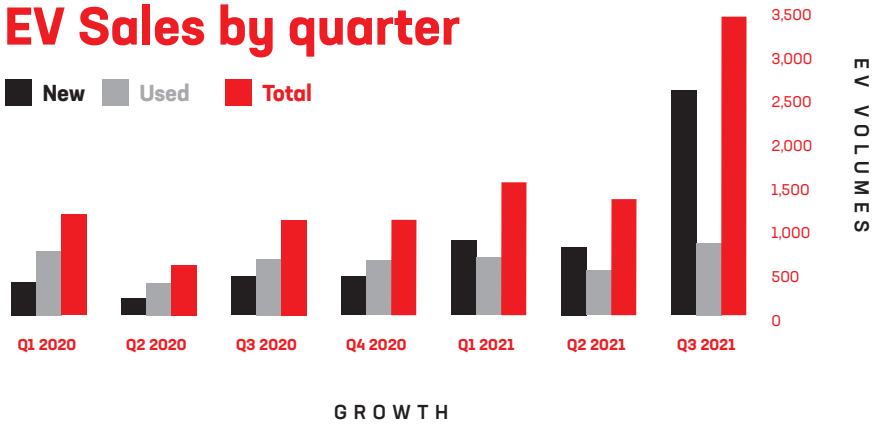
Unsurprisingly this has seen sales of plug-in hybrid and electric vehicle soar in Q3 2021.

Average quarterly registrations for plug-in hybrids had been running at 230 per quarter, in Q3 2021 there were 1,055 registrations.

Average quarterly registrations for EV's had been running at 544 per quarter, in Q3 2021 there were 2,644 registrations.

These show a five-fold increase in registration activity for both PHEV's and EV's.

EV Sales by quarter



Global EV News

Chinese OEMS are now mandated to produce a certain number of EVs. Initially China supported growth with rebates (like us late adopters in NZ). This became too expensive for the Chinese government to support so from the end of 2020 they mandated that, to avoid hefty financial penalties, Chinese based manufacturers must earn a stipulated number of points every year, which are awarded for each EV produced based on a formula that considers the vehicles range, energy efficiency and performance.

The requirements get tougher over time, with a goal of having EVs make up 40 percent of all car sales by 2030. This means that the largest car market in the world will be largely electric by 2030 and globally the demand for batteries and their supply will continue to rapidly increase. This should equate to build cost reduction and better performing EVs.

The established Chinese EV OEMs such as NIO, XPENG, BYD, GEELY (see the new Polestar brand featured below produced in partnership with Volvo), SAIC (MG) and LI AUTO are fundraising machines raising billions each, all only surpassed by TESLA. Many of these brands have plans to compete head on with the more established brands as well as newcomers from the US like RIVIAN, LUCID and CANOO. Amazon backed RIVIAN looks set to take on the SUV and UTE market very effectively. The LUCID and POLESTAR brands will bang heads directly with TESLA and the CANOO range looks interesting, but still seems a little further off.

Ford have announced a US$ 11 billion investment in Electric Vehicle plants. US President Biden is supporting homegrown chip and battery production as well as introducing harsher pollution penalties and incentives to stir the sluggish US consumers from their EV slumber.

With Asia, the US and Europe all charging forward (literally!) with EV development, there are some exciting looking products coming and some of the more unfamiliar names above will start to feature more and more.

Polestar
Coming soon to NZ

It is not often we get a new brand arrive down here...and its electric! The European reviews are very favourable.

The NZ press release states:
Ahead of the arrival of the Polestar 2 electric performance fastback in New Zealand later this year, Polestar has confirmed that both the Standard range Single motor and Long range Single motor models will qualify for the maximum government Clean Car Discount rebate of $8,625.

Bruce Fowler, Brand Manager of Polestar New Zealand, says,

"Polestar is a truly exciting addition to the mobility landscape in New Zealand, and we are delighted that two of the three Polestar 2 models are eligible for the full $8,625 Clean Car Discount. Across the range, Polestar 2 delivers a standard-setting level of quality, safety, performance and zero-emission driving enjoyment; now we can confirm its great value for New Zealand customers."

Polestar 2 NZ pricing

(MRP - inclusive of On Road Costs & GST)

Standard range Single motor
$69,900

Long range Single motor
$78,900

Long range Dual motor
$93,900

When the chips are down...

What chips?

The chips, or semiconductors, function as the brains of our electronics. Each chip hosting billions of transistors within them. Each of those transistors in turn are like tiny little gates, controlling the pathways of electronic instruction. Their construction is both extremely specialist and highly complex. IBM's newest superchip packs 50 billion transistors into a fingernail-sized space.

These chips are the lifeblood of our modern technological society.

According to the UK's SMMT a modern car may have around 1400-3000 chips. Global vehicle production only utilises around 15% of world chip production, whereas the personal electronics market is the key focus of chip production at around 50%.

Why is there a shortage?

COVID-19. Due to global lockdowns, chip production facilities were forced to shut down. Most of the global manufacturing capacity for semiconductors is in Asia, which was the first region to shut down at the beginning of the COVID-19 pandemic. Semiconductor factories closed for months, but demand for their chips increased. The world's populations were forced to stay indoors, and our demands became even more firmly focused on electrical devices such as webcams, monitors, televisions, phones and computers in order to stay in touch, work and entertain ourselves.

Go back to March 2020, (if you dare!) when the global pandemic prompted automakers, automotive suppliers, and most of the world's car dealerships to close down. The automakers, having experienced previous cyclic recessions, largely cancelled orders for parts with computer chips, assuming they simply would not be needed for quite some time.

Sales of new cars did crash, but they quickly rebounded. As we slowly emerged from our lockdowns with no travelling options there was pent-up demand, good financing offers, strong used values and dealer groups worked hard to develop online retail solutions.

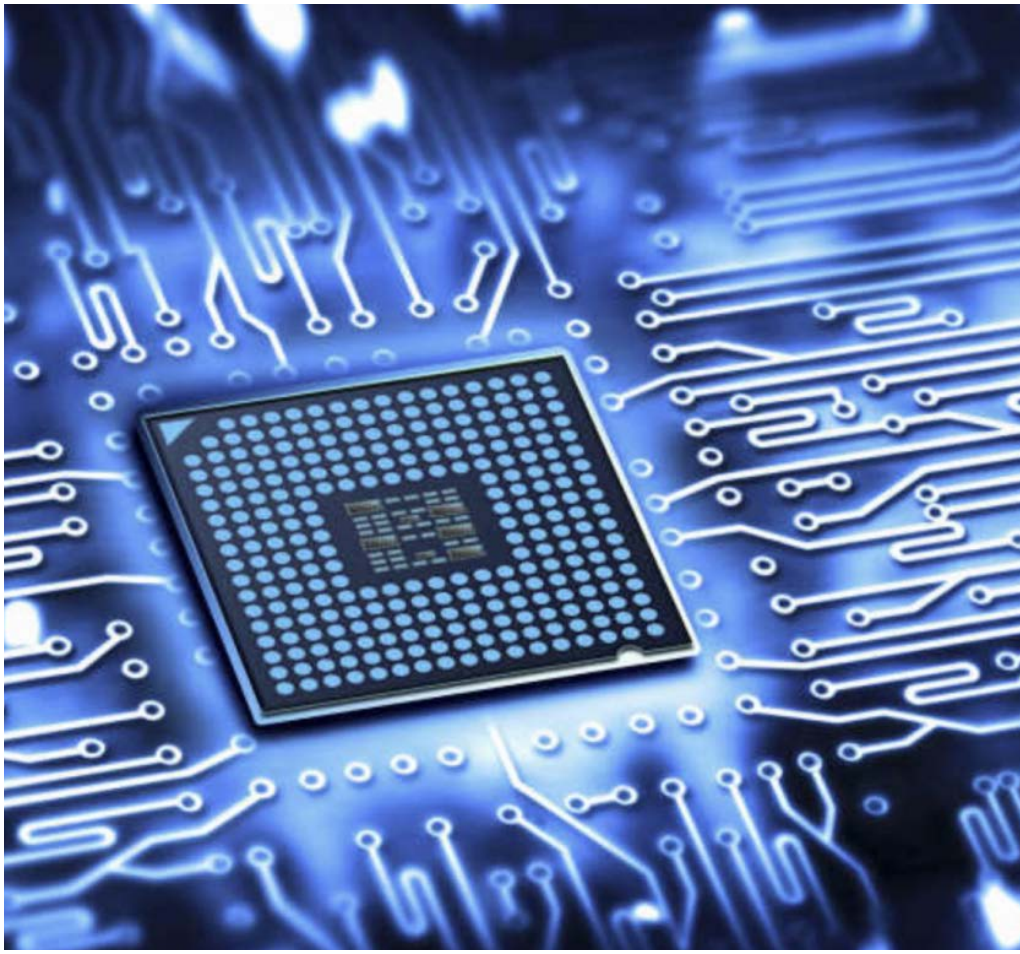
In the meantime, the chip manufacturers had more commitments from the technology sector, whose demands had grown, which simply reduced capacity for automotive chips.

The quick recovery and increasing technological developments of the automotive industry caused a supply bottleneck on a global scale that started to cause serious production problems in early 2021.

When will it get better?

Whilst it is not possible to quickly ramp up chip production immediately, China, the USA and Europe are all investing to try to meet demands and decrease reliance on other producers. It means consumers must ride out the storm, but that it will play itself out over time. Manufacturers are taking steps to keep production moving, changing specifications, or adapting models to meet demands. Our reliance on chips in more technological vehicles is only going to increase and the manufacturers will all be looking to secure supply in competition with non-automotive products.

An answer is hard to define - the views of leading Manufacturers point to the situation easing sometime between late 2022 at the very best and mid 2023 at this stage.



Future State

The Canoo Adventure

This quarter we asked **Mike Sinclair,** Director of Content and Editor in Chief @ RedBook's parent company, **carsales.com.au**, a few questions about the market and some of the issues facing the global automotive industry.

It is certainly a disruptive environment. Brands like Rivian look set to change the game. What new products are taking your eye that we should be looking out for?

EVs will see a number of new brands emerge and some will become household names.

What is really interesting though is to see how established brands evolve their model ranges and brand icons (think Golf, LandCruiser, WRX) from their current ICE forms into battery electric or at the very least electrified versions.

The thought of a high-performance PHEV Golf GTI that gives you 50km pure-electric range or the option of all-wheel drive performance and 0-100 in 3.5sec when in hybrid mode is pretty attractive. There will be some very interesting cars from mainstream brands over the next decade.

What are the most interesting trends you are seeing coming out of global automotive developments?

One thing I'm looking at with some excitement is the electrification of existing models – and the emergence of the electric 'crate motor'... EV plug and play solutions that have seen everything from a Series I Land Rover through to Porsche 911s hitting the road with battery power. They're never going to be cheap or mass market but there are some very cool conversions taking place.

And while battery powertrains are getting everyone's attention, I think one of the most interesting developments is the commercialisation of e-fuels...

Carbon-neutral or carbon-negative synthetic 'petrol' that can potentially power existing vehicles as well as a whole generation of non-fossil fuel ICE vehicles in the future.

Porsche has a pilot plant under construction and there are more to come.

Global production is still impacted by Delta despite a resurgence in manufacturing. How long do you think the chip crisis is going to take to play out?

People as influential as the boss of Mercedes globally, Ola Kallenius, say semi-conductor shortages will continue well into 2023 and potentially even longer.

BMW, Mercedes-Benz and Volkswagen are all on record saying the shortage won't ease until at least 2023.

One of the challenges is that many automotive applications use older chips for which production is limited.

Companies like Mercedes have stated they will phase out older chips (and some existing car models and technologies) sooner to help increase the use of newer chip types and designs.

Our view is EV adoption and technology are still in its early stages in reality, how fast do you see the pace of the developments in EV and battery technology increasing?

EV is taking the lions share of automotive R&D spend and that's unlikely to change. OEMs are looking at battery chemistry, battery types, relative energy density, powertrain efficiencies, charging technologies, etc, etc... All of these will impact future vehicles.

But the biggest hold up to EV adoption right now is the lack of choice of key segments such as small and midsize SUVs, dual-cabs and even small hatches. These are the new car segments where the volumes are sold and there's still very limited choice in terms of EVs. As more choice arrives, sales will follow...

Do you think there are any OEMS at risk of being too slow to adapt?

Yes. But I think the bigger factor is which OEMs will be able to afford to fund their change from ICE to electrified and EV.

There will be brands that exist now that will either disappear or fundamentally change in the next 5-10 years.

Where do you see Hydrogen adoption in cars by 2030?

Hydrogen has significant potential, but I think the focus on fuel cell development will be commercial vehicles and heavy forms of transport.

EVs can satisfy a wider range of car consumers than most of us credit... And that will only improve over the next decade.