

# Research Rural Wrap

5 October 2023

## Enter El Niño

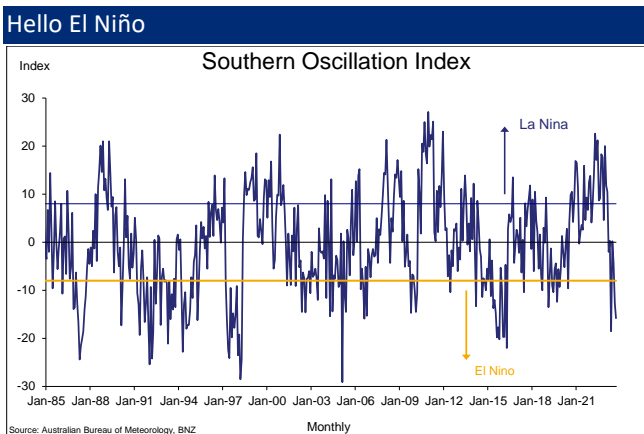
- **El Niño declared, expected to stay through summer**
- **A headwind for NZ agriculture, if history is a guide**
- **Risks lower milk production, higher livestock cull**
- **Support to milk price, challenge to lamb price**
- **Our 2023/24 milk price forecast nudged up to \$7.25**

Weather risk is omnipresent in NZ agriculture. It always seems to be more a case of identifying what risk is present or looming rather than if there is any risk at all.

Adverse weather has already contributed to difficult conditions this year. The latest example is the heavy rain that caused major flooding down south in September that led to a state of emergency across Southland.

And then there is the long-signalled arrival of an El Niño weather pattern. That has had many (not only in NZ) planning and bracing for what this iteration will bring, especially through spring and summer.

Each El Niño brings its own influence but, in general, New Zealand tends to experience stronger or more frequent winds from the west and south-west leading to dry conditions in the east and more rain in the west. Many previous droughts have been associated with El Niño events so that alone means the risk is worth monitoring. This El Niño follows three consecutive La Niñas, so even a mild event could see the change in weather surprise some.



The Southern Oscillation Index (SOI) has pushed decidedly lower over recent months and weeks, to less than -15 through September. The SOI is only one (atmospheric)

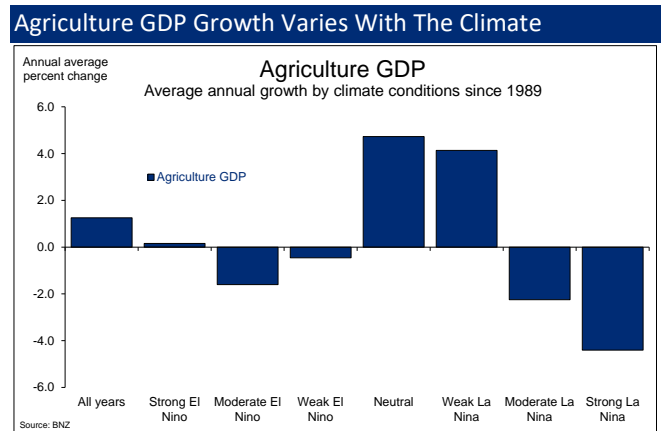
indicator, but oceanic indicators are also showing El Niño traits thereby increasing the chance of sustained El Niño conditions through to the end of summer or later.

Here we take a brief look over the past few decades to see how NZ agriculture has performed during the various phases of ENSO: El Niños, La Niñas, and neutral conditions.

In short, El Niño conditions tend to be detrimental to NZ agriculture, at least on average. We gauge this by looking at what the average change in agriculture GDP has been for the season during various weather phases in the past.

Admittedly, looking at only the annual change in GDP is rather crude because performance can swing wildly from one season to the next for any number of reasons. But, as simplistic as this analysis is, it does suggest some tendencies, namely:

- El Niño events (whether weak, moderate, or strong) have previously seen either negative or below normal growth in agriculture GDP on average.
- Moderate-to-strong La Niña events have historically seen sizeable declines on average in agriculture GDP and larger than those associated with El Niño events.
- Agriculture GDP has tended to grow faster during periods of weak La Nina events or neutral conditions.

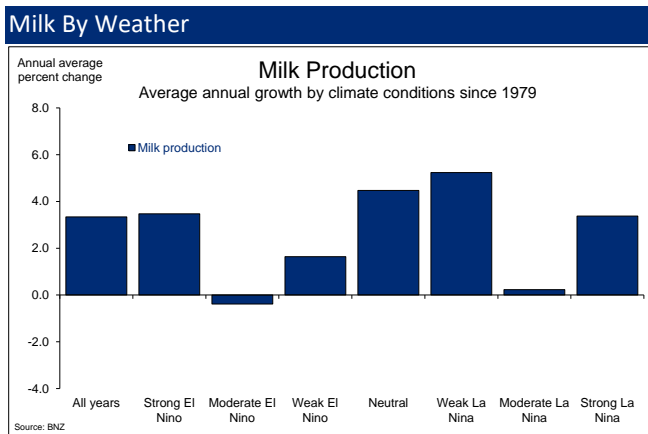


We are reluctant to draw very strong conclusions from this given that, even with the 35-year time span we looked at, the sample size of each weather pattern is small. But it does suggest NZ agriculture production tends to struggle

during El Niños (although not as much as during moderate or strong La Ninas). NZ agriculture performs best when the weather is not extreme. That intuitively feels right.

Of course, there are different outcomes across various sectors. Here we take a brief look at dairy and meat.

For milk production, the results are mixed but tend to suggest underperformance during El Niños. The near average result for strong El Niño conditions shown in the chart below looks at odds with this assessment. But looking further into the detail, that result is heavily distorted by a 10% lift in milk production in the 1987/88 season (a strong El Niño year). This overstates the 'strength' in that season because the +10% did not even make up for the 14% production decline in the season prior (a moderate El Niño year). Such details highlight we should focus on the generalities, rather than the specifics.



For all El Niño years since the late 1970s, annual growth in milk production averaged 1.4% compared to overall average growth of 3.3% over that period. That indicates a drag of circa 2% on milk output from El Niño conditions, on average. While a crude assessment, if that were to play out against the recent flat underlying trend, it points to an outright decline in milk production in the current season.

We have long been monitoring El Niño's development but as the signals have strengthened, we are now factoring in more of the rising risk. Recent adverse weather, generally low milk prices, and elevated costs have already presented a challenging start to the dairy season. Fonterra recently noted reduced milk production in the North Island, seen as 'a result of both costs and weather'. NZ milk production fell 0.9% y/y in August. All considered, we have lowered our forecast for this season's milk production to a decline of more than 1% (from roughly flat previously).

If there is a silver lining here, some concern about NZ milk production appears to have contributed to arresting a large and lengthy decline in dairy prices. This is hardly the best way to generate price support, but it looks to be part

of the mix. GDT auction prices have bounced about 12% off their mid-August low.

Developments elsewhere appear to have also played a role in the bounce in dairy prices including cost and weather challenges in other major producing areas. Some better (or less weak) news out of China of late has at least helped sentiment. Scheduled changes as part of the China-NZ FTA on 1 January are also supportive. Some demand signals have improved. Dairy prices also tend to be positively correlated with oil prices with the latter considerably higher than a few months ago. We see this correlation as the result of connections through various channels, one of which is changing dairy demand from oil producers with oil price fluctuations. OPEC nations have been sizeable buyers of NZ core dairy exports, at just under \$3b annually. That is a bit over 40% of what China buys from NZ dairy-wise, so it is significant.

None of this is to say dairy prices are strong. Off the lows dairy prices may be, but they are still 18% lower than a year ago. So, neither the recent bounce in GDT prices, nor the above associated developments to date, point to a high milk price in NZ. But, collectively, they have lessened downside risks and increased the chance Fonterra's 2023/24 milk price can be \$7 or more. That suggests upside risk to Fonterra's current forecast midpoint of \$6.75 (within a range of \$6.00 to \$7.50).

We had expected some reasonable GDT price gains to occur by the middle of next year, but the bounce over the past month or so has been sooner than expected and relatively strong. This sees us nudge our own milk price forecast up to \$7.25. This is up 55c from our previous \$6.70 view for the 2023/24 season. A milk price starting with \$7 would obviously be better than something starting with \$6 from a producer point of view. But it would still be below the previous season's \$8.22 and still low in inflation-adjusted terms. The futures market has been trading more optimistically, pushing as high as \$7.90 recently.

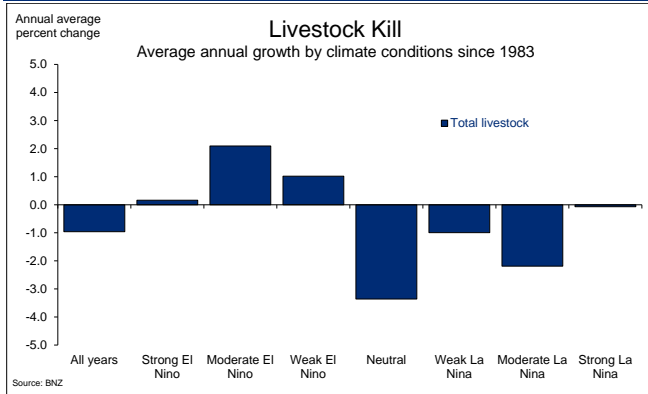
Multiple risks and uncertainties around milk price forecasts remain. Dairy demand from China remains very important and could see prices lower, should demand disappoint relative to expectations. But, by the same token, as expectations eased previously, we shouldn't discount the chance of demand surprising on the upside. Likewise on the supply side, while there is upside risk to dairy prices if weather challenges intensify more than expected there are also downside potential if weather risks are overstated.

Now turning to livestock and El Niño's possible influence. Looking at data over the past 40 years, we find that the annual change in kill numbers has been higher on average during El Niño years. This is of no surprise and likely reflects an undesirable situation, as farmers lower stocking rates when dry conditions put pressure on feed supply.

For El Niño years, the annual change in livestock slaughter numbers has averaged a 1.2% increase over the period in question. This compares to a 1.0% decline for all years since the early 1980s, or a 3.4% decline on average when weather conditions are neutral. La Nina years has seen livestock slaughter numbers decline by 1.2% on average.

The relatively big decline in slaughter numbers when conditions are neutral could be viewed as a positive sign with farmers retaining or rebuilding stock units as feed conditions allow – effectively the opposite of what occurs during an El Niño.

**More Processing In El Niños**



For the coming season, stock numbers set the baseline. Those look a bit mixed judging by Beef+Lamb NZ’s recent Stock Number survey. Sheep numbers were up 0.6% as at June 30 compared to a year earlier, while cattle numbers were down 2.4%. There was a bit more forward optimism from the survey with positive tendencies for this year’s lamb crop (seen up 0.6%, to 20.36 million) and calving which followed from positive scanning percentage results and good breeding stock condition. Final lamb and calf numbers will depend on the weather. Whatever the baseline, if El Niño conditions dominate we can expect a somewhat elevated livestock kill overall at least relative to what would happen absent the weather pattern (with associated more export volumes but less stock on farm).

Of course, El Niño’s influence goes well beyond NZ. We say this with some focus on Australia. La Nina conditions over the past three seasons, with better grass growing conditions on Australia’s East Coast, has seen Australia’s beef herd lift to its largest size since 2014 and its sheep flock to its biggest since 2007. The Australian Bureau of Meteorology have noted an El Niño and a positive Indian Ocean Dipole is underway – a combination that typically sees their drying effect stronger and more widespread across Australia. It looks to have started. On average, rainfall was almost 50% below average in August, with the Northern Territory, Queensland, New South Wales, and South Australia being particularly dry.

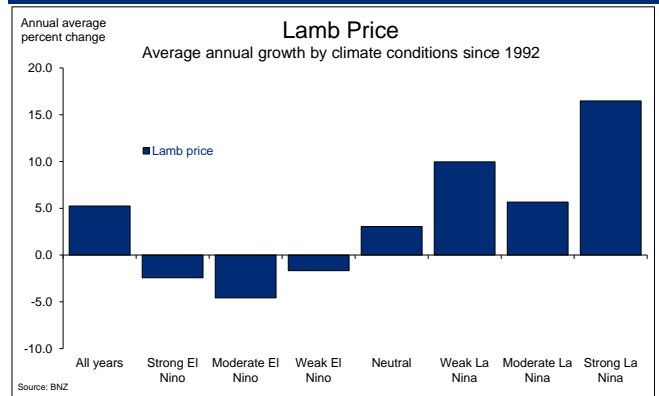
The prior stock building and now drier conditions have seen more Australian product enter markets adding

downward pressure to prices. This has been most pronounced in lamb, with Australia’s share of world lamb exports larger than its share of world beef exports.

In NZ, lamb prices have tended to fall on average in El Niño seasons in the past. Intuitively, this fits with typically higher slaughter rates domestically during such periods. This result also likely reflects a similar production dynamic in Australia.

Looking over the past 30 years or so, during El Niño years NZ lamb prices have fallen around 4% on average for the season. In contrast, NZ lamb prices have increased by around 12% on average during La Nina seasons.

**Lamb Price**



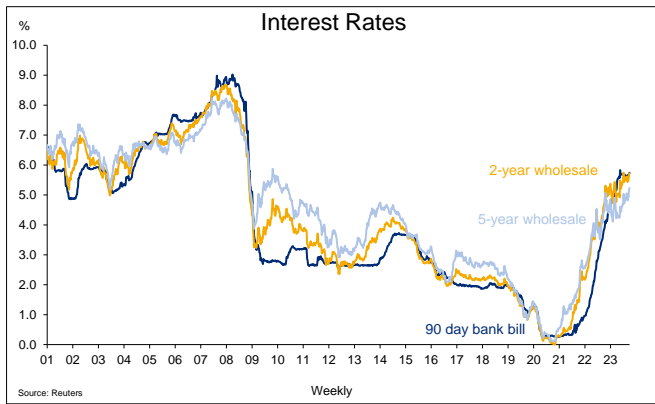
Of course, the results discussed illustrate what has happened historically, on average. They do not necessarily mean that that is how things will pan out in any given El Niño event, including the current one. In any given year, there are a host of other factors in play, all with their own influence on things. For example, in the present case, the fact that this El Niño event follows a series of significant weather events may well see different impacts. It is still good to know the history as a reference point.

In any case, we reiterate the difficulty in accurately assessing the impact of weather on agriculture performance and the economy overall. Poor data quality is the first hurdle. More fundamentally, there are many aspects to consider in a full analysis across outputs, stocking rates, inputs and cost changes. Emphasis is often on the production hit from weather events, but cost increases can be just as troublesome. Then there are the (biological) lags involved meaning that many weather events have multi-season implications, each with their own financing and opportunity cost depending on all other factors at the time. And even if you can accurately assess what has happened, what do you compare it to in order to judge the weather event in isolation? Tricky, to say the least. But even the simple analysis above suggests we should be wary of this season’s El Niño influence.

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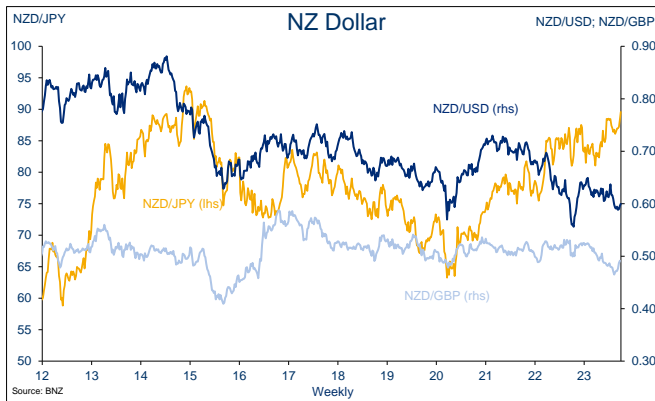
# Key Macro Drivers for Commodity Producers

## Interest Rates



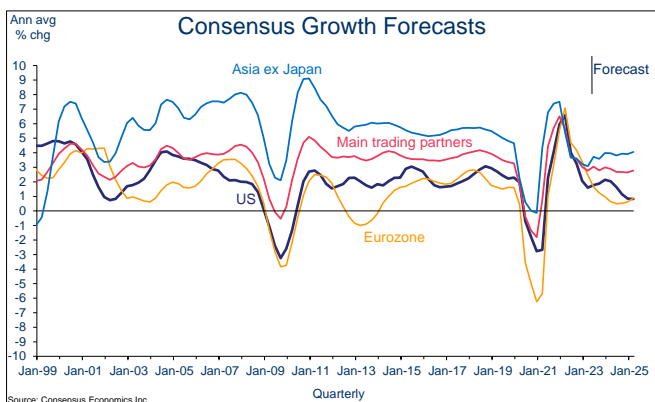
The RBNZ held its Official Cash Rate (OCR) at 5.50% at its early October review. This was expected. The Bank said that interest rates are constraining economic activity and reducing inflationary pressure as required. It noted a near term risk that activity and inflation do not slow as much as needed. There was some suggestion that the cash rate will need to remain at a restrictive level for ‘a more sustained period of time’. We remain of the view that the OCR is on hold until around mid-next year, but with risk that it may be for a bit longer than that. Higher bank funding costs are putting upward pressure on rates beyond moves in the official cash rate. Longer term rates have increased significantly as markets have lessened the degree of policy easing priced in over the coming year or so – both in NZ and other markets like the US.

## Foreign Exchange



Global risk appetite has been under pressure as US market interest rates have pushed upward, amid a higher for longer message from the Fed. This, along with the US economy showing more grit than others, has supported the US dollar. Against that backdrop the NZD has been surprisingly resilient, consolidating just below 60c over the past month or so. Less pessimism on China and some stability in the yuan has provided NZD support. NZD resilience is more obvious with clearer recent gains against the likes of the GBP and EUR. JPY has been volatile as BoJ monetary policy and possible currency intervention remain in focus. Looking to the year ahead, NZD is expected to be lower against the AUD and JPY, oscillate against the GBP and EUR, and be firmer against a weakening US dollar.

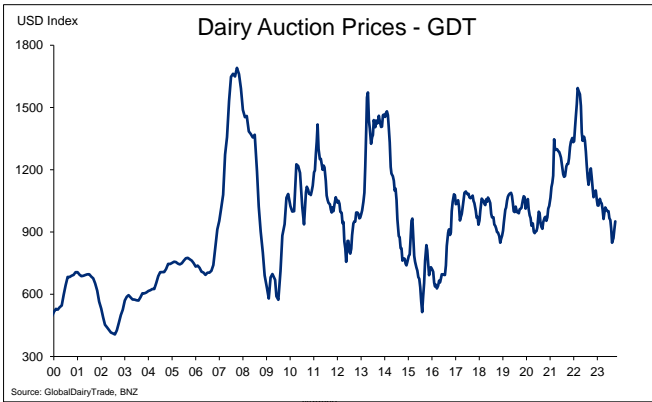
## Global Growth



Global economic growth has been slowing, albeit mixed across countries. The US has been solid but is expected to weaken, while expansion in the EU and UK has been modest. Economic conditions in China have been challenging, although some recent data has been less weak. Growth in NZ’s major trading partner economies is expected to slow in 2024 from a likely already-below-average rate in 2023. Not the best backdrop for primary product prices. More constructively, inflation among advanced economies continues to trend lower increasing the likelihood that most major central banks have either reached the end of their tightening cycle or are near the end. This assumption is predicated on inflation continuing to trend lower, with rising energy prices an upside risk.

# Key Commodities

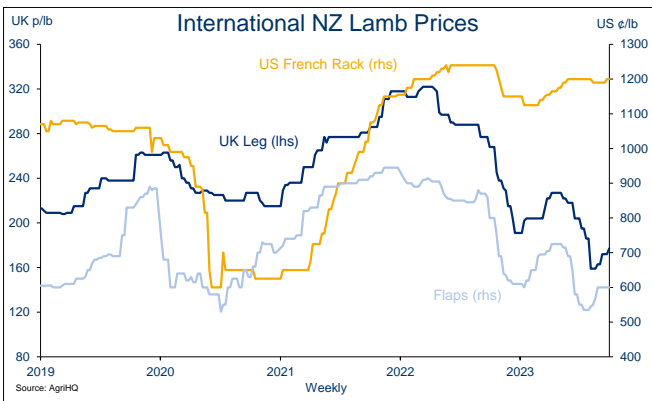
## Dairy



Global dairy prices are recovering from their mid-August low. Recovering yes, strong no. The GDT Price Index is over 12% up from mid-August, but still more than 18% below year earlier levels. While demand indicators have improved a bit, we suspect supply risks are also behind the bounce in GDT prices. NZ had a poor start to the season while an El Niño weather pattern has the potential to restrict supply ahead. Meanwhile, cost and weather issues elsewhere are also limiting supply. We nudge our 2023/24 milk price forecast up to \$7.25, to try and balance the prevailing risks.

	Current	Month ago	Year ago	Next 12 months
Whole milk powder (US \$/t)	2830	2600	3730	↑

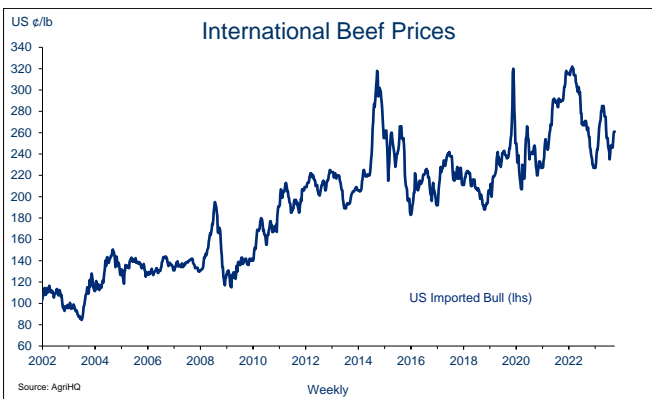
## Lamb



Lamb pricing remains challenging. While there has been some improvement from recent lows for some products offshore, prices generally remain low. There have been pockets of demand improvement. But, as expected, significantly more lamb supply from Australia remains a strong headwind to prices. This dynamic is expected to remain for some time. El Niño weather conditions increase the chance that more supply than otherwise comes to market from both Australia and NZ. Even if prices stabilise offshore from here, we expect lamb prices this season to average below the season just ended and be well below average on an inflation-adjusted basis.

	Current	Month ago	Year ago	Next 12 months
Lamb leg (UK p/lb)	177	163	268	→

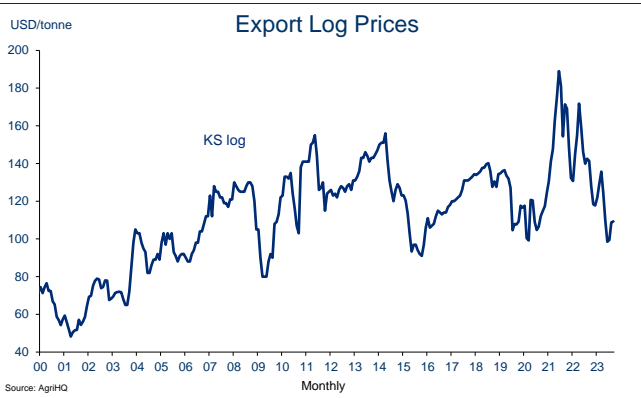
## Beef



US beef prices have bounced off their recent lows, to be around the same level as a year ago. US supply has tightened against reasonable demand. Demand has been mixed elsewhere, weak in parts but strong elsewhere. Very strong supply from South America and Australia remains a headwind to prices. More supply is expected from Australia as El Niño conditions persist. The NZ-UK FTA is a positive for access into the UK market. Meanwhile, a generally lower NZD is offering some support to local prices. Amid the multitude of moving parts, we expect the coming season's prices to average close to the prior season's average.

	Current	Month ago	Year ago	Next 12 months
Imported bull (US c/lb)	261	246	260	→

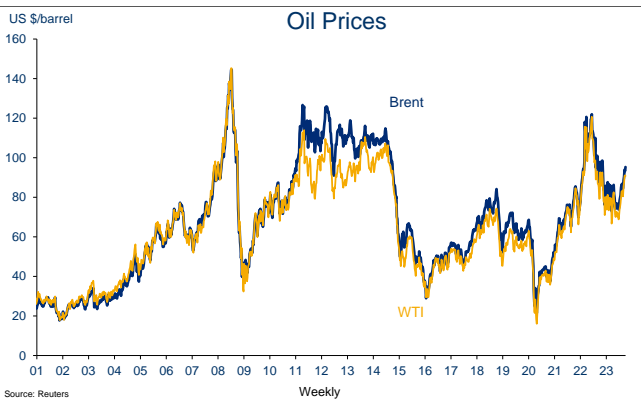
**Forestry**



Export log prices remain weak. Prices are off their outright lows of a few months ago. But they remain 23% down on a year ago and all of 42% below peaks of just over two years ago. Weakness in China’s property market remains the focus for many. In NZ, domestic residential building consents continue to trend lower. This is expected to increasingly translate into lower building activity, putting downward pressure on prices. The combined weakness in export and domestic markets are feeding back into rising inventory and reducing mill activity.

	Current	Month ago	Year ago	Next 12 months
S1/S2 log price (NZ \$/t)	127	127	132	↓

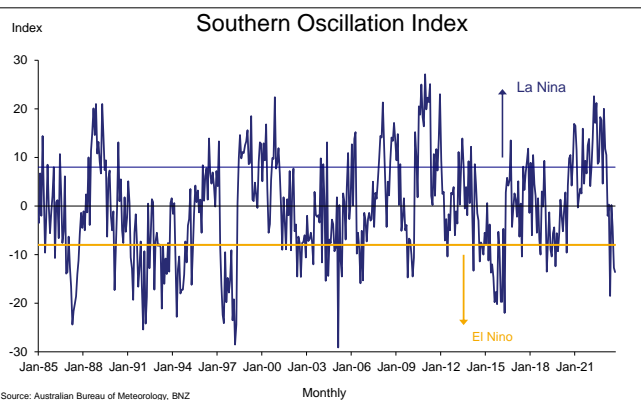
**Oil**



Oil prices have lurched higher over the past few months. After dropping to average around the \$US75/bbl through mid-2023, Brent crude prices surged well through \$US90/bbl during September before pulling back under that level in early October. Demand has bumped up against OPEC+ showing no sign of easing supply cuts, resulting in generally higher prices. Locally, these market developments have amplified the domestic fuel price increase in July following the reinstatement of previously reduced fuel excise taxes.

	Current	Month ago	Year ago	Next 12 months
Brent Crude (US \$/b)	86	89	88	↑

**Weather**



The long anticipated El Niño has now been declared by various weather agencies, although the sudden burst of westerly winds through the country over recent weeks has felt like El Niño announced its own arrival! The Southern Oscillation Index has dropped well into El Niño territory. El Niño is expected to stay for the season. NIWA notes that there is around a 100% chance of El Niño continuing during October-December and over a 95% chance that it persists through summer. So brace for more westerly winds, drier conditions in the North and East of both islands, and above normal rainfall in the west of the South Island. Every El Niño is different, but looking at history shows that, on average, such conditions have tended to be a drag on NZ agriculture.

# Quarterly Forecasts

Forecasts as at 5 October 2023

## Key Economic Forecasts

Quarterly % change unless otherwise specified

	Jun-22	Sep-22	Dec-22	Mar-23	Jun-23	Forecasts				
						Sep-23	Dec-23	Mar-24	Jun-24	Sep-24
GDP (production s.a.)	1.3	1.5	-0.5	0.0	0.9	0.0	-0.2	-0.2	0.4	0.8
Retail trade (real s.a.)	-1.9	0.2	-1.1	-1.6	-1.0	-1.5	-0.5	0.2	0.6	0.8
Current account (ytd, % GDP)	-7.9	-8.3	-8.8	-8.2	-7.5	-7.2	-6.7	-6.4	-6.3	-6.2
CPI (q/q)	1.7	2.2	1.4	1.2	1.1	2.2	1.2	0.7	0.5	1.0
Employment	-0.1	1.2	0.7	1.1	1.0	0.5	0.3	0.1	0.0	0.1
Unemployment rate %	3.3	3.3	3.4	3.4	3.6	3.7	3.9	4.3	4.7	5.0
Avg hourly earnings (ann %)	7.0	8.6	8.1	8.2	7.7	6.8	6.6	5.8	5.1	4.2
Trading partner GDP (ann %)	2.2	3.8	2.2	2.8	3.4	2.7	3.0	2.5	2.6	2.7
CPI (y/y)	7.3	7.2	7.2	6.7	6.0	6.1	5.8	5.3	4.7	3.5
GDP (production s.a., y/y)	0.7	6.6	2.4	2.2	1.8	0.3	0.6	0.5	0.0	0.8

## Interest Rates

Historical data - qtr average

Forecast data - end quarter

	Cash	Government Stock			Swaps			US Rates		Spread
		90 Day	5 Year	10 Year	2 Year	5 Year	10 Year	Libor	US 10 yr	NZ-US
		Bank Bills						3 month		Ten year
<b>2022 Jun</b>	1.83	2.24	3.55	3.68	3.83	3.92	3.95	1.50	2.90	0.76
<b>Sep</b>	2.83	3.33	3.65	3.77	4.12	3.95	3.95	3.00	3.10	0.67
<b>Dec</b>	4.00	4.27	4.34	4.31	5.10	4.67	4.55	4.50	3.80	0.49
<b>2023 Mar</b>	4.58	4.99	4.27	4.26	5.11	4.51	4.40	4.90	3.65	0.61
<b>Jun</b>	5.42	5.62	4.23	4.27	5.19	4.44	4.30	5.40	3.60	0.68
<b>Sep</b>	5.50	5.65	4.83	4.83	5.50	4.86	4.70	5.65	4.10	0.74
<b>Forecasts</b>										
<b>Dec</b>	5.50	5.60	4.70	4.70	4.95	4.85	4.80	5.85	4.10	0.60
<b>2024 Mar</b>	5.50	5.45	4.40	4.50	4.55	4.60	4.65	5.60	3.90	0.60
<b>Jun</b>	5.25	5.00	4.20	4.35	4.15	4.40	4.50	5.10	3.75	0.60
<b>Sep</b>	4.75	4.50	3.95	4.10	3.95	4.20	4.30	4.60	3.50	0.60
<b>Dec</b>	4.25	4.25	3.80	4.10	3.45	4.05	4.30	4.10	3.50	0.60
<b>2025 Mar</b>	4.00	3.75	3.70	4.10	3.10	3.95	4.30	3.60	3.50	0.60
<b>Jun</b>	3.50	3.65	3.60	4.10	2.80	3.85	4.30	3.35	3.50	0.60
<b>Sep</b>	3.00	3.15	3.60	4.10	2.75	3.85	4.30	3.10	3.50	0.60

## Exchange Rates (End Period)

### USD Forecasts

	NZD/USD	AUD/USD	EUR/USD	GBP/USD	USD/JPY
<b>Current</b>	0.59	0.64	1.05	1.22	148
<b>Dec-23</b>	0.60	0.66	1.13	1.31	138
<b>Mar-24</b>	0.62	0.69	1.16	1.35	135
<b>Jun-24</b>	0.64	0.71	1.17	1.34	130
<b>Sep-24</b>	0.64	0.72	1.18	1.35	125
<b>Dec-24</b>	0.65	0.73	1.19	1.35	120
<b>Mar-25</b>	0.67	0.75	1.21	1.37	118
<b>Jun-25</b>	0.69	0.77	1.22	1.37	116
<b>Sep-25</b>	0.71	0.78	1.23	1.38	115
<b>Dec-25</b>	0.71	0.78	1.23	1.38	114
<b>Mar-26</b>	0.69	0.76	1.21	1.37	112

### NZD Forecasts

	NZD/USD	NZD/AUD	NZD/EUR	NZD/GBP	NZD/JPY	TWI-17
<b>Current</b>	0.59	0.93	0.56	0.49	88.2	70.7
<b>Dec-23</b>	0.60	0.91	0.53	0.46	82.8	69.1
<b>Mar-24</b>	0.62	0.90	0.53	0.46	83.7	70.3
<b>Jun-24</b>	0.64	0.90	0.55	0.48	83.2	71.3
<b>Sep-24</b>	0.64	0.89	0.54	0.47	80.0	70.4
<b>Dec-24</b>	0.65	0.89	0.55	0.48	78.0	70.4
<b>Mar-25</b>	0.67	0.89	0.55	0.49	79.1	71.8
<b>Jun-25</b>	0.69	0.90	0.57	0.50	80.0	73.4
<b>Sep-25</b>	0.71	0.91	0.58	0.51	81.7	75.2
<b>Dec-25</b>	0.71	0.91	0.58	0.51	80.9	75.2
<b>Mar-26</b>	0.69	0.91	0.57	0.50	77.3	73.8

### TWI Weights

13.8% 16.5% 9.8% 3.1% 6.1%

Source for all tables: Statistics NZ, Bloomberg, Reuters, RBNZ, BNZ

# Annual Forecasts

Forecasts as at 5 October 2023	March Years					December Years				
	Actuals		Forecasts			Actuals		Forecasts		
	2022	2023	2024	2025	2026	2021	2022	2023	2024	2025
<b>GDP - annual average % change</b>										
Private Consumption	6.0	2.7	1.4	1.0	2.3	7.4	3.2	1.4	0.5	2.1
Government Consumption	8.0	2.0	-0.3	-2.9	1.4	8.2	4.6	-0.7	-3.1	0.9
Total Investment	10.4	3.5	0.7	-1.1	4.2	12.3	4.1	1.4	-1.8	3.3
Stocks - ppts cont'n to growth	0.5	-0.1	-1.1	1.0	0.0	1.4	-0.3	-1.3	1.1	0.1
GNE	8.0	2.6	-0.2	0.7	2.6	10.2	3.4	-0.1	0.1	2.3
Exports	2.5	6.0	5.8	3.1	5.2	-2.7	-0.2	9.2	3.2	5.1
Imports	17.3	4.7	-0.7	0.0	2.7	14.8	4.7	0.9	-0.6	2.1
Real Expenditure GDP	4.8	2.9	1.4	1.5	3.2	6.1	2.3	1.6	1.2	3.1
<b>GDP (production)</b>	<b>5.2</b>	<b>2.9</b>	<b>0.8</b>	<b>1.4</b>	<b>3.2</b>	<b>6.0</b>	<b>2.7</b>	<b>1.2</b>	<b>0.8</b>	<b>3.1</b>
<i>GDP - annual % change (q/q)</i>	1.1	2.2	0.5	2.8	3.2	3.3	2.4	0.6	1.8	3.2
Output Gap (ann avg, % dev)	1.3	1.6	-0.3	-1.0	-0.1	1.4	1.8	0.2	-1.1	-0.3
Nominal Expenditure GDP - \$bn	358	388	412	429	453	353	381	408	423	447
<b>Prices and Employment - annual % change</b>										
CPI	6.9	6.7	5.3	2.3	2.2	5.9	7.2	5.8	2.5	2.2
Employment	2.5	2.9	1.9	0.9	2.0	3.3	1.7	2.9	0.5	2.0
Unemployment Rate %	3.2	3.4	4.3	5.2	5.2	3.2	3.4	3.9	5.1	5.2
Wages - ahote (private sector)	5.3	8.2	5.8	3.6	2.8	4.1	8.1	6.6	4.0	2.9
Productivity (ann av %)	2.3	0.8	-1.8	0.7	1.4	3.9	0.5	-1.7	-0.1	1.6
Unit Labour Costs (ann av %)	4.0	6.2	7.6	3.5	1.6	2.0	6.2	7.8	4.8	1.7
House Prices	13.8	-11.9	2.4	8.6	10.9	27.2	-11.1	-1.6	6.7	12.5
<b>External Balance</b>										
Current Account - \$bn	-23.6	-31.8	-26.3	-22.2	-16.0	-20.6	-33.4	-27.2	-24.3	-17.4
Current Account - % of GDP	-6.6	-8.2	-6.4	-5.2	-3.5	-5.8	-8.8	-6.7	-5.7	-3.9
<b>Government Accounts - June Yr, % of GDP</b>										
OBEGAL (core operating balance)	-2.7	-2.4	-2.8	-1.7	-0.8					
Net Core Crown Debt (excl NZS Fund Assets)	17.0	18.0	22.4	23.2	23.3					
Bond Programme - \$bn (Treasury forecasts)	20.0	28.0	36.0	35.0	30.0					
Bond Programme - % of GDP	5.6	7.2	8.7	8.2	6.6					
<b>Financial Variables <sup>(1)</sup></b>										
NZD/USD	0.69	0.62	0.62	0.67	0.69	0.68	0.63	0.60	0.65	0.71
USD/JPY	119	134	135	118	112	114	135	138	120	114
EUR/USD	1.10	1.07	1.16	1.21	1.21	1.13	1.06	1.13	1.19	1.23
NZD/AUD	0.93	0.93	0.90	0.89	0.91	0.95	0.94	0.91	0.89	0.91
NZD/GBP	0.52	0.51	0.46	0.49	0.50	0.51	0.52	0.46	0.48	0.51
NZD/EUR	0.62	0.58	0.53	0.55	0.57	0.60	0.60	0.53	0.55	0.58
NZD/YEN	81.5	83.0	83.7	79.1	77.3	77.4	85.6	82.8	78.0	80.9
TWI	73.9	71.0	70.3	71.8	73.8	73.0	72.9	69.1	70.4	75.2
Overnight Cash Rate (end qtr)	1.00	4.75	5.50	4.00	2.50	0.75	4.25	5.50	4.25	2.50
90-day Bank Bill Rate	1.45	5.16	5.45	3.75	2.65	0.92	4.55	5.60	4.25	2.65
5-year Govt Bond	2.90	4.40	4.40	3.70	3.60	2.20	4.30	4.70	3.80	3.60
10-year Govt Bond	3.20	4.35	4.50	4.10	4.10	2.35	4.25	4.70	4.10	4.10
2-year Swap	3.00	5.15	4.55	3.10	2.75	2.22	5.21	4.95	3.45	2.75
5-year Swap	3.20	4.50	4.60	3.95	3.85	2.56	4.62	4.85	4.05	3.85
US 10-year Bonds	2.10	3.65	3.90	3.50	3.50	1.45	3.60	4.10	3.50	3.50
NZ-US 10-year Spread	1.10	0.70	0.60	0.60	0.60	0.90	0.65	0.60	0.60	0.60

<sup>(1)</sup> Average for the last month in the quarter

Source: Statistics NZ, BNZ, NZ Treasury



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