

9 February 2024

## Farmers Cut Spending

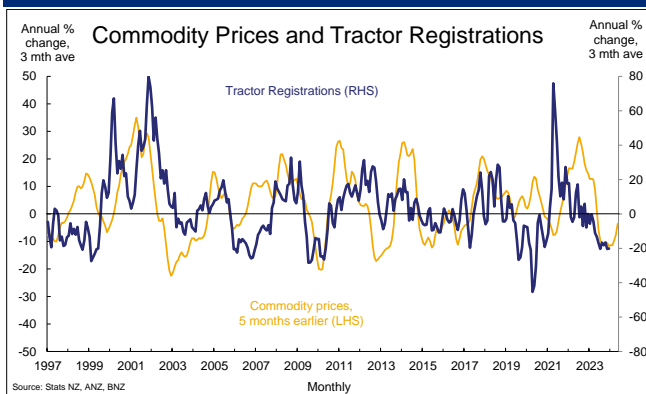
- **Farmers cut spending, as financial conditions weigh**
- **A headwind for regional, national growth**
- **Pricing dynamics changing for the better**
- **But outright strength absent; risks aplenty**
- **We lift our 2023/24 milk price forecast to \$7.90**
- **Expect overall farm spending to remain subdued**

Farmers have cut expenditure over the past year. Generally low commodity prices, elevated costs, and high interest rates have pressured primary sector finances. And, on top of this, the weather has had significant influence too, albeit more for some than others.

Financial conditions remain challenging in the here and now and are likely to remain so for a while yet. This is a headwind for regional areas and the wider NZ economy. However, some indicators are now not getting any worse and a few have started to head in the right direction.

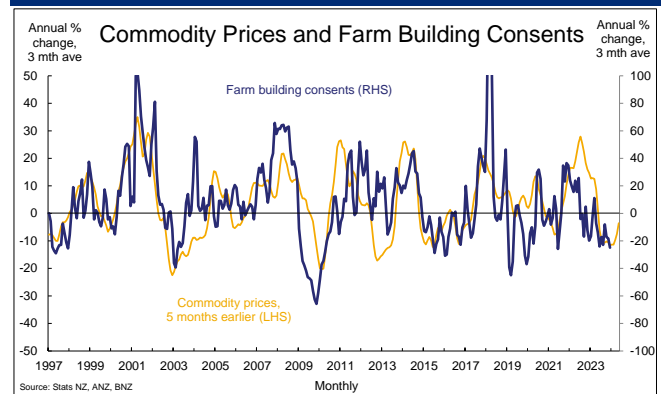
Farmer spending restraint can be seen across a range of indicators. Take tractor registrations for example. In the final three months of 2023, there were 20% fewer registrations than for the same period a year before. Registrations often follow the broad ups and downs in commodity prices, although not in a one-for-one fashion with other factors playing a role. Over recent times there has been obvious disruption during the pandemic along with capital spending caution that follows from higher interest rates. Aside from the initial hit from the pandemic, tractor registrations in 2023 were the lowest calendar year total since 2011.

### Tractor Rego Growth Near Trough?



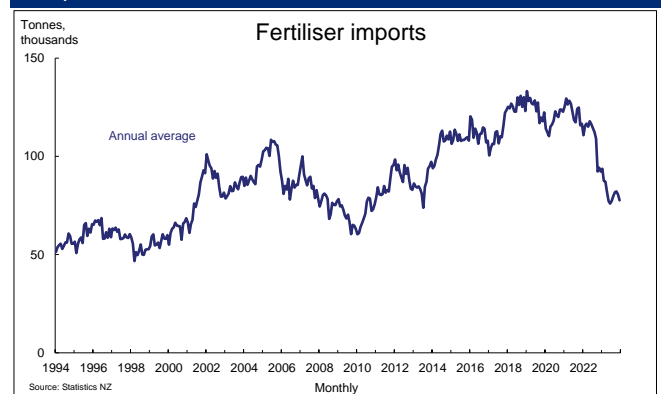
It is a similar story regards farm building consents. Late last year, the value of farm building consents was around 25% below year earlier levels. Measured on a floor area basis, new farm building consents in 2023 were the lowest since 1998.

### Farm Building Consents Lower



Operating expenditure has also been trailing prior year levels, albeit to a lesser extent overall than that seen in the capital spending indicators noted above. However, there has been substantial declines in some areas with feedback through supply chains. For example, fertiliser import volumes in 2023 were 16% lower than a year earlier which was already well down on the year before, such that 2023 levels were the lowest seen in about 10 years.

### Sharp Reduction Here



Encouragingly, some indicators are starting to turn for the better or at least becoming less negative. Farmer

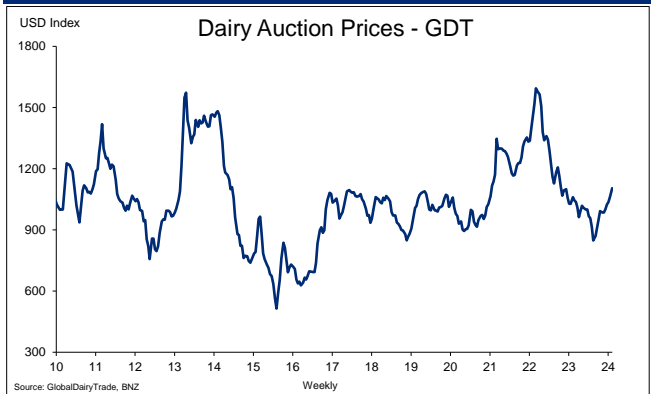
confidence has turned positive over recent months and some product prices have edged higher.

A lift in farmer confidence looks also related to the change in government among other factors (history shows confidence tends to be higher when a right-leaning government is in power). We are not at all sure that higher confidence signals farmer spending is about to lift aggressively. Indeed, farmer investment intentions for the coming year remain net negative and below average, although not as pessimistic as they were at times last year.

More positively, prices for some of NZ’s major primary export products such as dairy and logs have pushed higher over recent months. Others, like lamb, have shown signs of stabilisation, albeit at low levels.

GDT dairy prices have continued to improve in the New Year to now be 30% above their ding-dong lows of last August. Dairy prices have fully recovered from last year’s dip. This is only to around average levels on an inflation-adjusted basis, but that is a lot better than being well below normal. Dairy demand indicators have improved. There remain economic and geopolitical risks around the sustainability of recent demand strength. But, for now at least, the balance of demand and supply looks supportive of prices. And as more of the season’s produce is sold, it adds to pricing certainty for the season. We nudge up our forecast for Fonterra’s 2023/24 milk price to \$7.90. While a bit higher than our prior \$7.50 view, it remains lower than the prior season’s \$8.22. We also nudge our view for 2024/25 up to \$8.20 (from \$8.00 previously).

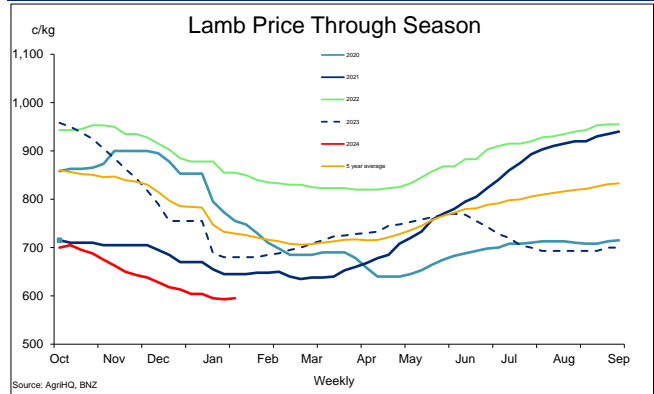
Dairy Prices Well Off Last Year’s Lows



Export log prices have recovered some lost ground but remain below longer-term averages. AgriHQ reports better sentiment within the sector, but also suggest that few are picking any significant price rebound.

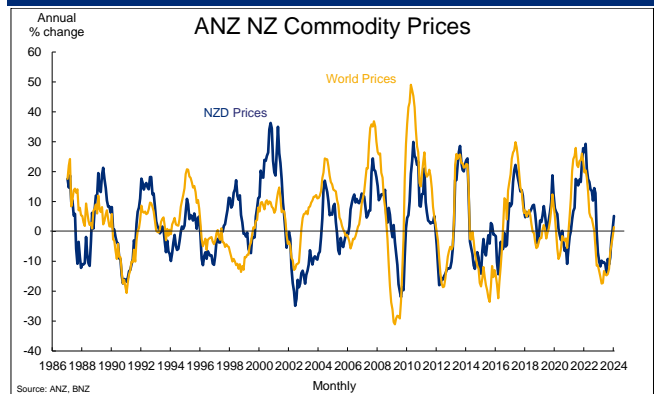
Lamb prices remain weak, but prior sharp declines have been arrested. As previously expected, the 2023/24 average lamb price is likely to be well below the prior season.

Lamb Price Low, But Stabilising?



Overall, we are not seeing signs of strength in primary product prices but there are clear signs of some change in dynamics over recent months – whether it be in the form of some price improvement after declines or prior declines slowing. Across the basket of NZ’s major primary export product prices, our forecasts continue to show last year’s strong annual deflation will be replaced with some improvement in calendar 2024.

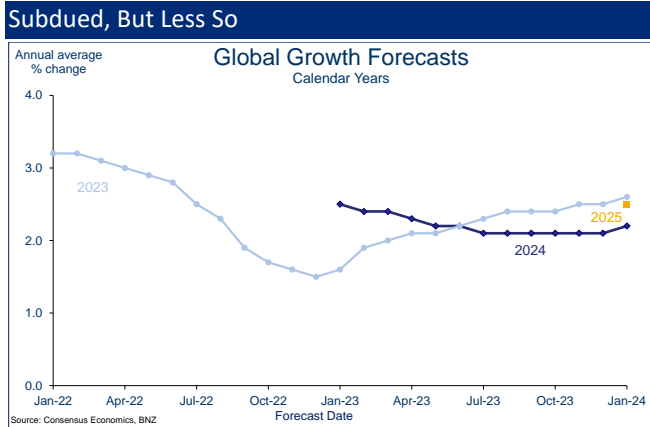
Cycle Turns



The change in price dynamic, but not outright strength, is consistent with what we are seeing in global growth forecasts. Global growth is subdued but forecast revisions have been upward. In January, consensus estimates for world economic growth in 2023 were nudged higher. And while current forecasts for global growth in 2024 (2.2%) are lower than growth estimates for 2023 (2.6%), they have also nudged up a bit and initial expectations for 2025 (2.5%) are higher than 2024. None of this suggest an environment to underpin strength in commodity prices, but the dynamics now no longer look to be getting worse, with even a hint of a turn for the better.

Risks are aplenty. Geopolitical risks remain front of mind. Concern over potential trade disruptions in the Red Sea is the latest cab off the rank but there’s still Russia-Ukraine and the Gaza war (including the threat that this might spread into a much bigger conflict) to contend with. As if all this wasn’t enough, increasing Sino-Western tensions are still prevalent. To cap things off, it’s election season

across the planet with the US Presidential election a significant focus.



Focus remains on China with increasingly supportive policy action amid ongoing challenges in its property sector. The outlook for China remains critical for NZ primary exporters.

In the US, latest data show the economy growing and inflation falling to target levels over recent months – the so-called ‘goldilocks’ scenario. Both have positive implications for NZ primary producers. Growth fundamentally helps demand, while slowing inflation increases the chance that the US Federal Reserve will start to lower interest rates before too much longer. Such things have supported global risk appetite which tends to be

positively associated with NZ primary product prices. However, it isn’t all one-way traffic on the risk front, with markets recently paring expectations of an imminent Fed rate cut and some reported concerns around US commercial property and regional banks.

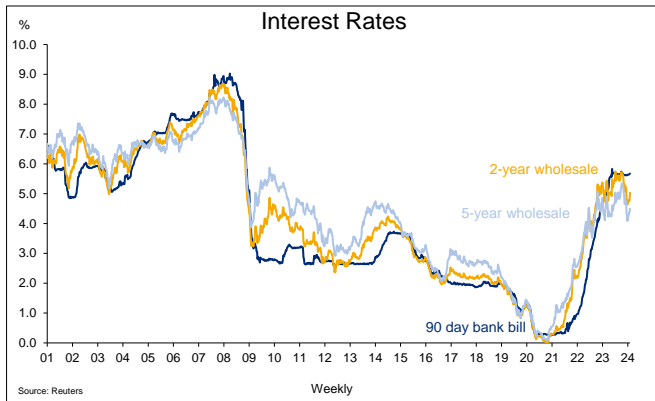
Locally, many farmers will be keen to see interest rates lower. Our forecasts for the OCR remain for some easing to begin in the second half of this year, with the market also anticipating cuts later this year. Be that as it may, downward adjustment does not look imminent with recent commentary from the RBNZ firmly pushing back on that notion. Commentary suggests the RBNZ thinking hasn’t changed much from late last year when it was openly discussing the chance that the OCR may yet need to go higher. While another lift is not our forecast, we wouldn’t completely rule it out.

Pulling all this together, while there are some signs of a move in the right direction for some product prices, the overall level of primary product prices and elevated costs are expected to keep farm spending subdued for a while yet. This will continue to have flow on effects for regional NZ and the wider economy, albeit with the makings of some improvement down the track starting to form.

[doug\\_steel@bnz.co.nz](mailto:doug_steel@bnz.co.nz)

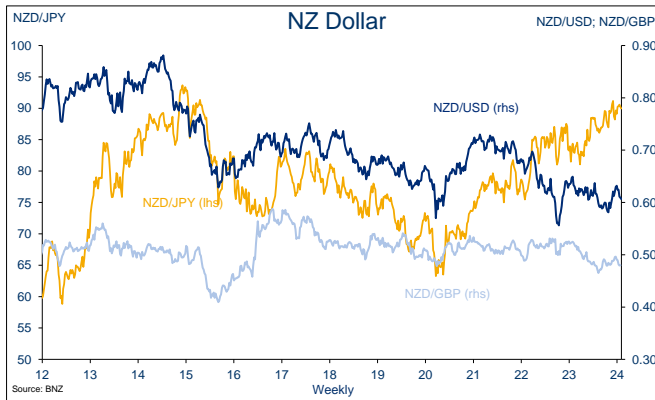
# Key Macro Drivers for Commodity Producers

## Interest Rates



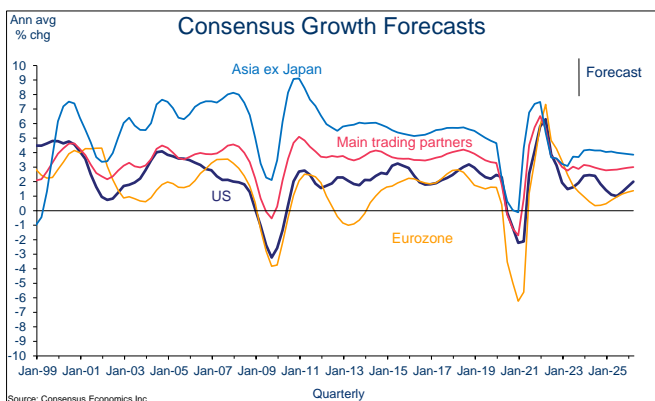
Inflation is falling, the labour market is easing, the economy is flatlining which suggests, at face value, that the central bank should be getting increasingly comfortable that a period of aggressive rate increases is doing its job. But the problem is the RBNZ has downplayed the weaker looking data, and the latest labour market information was not as weak as the RBNZ forecast when it issued its November Monetary Policy Statement. That statement included a meaningful chance of further tightening, a prospect that should not be ruled out. Markets are pricing some OCR reduction later this year but have pared the extent of cuts priced in following RBNZ commentary. Our forecasts show the OCR being on hold until into the second half of 2024, before some easing starts. Offshore, central banks are discussing rate cuts ahead this year, but are in no hurry.

## Foreign Exchange



Market expectations of the US Fed's monetary policy outlook have been a key driver of FX markets over the past couple of years and our working assumption is that this relationship holds through 2024 (with domestic factors playing only a secondary role). From November 2023, increasing market conviction that the Fed's tightening cycle was over saw the NZD recover back into its familiar 0.60-0.64 trading range, after a prior dip into the 0.50s. Some uncertainty overhangs the exact timing and scope of Fed easing this year, but we believe easier policy will ensue, and this is expected to drive a lower USD, resulting in a higher NZD/USD. Any delay to the Fed's easing cycle is likely to hold back performance of the NZD and keep it rangebound. More generally, we see inherent weakness in the NZD driven by our relatively poor economic outlook. This is particular the case with comparison to Australia against whose dollar we see the NZD depreciating. We also see NZD/JPY lower.

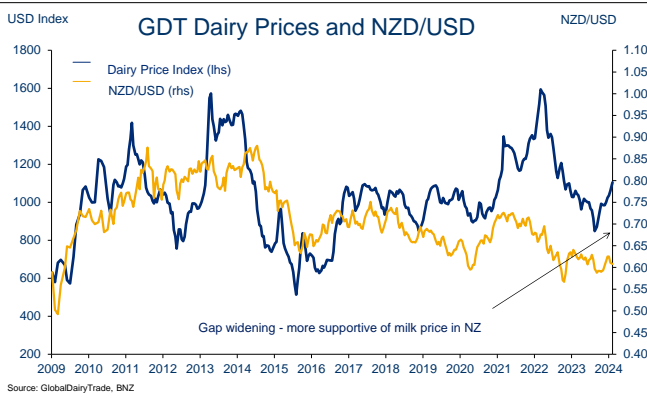
## Global Growth



Global growth is subdued but forecast revisions have been upward. It does not look like an environment to underpin strength in commodity prices, but the dynamics are no longer getting worse with even a hint of a turn for the better. Geopolitical risks remain front of mind. Concern over potential trade disruptions in the Red Sea is the latest cab off the rank but there's still Russia-Ukraine and the Gaza war (including the threat that this might spread into a much bigger conflict) to contend with. As if all this wasn't enough, increasing Sino-Western tensions are still prevalent. To cap things off, it's election season across the planet with the US Presidential election a significant focus.

# Key Commodities

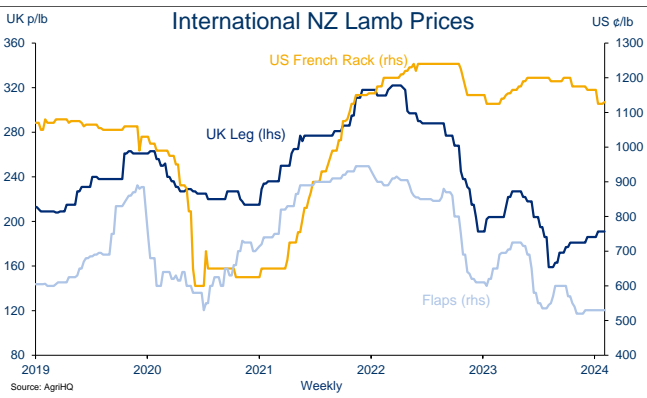
## Dairy



GDT dairy prices have continued to improve in the New Year to now be 30% above their ding-dong lows of last August. Dairy prices are now around average levels on an inflation-adjusted basis. Dairy demand indicators have improved. There remain economic and geopolitical risks around the sustainability of recent demand strength. But, for now at least, the balance of demand and supply looks supportive of prices. The NZD/USD has traded broadly sideways, despite the bounce in dairy prices. We nudge up our forecast for Fonterra’s 2023/24 milk price to \$7.90 and our forecast for 2024/25 up to \$8.20 (from \$8.00).

	Current	Month ago	Year ago	Next 12 months
Whole milk powder (US \$/t)	3370	3150	3200	↑

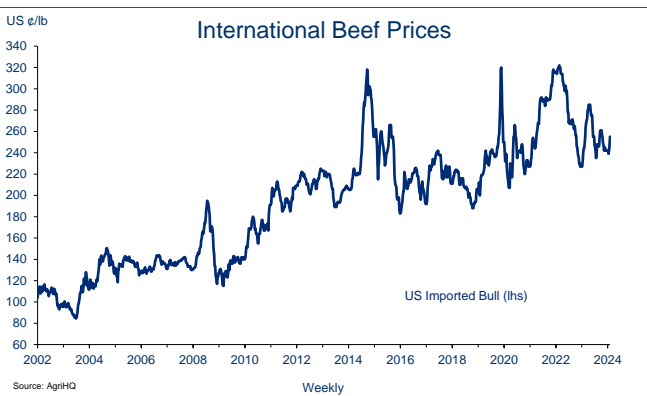
## Lamb



International lamb pricing remains weak. However, downward pressure that had persisted for much of the past two years has abated over recent months. Supply from Australia remains high but has slowed a little. And NZ supply hasn’t been as strong as it might have been, adding a bit of procurement price pressure into the mix. Some international markets have seen product price increases. Growth concerns in China remain, with the likes of pork price weakness into Lunar New Year indicative of subdued demand conditions. Even with some stabilisation in NZ lamb prices of late, we expect lamb prices this season to average well below normal on an inflation adjusted basis.

	Current	Month ago	Year ago	Next 12 months
Lamb leg (UK p/lb)	191	186	204	→

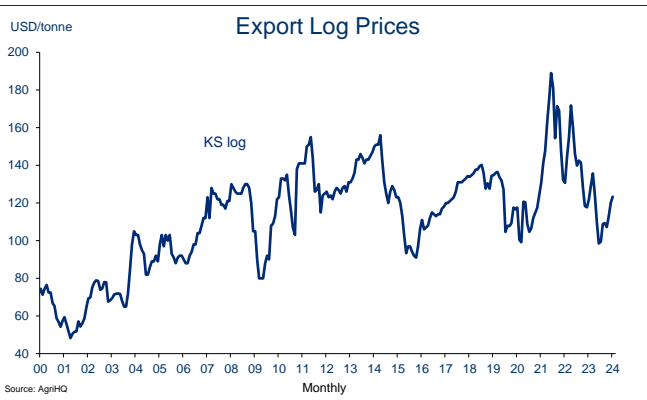
## Beef



US beef prices have recently found upward traction. Tighter-than-expected supply has pressured prices higher, with recent US cattle inventory figures (and revisions) suggesting tighter supply ahead. US economic outperformance has been supportive of demand and pricing. Economic conditions, and hence reports on pricing, are more subdued in Europe and Asia. Locally, limited supply has generated a bit more procurement price pressure. Overall, we remain of the view that this season’s prices will average close to the prior season’s average.

	Current	Month ago	Year ago	Next 12 months
Imported bull (US \$/lb)	255	242	244	↑

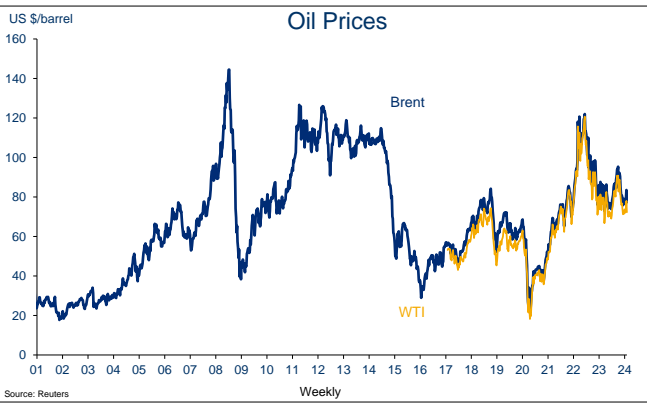
**Forestry**



Log export values fell 9% in 2023 compared to 2022, with lower prices doing the damage with associated subdued volumes. Encouragingly, some export price improvement that appeared late last year has extended into the New Year. Prices are hardly strong and only back to year earlier levels. The bounce has helped sentiment within the sector, but wariness remains around growth in China post-Lunar New Year. Locally, little has changed on the demand outlook with construction activity forecast to decline in the near term, although any downward pressure on price may be offset by supply adjustment and some support filtering through from offshore.

	Current	Month ago	Year ago	Next 12 months
S1/S2 log price (NZ \$/t)	127	127	133	➔

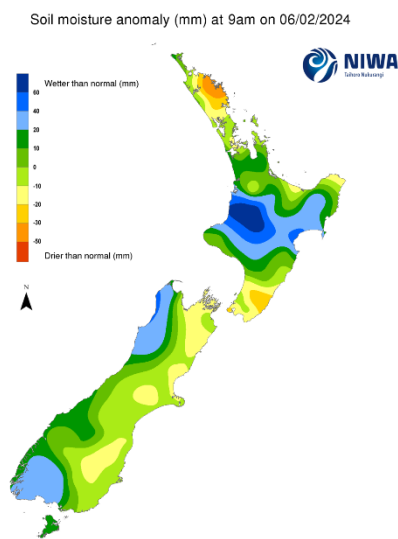
**Oil**



Brent crude oil prices have been oscillating around the \$US80/bbl mark over recent months, sometimes violently as geopolitical tensions flare. More fundamentally, while OPEC+ has attempted to underpin crude prices by constraining supply, growth in output from non-OPEC producers (primarily the US) has largely offset these measures. Broadly the global market appears relatively balanced, with demand growth softer given below average global economic growth.

	Current	Month ago	Year ago	Next 12 months
Brent Crude (US \$/b)	81	79	80	➔

**Weather**



El Nino weather conditions continued through January. NIWA puts around a 100% chance of El Nino persisting through April, then a 65% chance of neutral conditions prevailing during May through July. Early production season El Nino conditions were not typical, resulting in a sense that it was not as output-restrictive as it might have been. But El Nino is looking more typical now, with NIWA forecasting below normal rainfall in northern and eastern areas of both islands, very likely above average temperatures for all but the west of the South Island, and likely stronger than normal wind strength in the South Island and lower North Island. This means soil moisture levels are most likely to be below normal in the east of the South Island and east of the North Island. This could provide some localised challenges, with some areas already drier than normal for this time of year. But with soil moisture forecasts elsewhere showing less chance of deviations from normal (and some have recently seen more moisture than normal for the time of year), national primary production does not look under undue threat.



# Quarterly Forecasts

Forecasts as at 9 February 2024

## Key Economic Forecasts

Quarterly % change unless otherwise specified

	Sep-22	Dec-22	Mar-23	Jun-23	Sep-23	Dec-23	Mar-24	Jun-24	Sep-24	Dec-24
GDP (production s.a.)	1.8	-0.6	-0.2	0.5	-0.3	-0.1	-0.4	-0.1	0.6	0.7
Retail trade (real s.a.)	-0.5	-0.8	-1.3	-0.9	0.0	0.5	0.2	0.6	0.8	0.9
Current account (ytd, % GDP)	-8.3	-8.8	-8.2	-7.6	-7.6	-7.1	-6.8	-6.6	-6.2	-5.7
CPI (q/q)	2.2	1.4	1.2	1.1	1.8	0.5	0.6	0.6	1.1	0.5
Employment	1.4	0.7	1.1	1.0	-0.1	0.4	0.1	0.0	0.1	0.3
Unemployment rate %	3.3	3.4	3.4	3.6	3.9	4.0	4.3	4.8	5.1	5.4
Avg hourly earnings (ann %)	8.6	8.1	8.2	7.7	7.1	6.6	5.8	5.1	4.0	4.3
Trading partner GDP (ann %)	3.7	2.1	2.9	3.5	3.1	3.2	2.7	2.8	2.7	2.9
CPI (y/y)	7.2	7.2	6.7	6.0	5.6	4.7	4.0	3.6	2.9	2.9
GDP (production s.a., y/y)	6.4	2.3	2.1	1.5	-0.6	-0.1	-0.3	-0.8	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 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	5.66	4.87	4.87	5.54	4.90	4.75	5.65	4.15	0.73
<b>Dec</b>	5.50	5.63	4.48	4.67	4.93	4.43	4.50	5.65	4.00	0.67
<b>Forecasts</b>										
<b>2024 Mar</b>	5.50	5.60	4.85	4.90	4.90	4.75	4.65	5.80	4.40	0.50
<b>Jun</b>	5.50	5.50	4.60	4.70	4.50	4.50	4.50	5.55	4.20	0.50
<b>Sep</b>	5.25	5.00	4.30	4.50	4.05	4.25	4.40	5.30	4.00	0.50
<b>Dec</b>	4.75	4.75	4.00	4.25	3.60	3.95	4.15	4.80	3.75	0.50
<b>2025 Mar</b>	4.50	4.25	3.70	4.10	3.25	3.75	4.10	4.30	3.50	0.60
<b>Jun</b>	4.00	3.75	3.60	4.10	3.00	3.65	4.10	3.80	3.50	0.60
<b>Sep</b>	3.50	3.15	3.55	4.10	2.90	3.70	4.20	3.30	3.50	0.60
<b>Dec</b>	2.75	2.90	3.55	4.10	2.95	3.70	4.20	3.05	3.50	0.60

## Exchange Rates (End Period)

### USD Forecasts

	NZD/USD	AUD/USD	EUR/USD	GBP/USD	USD/JPY
<b>Current</b>	0.61	0.65	1.08	1.26	149
<b>Mar-24</b>	0.62	0.69	1.13	1.31	145
<b>Jun-24</b>	0.64	0.71	1.16	1.35	138
<b>Sep-24</b>	0.64	0.72	1.17	1.34	135
<b>Dec-24</b>	0.65	0.73	1.18	1.35	130
<b>Mar-25</b>	0.67	0.75	1.19	1.35	125
<b>Jun-25</b>	0.69	0.77	1.21	1.37	120
<b>Sep-25</b>	0.71	0.78	1.22	1.37	118
<b>Dec-25</b>	0.71	0.78	1.23	1.38	116
<b>Mar-26</b>	0.69	0.76	1.23	1.38	115
<b>Jun-26</b>	0.68	0.75	1.21	1.37	114

### NZD Forecasts

	NZD/USD	NZD/AUD	NZD/EUR	NZD/GBP	NZD/JPY	TWI-17
<b>Current</b>	0.61	0.94	0.57	0.48	91.0	71.5
<b>Mar-24</b>	0.62	0.90	0.55	0.47	89.9	71.0
<b>Jun-24</b>	0.64	0.90	0.55	0.47	88.3	72.1
<b>Sep-24</b>	0.64	0.89	0.55	0.48	86.4	71.3
<b>Dec-24</b>	0.65	0.89	0.55	0.48	84.5	71.3
<b>Mar-25</b>	0.67	0.89	0.56	0.50	83.8	72.5
<b>Jun-25</b>	0.69	0.90	0.57	0.50	82.8	73.8
<b>Sep-25</b>	0.71	0.91	0.58	0.52	83.8	75.4
<b>Dec-25</b>	0.71	0.91	0.58	0.51	82.4	75.3
<b>Mar-26</b>	0.69	0.91	0.56	0.50	79.4	73.6
<b>Jun-26</b>	0.68	0.91	0.56	0.50	77.5	73.2

### 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 9 February 2024	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	0.4	0.5	2.4	7.4	3.3	0.7	-0.1	2.2
Government Consumption	7.9	2.0	-1.2	-3.5	1.4	7.8	4.9	-1.5	-3.9	0.9
Total Investment	10.2	2.1	-1.7	-2.2	4.2	12.0	3.4	-1.0	-3.2	3.1
Stocks - pts cont'n to growth	0.5	-0.1	-0.3	0.2	0.0	1.4	-0.4	-0.5	0.4	0.0
GNE	7.9	2.4	-1.4	-0.8	2.7	10.0	3.4	-1.0	-1.7	2.2
Exports	2.5	6.0	4.2	3.8	5.5	-2.7	-0.2	7.9	3.6	5.4
Imports	17.3	4.6	-0.6	-0.8	3.8	14.8	4.6	1.2	-1.8	3.2
Real Expenditure GDP	4.7	2.7	-0.4	0.3	3.0	5.9	2.2	0.2	-0.3	2.7
<b>GDP (production)</b>	<b>4.5</b>	<b>2.8</b>	<b>0.1</b>	<b>0.5</b>	<b>3.0</b>	<b>5.5</b>	<b>2.4</b>	<b>0.7</b>	<b>-0.1</b>	<b>2.7</b>
<i>GDP - annual % change (q/q)</i>	0.7	2.1	-0.3	1.9	3.1	2.5	2.3	-0.1	0.8	3.1
Output Gap (ann avg, % dev)	1.3	1.9	-0.4	-1.3	-0.2	1.5	1.9	0.1	-1.3	-0.5
Nominal Expenditure GDP - \$bn	359	388	414	435	459	353	381	408	429	453
<b>Prices and Employment - annual % change</b>										
CPI	6.9	6.7	4.0	2.7	2.0	5.9	7.2	4.7	2.9	1.8
Employment	2.5	3.0	1.4	0.9	2.4	3.3	1.7	2.4	0.5	2.3
Unemployment Rate %	3.2	3.4	4.3	5.5	5.4	3.2	3.4	4.0	5.4	5.4
Wages - ahote (private sector)	5.3	8.2	5.8	3.9	3.0	4.1	8.1	6.6	4.3	3.0
Productivity (ann av %)	1.7	0.6	-2.3	-0.2	0.9	3.5	0.2	-2.1	-0.9	1.0
Unit Labour Costs (ann av %)	4.6	6.4	8.7	5.2	2.2	2.4	6.4	8.6	6.6	2.4
House Prices	13.8	-12.1	2.6	8.6	13.4	27.2	-11.1	-1.6	6.7	13.4
<b>External Balance</b>										
Current Account - \$bn	-23.6	-31.8	-28.0	-23.0	-17.8	-20.6	-33.4	-28.9	-24.6	-19.2
Current Account - % of GDP	-6.6	-8.2	-6.8	-5.3	-3.9	-5.8	-8.8	-7.1	-5.7	-4.2
<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	38.0	36.0	34.0					
Bond Programme - % of GDP	5.6	7.2	9.2	8.3	7.4					
<b>Financial Variables <sup>(1)</sup></b>										
NZD/USD	0.69	0.62	0.62	0.67	0.69	0.68	0.63	0.62	0.65	0.71
USD/JPY	119	134	145	125	115	114	135	144	130	116
EUR/USD	1.10	1.07	1.13	1.19	1.23	1.13	1.06	1.09	1.18	1.23
NZD/AUD	0.93	0.93	0.90	0.89	0.91	0.95	0.94	0.93	0.89	0.91
NZD/GBP	0.52	0.51	0.47	0.50	0.50	0.51	0.52	0.49	0.48	0.51
NZD/EUR	0.62	0.58	0.55	0.56	0.56	0.60	0.60	0.57	0.55	0.58
NZD/YEN	81.5	83.0	89.9	83.8	79.4	77.4	85.6	89.5	84.5	82.4
TWI	73.9	71.0	71.0	72.5	73.6	73.0	72.9	72.0	71.3	75.3
Overnight Cash Rate (end qtr)	1.00	4.75	5.50	4.50	2.75	0.75	4.25	5.50	4.75	2.75
90-day Bank Bill Rate	1.45	5.16	5.60	4.25	2.90	0.92	4.55	5.63	4.75	2.90
5-year Govt Bond	2.90	4.40	4.85	3.70	3.55	2.20	4.30	4.50	4.00	3.55
10-year Govt Bond	3.20	4.35	4.90	4.10	4.10	2.35	4.25	4.65	4.25	4.10
2-year Swap	3.00	5.15	4.90	3.25	3.00	2.22	5.21	4.93	3.60	2.95
5-year Swap	3.20	4.50	4.75	3.75	3.80	2.56	4.62	4.43	3.95	3.70
US 10-year Bonds	2.10	3.65	4.40	3.50	3.50	1.45	3.60	4.00	3.75	3.50
NZ-US 10-year Spread	1.10	0.70	0.50	0.60	0.60	0.90	0.65	0.65	0.50	0.60

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

Source: Statistics NZ, BNZ, NZ Treasury



# Contact Details

## BNZ Research

**Stephen Toplis**  
Head of Research  
+64 4 474 6905

**Doug Steel**  
Senior Economist  
+64 4 474 6923

**Jason Wong**  
Senior Markets Strategist  
+64 4 924 7652

**Stuart Ritson**  
Senior Interest Rate Strategist  
+64 9 9248601

**Mike Jones**  
BNZ Chief Economist  
+64 9-956 0795

## BNZ Markets

**Blair Willson**  
Interest Rate Solutions  
+64 6 350 1670

**Phil Townsend**  
Interest Rate Solutions  
+64 3 353 2219

**Wayne Brill**  
Interest Rate Solutions  
+64 7 928 0871

**Jeff Yeakley**  
Interest Rate Solutions  
+64 3 938 5995

## BNZ Partners

**David Handley**  
Head of Agribusiness  
+64 9 976 5009

## Main Offices

**Wellington**  
Level 2, BNZ Place  
1 Whitmore St  
Private Bag 39806  
Wellington Mail Centre  
Lower Hutt 5045  
New Zealand  
Toll Free: 0800 283 269

**Auckland**  
80 Queen Street  
Private Bag 92208  
Auckland 1142  
New Zealand  
Toll Free: 0800 283  
269

**Christchurch**  
111 Cashel Street  
Christchurch 8011  
New Zealand  
Toll Free: 0800 854 854

This document has been produced by Bank of New Zealand (BNZ). BNZ is a registered bank in New Zealand and is only authorised to offer products and services to customers in New Zealand.

**Analyst Disclaimer:** The Information accurately reflects the personal views of the author(s) about the securities, issuers and other subject matters discussed, and is based upon sources reasonably believed to be reliable and accurate. The views of the author(s) do not necessarily reflect the views of the NAB Group. No part of the compensation of the author(s) was, is, or will be, directly or indirectly, related to any specific recommendations or views expressed.

BNZ maintains an effective information barrier between the research analysts and its private side operations. Private side functions are physically segregated from the research analysts and have no control over their remuneration or budget. The research functions do not report directly or indirectly to any private side function. The Research analyst might have received help from the issuer subject in the research report.

New Zealand: The information in this publication is provided for general information purposes only, and is a summary based on selective information which may not be complete for your purposes. This publication does not constitute any advice or recommendation with respect to any matter discussed in it, and its contents should not be relied on or used as a basis for entering into any products described in it. Bank of New Zealand recommends recipients seek independent advice prior to acting in relation to any of the matters discussed in this publication.

Any statements as to past performance do not represent future performance, and no statements as to future matters are guaranteed to be accurate or reliable.

Neither Bank of New Zealand nor any person involved in this publication accepts any liability for any loss or damage whatsoever which may directly or indirectly result from any advice, opinion, information, representation or omission, whether negligent or otherwise, contained in this publication.

USA: If this document is distributed in the United States, such distribution is by nabSecurities, LLC. This document is not intended as an offer or solicitation for the purchase or sale of any securities, financial instrument or product or to provide financial services. It is not the intention of nabSecurities to create legal relations on the basis of information provided herein.