



Delta Pearl
Partners

Updating the Quarterly Retail Price Index for Norfolk Island – March Quarter, 2024 – Results

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Contact



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Headline Result

For the March 2024 quarter (Q1) on Norfolk Island:

- quarterly inflation is 0.98% (compared with 2.46% in the December quarter (Q4 2023) and -0.46% in the September quarter (Q3 2023))
- annualised inflation is 1.84% (compared with an annualised rate of 1.25% to the end of the December quarter (Q4 2023) and an annualised rate of 1.16% to the end of the September quarter (Q3 2023))

The latest inflation results are shown in the updated inflation data dashboard maintained on the Norfolk Island Regional Council website.

Executive Summary

This report outlines price inflation on Norfolk Island for the March quarter of 2024, which is the first quarter (Q1) for 2024. We have previously provided estimates for the March, June and September quarters (Q1, Q2 and Q3, respectively) of 2023, as well as for 2022.¹

The March 2024 results are calculated using the original model, items, and weights used for the RPI exercises used to date during 2022 and 2023. Although we have developed a new basket of goods and services and expenditure group weights informed by the Norfolk Island Household Expenditure Survey conducted in February 2024, two quarters of price data on the new basket items are required to calculate changes in the inflation index. As the IMF states in its CPI price manual, “the index must have a period to which the weights refer.” Therefore, once we have collected the June 2024 quarter prices, we will have both March and June quarter price data based on the new basket, and it will be possible to switch the Norfolk Island inflation measures to the new basket and weights (i.e., this will occur during the June 2024 quarter). For this quarter, a hybrid approach has been adopted using the roughly 82% of items that overlap between the old basket and the new basket (given that prices were collected for the new basket this quarter). The new basket is based on the same 10 major groups of expenditure categories as the 2014 basket, although the individual goods and services within each category have been updated. The new list has 270 items, which is 14 more items than the last list. In total around 48 items are new to the list, whether entirely new, or updated in terms of brand, volume, quality or technology.

In late 2021/early 2022, NIRC commissioned DeltaPearl Partners to investigate reinstatement of the RPI for Norfolk Island. Norfolk Island had collated price data and prepared its own RPI between 1990 and 2011 but, for various reasons, largely data issues,² measurement of the RPI paused in 2011. Some efforts to reinstate the RPI were undertaken by consulting firm Acil Allen between 2012 and 2018-19, including developing a basket of goods and expenditure weights, although this “draft RPI” work did not lead to official reinstatement of the RPI for Norfolk Island. Details on the historical measurement of inflation are provided in earlier reports.

Since early 2022, DeltaPearl Partners has built on the draft RPI work and continued to collate price data to provide:

- an estimate of inflation between 2012-2017 based on price data collated from various historical sources;
- an interim inflation measure for 2017-2022. We completed a price collection on Norfolk Island during 10-15 March 2022³, and updated the same preliminary basket of goods as the 'Draft RPI' prepared by Acil Allen, in the absence of an updated household expenditure survey to provide a new basket of goods and expenditure weights.

We estimated inflation on Norfolk Island over the five years to February 2022 running at an annualised rate of 3.76%. There would have been higher and lower rates of inflation during this five-year period around this average but we were unable to determine these precisely due to the lack of data. This average was calculated after having monitored prices in early March 2022 and comparing those prices to the last estimates taken in February 2017. The overall price increase over the five years to February 2022, weighted using the existing weighted basket of goods and services, was calculated as 18.79%.

Initially, for the first (Q1 2022) exercise, only price data for 2017 and February 2022 was available; therefore, the price increase for the February quarter was calculated on an annualised basis for the

¹ We provided inflation estimates for May (Q2) and September (Q3) 2022; for the fourth quarter, we shifted to December 2022 to align with the quarters used by Australia and NZ for their inflation measures to provide greater comparability of the NI measure. Thus, the December quarter included 4 months rather than three. From this point forwards, the quarters for RPI measurement will remain March, June, September, and December of each year.

² DeltaPearl Partners, 2021, "Measuring inflation on Norfolk Island: A general recap - Updated."

³ For convenience and consistency, we have referred to the March 2022 data as February 2022 data.

five-year period to Q1 February 2022. We noted at this time that it was possible that most of the increase was experienced in the last few years (particularly post-COVID) but we could not measure this precisely to confirm. The higher estimates for subsequent quarters make it likely that this was the case.

During the course of 2022, we estimated inflation for the remaining quarters (Q2–Q4) on the same basis, that is, using the same basket of goods and expenditure weights and on-island price data collation as the 2017-2022 exercise.⁴ In 2023, we continued these calculations for each quarter.

The original basket of goods and services and weights used for the calculations of the RPI was determined in 2014, when the last HES was undertaken and early efforts began to investigate reinstating the RPI for Norfolk. Given the significant social and economic changes over the last nine years (COVID-19, changed laws and Island administration, changes in global trading patterns, technologies, and in household income and spending patterns), an updated basket and weights are timely.

The new basket and weights based on the 2024 HES will be used for the next quarterly update because two quarters of price data are required to calculate inflationary changes. Therefore, the March quarter (Q1 2024) results are based on the prices for the goods in the original basket that overlap with the new basket and the old weights. The complete shift to the new basket and weights will occur in the June quarter (Q2) 2024 when there are two quarters of price data to enable full construction of the inflationary index based on the new basket.

Inflation results

In summary, the results for 2022 and 2023 estimations were as follows:

- Q2 2022: from February 2022 (Q1) to May 2022 (Q2), quarterly inflation was 3.02% and annualised inflation was 5.85%. The higher estimated annualised inflation rate for Q2 (5.85%) compared with the estimate for Q1 (3.76%) suggests that most of the inflation measurement for 2017-2022 was likely to have been experienced in the last few years of the period, post-COVID-19. Some of the largest increases were related to transportation, and to food and beverages and household contents, which, being imported to Norfolk, are influenced heavily by transportation/shipping costs.
- Q3 2022: to September 2022, quarterly inflation was 4.39% and annualised inflation was 9.50%. The largest increases related to food and beverages (particularly fruit and vegetables and dairy products), as well as transportation.
- Q4 2022: to December 2022,⁵ quarterly inflation was 2.38% and annualised inflation was 11.09%. The prices of dairy products and vegetables, which rose in Q3, did not continue to rise as rapidly, but other food and non-alcoholic beverage prices rose, as did alcohol prices. As in Q3, alcohol products experienced very significant price rises owing to the reduced frequency of shipments to Norfolk and the need to transport alcohol via air freight rather than ship.
- For 2022 as a whole, the annual rate of inflation was 11.09%. It should be noted that 2022, particularly Q3 and Q4, were also periods of rising inflation in Australia and New Zealand (and around the world). Thus, the results for Norfolk Island align with worldwide trends.
- Q1 2023: to March 2023, quarterly inflation was 0.4% and annualised inflation was 10.54%. Overall, the rate of growth of inflation slowed slightly in early 2023; again, this aligned with trends in the US,

⁴ As detailed in earlier reports, in the first two measurements for Norfolk Island's RPI, we collected price data on NI in February 2022 (when the project commenced) followed by May 2022. To bring Norfolk Island into alignment with the quarters used for measurement by Australia and New Zealand,⁴ we shifted the third measurement of the RPI for Norfolk to September rather than August; thus, Q3 covers the four months of May to August as a one-off adjustment. Aligning with the quarters used for the Australian and NZ CPIs allows for greater comparability and will be more informative for Norfolk Island.

⁵ The 2022 annual inflation rate of 11.09% is for inflation through to December 2022. Previously, annual inflation rates were estimated through to February of each year. This change has been made to align Norfolk Island's reporting intervals with Australia and New Zealand's to improve comparability.

Australia and New Zealand. For the March quarter, Australia's quarterly inflation rate was 1.4% and its annualised inflation rate was 7.1%; the corresponding rates for NZ were 1.2% and 6.7%.

- Q2 2023: for the June 2023 quarter, quarterly inflation was -1.12% and annualised inflation was 6.09%. Overall, the rate of growth of inflation slowed slightly since the first quarter of 2023, in line with trends in the US, Australia and New Zealand. For the June quarter, Australia's quarterly inflation rate was 0.8% and its annualised inflation rate was 6%; the corresponding rates for NZ were 1.1% and 6%.
- Q3 2023: for the September 2023 quarter, quarterly inflation was -0.46% and annualised inflation was 1.16%. There was a considerable reduction in annualised inflation compared with the June quarter result (6.09%), which was largely driven by reductions in alcohol prices (due to increased shipping movements) and meat prices (due to a new butchery). In contrast with Norfolk Island, Australia's inflation CPI rose 1.2% in the September quarter, although its annualised quarterly inflation moderated to 5.4% (down from 6%). The corresponding rates for NZ were 1.8% and 5.6%.
- Q4 2023: for the December 2023 quarter, quarterly inflation was 2.46% and annualised inflation was 1.25%. The December 2023 price data shows an increase in quarterly weighted prices by 2.46% which has resulted in an annualised inflation rate for calendar year 2023 of 1.25%. This continued moderation in inflation on Norfolk Island was consistent with trends on mainland Australia. There were declines in the price of tobacco, alcohol, and household contents and services. Other price groups increased, in particular, price increases in housing and insurance costs were observed. The ABS reported that insurance cost increases have also been substantial on mainland Australia. The annual inflation rate on Norfolk Island for 2023 of 1.25% compares with 11.09% in 2022.

Results - Prices and inflation, 1st Quarter (March Quarter) 2024

For the March quarter (Q1 2024), using the old basket and weights, we have determined that:

- **quarterly inflation is 0.98% (compared with 2.46% in the December quarter (Q4 2023) and -0.46% in the September quarter (Q3 2023))**
- **annualised inflation is 1.84% (compared with an annualised rate of 1.25% to the end of the December quarter (Q4 2023) and an annualised rate of 1.16% to the end of the September quarter (Q3 2023))**

The table below provides a summary of the results to date by expenditure groups.

Table 1: Inflation rates, 2017-2024 Q1

Groups	Weight	Change Feb 2017 to Feb 2022	Change to May Quarter 2022	Change to September Quarter 2022	Change to December Quarter 2022	Change to March Quarter 2023	Change to June Quarter 2023	Change to September Quarter 2023	Change to December Quarter 2023	Change to March Qtr 2024
1. Food and non-alcoholic beverages	23.9%	19.23%	12.36%	14.11%	17.73%	17.42%	10.40%	3.48%	-0.37%	1.02%
2. Tobacco and alcohol	6.8%	31.93%	3.55%	19.32%	24.29%	25.66%	14.04%	-12.83%	-18.42%	-19.60%
3. Clothing and footwear	3.6%	9.76%	1.49%	8.93%	15.23%	17.88%	14.15%	4.56%	-0.51%	-1.58%
4. Housing	18.0%	27.14%	2.93%	1.94%	0.96%	0.00%	0.00%	4.07%	4.07%	4.07%
5. Household contents & services	8.9%	50.08%	9.25%	13.62%	13.33%	10.93%	-13.7%	-4.43%	-3.23%	-2.81%
6. Health	4.3%	15.13%	-0.67%	-4.41%	-4.75%	-5.73%	-2.89%	0.65%	0.28%	-55.53%
7. Transportation	12.1%	26.37%	8.15%	13.64%	14.36%	11.71%	7.27%	4.96%	4.60%	5.12%
8. Communication	3.1%	-4.51%	-0.45%	-0.20%	0.24%	0.48%	0.26%	0.25%	0.04%	-12.12%

9. Recreation	10.7%	- 13.42%	-0.58%	7.76%	10.99%	12.95%	13.22%	3.49%	4.16%	4.20%
10. Insurance services	8.6%	0.18%	0.03%	4.01%	4.00%	3.99%	3.99%	0.00%	23.78%	23.78%
All groups		18.79%	3.02%	4.39%	2.38%	0.40%	-1.12%	-0.46%	2.46%	0.98% (quarterly change)
		3.76%	5.85%	9.05%	11.09%	10.54%	6.09%	1.16%	1.25%	1.84% (annualised quarterly change)

As the table indicates, the quarterly inflation rate is 0.98% and the annual change is 1.84%. The highest price growth during the March 2024 quarter was insurance services (23.78%), followed by communication (10.27%). The largest price reductions were tobacco and alcohol (-19.60%), followed by household contents and services (-2.81%). This was reasonably consistent with the Australian mainland.

Low inflation is a sign the general prices are growing at a low rate overall, which is consistent with the recent trends of recovery from the peak COVID-19 price increases in December 2022 and March 2023 (11.09% and 10.54%, respectively). The annualised inflation rate is moving back towards the RBA target rate of 2.5%.

The new basket and weights for the next quarter

In February 2024, an updated Household Expenditure Survey (HES) was launched for Norfolk Island, as detailed in earlier reports provided to NIRC. Informed by the results of the HES, a new basket of goods and service and expenditure weights has been determined.⁶ From the June 2024 quarter, the RPI will be based on the new basket of goods and services.

The new basket will be based on the same 10 major groups of expenditure categories as the 2014 basket, although the individual goods and services within each category have been updated. The new weightings for the 10 subgroups are shown below relative to the old weights.

Table 2: The 2014 and 2024 basket of goods groups and weights, Norfolk Island

Group	Group no.	Group Weight, 2014	Group Weight, 2024	Change from old weight
Food and non-alcoholic beverages	1	23.90%	24.04%	0.14%
Tobacco and alcohol	2	6.79%	6.90%	0.11%
Clothing and footwear	3	3.61%	3.05%	-0.56%
Housing	4	18.04%	19.58%	1.54%
Household contents and services	5	8.88%	10.16%	1.29%
Health	6	4.34%	3.23%	-1.12%
Transportation	7	12.11%	13.78%	1.67%
Communication	8	3.06%	2.31%	-0.75%
Recreation	9	10.67%	9.56%	-1.10%
Insurance services	10	8.60%	7.38%	-1.22%

⁶ A HES is a key a component of an RPI because inflation is measured using changes in the prices of a representative basket of goods. The composition of goods in the spending basket are weighted because the decision to purchase an item depends on both the price and its importance to the consumer, relative to other spending options; thus, the weight represents its importance. The HES enables calculation of appropriate weights for the goods and services that make up the household expenditure basket.

Comparing the new and old weights, it is evident that there are minor increases in food and non-alcoholic beverages and tobacco and alcohol of 0.10% each. There are larger increases in three groups, the housing, household contents and services, and transportation groups, of over 1% each. The largest decrease in weight was insurance services, which reduced by 1.24%⁷.

⁷ This was despite recent increases in insurance prices. This new weighting is approximately in line with the Australian weighting.

1. Introduction

This report is prepared as part of a project to assist the Norfolk Island Regional Council (NIRC) recommence price inflation monitoring on Norfolk Island. The Norfolk Island version of the Australian consumer price index (CPI) is known as the retail price index (RPI).

Norfolk Island collated price data and prepared its own RPI between 1990 and 2011. However, for various reasons, largely data issues,⁸ measurement of the RPI paused in 2011. Some efforts to reinstate the RPI were undertaken by consulting firm Acil Allen between 2012 and 2018-19, including developing a basket of goods and expenditure weights, although this “draft RPI” work did not lead to official reinstatement of the RPI for Norfolk Island. In late 2021/early 2022, NIRC commissioned DeltaPearl Partners to investigate reinstatement of the RPI for Norfolk Island. DeltaPearl Partners have built on the draft RPI work and continued to collate price data to provide:

- an estimate of inflation between 2012-2017 based on price data collated from various historical sources;
- an interim inflation measure for 2017-2022 based on estimating inflation for the February quarter 2022. This work was completed by undertaking a price collection on Norfolk Island during 10-15 March 2022, and updating the same preliminary basket of goods as the 'Draft RPI', which measured inflation up to 2017. We know that this approach aligns with the practice of other small island economies (see Case Study Report on Small Island Economies).
- subsequent quarterly updates during 2022 of the RPI for the May, September, and December quarters.

During 2022 and 2023, we collected prices on 10 categories of goods and services: food, alcohol and tobacco, clothing, transport, communications, housing (including household utilities), household contents, health, recreation and insurances. A detailed list of the 250+ goods and services that make up what is now the “old basket of goods and services” in these 10 categories is provided in the appendix. Spreadsheets containing the detailed data collected has been provided separately to NIRC. We have provided NIRC with reports for 2012-2017, 2017-2022, and the four quarters of 2022 and 2023.

The “old basket” of goods and services of Norfolk Island used for these reports is based on the 2014 Household Expenditure Survey (HES), which was the most recent such survey undertaken on Norfolk Island until February 2024. A HES is a key a component of an RPI because inflation is measured using changes in the prices of a representative basket of goods and services. The composition of goods in the spending basket are weighted because the decision to purchase an item depends on both the price and its importance to the consumer, relative to other spending options; thus, the weight represents its importance. The HES enables calculation of appropriate weights for the goods and services that make up the household expenditure basket. NI last completed a HES in 2014. Given the significant social and economic changes over the last nine years (COVID-19, changed laws and Island administration, changes in global trading patterns, technologies, and in household income and spending patterns), a new survey was timely, and planned to inform the 2024 updates of the RPI. As noted in earlier reports, the process that we followed to measure inflation in the earlier reports was designed to enable development of an interim inflation measure without (and prior to) the possible development of a new household expenditure survey (HES) to update the basket and associated expenditure weightings.

In February 2024, a new HES, developed with NIRC, was launched by NIRC on Norfolk Island. The details of this process have been outlined in separate reports to NIRC. Informed by the HES and the past price data collections during 2022 and 2023, a new basket of goods and services has been developed.⁹

⁸ DeltaPearl Partners, 2021, "Measuring inflation on Norfolk Island: A general recap - Updated."

⁹ A HES is a key a component of an RPI because inflation is measured using changes in the prices of a representative basket of goods. The composition of goods in the spending basket are weighted because the decision to purchase an item depends

The new basket is based on the same 10 major sub-groups of expenditure categories as the 2014 basket, although the individual goods and services within each category have been updated. The new list has 270 items, which is 14 more items than the last list. In total around 48 items are new to the list, whether entirely new, or updated in terms of brand, volume, quality or technology.

Although we have developed this new basket of goods and services and expenditure group weights, two quarters of price data are required to calculate changes in the inflationary index. As the IMF states in its CPI price manual, “the index must have a period to which the weights refer.” Therefore, the March quarter (Q1 2024) results are based on a hybrid approach using the 82% of items that overlap between the original basket and the new basket because we have the December 2023 and March 2024 quarters of price data to compare for the old basket. The old weights have also been used for consistency.

Once the June 2024 quarter prices have been collected using the new basket, we will have both March and June 2024 quarter price data based on the new basket, and it will be possible to switch the Norfolk Island inflation measures wholly to the new basket and weights (i.e., this will occur upon the June 2024 quarter).

2. Earlier measurements of inflation, 2017 - February 2022

To measure inflation from 2017 to the present day, we completed a price collection on Norfolk Island during 10-15 March 2022, and updated the same preliminary basket of goods as the 'Draft RPI' which measured inflation up to 2017. This is the most straightforward approach to developing an ad interim inflation measure, and we know that this basket and the goods align with the practice of other small island economies (see Case Study Report on Small Island Economies), and that the weights used align roughly in terms of the importance given to food, transport and housing in those other economies. A spreadsheet containing the prices has been separately developed and will be provided to NIRC, including quantities to allow for future updates. This same exercise was then repeated in May, September, and December 2022, then again in March 2023.¹⁰

The data collection was aimed at updating the same basket from 2017 for continuity, subject to reviewing whether any items are no longer appropriate or require updating. Therefore, we collected prices on the following 10 categories of goods and services: food, alcohol and tobacco, clothing, transport, communications, housing (including household utilities), household contents, health, recreation, and insurances.

Based on the earlier work by Acil Allen, we have price data for the first half of 2017. As noted above, we collated data during March 2022; we have used the February 2017 data from the Acil Allen Draft RPI as it is from the same quarter of the year for comparable seasonality, and refer to it as February 2022 data for simplicity in the spreadsheet to maintain the same system for quarterly collection.

A detailed spreadsheet containing prices for February 2017 (collected for the Draft RPI by Acil Allen) and prices for the same goods and services in 2022 has been provided to NIRC for the 250+ prices collected that make up the 10 groups of goods. A spreadsheet developing the inflation index based on the prices and allocated expenditure weights will also be separately provided.

on both the price and its importance to the consumer, relative to other spending options; thus, the weight represents its importance. The HES enables calculation of appropriate weights for the goods and services that make up the household expenditure basket.

¹⁰ Please refer to the earlier footnotes concerning the shift in the months that make up the quarters. From December 2022, we shifted the relevant months to align with the quarters used by Australia and NZ for their inflation measures to provide greater comparability of the NI measure. From late 2022 onwards, the quarters for RPI measurement will remain March, June, September, and December of each year.

A summary of the index for the 10 groups of goods in the basket is shown below. The index shows how prices have changed relative to a value of 1.00 in the index reference period. An index of 1.10, for example, would mean that there has been a 10% increase in price since the index reference period.

The index from May 17 to February 2022 is backfilled based on the price data collated in March 2022, smoothed and annualised over the period 2017-2022.

3. Determining inflation after February 2022

NIRC's intention is to measure the RPI on a quarterly basis. The February 2022 data collection and report measured inflation for the first quarter of 2022.

In May 2022, we undertook the same price collection process to determine inflation between the first and second quarters of 2022.

The data collection process took place on-island over two weeks in the middle of May 2022. The data collection was aimed at updating the same basket as used in February 2022 for continuity. Therefore, we collected prices on the following 10 categories of goods and services: food, alcohol and tobacco, clothing, transport, communications, housing (including household utilities), household contents, health, recreation, and insurances.

This is the most straightforward approach to developing an ad interim inflation measure, and we know that this basket and the goods align with the practice of other small island economies (see Case Study Report on Small Island Economies), and that the weights used align roughly in terms of the importance given to food, transport and housing in those other economies.

A detailed spreadsheet containing prices for February 2017 (collected for the Draft RPI by Acil Allen) and prices for the same goods and services in February 2022 has been provided to NIRC for the 250+ prices collected that make up the 10 groups of goods. A spreadsheet developing the inflation index based on the prices and allocated expenditure weights has also been separately provided.

A summary of the index for the 10 groups of goods in the basket is shown in Section 4.1.

Q2: May Quarter 2022

As we only had price data for 2017 and February 2022 initially, we smoothed the price increase on an annualised basis for this five-year period to Q1 February. We noted at this time that it was possible that most of the increase has been experienced in the last few years (particularly post-COVID), but we could not measure this precisely to confirm.

The result for May Q2 (i.e., for inflation from February to May) implied that this was likely to have been the case. We note that Australia's inflation rate to March 2022 was 2.1% for the quarter, giving an annualised rate of 5.1% for the preceding 12 months, slightly lower than Norfolk Island's annualised rate of 5.85%. For the June 2022 quarter in Australia, inflation rose 1.8% between the quarters, and the annualised rate of inflation (inflation over the 12 months to the June 2022 quarter) rose to 6.1%, driven by price rises for dwellings, petrol, and furniture in particular.

Q3: September Quarter 2022

To bring Norfolk Island into alignment with the quarters used for measurement by Australia and New Zealand, we shifted the third measurement of the RPI for Norfolk to September rather than August; thus, the third inflation measurement for Norfolk Island covers four months rather than three as a one-off adjustment to ensure alignment. The Australian Consumer Price Index (CPI) is issued on a quarterly basis in March, June, September and December and the New Zealand CPI is collected during the same quarters. Aligning with the quarters used for the Australian and New Zealand CPIs allows for greater comparability and will be more informative for Norfolk Island.

Based on the price collation exercise on Norfolk Island, we determined that inflation for Q3 was 9.5% on an annualised quarterly basis, compared with 5.85% in Q2.

This quarter was also a period of rising inflation in Australia, with the most significant price rises in relation to dwellings, petrol, and furniture. During the September quarter, the annualised inflation of inflation for Australia was 7.3%, a rise over the previous quarter, though lower than Norfolk Island's 9.5%; however, Norfolk experienced price pressures due to shortages of some goods necessitating high freight costs, which did not affect Australia to the same extent.

Q4: December Quarter 2022

During Q4, to bring Norfolk Island into alignment with the quarters used for measurement by Australia and New Zealand going forward, we shifted the RPI for Norfolk to September rather than August; thus, it covers the four months of May to August as a one-off adjustment to ensure alignment. Aligning with the quarters used for the Australian and New Zealand CPIs allows for greater comparability and will be more informative for Norfolk Island.

Based on the price collation exercise on Norfolk Island, we determined that inflation for Q4 was 11.09% compared with 9.50% in Q3. Based on the prices collected, we found that there were significant increases in prices in a number of areas, including food and non-alcohol beverages prices (with a small easing of pressure on the prices of dairy products and fruit and vegetables compared with the previous quarter, which was also the case on the Australian mainland); recreation costs, including magazines, exercise books, and airfares rose, and alcohol costs in particular, due to the need to utilize air freight rather than ships.

As for Q3, this was also a period of rising inflation in both Australia and New Zealand, as well as in other countries around the world. Australia's inflation rate during December was 7.8%, which is below Norfolk's rate; however, as noted, due to freight costs and its remoteness, there are additional cost pressures for Norfolk compared with the mainland of Australia.

In commencing measurements for Norfolk Island's RPI, we collected price data on Norfolk Island in February 2022 (when the project commenced) followed by May 2022. Then, to bring Norfolk Island into alignment with the quarters used for measurement by Australia and New Zealand going forward, we shifted the third measurement of the RPI for Norfolk to September rather than August, which therefore covered an extra month as a one-off adjustment to ensure alignment, meaning that the fourth quarter was the December quarter. Aligning with the quarters used for the Australian and New Zealand CPIs allows for greater comparability and will be more informative for Norfolk Island.

Q1: March Quarter 2023

For the 1st quarter of 2023, we determined that quarterly inflation was 0.4% (compared with 2.38% in Q4, and 4.39% in Q3 2022); and annualised inflation was 10.54% (compared with 11.09% in Q3, and 9.50% in Q3 2022). Overall, the rate of growth of inflation slowed slightly in early 2023; again, this aligned with trends in the US, and trends for Australia and New Zealand. For the March quarter, Australia's quarterly inflation rate was 1.4% and its annualised inflation rate was 7.1%; the corresponding rates for NZ were 1.2% and 6.7%.

Q2: June Quarter 2023

For the second quarter of 2023, we determined that quarterly inflation was -1.12% (compared with 0.4% in Q1 2023, and 2.38% in Q4 2022) and annualised inflation was 6.09% (compared with 10.54% in Q1 2023, and 11.09% in Q4 2022). Overall, the rate of growth of inflation continued to slow slightly since compared with the first quarter of 2023. Again, this aligned with trends in the US, and in Australia and New Zealand. For the June quarter, Australia's quarterly inflation rate was 0.8% and its annualised inflation rate was 6%; the corresponding rates for NZ were 1.1% and 6%.

Q3: September Quarter 2023

For the September 2023 quarter, quarterly inflation was -0.46% and annualised inflation was 1.16%. There was a considerable reduction in annualised inflation compared with the June quarter result (6.09%), which was largely driven by reductions in alcohol and meat prices. Alcohol prices fell as

shipping freight movements increased and because of reductions on expired products, and a new butchery drove the reductions in meat prices. These reductions were consistent with a moderation of inflation on mainland Australia (dropping from an annualised rate of 4.9% to 4.3% as at end November 2023). The annualised results for Australia and New Zealand for Q3 2023 are not yet published¹¹ but it is likely that their annualised inflation results will remain higher than Norfolk's, which is reflective of the volatility that Norfolk is subject to as a small economy.

Q4: December Quarter 2023

For the December Quarter / Q4 2023, quarterly inflation was 2.46% and annualised inflation was 1.25%. The annual inflation rate to end of calendar year 2023 of 1.25% compares to 11.09% for calendar year 2022. The continued moderation in inflation on Norfolk Island was in line with the RBA target annual rate of between 2% and 3% and consistent with a moderation of inflation on mainland Australia. Measurement of Norfolk Island's price changes in the December quarter continued the decline of the previous quarter in the price of tobacco, alcohol, and household contents and services. Meat and alcohol prices continued the trend of the September quarter, driven by price reductions due to expired products and increased shipping frequency in the case of alcohol, and a new butchery offering lower prices in the case of meat prices. Other price groups experienced increases, with price increases in housing and insurance costs observed in the December and the September quarters. One of the outliers in the December result was a high increase in the price group which covers insurance, with a 23.78% increase for this group compared with the September quarter.

The annual inflation rate on Norfolk Island for 2023 of 1.25% compares with 11.09% in 2022. Thus inflation has moderated substantially over this period, with much of the reduction being experienced in the second half of 2023.

4. Determining inflation for the March quarter (Q1) 2024

For the March quarter (Q1 2024), we have determined that:

- quarterly inflation is 0.98% (compared with 2.46% in the December quarter (Q4 2023) and -0.46% in the September quarter (Q3 2023))
- annualised inflation is 1.84% (compared with an annualised rate of 1.25% to the end of the December quarter (Q4 2023) and an annualised rate of 1.16% to the end of the September quarter (Q3 2023))

As noted in the introduction, the March 2024 results are calculated using the original model, items, and weights. The Norfolk Island inflation measures will be changing in the next quarter based on the new basket of goods and services and expenditure weights informed by the Norfolk Island Household Expenditure Survey conducted in February 2024. Although we have developed a new basket of goods and services and expenditure group weights informed by the Norfolk Island Household Expenditure Survey conducted in February 2024, we require two quarters of price data to calculate changes in the inflationary index. Therefore, the March 2024 results are calculated using the original model, items, and weights used during 2022 and 2023 because two quarters of price data are required to use the new basket and calculate changes. Once we have collected the June quarter prices, we will have both March and June quarter price data based on the new basket, and it will be possible to switch the Norfolk Island inflation measures to the new basket and weights (i.e., this will occur during the June 2024 quarter). For this quarter, a hybrid approach has been adopted using the roughly 82% of items that overlap between the old basket and the new basket (given that prices were collected for the new basket this quarter). The new basket is based on the same 10 major groups of expenditure categories as the 2014 basket, although the individual goods and services within each category have been updated. The new

¹¹ Australia will release its June results on 26 July 2023, and New Zealand on 20 July 2023.

list has 270 items, which is 14 more items than the last list. In total around 48 items are new to the list, whether entirely new, or updated in terms of brand, volume, quality or technology.

The table below provides a summary of the results to date by expenditure groups for the period from February 2017 through to March 2024 (Q1 2024).

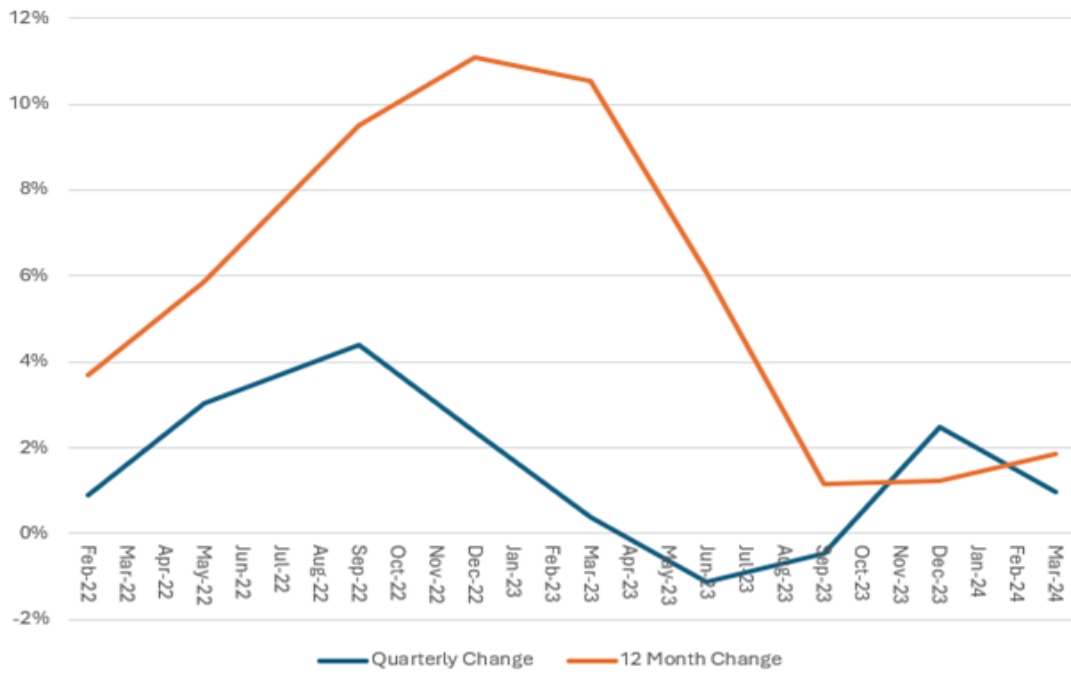
Table 3: Inflation rates, 2017-2024 Q1

Groups	Weight	Change Feb 2017 to Feb 2022	Change to May Quarter 2022	Change to September Quarter 2022	Change to December Quarter 2022	Change to March Quarter 2023	Change to June Quarter 2023	Change to September Quarter 2023	Change to December Quarter 2023	Change to March Qtr 2024
1. Food and non-alcoholic beverages	23.9%	19.23%	12.36%	14.11%	17.73%	17.42%	10.40%	3.48%	-0.37%	1.02%
2. Tobacco and alcohol	6.8%	31.93%	3.55%	19.32%	24.29%	25.66%	14.04%	-12.83%	-18.42%	-19.60%
3. Clothing and footwear	3.6%	9.76%	1.49%	8.93%	15.23%	17.88%	14.15%	4.56%	-0.51%	-1.58%
4. Housing	18.0%	27.14%	2.93%	1.94%	0.96%	0.00%	0.00%	4.07%	4.07%	4.07%
5. Household contents & services	8.9%	50.08%	9.25%	13.62%	13.33%	10.93%	-13.7%	-4.43%	-3.23%	-2.81%
6. Health	4.3%	15.13%	-0.67%	-4.41%	-4.75%	-5.73%	-2.89%	0.65%	0.28%	-55.53%
7. Transportation	12.1%	26.37%	8.15%	13.64%	14.36%	11.71%	7.27%	4.96%	4.60%	5.12%
8. Communication	3.1%	-4.51%	-0.45%	-0.20%	0.24%	0.48%	0.26%	0.25%	0.04%	-12.12%
9. Recreation	10.7%	-13.42%	-0.58%	7.76%	10.99%	12.95%	13.22%	3.49%	4.16%	4.20%
10. Insurance services	8.6%	0.18%	0.03%	4.01%	4.00%	3.99%	3.99%	0.00%	23.78%	23.78%
All groups		18.79%	3.02%	4.39%	2.38%	0.40%	-1.12%	-0.46%	2.46%	0.98% (quarterly change)
		3.76%	5.85%	9.05%	11.09%	10.54%	6.09%	1.16%	1.25%	1.84% (annualised quarterly change)

As the table indicates, for March 2024 quarter, the quarterly inflation rate is 0.98% and the annual change is 1.84%. The highest price growth during the March 2024 quarter was insurance services (23.78%), followed by communication (10.27%). The largest price reductions were tobacco and alcohol (-19.60%), followed by household contents and services (-2.81%).

Low inflation is a sign the general prices are growing at a low rate overall, which is consistent with the recent trends of recovery from the peak COVID-19 price increases in December 2022 and March 2023 (11.09% and 10.54%, respectively). The annualised inflation rate is moving back towards the RBA target rate of 2.5%, as shown in the figure below.

Figure 1: Inflation Feb 2022 to March 2024



5. RPI, 2012-2024 (Q1)

Below we present the retail price index for the period from 2011 (when the official RPI ceased) to December 2023. The index for the period up to February 2017 is based on the data collated by Acil Allen on prices and price adjustments on a quarterly basis, using May 2012 as the base year. The index from February 2017 to February 2022 is based on the price data collated in March 2022, smoothed and annualised over the period from 2017-2022. The index for May 2022 is based on the May and February data collections. The index for September 2022 (noting the shift to September from August to align with the Australian and NZ CPIs) is based on the data collection during September, and the indexes for December 2022, March 2023, June 2023, September 2023, and December 2023 are based on the price collection exercise during December 2022, and March, June, September and December 2023, respectively.

Table 4: Updated RPI for Norfolk, 2011-2024 (Q1)

Group	Group number	Group Weight	May-12	Aug-12	Nov-12	Feb-13	May-13	Aug-13	Nov-13	Feb-14	May-14	Aug-14	Nov-14	Feb-15	May-15	Aug-15	Nov-15
Food and non-alcoholic beverages	1	23.9%	1.00	1.00	1.00	1.02	1.02	1.02	1.00	1.01	1.00	1.01	1.00	1.02	1.01	1.00	1.00
Tobacco and alcohol	2	6.8%	1.00	1.00	1.00	1.00	0.96	1.00	1.00	1.01	1.00	1.01	1.00	1.00	1.01	1.03	1.02
Clothing and footwear	3	3.6%	1.00	1.00	1.00	1.03	1.00	1.05	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.01	1.00
Housing	4	18.0%	1.00	1.01	1.00	1.02	0.98	1.00	0.99	1.01	0.99	1.02	1.00	1.00	1.00	1.00	1.03
Household contents and services	5	8.9%	1.00	1.00	1.00	1.01	1.01	1.07	1.00	1.01	1.00	1.01	1.00	1.00	1.04	1.00	1.00
Health	6	4.3%	1.00	1.00	1.00	1.10	1.00	1.01	0.99	1.02	1.00	0.97	1.00	1.01	1.00	1.00	1.00
Transportation	7	12.1%	1.00	1.03	1.00	0.99	1.00	1.00	1.00	1.03	1.00	1.00	1.00	1.00	1.00	0.98	0.98
Communication	8	3.1%	1.00	1.00	1.00	1.01	1.00	1.48	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Recreation	9	10.7%	1.00	1.00	1.00	1.09	1.00	1.01	1.00	1.11	1.00	1.04	1.00	1.00	1.00	0.99	1.01
Insurance services	10	8.6%	1.00	1.00	1.00	1.60	1.00	1.00	1.00	1.00	1.32	1.00	1.00	1.02	1.00	1.00	1.00
All Groups			1.00	1.01	1.00	1.08	1.00	1.03	1.00	1.02	1.03	1.01	1.00	1.01	1.01	1.00	1.01

Group	Group no.	Group Weight	Feb-16	May-16	Aug-16	Nov-16	Feb-17	May-17	Aug-17	Nov-17	Feb-18	May-18	Aug-18	Nov-18
Food and non-alcoholic beverages	1	23.9%	0.99	1.00	1.08	1.00	1.02	0.99	1.02	1.03	1.04	1.05	1.07	1.08
Tobacco and alcohol	2	6.8%	0.98	1.00	1.00	0.99	1.00	1.03	1.05	1.06	1.08	1.09	1.11	1.12
Clothing and footwear	3	3.6%	1.03	1.00	1.01	1.18	1.00	1.01	1.01	1.01	1.02	1.02	1.03	1.03
Housing	4	18.0%	1.31	1.00	0.81	1.12	1.00	1.00	1.05	1.07	1.08	1.09	1.10	1.11
Household contents and services	5	8.9%	0.99	1.00	1.02	1.00	1.01	1.00	1.06	1.08	1.11	1.13	1.16	1.18
Health	6	4.3%	1.09	1.00	0.40	1.01	1.01	0.99	1.02	1.02	1.03	1.04	1.05	1.06
Transportation	7	12.1%	0.92	1.00	1.00	1.01	1.00	0.98	1.01	1.02	1.04	1.05	1.07	1.08
Communication	8	3.1%	1.00	1.00	1.13	1.00	1.00	1.00	1.00	0.99	0.99	0.99	0.99	0.98
Recreation	9	10.7%	0.97	1.00	1.03	0.98	1.00	0.78	0.80	0.80	0.81	0.81	0.81	0.82
Insurance services	10	8.6%	0.98	0.98	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
All Groups			1.04	1.00	0.97	1.03	1.01	0.98	1.00	1.01	1.03	1.04	1.05	1.06

Group	Group Weight	Feb-19	May-19	Aug-19	Nov-19	Feb-20	May-20	Aug-20	Nov-20	Feb-21	May-21	Aug-21	Nov-21	Feb-22	May-22	Sept-22	Dec-22	Mar-23	June-23	Sept-23	Dec-23	Mar-24
1 Food and non-alcoholic beverages	23.9%	1.09	1.10	1.11	1.12	1.13	1.14	1.15	1.16	1.17	1.18	1.19	1.21	1.22	1.33	1.36	1.42	1.43	1.47	1.41	1.41	1.45
2. Tobacco and alcohol	6.8%	1.14	1.15	1.17	1.18	1.20	1.21	1.23	1.24	1.26	1.27	1.29	1.30	1.32	1.32	1.54	1.62	1.66	1.50	1.34	1.32	1.33
3. Clothing and footwear	3.6%	1.04	1.04	1.05	1.05	1.06	1.06	1.07	1.07	1.08	1.08	1.09	1.09	1.09	1.10	1.18	1.26	1.29	1.25	1.24	1.25	1.27
4. Housing	18.0%	1.13	1.14	1.15	1.16	1.17	1.19	1.20	1.21	1.22	1.24	1.25	1.26	1.27	1.27	1.27	1.27	1.27	1.27	1.32	1.32	1.32
6. Household contents and services	8.9%	1.21	1.24	1.26	1.29	1.31	1.34	1.36	1.39	1.42	1.44	1.47	1.49	1.52	1.57	1.67	1.69	1.68	1.55	1.59	1.64	1.64
6. Health	4.3%	1.07	1.07	1.08	1.09	1.10	1.11	1.12	1.12	1.13	1.14	1.15	1.16	1.17	1.13	1.10	1.10	1.10	1.10	1.11	1.11	1.10
7. Transportation	12.1%	1.09	1.11	1.12	1.14	1.15	1.17	1.18	1.19	1.21	1.22	1.24	1.25	1.26	1.32	1.40	1.43	1.41	1.42	1.47	1.49	1.48
8. Communication	3.1%	0.98	0.98	0.98	0.98	0.97	0.97	0.97	0.97	0.96	0.96	0.96	0.96	0.95	0.96	0.96	0.96	0.96	0.96	0.96	0.96	1.06
9. Recreation	10.7%	0.82	0.82	0.83	0.83	0.84	0.84	0.84	0.85	0.85	0.86	0.86	0.86	0.87	0.85	0.93	0.96	0.98	0.96	0.96	1.00	1.02
10. Insurance services	8.6%	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.04	1.04	1.04	1.04	1.04	1.29	1.29
All Groups		1.07	1.08	1.09	1.10	1.11	1.12	1.13	1.14	1.15	1.16	1.17	1.18	1.20	1.23	1.29	1.32	1.32	1.31	1.30	1.33	1.35

6. Calculating inflation from the June quarter (Q2) 2024 onwards

The original basket of goods and services and weights used for the calculations of the RPI was determined in 2014, when the last HES was undertaken and early efforts began to investigate reinstating the RPI for Norfolk. Given the significant social and economic changes over the last nine years (COVID-19, changed laws and Island administration, changes in global trading patterns, technologies, and in household income and spending patterns), an updated basket and weights are timely.

In February 2024, an updated Household Expenditure Survey (HES) was launched for Norfolk Island, as detailed in earlier reports provided to NIRC. Informed by the results of the HES, a new basket of goods and service and expenditure weights has been determined.¹² After this quarter, the RPI will be based on the new basket of goods and services. The March quarter (Q1 2024) results are based on the original basket and weights because two quarters of price data are required to complete the shift to the new basket and weighting system. Thus, the shift will occur in the June quarter 2024.

The new basket will be based on the same 10 major groups of expenditure categories as the 2014 basket, although the individual goods and services within each category have been updated. The new weightings for the 10 subgroups are shown below relative to the old weights.

Table 5: The 2014 and 2024 basket of goods groups and weights, Norfolk Island

Group	Group no.	Group Weight, 2014	Group Weight, 2024	Change from old weight
Food and non-alcoholic beverages	1	23.90%	24.04%	0.14%
Tobacco and alcohol	2	6.79%	6.90%	0.11%
Clothing and footwear	3	3.61%	3.05%	-0.56%
Housing	4	18.04%	19.58%	1.54%
Household contents and services	5	8.88%	10.16%	1.29%
Health	6	4.34%	3.23%	-1.12%
Transportation	7	12.11%	13.78%	1.67%
Communication	8	3.06%	2.31%	-0.75%
Recreation	9	10.67%	9.56%	-1.10%
Insurance services	10	8.60%	7.38%	-1.22%

Comparing the new and old weights, it is evident that there are minor increases in food and non-alcoholic beverages and tobacco and alcohol of 0.10% each. There are larger increases in three groups, the housing, household contents and services, and transportation groups, of over 1% each. The largest decrease in weight was insurance services, which reduced by 1.24%¹³.

A comparison with the weights used in other jurisdictions is shown below. Comparing the Norfolk Island weights to other jurisdictions allows for further testing of the validity of our calculations. The graph below

¹² A HES is a key component of an RPI because inflation is measured using changes in the prices of a representative basket of goods. The composition of goods in the spending basket are weighted because the decision to purchase an item depends on both the price and its importance to the consumer, relative to other spending options; thus, the weight represents its importance. The HES enables calculation of appropriate weights for the goods and services that make up the household expenditure basket.

¹³ This was despite recent increases in insurance prices. This new weighting is approximately in line with the Australian weighting.

shows the weights used by Australian and New Zealand, Norfolk’s neighbours, and St Helena Island, a small island satellite jurisdiction similar to Norfolk Island. Each jurisdiction has different groups and we have had to make some manual adjustments to St Helena values (e.g., the “Miscellaneous goods and services” category with a weight of 13.1% has been spread across the Recreation, Education and Insurance groups to allow for comparison).

Figure 2: Weight Comparisons in NI, Aust, NZ and St Helena

