



Delta Pearl  
Partners

# Updating the Quarterly Retail Price Index for Norfolk Island - June Quarter, 2023 – Results

Prepared for the Norfolk Island Regional Council

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# Headline Result

For the June 2023 (Q2) quarter on Norfolk Island:

- quarterly inflation is -1.12% (compared with 0.4% in the March quarter (Q1 2023), and 2.38% in the December quarter (Q4 2022))
- annualised inflation is 6.09% (compared with 10.54% in the March quarter (Q1 2023), and 11.09% in the December quarter (Q4 2022))

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

# Executive Summary

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 report outlines price inflation on Norfolk Island for the June Quarter of 2023, which is the second quarter (Q2) for 2023. We have previously provided estimates for the March Quarter (Q1) of 2023, as well as for 2022.<sup>1</sup>

In brief, and as noted in earlier reports, Norfolk Island collated price data and prepared its own RPI between 1990 and 2011. However, for various reasons, largely data issues,<sup>2</sup> 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. We completed a price collection on Norfolk Island during 10-15 March 2022<sup>3</sup>, 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 that we were unable to measure precisely due to the lack of data. This average was calculated after having monitored prices in early March 2022 and comparing these 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) exercise, we only had price data for 2017 and February 2022; therefore, the price increase for the February quarter was calculated on an annualised basis for the 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 Q2, Q3, and Q4, and then for Q1 and now Q2 2023 on the same basis (using the same basket of goods and expenditure weights and on-island price data collation) as the 2017-2022 exercise.<sup>4</sup>

In summary, the results for the 2022 and early 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

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<sup>1</sup> 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.

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

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

<sup>4</sup> 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,<sup>4</sup> 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.

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,<sup>5</sup> 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, 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%.

Below, we report the results for the June Quarter 2023. For the following quarter (Q3: the September 2023 quarter), our aim is to use a new basket of goods and service and expenditure weights based on an updated Household Expenditure Survey (HES). A revised version of the Household Expenditure Survey is currently being developed with NIRC, with digital launch planned for late August 2023. 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. 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 is timely, and will be useful to inform the September quarter update of the RPI.

### ***Results - Prices and inflation, 2nd Quarter (June Quarter) 2023***

**For the June Quarter / Q2 2023, we have determined that:**

- **quarterly inflation is -1.12% (compared with 0.4% in Q1 2023, and 2.38% in Q4 2022)**
- **annualised inflation is 6.09% (compared with 10.54% in Q1, and 11.09% in Q4 2022)**

Overall, the rate of growth of inflation has slowed slightly since the first quarter of 2023. Again, this aligns with trends in the US, and expected trends for Australia and New Zealand, which are yet to release their June quarter results.<sup>6</sup>

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

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<sup>5</sup> 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.

<sup>6</sup> Australia will release its June results on 26 July 2023, and New Zealand on 20 July 2023.

Table 1: Price changes and inflation 2017-2023 Q2

Group	Group no.	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
Food and non-alcoholic beverages	1	23.9%	19.23%	12.36%	14.11%	17.73%	17.42%	10.40%
Tobacco and alcohol	2	6.8%	31.93%	3.55%	19.32%	24.29%	25.66%	14.04%
Clothing and footwear	3	3.6%	9.76%	1.49%	8.93%	15.23%	17.88%	14.15%
Housing	4	18.0%	27.14%	2.93%	1.94%	0.96%	0.00%	0.00%
Household contents & services	5	8.9%	50.08%	9.25%	13.62%	13.33%	10.93%	-13.7%
Health	6	4.3%	15.13%	-0.67%	-4.41%	-4.75%	-5.73%	-2.89%
Transportation	7	12.1%	26.37%	8.15%	13.64%	14.36%	11.71%	7.27%
Communication	8	3.1%	-4.51%	-0.45%	-0.20%	0.24%	0.48%	0.26%
Recreation	9	10.7%	-13.42%	-0.58%	7.76%	10.99%	12.95%	13.22%
Insurance services	10	8.6%	0.18%	0.03%	4.01%	4.00%	3.99%	3.99%
All groups			18.79%	3.02%	4.39%	2.38%	0.40%	<b>-1.12% (quarterly change)</b>
			3.76%	5.85%	9.05%	11.09%	10.54%	<b>6.09% (annualised quarterly change)</b>

As the table indicates, there continue to be increases in inflation in some subgroups, but prices rose less quickly than the previous quarters. This applies to the food & beverage, tobacco & alcohol, clothing & footwear subgroups, as well as to transportation. There were some large reductions in prices in the household contents and services subgroup, due to reductions in prices for hardware / renovation products (e.g., tools, paintbrushes) and some furnishings, such as mattresses. Rents and communications costs have not changed since last quarter.



# 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,<sup>7</sup> 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.

We have 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 in these 10 categories is provided in the appendix. A spreadsheet contained the detailed data collected has been provided separately to NIRC.

The “basket” of goods and services of Norfolk (i.e., the 250+ goods and services) are based on the 2014 Household Expenditure Survey (HES), which is the most recent such survey undertaken on Norfolk Island. A revised version of the Household Expenditure Survey is currently being developed with NIRC, with digital launch planned for late August 2023. 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. 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 is timely, and will be useful to inform the September quarter update of the RPI.

We have provided NIRC with reports for 2012-2017, 2017-2022, and the four quarters of 2022 (February, May, September, and December), as well for the 1st quarter of 2023, the March 2023 quarter. This report concerns the next update, which is for the 2nd quarter of 2023, the June 2023 quarter.

As noted in earlier reports, the process that we followed to measure inflation is designed to enable development of an interim inflation measure without (and prior to) the possible development of a new

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<sup>7</sup> DeltaPearl Partners, 2021, "Measuring inflation on Norfolk Island: A general recap - Updated."

household expenditure survey (HES) to update the basket and associated expenditure weightings. NIRC is in the process of updated its HES and this is likely to provide the foundation for the next quarterly update.

## **2. Earlier measurements of inflation, 2017 - February 2022**

### **2.1. Determining inflation for 2017 to 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.<sup>8</sup>

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.

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.

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<sup>8</sup> 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.

### 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%.

## **4. Determining inflation for the June Quarter (Q2) 2023**

Based on the price collation exercise on Norfolk Island, for the June Quarter / Q2 2023, we have determined that inflation for Q2 2023 is as follows:

- quarterly inflation is -1.12% (compared with 0.4% in Q1 2023, and 2.38% in Q4 2022)
- annualised inflation is 6.09% (compared with 10.54% in Q1 2023, and 11.09% in Q4 2022)

Overall, the rate of growth of inflation has slowed slightly since the first quarter of 2023. Again, this aligns with trends in the US, and expected trends for Australia and New Zealand, which are yet to release their June quarter results.<sup>9</sup>

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<sup>9</sup> Australia will release its June results on 26 July 2023, and New Zealand on 20 July.

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

Table 2: Price changes and inflation 2017-2023 Q2

Group	Group no.	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
Food and non-alcoholic beverages	1	23.9%	19.23%	12.36%	14.11%	17.73%	17.42%	10.40%
Tobacco and alcohol	2	6.8%	31.93%	3.55%	19.32%	24.29%	25.66%	14.04%
Clothing and footwear	3	3.6%	9.76%	1.49%	8.93%	15.23%	17.88%	14.15%
Housing	4	18.0%	27.14%	2.93%	1.94%	0.96%	0.00%	0.00%
Household contents & services	5	8.9%	50.08%	9.25%	13.62%	13.33%	10.93%	-13.7%
Health	6	4.3%	15.13%	-0.67%	-4.41%	-4.75%	-5.73%	-2.89%
Transportation	7	12.1%	26.37%	8.15%	13.64%	14.36%	11.71%	7.27%
Communication	8	3.1%	-4.51%	-0.45%	-0.20%	0.24%	0.48%	0.26%
Recreation	9	10.7%	-13.42%	-0.58%	7.76%	10.99%	12.95%	13.22%
Insurance services	10	8.6%	0.18%	0.03%	4.01%	4.00%	3.99%	3.99%
All groups			18.79%	3.02%	4.39%	2.38%	0.40%	<b>-1.12%</b> <b>(quarterly change)</b>
			3.76%	5.85%	9.05%	11.09%	10.54%	<b>6.09%</b> <b>(annualised quarterly change)</b>

As the table indicates, there continue to be increases in inflation in some subgroups, but prices rose less quickly than the previous quarters. This applies to the food & beverage, tobacco & alcohol, clothing & footwear subgroups, as well as to transportation. There were some large reductions in prices in the household contents and services subgroup, due to reductions in prices for hardware / renovation products (e.g., tools, paintbrushes) and some furnishings, such as mattresses. Rents and communications costs have not changed since last quarter.

## 4.1. RPI, 2012-2023 (Q2)

Below we present the retail price index for the period from 2011 (when the official RPI ceased) to June 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, and June 2023 are based on the price collection exercise during December 2022, March 2023, and June 2023.

Table 3: Updated RPI for Norfolk, 2011-2023 (Q2)

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
<b>All Groups</b>			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
<b>All Groups</b>			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 no.	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
Food and non-alcoholic beverages	1	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	0.04
Tobacco and alcohol	2	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	-0.15
Clothing and footwear	3	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	-0.04
Housing	4	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	0.00
Household contents and services	5	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	0.00
Health	6	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	-0.13
Transportation	7	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	0.00
Communication	8	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	0.01
Recreation	9	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	0.00
Insurance services	10	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	-0.02
																				0.00
<b>All Groups</b>			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	-0.01



## 5. Appendix 1: Pricing - data collation process, assumptions and caveats

Below we list the individual goods and services that were used in the last basket of goods, developed in the Draft RPI in 2018. Each of these goods was priced and expenditure weights were developed.

The locations from which prices were collected include:

- Liquor Bond
- Foodland
- P&R Groceries
- Trading Post Newsagent
- Burnt Pine Pharmacy
- Slick and Sons (butcher and deli)
- Clothing stores - Focus Fashions, Max's, Ross's, and Norfolk Emporium (school uniforms)
- Petrol and service stations - Cascade Motor Repairs, Paw Paws Garage, Central Station
- Building and home goods suppliers - Norfolk Island Building Supplies (NIBS), Christian Bailey's, Pete's Place (smaller appliances)
- Bakery in Foodland mall
- Norfolk Telecom
- Customer Care, NIRC
- Nadine Murray, Norfolk hospital
- Dentist
- Vet (Candice Knobbs)
- Banyan childcare
- Norfolk Island school (principal, school canteen menu)
- Hairdresser (Wilde Rose)
- Electrician, Plumber
- Home support services for the elderly
- Optometrist (John Kelly)
- Sport and recreation clubs - bowls club, golf club, rugby, and netball club members

It should be noted that in some cases, we have made assumptions to determine prices that were not available, or to make prices comparable when goods were available in different quantities between 2017 and 2022.

For instance, some products were not available - black and gold rice was priced in 2017 but was not available on the island in 2022. Therefore, we imputed the difference in prices based on the percentage change for a similar substitute product, in this case, Sun Rice. Another example was Saos biscuits not being available in 2022, and we substituted a different brand of savoury crackers. There were other examples of products not being available in the same quantity priced in 2017. For instance, the 2017 toilet paper price was based on 4 rolls; in 2022, the smallest size available was 16 rolls. We

therefore imputed the price rise based on the percentage change in paper towel prices, given that simply quartering the 2022 price (16 rolls / 4 rolls) would not have given an accurate price due to buying in bulk leading to lower prices per roll.

Where prices involved subsidies, e.g. childcare and home support, we have adopted the subsidised price (i.e. after the subsidy) as recommended by the ABS, and made reasonable assumptions regarding the proportion of people subsidised. For instance, in the case of child-care, we were informed that the majority of parents received 50% to 95% of the cost of childcare (\$78 per day pre-subsidy) back in subsidies. However, the child-minding centre could not give us more than a rough estimate due to privacy issues. Therefore, in the absence of other information, we assumed that 50% of people received a 50% subsidy and the other 50% received a 95% subsidy. Child-care costs remained well above those in 2017 (\$220/per term) even after this generous allowance of the subsidy. We assumed also that the 2017 price was subsidised and determined a price per day for comparability based on a child attending 5 days per week for a 10 week term. For medical costs, as we were informed by the hospital that all patients with Medicare cards were bulk billed, we have assumed no gaps in payments, which appears to be the same assumption made in 2017.

In some cases, Norfolk Islanders may have been able to purchase certain products more cheaply online - e.g. electrical appliances, TVs, and even groceries (via Amazon and catch.com). We have not taken this into account in this exercise because of uncertainty concerning how many consumers were accessing lower prices in this way and what the prices were in this situation. The majority of prices are on-island prices - the only exception is Triumph ladies underwear, which was not available on the island and we were informed would be purchased online. Children's clothing is also not available on the island - we priced school uniforms for children in line with the Acil Allen report.

Moreover, we only collected prices in one month, March 2022. For simplicity, we have assumed that these prices would also apply in February 2022, as the quarterly data collation is for the February quarter, then May, then August, and November from 2011 onwards. We have also disregarded the May and August 2017 data collected by Acil Allen for the earlier Draft RPI due to what appear to be data measurement issues influencing the results.

It should also be noted that for the long-term historical data series, four data sources are utilised: 1) official RPI 1991-2011; (2) Acil Allen data 2011-2017; (3) 2017-2021 - backfilled data, based on the prices collated in March 2022, smoothed and annualized over the five-year period by DPP; and March 2022 - price collation on Norfolk by DPP.

## **Group 1: Food and non-alcoholic drinks**

Bread - white sliced  
Bread - wholemeal sliced  
Bread - 8 grain slice  
Cake - lamington/sponge  
Chelsea fruit bun  
Mudcake  
Scotch fingers - Arnott's  
Saos - Arnott's  
Cornflakes - Kellogg's  
Nutri Grain  
Weetbix - Sanitarium  
Muesli - Cerola  
Oats - uncle toby's quick pack  
Noodles - Maggi 2 minute range  
Pasta - san remo  
Rice long grain - sun

Rice long grain - black & gold  
Pork chops - loin  
Topside roast  
Beef mince  
Corned beef  
lamb chops - loin  
Cockerill frozen skinless chicken pieces - thigh  
Cockerill frozen skinless chicken pieces - breast  
Ham - Hans leg ham  
Bacon - deli  
Sausages - fresh  
Devon - deli sliced  
Trumpeter  
Canned salmon - Ally, pink tin  
Canned tuna - black and gold tin  
Canned smoked oysters - John West  
Milk - anchor full cream packet  
Milk UHT - anchor full cream  
Milk - condensed sweetened - Nestle  
Meadow fresh milk  
Butter - Anchor  
Camembert cheese - Kraft  
Cheese - Mainland range  
Thickened cream - Anchor  
Yoghurt - ski range  
Potatoes  
Onions  
Lettuce  
Tomatoes  
Carrots  
Cucumber  
Kumera  
Bananas  
Dried peas - Birds eye packet  
Frozen chips - Wattie's  
Frozen peas - Wattie's  
Canned sliced beetroot - Wattie's  
Canned corn - Wattie's  
Canned sliced mushroom - Edgell  
Canned fruit salad - Wattie's  
Canned pineapple - golden circle  
Dried sultanas - sanitarium  
Prunes - Angus Park  
Dried apricots - sanitarium  
Just juice carton  
Fresh Up juice  
Raro drink powder  
Coca Cola can

Cordial - Cottee range  
Ice Cream - Tip Top  
Liquorice allsorts - Pascalls range  
Marshmallows - Pascalls range  
Barley sugar - Pascall range  
Cherry ripe  
Crunchie  
Cadbury chocolate  
Eggs  
Margarine - meadow Lea  
Cooking oil - Meadow Lea  
Sugar - Chelsea polypak  
Marmalade - sweet orange Cottee  
Honey - Sanitarium  
Vegemite  
Mayonnaise - Praise  
Peanut butter - Kraft  
Soy Sauce - Kikkoman  
Tomato sauce - Wattie's tin  
Tea - Lanchoo bag  
instant coffee - Nescafe  
Milo  
Cooking stock - continental range  
Plain flour - white wings  
Plain flour - black & gold  
Self-raising flour - white wings  
Self-raising flour - black & gold  
Norfolk Blue - Rib fillet  
Norfolk Blue - Soup du Jour  
Barney Duffy's - Rib fillet  
Barney Duffy's - Soup du Jour  
Wood fire - Pizza - Medium Australian  
Chook shop - Barbequed pizza  
The Olive - BLT  
The Olive - regular flat white  
meat pie  
sausage roll  
roll chicken with salad filling  
School canteen - hotdog  
School canteen - toastie - two fillings

## **Group 2: alcohol and tobacco**

Toohey's Draught cans  
Victoria Bitter cans  
Hahn Premium Light bottles  
Houghton's White Burgundy  
Cask wine - Stanley Mozelle/Riesling  
Black Douglas Whiskey

Bundaberg Rum  
Jim Beam white label  
St Agnes Brandy  
Cigarettes - Benson and hedges 200/25's

### **Group 3: Clothing**

Bisley dress slacks  
Bisley long sleeve business shirt  
Bisley cotton work trousers  
Bisley cotton work shorts  
Bisley canvas work shorts  
Bisley short sleeve cotton work shirt  
Bisley long sleeve cotton work shirt  
Label One polo shirt  
Huski shorts range  
Hole proof casual socks  
Bonds athletic singlet  
Hole proof hero hipster underwear  
Woolmark classic cardigan  
New cover pants  
Gerry Webber t shirt  
Gerry Webber jeans  
Triumph support bra  
Triumph Hikini  
Norfolk Island Central School - navy blue polo  
Norfolk Island Central School - Sports polo  
Norfolk Island Central School - Boys grey shorts  
Norfolk Island Central School - Girls navy shorts  
Norfolk Island Central School - Blacks sports shorts  
Norfolk Island Central School - Track pants  
Norfolk Island Central School - Fleecy Jacket  
Nike air Pegasus men's senior  
Redback steel cap bobcat boots  
Reiker black leather lace-up  
Nike air Pegasus women's senior  
Reiker ladies court  
Nike air Pegasus juniors

### **Group 4: Transport**

Petrol  
Petrol  
Servicing of Vehicle - Labour  
Vehicle Repair - Labour  
Lubricating Oil, Castrol XL  
Tubeless Tyre, Dunlop - 175/70R13  
Battery, NS40Z  
Driver's License

Registration of Motor Car

#### **Group 5: Communications**

Stamps Local

Stamps Australia

Stamps New Zealand

Telephone Rental

Norfolk internet service

Overseas calls to Australia

#### **Group 6: Housing and household utilities**

Rent

Electricity

#### **Group 7: Household maintenance and contents**

Double Bed Mattress

Bath Towel

Washing Machine 750 - EV004

Chest Freezer, Westinghouse EV 301, 150 lt.

Refrigerator, EV087

Electronic Iron, Sunbeam Pro-Steam

Paint - Wattyl Solargard, Gloss White

Paint Brush, Craftsman, bristle 75mm

Bolts, 100mm x 10mm, #ZI 037

Pliers, Stanley 250mm, Multi-Grip #SW 207A

Mineral turps

Araldite

Knobs Spartan passage set

Chux superwipes, J&J regular

Laundry powder - Drive

Laundry powder - Cold power

Softener - Cuddly Ultra

Dishwashing liquid - Palmolive

Disinfectant - Pine-O-Clean

Toilet cleaner - Harpic heavy duty

Shampoo - Sunsilk, bottle

Annie's: Lipstick, Innoxa, Extra Moisture

Mascara, Innoxa

Razor Blades, Gillette

Moisturiser - Nivea

Palmolive Soap - 125gm

Tampon, Carefree Regular

Tooth Paste, Colgate's Regular, tube

Toilet Paper - Sorbent

Baby Powder, Johnson & Johnson, Bottle

Bandaid Plastic Strips, J & J. packet

Facial Tissues- Kleenex

Batteries AA - Ever ready  
Fire starters - little lucifers  
Insecticides- Mortein  
Gladwrap  
Light Bulb - black & gold 14W  
Paper Towel - Handee  
Child Minding, Banyan Park  
Hair cut - men  
Hair cut - women  
Shampoo and Set  
Permanent Wave, short hair  
Plumbing- Norfolk Plumbing & Gas  
Electrical - Middlegate  
Household Help (Care Norfolk)  
Lawn Mowing

### **Group 8: Health**

General Practitioner - basic consultation  
Specialist visit (Ophthalmologist)  
Public Ward Charges  
Optometrist - John Kelly Optometrist, Initial Consultation  
Dental Charges - basic consultation  
Panadol Tablets  
Preventative (Becotide) Inhaler, 100 microgram  
Cough Mixture - Benadryl  
Vitamin Tablets - Pluravit Multi  
Contraceptive Pills  
Band-aids - Elastoplast  
Amoxil Capsules, 250mg  
Amoxil Suspension, 125 mg  
Lasix Tabs  
Tenormin Tabs  
Ventolin Inhaler, 100 microgram

### **Group 9: Recreation and education**

Television - 46 inch Samsung LED  
Blue-ray player - LG  
Apple iPod shuffle  
TV repair  
Exercise book - GNS 64 page  
Exercise book - GNS 48 page  
Kindergarten - Year 2 workbook  
Year 3 - Year 4 workbook  
Year 5 - Year 6 workbook  
New Idea magazine  
Women's Day magazine  
Newspaper - local

Sydney Morning Herald  
Golf ball - top flight XL  
Junior rugby league registration fee  
Junior netball registration fee  
Bowls club annual subscription  
Cheryl Tennis club annual subscription  
Golf Club annual subscription  
Golf club green fees  
Dog food - chum  
Cat food - Whiskas  
Veterinary service - basic consult  
Annual show admission  
Air New Zealand - Sydney resident return airfare weighted average for quarter  
Air New Zealand - Auckland resident return airfare weighted average for quarter

#### **Group 10: Insurances**

Household insurance  
Content insurance  
Compulsory third party insurance  
Comprehensive insurance  
Norfolk Island healthcare insurance



