

# NATIONAL DIRECTORATE FOR ECONOMIC POLICY

## QUARTERLY INFLATION REVIEW

---

MARCH-JUNE 2017  
n.21

---

### EXECUTIVE SUMMARY

---

In June 2017, year-on-year (YoY) inflation in Timor-Leste was 0.8%, the fifth consecutive month that Timor-Leste has experienced positive inflation following the deflationary period in 2016. This rate is, however, below the 4%-6% target range set out in the Government's Strategic Development Plan. Quarter-on-quarter (QoQ) inflation in June 2017 was at 0.1% due to limited price movements in the first half of 2017.

Timor-Leste is continuing its exit from a deflationary environment as the international prices of oil and food begin to slowly recover; the Food and Agricultural Organization's (FAO) food price index increased by 6.9% over the last twelve months. Due to the significant weight of food and non-alcoholic beverages in the CPI basket and the high proportion of food imported into Timor-Leste every year, international food prices remain one of the key drivers of the overall CPI rate and the MOF will continue to monitor price levels.

---

### TRENDS IN INFLATION

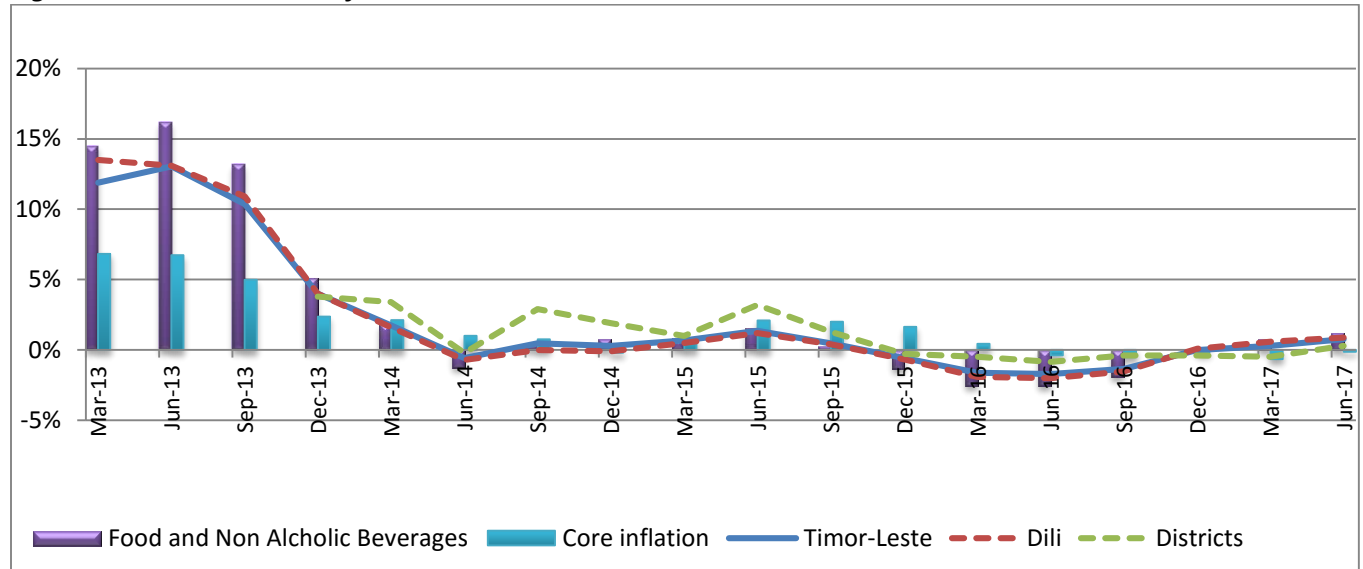
---

In June 2017 YoY inflation in Timor-Leste was 0.8%; this means that a basket of goods and services that cost \$100.00 in June 2016 will now cost \$100.80 in June 2017 – on averages, prices are slightly up compared to one year ago. YoY inflation is much higher than the deflationary rate seen in June last year at -1.7%. QoQ inflation in June 2017 was 0.1%, higher than the rate of -0.4% seen in June 2016.

Over the last few years, inflation in Timor-Leste has fluctuated widely (see Figure One). After a lengthy period of double-digit inflation between March 2011 and September 2013, inflation decreased dramatically and fell below the Government's 4%-6% target range in January 2014. By November 2015, Timor-Leste experienced deflation due to falling international oil and food prices. This episode of deflation ended with zero inflation in December 2016 and Timor is now experiencing positive but low inflation.

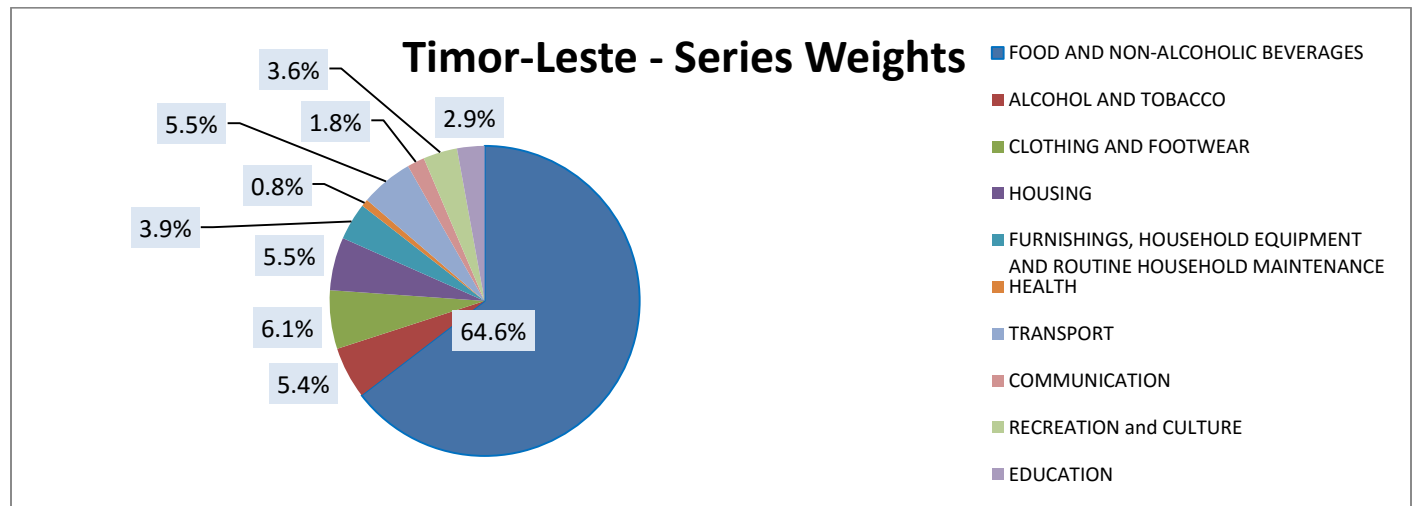
As seen in Figure Two, food and non-alcoholic beverages account for approximately 64% of Timor-Leste’s CPI basket<sup>1</sup>, as nearly two thirds of Timorese household expenditure is spent on this group. Thus price movements in this group will have a significant impact on the overall rate of inflation and the purchasing power of the Timorese citizens. YoY food and non-alcoholic beverage inflation in June 2017 was 1.2%, significantly higher than the rate of -2.5% witnessed last June and continuing its upward trend from March 2017.

**Figure One: Year-on-Year Inflation in Timor-Leste**



YoY core inflation<sup>2</sup>, which excludes the prices of particularly volatile items, food and non-alcoholic beverages, continued a downward trajectory in June 2017, falling by -0.1% on the year. Although remaining negative, core inflation is up from March 2017 (-0.6%) with housing and the price of furnishings and household equipment levelling off from a strong deflationary period.

**Figure Two: Series weights in CPI Basket, June 2017**



<sup>1</sup> Timor-Leste’s CPI basket is made up of the ten expenditure groupings seen in Figure Two.

<sup>2</sup> Calculated by the National Directorate of Economic Policy

Over the past 12 months there have been significant price changes in the following expenditure classes<sup>3</sup>:

- Food and non-alcoholic beverages (1.2%)
- Furnishing, household equipment and routine household maintenance (-1.3%)
- Communications (-1.8%)

The largest **upwards** contributions (see Figure Three) to the overall year-on-year inflation rate in June 2017 came from:

- Food and Non Alcoholic Beverages (0.80 pp (percentage points))
- Alcohol and Tobacco (0.03 pp)
- Recreation and Culture (0.03 pp)

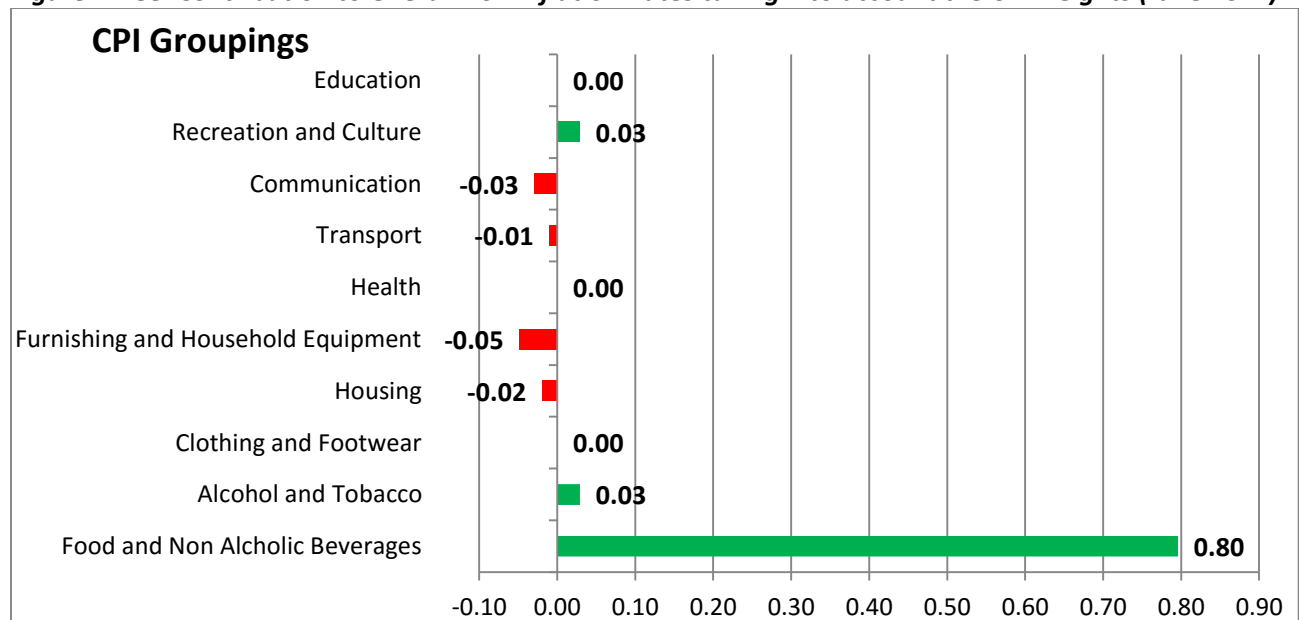
The significant annual increase in the price of food and non-alcoholic beverages is largely a consequence of rising international food prices.

The largest **deflationary** contributions (see Figure Three) to the overall year-on-year inflation rate in June 2017 came from:

- Furnishing and Household Equipment (-0.05pp)
- Communication (-0.03 pp)
- Housing (-0.02 pp)

The large decrease in the price of Furnishings and Household Equipment is largely driven by a fall in the price of goods and services for routine household maintenance (-1.3%), namely toothpaste and shampoo products.

**Figure Three: Contribution to Overall YoY Inflation Rates taking into account the CPI weights (June 2017)<sup>4</sup>**



<sup>3</sup> Expenditure classes are the sub-categories within an expenditure group in a CPI index

<sup>4</sup> See concepts and terminology section for further explanation

## CAUSES OF INFLATION<sup>5</sup>

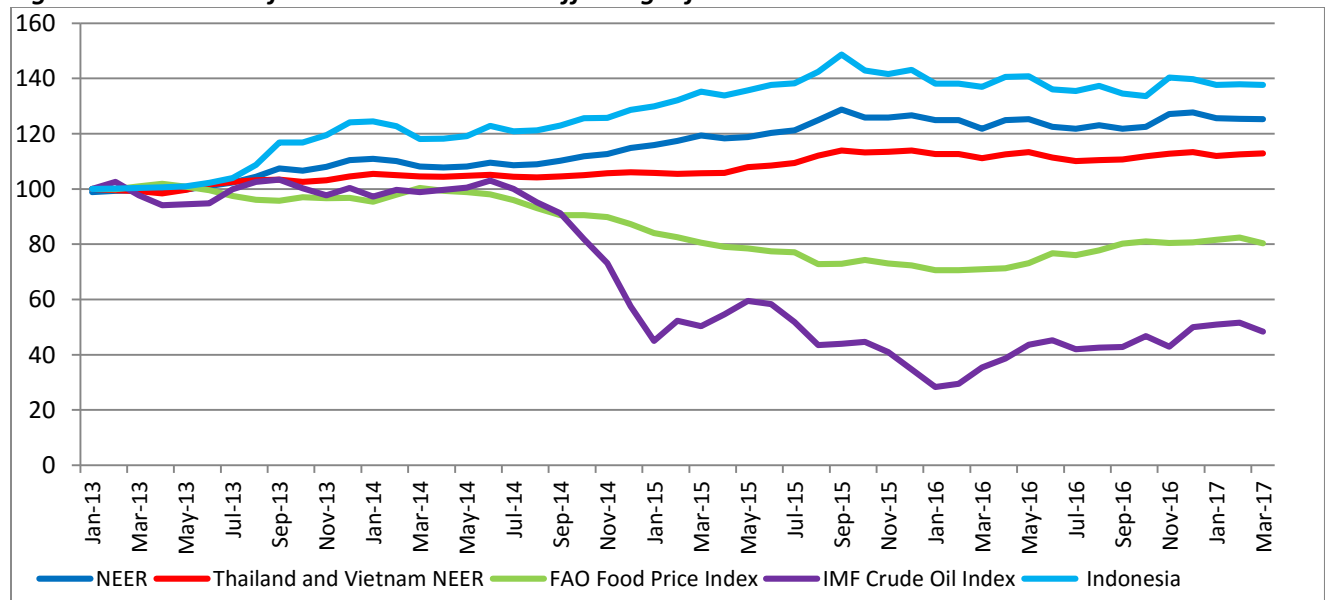
### International Factors

An appreciation (depreciation) of the US dollar against the currencies of Timor-Leste’s major trading partners will put downward (upward) pressure on the price of imports in Timor-Leste. However, the effects of exchange rate and international commodity price movements on prices in Timor-Leste are likely to be felt some time after they occur, as it takes time for the change in the price of imported goods to feed through to a change in the price of consumer goods. For this reason exchange rate movement over the March 2016 to March 2017 period is analysed.

Between March 2016 and March 2017 Timor-Leste’s nominal effective exchange rate (NEER) appreciated by 2.6%; this appears to have been driven by the 6.9% appreciation of the US dollar against the China Yuan Renminbi. Over this period the US dollar appreciated by 0.4% against a weighted Thai baht and Vietnamese dong basket. This appreciation placed downward pressure on rice prices (as these countries export large quantities of rice to Timor-Leste) and therefore inflation, as rice has a large weight in the CPI index.

Between March 2016 and March 2017, the IMF’s crude petroleum price index<sup>6</sup> increased by 36.7%, reflecting the low oil prices witnessed in March 2016 and the stable recovery in the period since. Similarly, international food prices increased substantially over the period with the Food and Agricultural Organization’s (FAO) food price index increasing by 13.8%.

**Figure Four: Indices of International Factors affecting Inflation in Timor-Leste**



<sup>5</sup> Within this section inflation refers to YoY inflation

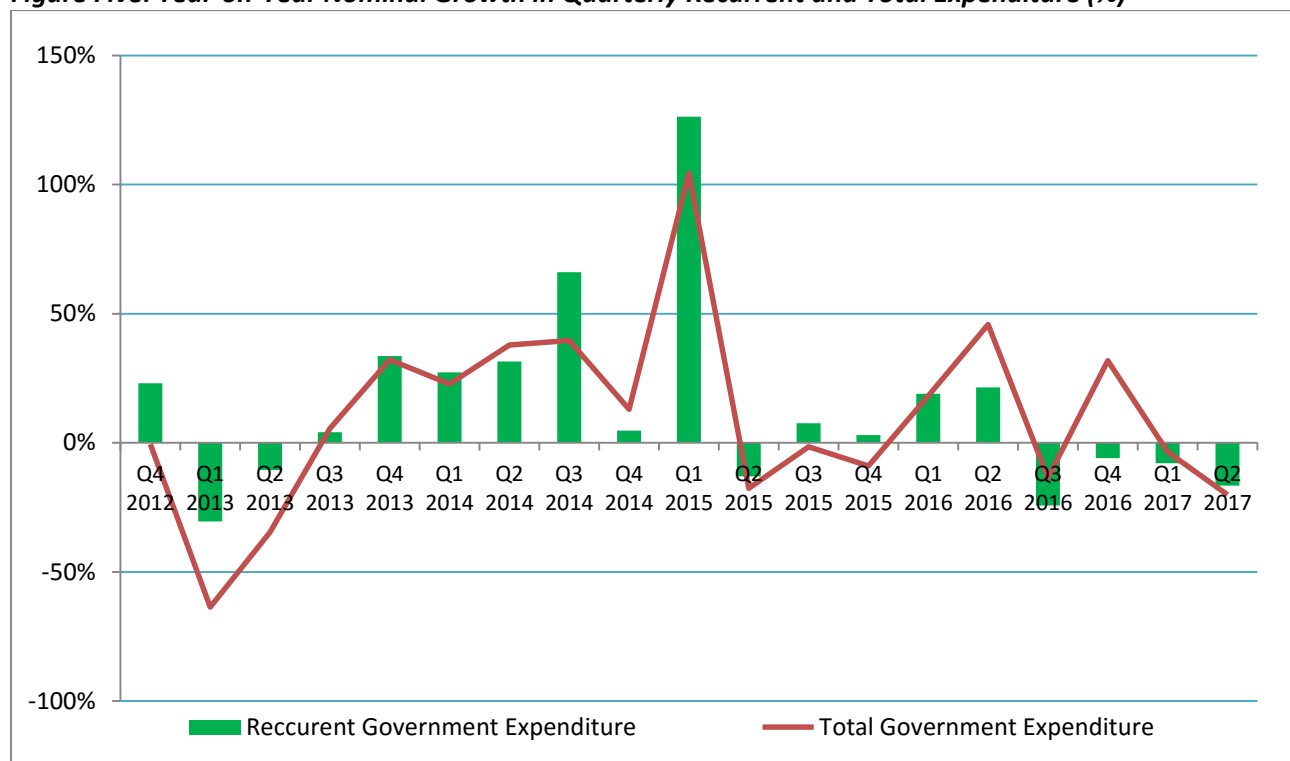
<sup>6</sup> The crude oil (petroleum) price index is a simple average of three spot prices; Dated Brent, West Texas Intermediate, and the Dubai Fateh.

## Domestic Factors

Increases in Government expenditure, particularly recurrent expenditures such as transfers and salaries & wages, can have an inflationary impact on the economy. This is currently not the case in Timor-Leste; however, this is likely the result of a combination of other factors:

- The favourable international conditions, as discussed above, may outweigh the domestic inflationary pressure coming from Government expenditure.
- Increases in government expenditure often result in an increase in imports which can mediate the inflationary impact.
- Downward inflationary pressure may be coming from other domestic factors on both the supply and demand side such as improvements in the supply side of the economy<sup>7</sup> and decreased non-Government aggregate demand.

**Figure Five: Year-on-Year Nominal Growth in Quarterly Recurrent and Total Expenditure (%)<sup>8</sup>**



The growth in the money supply of an economy is also likely to have some influence on inflation. Taking the average change in money supply across the year<sup>9</sup>, an 18.3% increase was witnessed. This may have impacted upon inflation.

<sup>7</sup> The amount of money that can be spent in an economy before inflation begins to increase

<sup>8</sup> This measures the year-on-year growth in quarterly nominal expenditure, i.e. the growth rate in Q3 2016 measure the change between nominal expenditure in Q3 2015 and Q3 2016.

<sup>9</sup> Taking average money supply for the last 12 months and compare to average money supply in the previous 12 months.

---

## CONSEQUENCES OF INFLATION

---

Inflation will cause households' purchasing power to fall, if increases in household income are lower than the increases in inflation. This situation is more likely to occur in a high inflation environment. Inflation which reduces consumers' purchasing power can reduce living standards and may increase poverty. Thus the recent negative inflation seen in Timor-Leste and the now low inflation level is consistent with the Government's poverty reduction strategy.

---

## INFLATION OUTLOOK

---

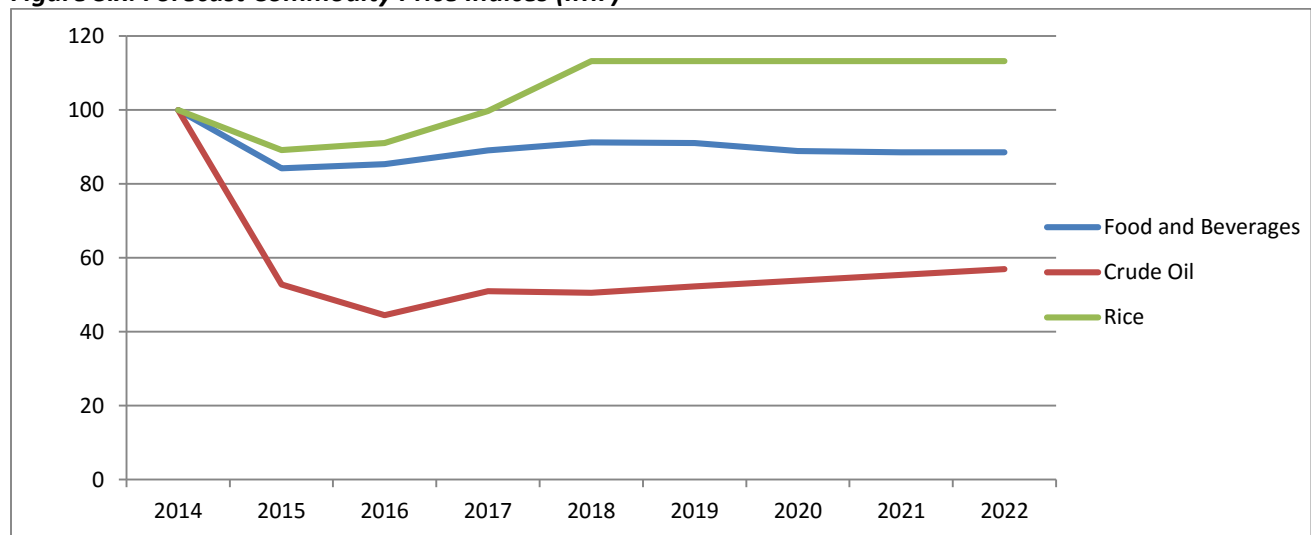
YoY inflation is likely to remain below the SDP target range (4%-6%) in the near term. The following factors are likely to have an impact on future rates of inflation in Timor-Leste:

**International commodity prices:** between March 2017 and June 2017, international food prices increased slightly (2.1%) and the price of crude oil also decreased by -9.4%. As changes in commodity prices have a lagged effect on inflation in Timor-Leste, these price changes may impact inflation in Q3 2017. Given the weight of food and oil in TL's CPI basket, it is likely that price movements in these commodities will have a strong effect on the average price level. In the medium to long-term, while still low, the IMF have revised their commodity price forecast<sup>10</sup> upwards; this is expected to place upward pressure on inflation, in line with current trends.

**International exchange rates:** between March 2017 and June 2017 Timor-Leste's NEER depreciated by -0.8%. This puts some upward pressure on inflation by increasing the cost of imported goods and services.

**Government expenditure:** the increase in Government expenditure over the last four quarters will result in increased inflationary pressure, the extent to which this will result in higher inflation depends on the impact of other factors and the economy's absorptive capacity.

**Figure Six: Forecast Commodity Price Indices (IMF)**



<sup>10</sup> Primary Commodity Prices, IMF (<http://www.imf.org/external/np/res/commod/index.aspx>)

---

## ANNEX 1: CONCEPTS AND TERMINOLOGY

---

**Consumer price inflation** the rate at which the prices of goods and services bought by households increase or decrease.

**The Consumer Price Index (CPI)**<sup>11</sup> is used to measure consumer price inflation. To understand CPI think of a large basket containing the goods and services bought by households, the CPI estimates the change to the total cost of the basket on a monthly basis.

**Year-on-year (YoY) inflation** is the most commonly used measure and is calculated by comparing the price index from a given period with the same month in the previous year. For example, the year-on-year inflation in March 2017 measures the percentage change in prices between June 2016 and June 2017.

**Quarter-on-quarter inflation (QoQ)** is calculated by comparing the price index from the last month of a given quarter (March, June, September or December) with the last month of the previous quarter<sup>12</sup>. Thus quarter-on-quarter inflation in June 2017 measures the percentage change in prices between March 2017 and June 2017.

**Month-on-month inflation (MoM)** is calculated by comparing the price index from the latest month to the previous month. Thus the month-on-month inflation in June 2017 measures the percentage change in prices between May 2017 and June 2017.

**Contribution to inflation rate** measures the contribution to the overall rate of inflation of a grouping of goods and services, a groups contribution to the overall rate of inflation is determined by its growth rate and weight within the series<sup>13</sup>.

**Nominal effective exchange rate (NEER)** is the weighted average value of a country's currency relative to the currencies of its major trading partners.

**Core inflation** is a measure of inflation which excludes certain items that face volatile price movements. Core inflation eliminates products<sup>14</sup> that can have temporary price shocks because these shocks can cause a divergence from the overall trend in inflation giving a false measure of inflation.

**Purchasing Power** measures the quantity of goods and services which can be purchased with a unit of currency. All else being equal inflation decreases the amount of goods and services a consumer is able to purchase with their monthly salary.

Timor-Leste's Consumer Price Index is published monthly by General Directorate of Statistics (MoF)<sup>15</sup>. This index is divided into 10 specific groups representing specific sets of commodities such as food and non-alcoholic beverages, housing and transport. In addition, separate consumer price indices are compiled for both Dili and the districts.

---

<sup>11</sup> The CPI is a weighted index meaning that the influence on the CPI index of a given item is dependent on the item's share in total household consumption.

<sup>12</sup> In this publication

<sup>13</sup> The contributions of each grouping will sum to give the overall rate of inflation

<sup>14</sup> The core inflation index in Timor-Leste excludes all food and non-alcoholic beverage items

<sup>15</sup> See for latest CPI data from the General Directorate of Statistics (<http://www.statistics.gov.tl/category/survey-indicators/consumer-price-index/?lang=en>)

---

## ANNEX 2: NOTES

---

This bulletin is produced by the National Directorate for Economic Policy, Ministry of Finance, on a quarterly basis, in both English and Tetum. Please refer any queries to the below contacts:

1. Epifanio Martins, *Director of NDEP*  
Email: [epmartins@mof.gov.tl](mailto:epmartins@mof.gov.tl)
2. Nelio Francisco B.S. Mesquita, *Analyst*  
Email: [nmesquita@mof.gov.tl](mailto:nmesquita@mof.gov.tl)
3. Dayna Connolly, *Macroeconomist*  
Email: [djconnolly@mof.gov.tl](mailto:djconnolly@mof.gov.tl)