

NATIONAL DIRECTORATE FOR ECONOMIC POLICY

QUARTERLY INFLATION REVIEW

SEPTEMBER-DECEMBER 2017

n.23

EXECUTIVE SUMMARY

In December 2017, year-on-year (YoY) inflation in Timor-Leste was 0.8%, the eleventh consecutive month that Timor-Leste has experienced positive inflation following the deflationary period in 2016. This rate is below the 4%-6% target range set out in the Government's Strategic Development Plan. Quarter-on-quarter (QoQ) inflation in December was 1.1%, an increase on September due to higher food prices in the quarter.

Timor-Leste still enjoys a low level of inflation. 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 MPF will continue to monitor price levels. The Food and Agricultural Organization's (FAO) food price index decreased by -0.3% in a year, which will place downwards pressure on inflation in Timor-Leste. Domestic food prices rose in December on the back of previous food price rises to September 2017, though these remained muted at +0.8% and it appears current world food markets will again provide lower prices in the near future.

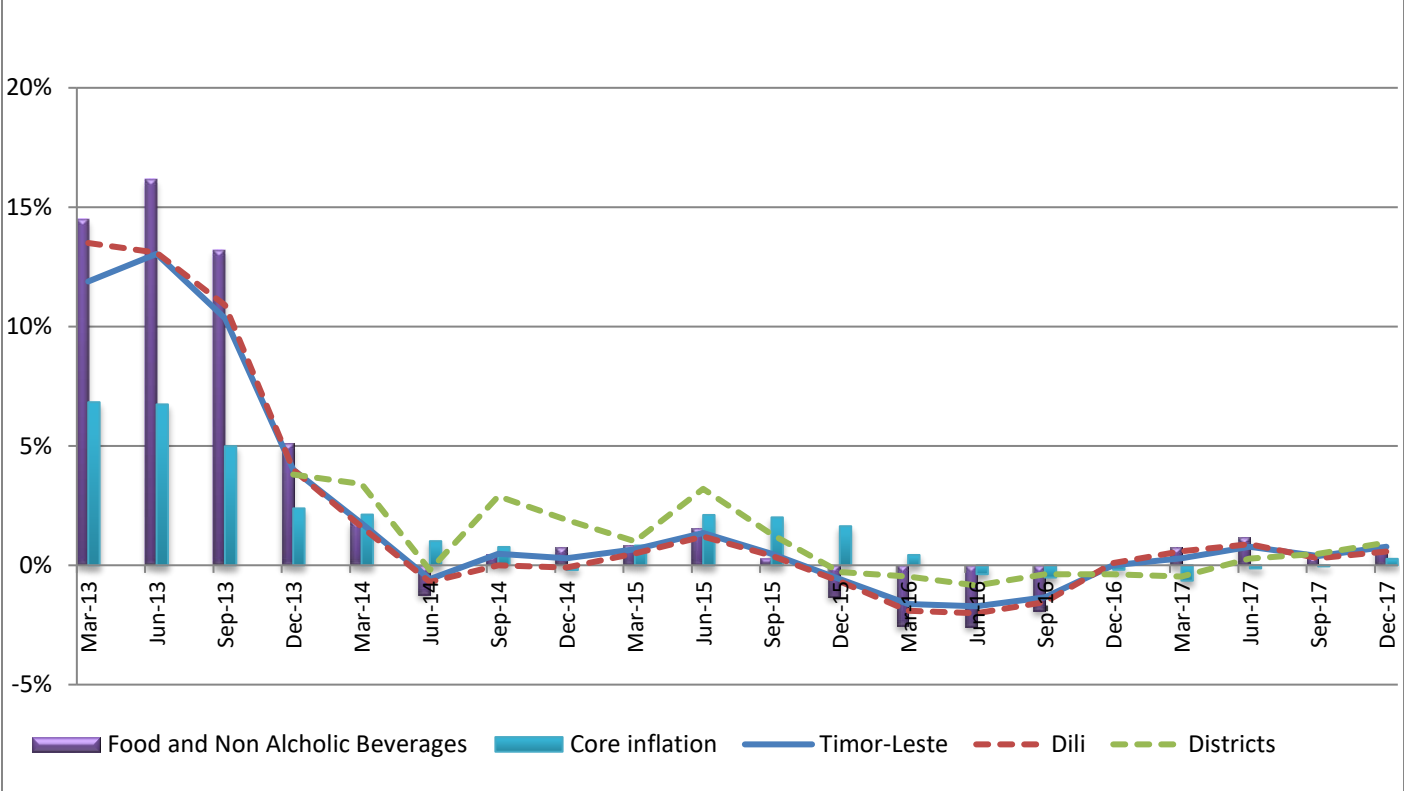
TRENDS IN INFLATION

In December 2017 YoY inflation in Timor-Leste was 0.8%; this means that a basket of goods and services that cost \$100.00 in December 2016 will now cost \$100.80 in December 2017 – on averages, prices are slightly up compared to one year ago. YoY inflation is higher than the deflationary rate seen in December last year at 0.0%. QoQ inflation in December 2017 was 1.1%, reflecting lower food prices over the last quarter.

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 basket¹, 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 December 2017 was 0.8%, higher than the rate of 0.0% witnessed last December and continuing its stable positive trend during 2017.

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

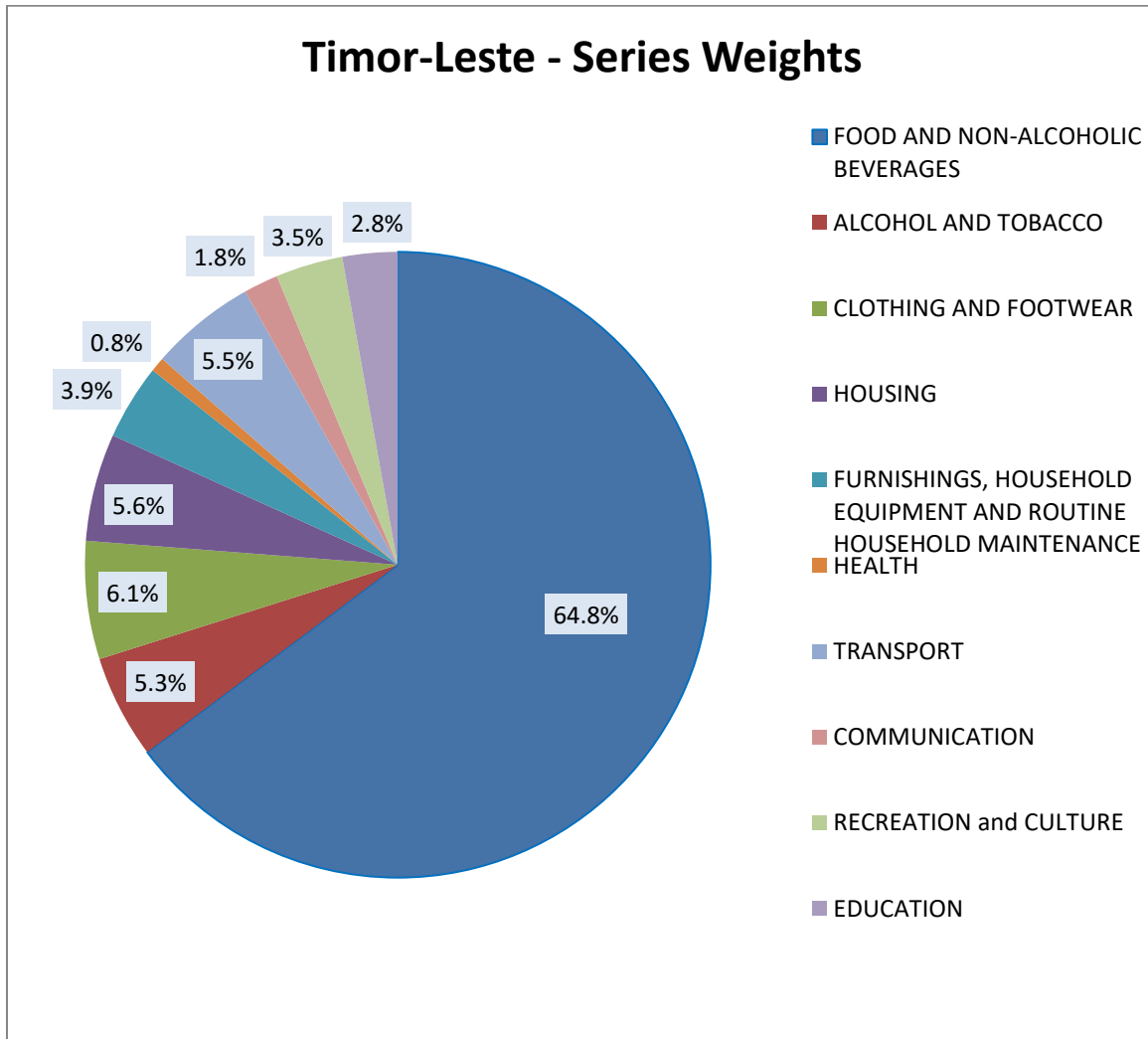


YoY core inflation², which excludes the prices of particularly volatile items, food and non-alcoholic beverages, remains steady in December 2017, at 0.3% on the year. Core-inflation is up from September 2017 (when it was -0.0%) with housing (+0.8%) and the price of furnishings and household equipment (+1.9%) continuing an upward trend.

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

² Calculated by the National Directorate of Economic Policy

Figure Two: Series weights in CPI Basket, December 2017



Over the past 12 months there have been significant price changes in the following expenditure classes³:

- Recreation and Culture (-1.1%)
- Furnishings, Household Equipment and Routine Household Maintenance (1.9%)

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

- Food and Non Alcoholic Beverages (0.51 pp (percentage points))
- Furnishings, Household Equipment and Routine Household Maintenance (0.07 pp)

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

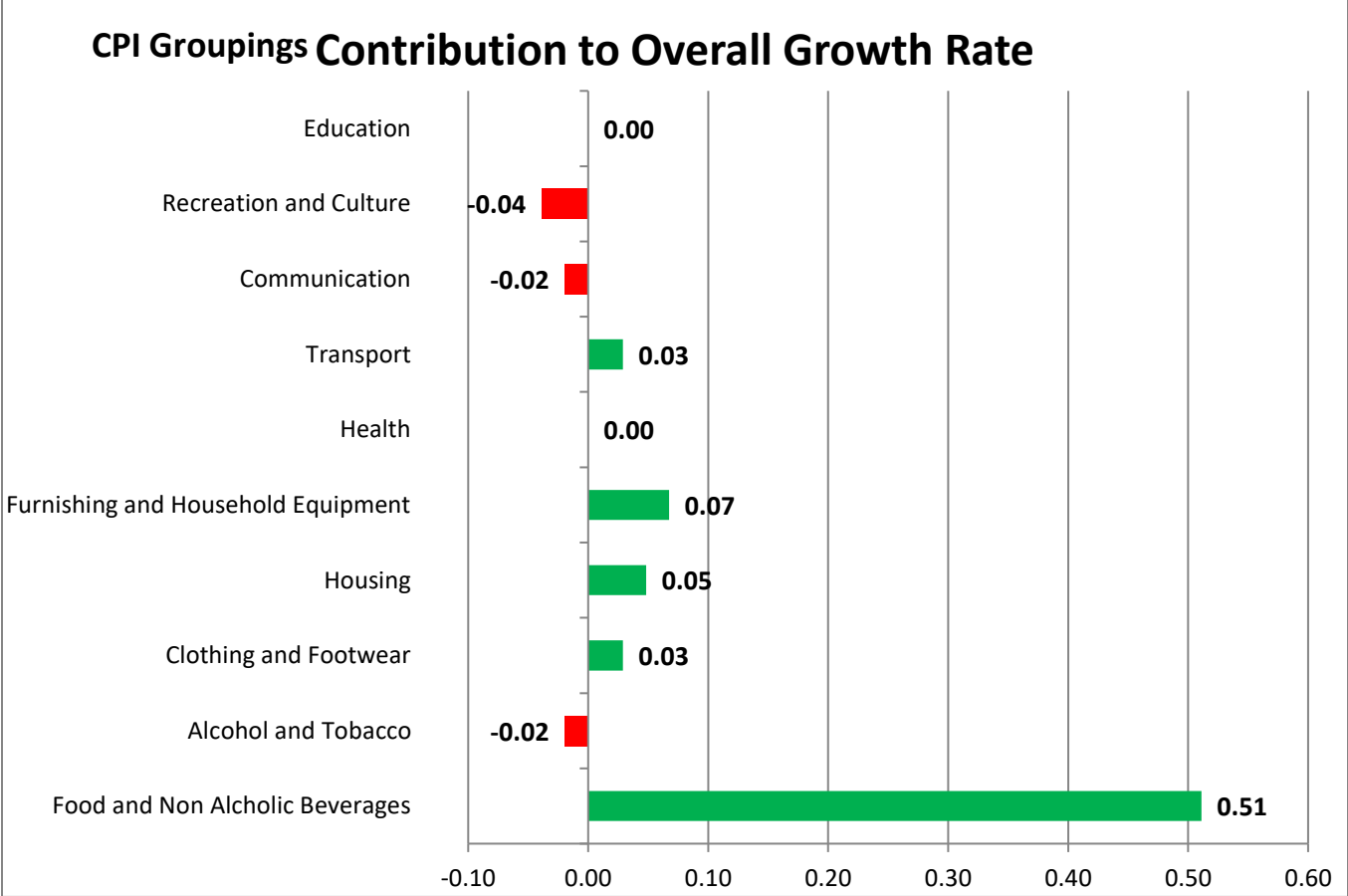
The annual increase in the price of food and non-alcoholic beverages is driven by increases in rice, dairy, and oils and fats.

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

- Communication (-0.02pp)
- Recreation and Culture (-0.04 pp)
- Alcohol and Tobacco (-0.02)

The decrease in Communication continues to be driven by competition between telecommunication companies (-0.9%).

Figure Three: Contribution to Overall YoY Inflation Rates taking into account the CPI weights (December 2017)⁴



⁴ See concepts and terminology section for further explanation

CAUSES OF INFLATION⁵

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 September 2016 to September 2017 period is analysed.

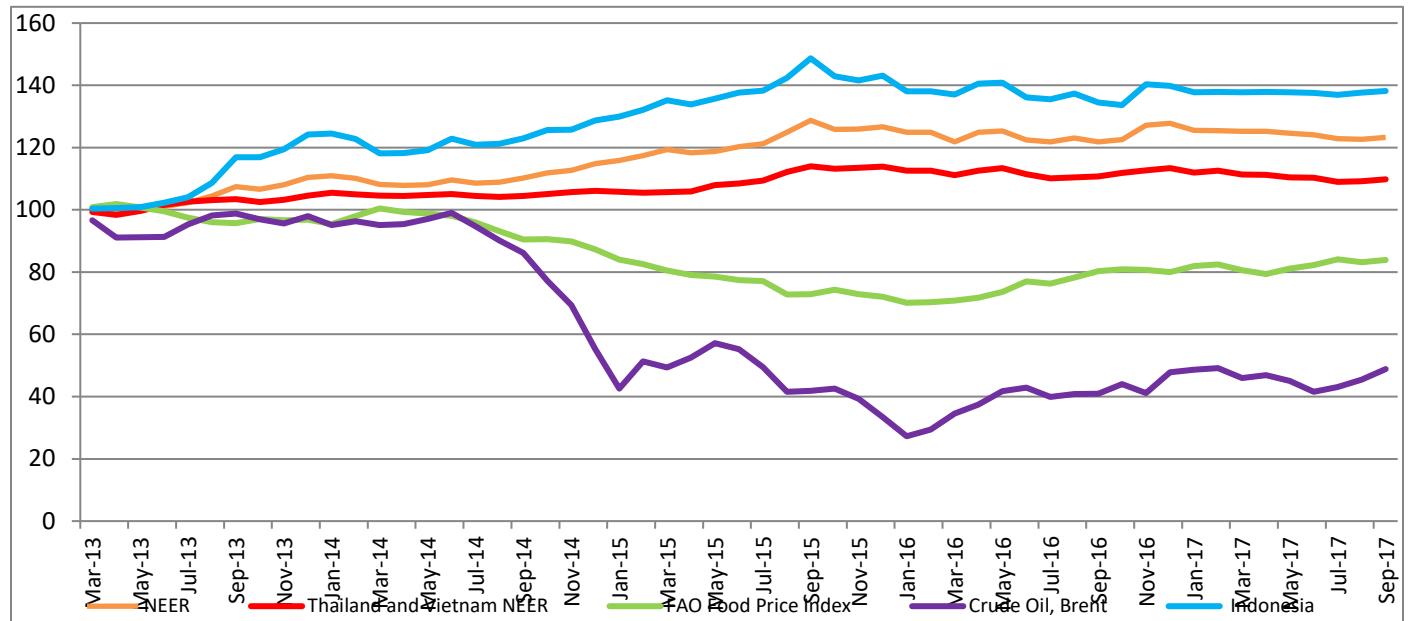
Between September 2016 and September 2017 Timor-Leste's nominal effective exchange rate (NEER) appreciated by 1.2%; this appears to have been driven by the 2.7% appreciation of the US dollar against the Indonesia IDR, with appreciation against the Japanese Yen (11.1%) also important. Over this period the US dollar depreciated by -0.6% against a weighted Thai baht and Vietnamese dong basket. This depreciation placed upward 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 September 2016 and September 2017, crude oil (Brent)⁶ increased by 19%, reflecting the low oil prices witnessed in September 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 4.5%.

⁵ Within this section inflation refers to YoY inflation

⁶ World Bank Pink Sheet, updated 03 October 2017

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

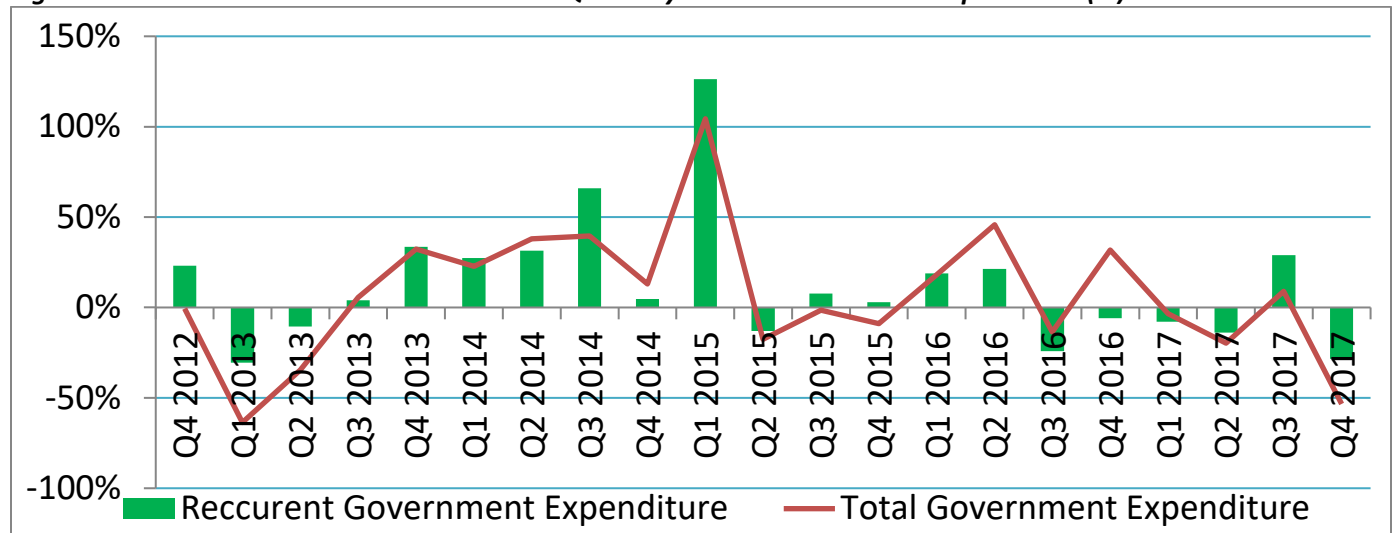


Domestic Factors

The increases in government spending during 2014 and 2015 have been broadly sustained up to 2017 (see figure five), though the last quarter saw expenditure fall relative to 2016. Such 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 and decreased non-Government aggregate demand

Figure Five: Year-on-Year Nominal Growth in Quarterly Recurrent and Total Expenditure (%)⁷



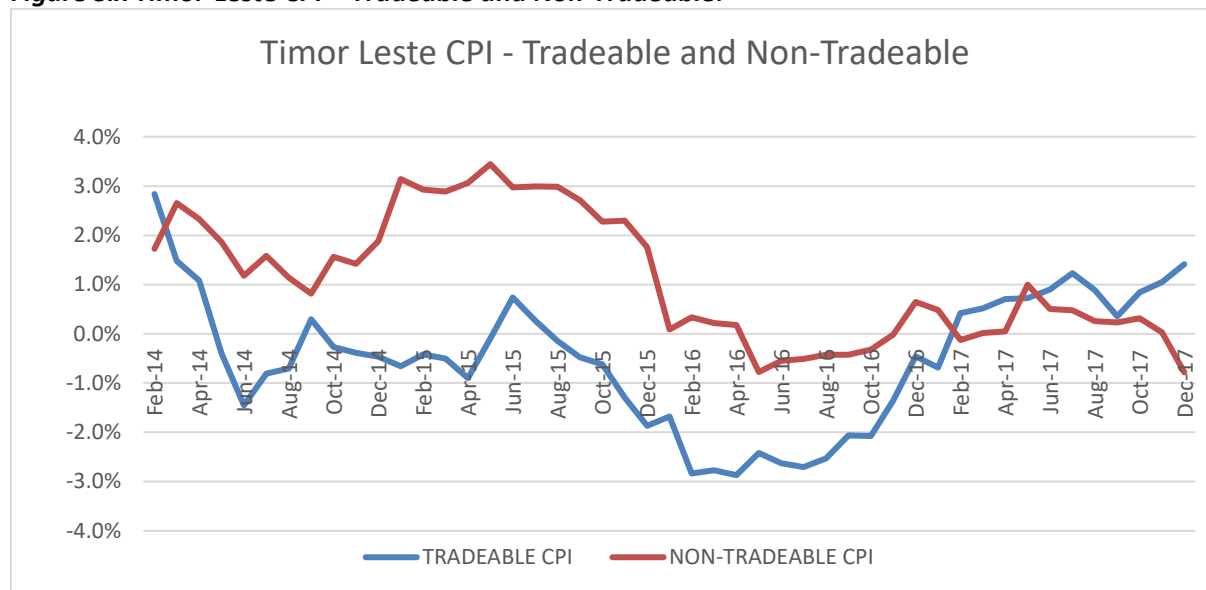
The growth in the money supply of an economy is also likely to have some influence on inflation. Taking the average change in money supply across the year⁸, a 17.6% increase was witnessed. This may have impacted upon inflation.

Tradeable and non-tradeable

It is now possible to split out the inflation time series from January 2014 into tradeable and non-tradeable components.⁹ Tradeable goods and services refer to those whose prices are largely determined on the world market, and all other goods and services are non-tradeable. This enables splitting out the inflationary (or deflationary) pressures coming from international or domestic sources. Chart six below shows that the deflationary period during 2016 was driven by the falling price of tradeable goods and services, at a time when non-tradeable prices remained stable. During 2017, both types of prices have remained low and positive except for December 2017, when non-tradeable index became negative (-0.8%). It is too early to see whether this deflationary pressure will be sustained.

⁷ This measures the year-on-year growth in quarterly nominal expenditure, i.e. the growth rate in Q3 2017measure the change between nominal expenditure in Q3 2016and Q3 2017.
⁸ Taking average money supply for the last 12 months and compare to average money supply in the previous 12 months.
⁹ Consumer Price Index Timor-Leste, December 2017

Figure Six Timor-Leste CPI – Tradeable and Non-Tradeable:



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 current 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 but with a small increase on current rates. The following factors are likely to have an impact on future rates of inflation in Timor-Leste:

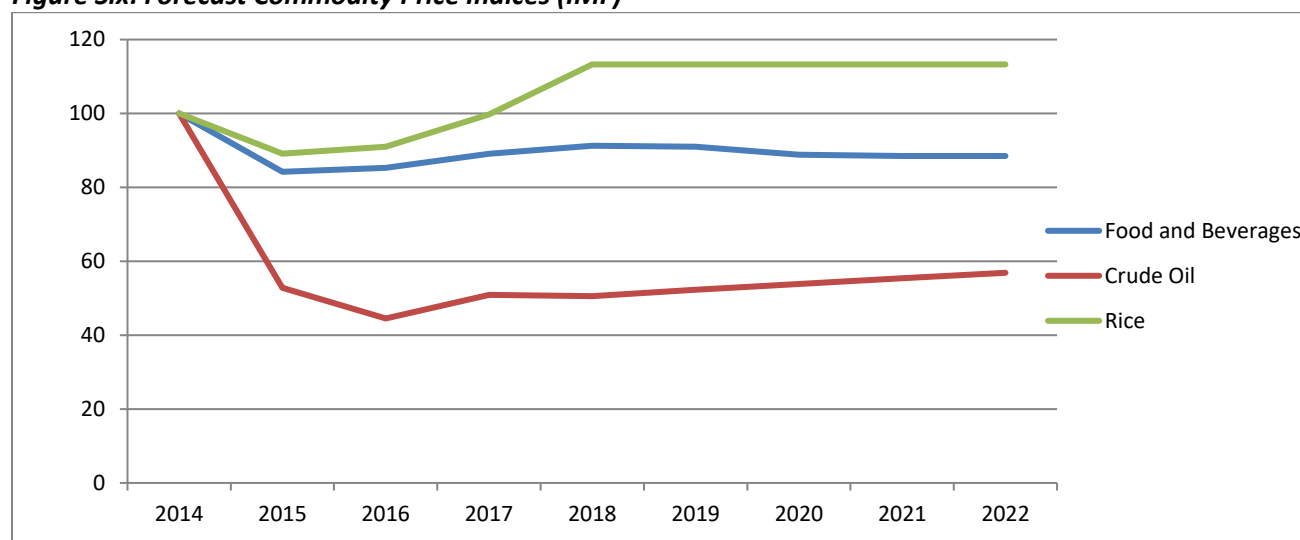
International commodity prices: between September 2017 and December 2017, international food prices decreased (-4.9%) and the price of crude oil increased by 16%. As changes in commodity prices have a lagged effect on inflation in Timor-Leste, these price changes may impact inflation in Q1 2018. Given the weight of food and oil in TL’s CPI basket, it is likely that price movements in these commodities will have strong but offsetting effects on the average price level. In the medium to long-term, the World Bank nominal commodity price forecasts show energy and non-energy prices rising¹⁰; this is expected to place upward pressure on inflation, in line with current trends.

¹⁰ Commodity Markets Outlook, World Bank (<http://www.worldbank.org/en/research/commodity-markets>)

International exchange rates: between September 2017 and December 2017 Timor-Leste’s NEER depreciated by -0.2%, and the Vietnamese dong and Thai baht weighted basket depreciated -1.0%. This puts some upwards pressure on inflation by increasing the cost of imported goods and services, especially rice.

Government expenditure: the decline in Government expenditure in 2017, and especially in the last quarter, will result in reduced inflationary pressure. The extent to which this will result in lower inflation depends on the impact of other factors and the economy’s absorptive capacity.

Figure Six: Forecast Commodity Price Indices (IMF)



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)¹¹ 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 December 2017 measures the percentage change in prices between December 2016 and December 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 quarter¹². Thus quarter-on-quarter inflation in September 2017 measures the percentage change in prices between September 2017 and December 2017.

¹¹ 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.

¹² In this publication

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 December 2017 measures the percentage change in prices between November 2017 and December 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 series¹³.

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 products¹⁴ 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 (MPF)¹⁵. 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.

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:

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¹³ The contributions of each grouping will sum to give the overall rate of inflation

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

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