

NATIONAL DIRECTORATE FOR ECONOMIC POLICY

QUARTERLY INFLATION REVIEW

SEPTEMBER-DECEMBER 2019

n.31

EXECUTIVE SUMMARY

In December 2019, year-on-year (YoY) inflation in Timor-Leste was 0.3%, meaning that Timor-Leste has experienced positive inflation for over three years following the deflationary period in 2016. This rate has remained below the 4%-6% target range set out in the Government's Strategic Development Plan. Quarter-on-quarter (QoQ) inflation in December was 0.0%, a 0.1pp decrease on the September 2019 QoQ rate.

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 MoF continues to monitor price levels. The World Bank (WB) food price index increased 7% year on year in December. This moderates earlier downward swings in food prices. Domestic food prices rose in December, though these remained muted at 0.2% and it is expected that the current world food markets will continue to provide an upward impact on prices in the near future. Notably, there was a 9.0% increase in education costs in Timor-Leste throughout 2019, though this is lower than the 16.6% increase in 2018.

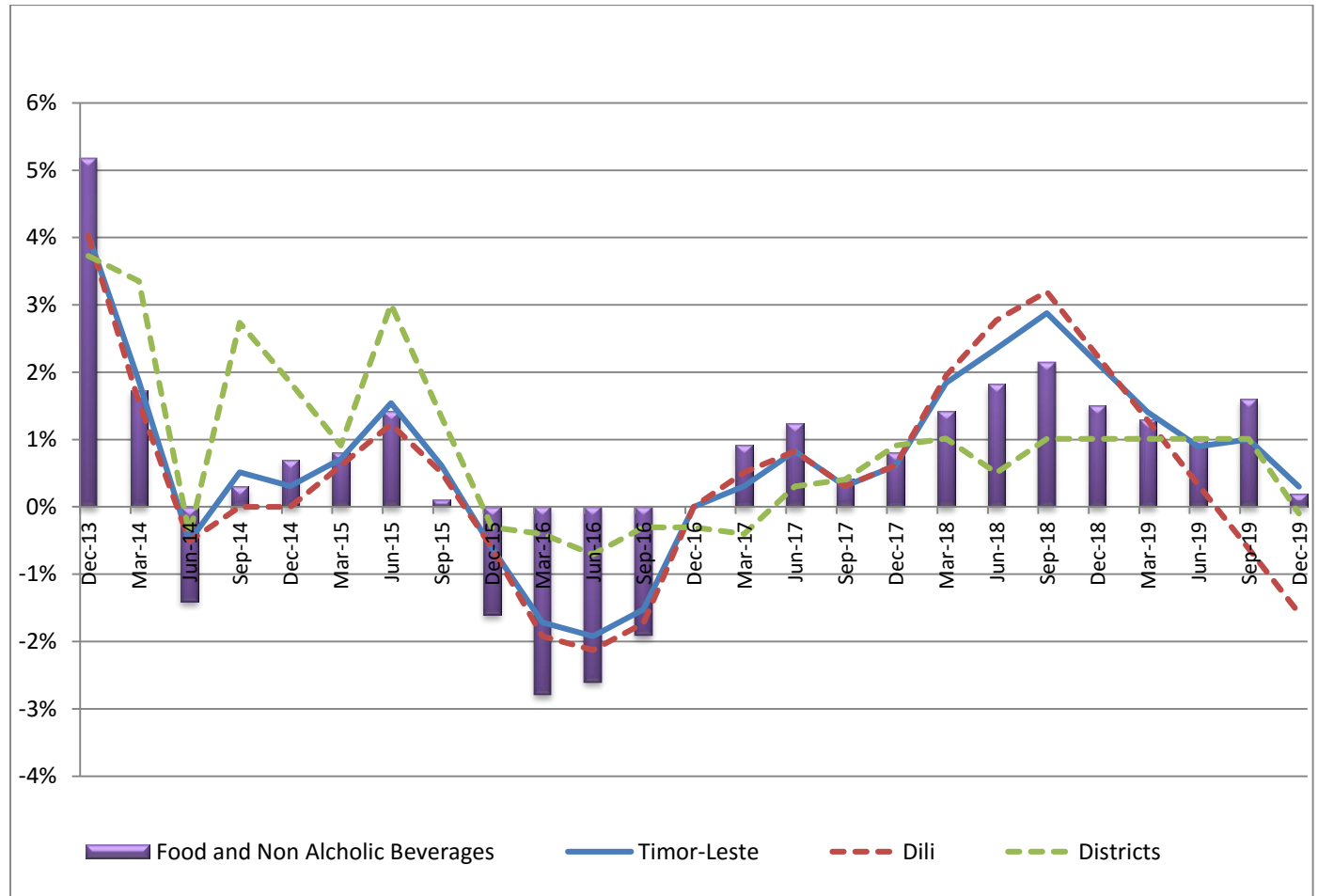
TRENDS IN INFLATION

In December 2019 YoY inflation in Timor-Leste was 0.3%; this means that a basket of goods and services that cost \$100.00 in December 2018 will now cost \$100.30 in December 2019— on average, prices are very slightly up compared to one year ago. YoY inflation is lower than the rate seen in December last year of 2.1%. QoQ inflation in December 2019 was 0.0%.

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 percent inflation in December 2016 and Timor is now experiencing positive but low inflation.

YoY core inflation¹, which excludes the prices of particularly volatile items eg food and non-alcoholic beverages and transport, in December 2019 was 0.3%. Core-inflation is down from September 2019 (when it was 0.5%) with education (+9.0%) and Alcohol and Tobacco (+0.9%) increasing noticeably.

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



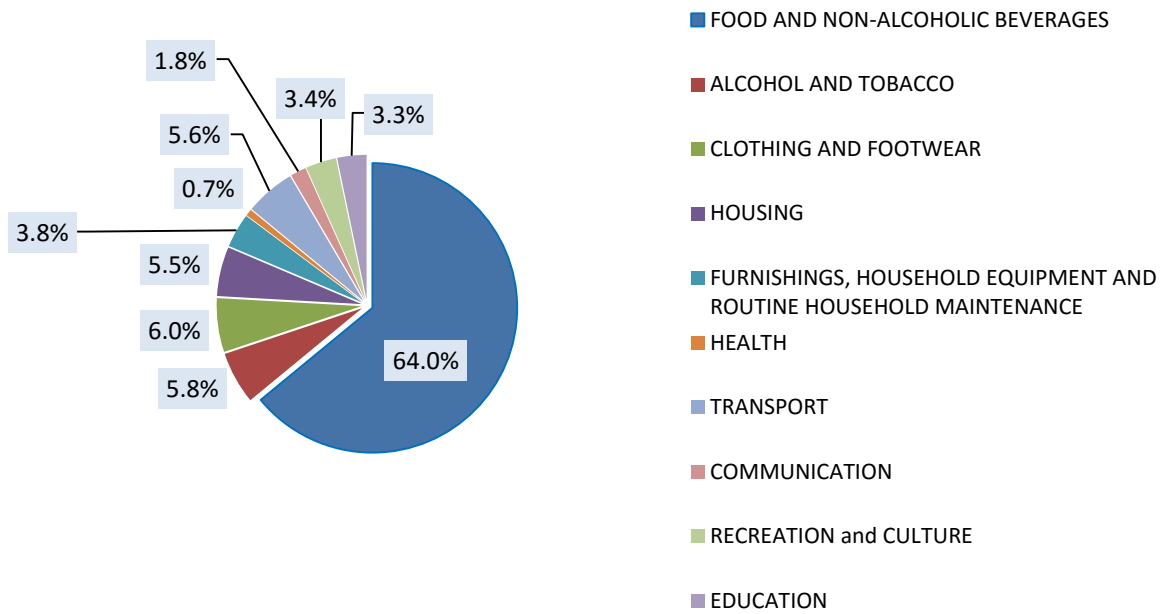
The CPI inflation series has been re-weighted as of September 2018, entering its third series. Figure Two shows the two weighted baskets. Notably, food and non-alcoholic beverages have fallen from approximately 64% to 56% of Timor-Leste’s CPI basket². Food and non-alcoholic beverages still make up the most important part of the basket, as more than half 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 2019 was 0.2%, lower than the rate of 1.5% witnessed last December.

Figure Two: Series weights in CPI Basket, 2nd and 3rd series (these represent different weightings of categories)

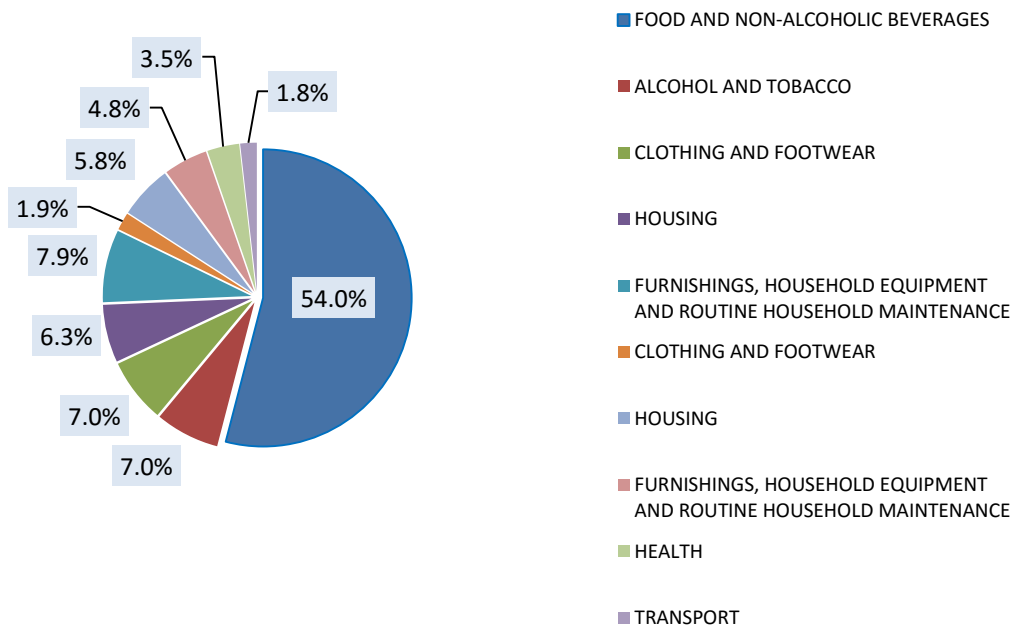
¹ Calculated by the National Directorate of Economic Policy

² Timor-Leste’s CPI basket is made up of the ten expenditure groupings seen in Figure Two.

Timor-Leste - 2nd Series Weights



Timor-Leste - 3rd Series Weights



Over the 12 months from Dec 2018 to Dec 2019 there have been significant price changes in the following

spending classes³:

- Education (9.0%)
- Communication (-1.1%)

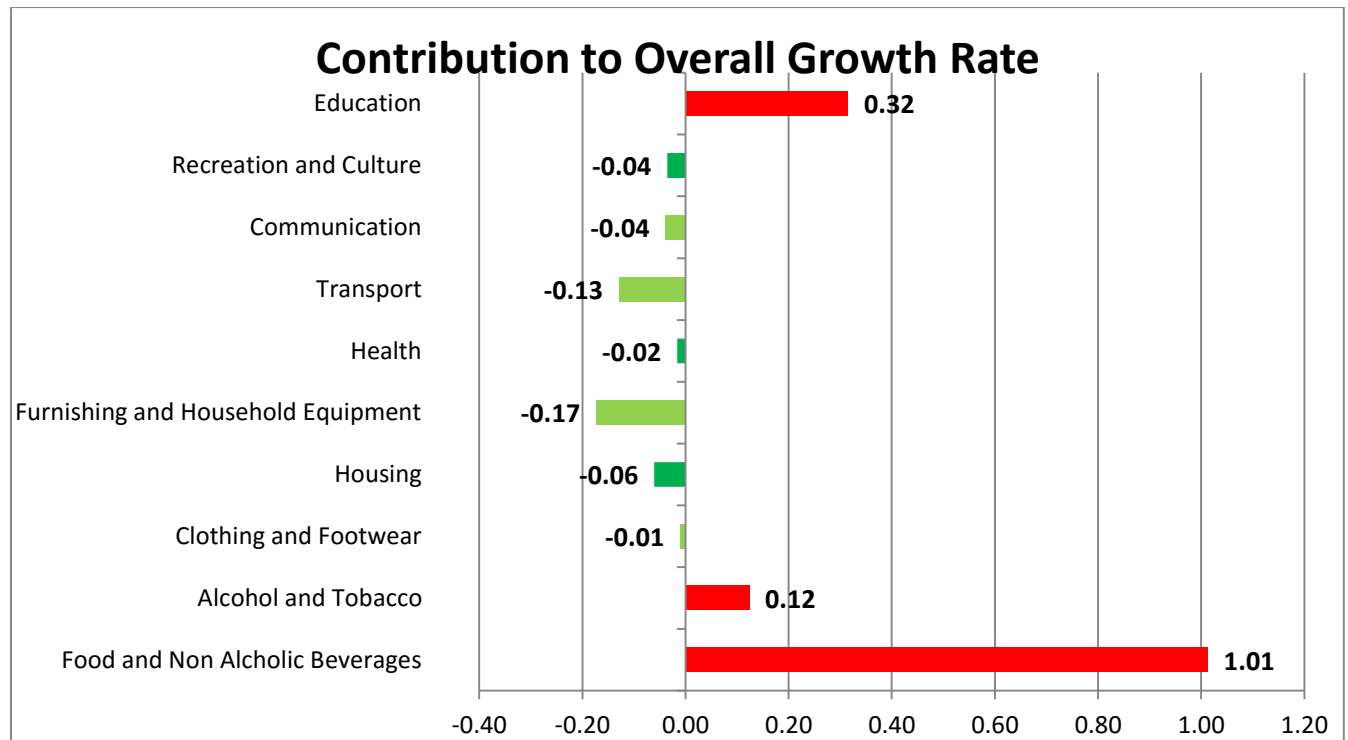
Bearing this in mind, the largest **upwards** contributions, based on weighting, (see Figure Three) to the overall year-on-year inflation rate in December 2019 came from:

- Food and Alcoholic Beverages (1.01pp (percentage points))
- Education (0.32pp)
- Alcohol and Tobacco (0.12pp)

The biggest **downwards** contributions, based on weighting, (see Figure Three) to the overall year-on-year inflation rate in December 2019 came from:

- Furnishing and Household Equipment (-0.17pp)
- Transport (-0.13pp)

Figure Three: Contribution to Overall YoY Inflation Rates taking into account the CPI weights (December 2019)⁴



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

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 December 2018 to December 2019 period is analysed. The effective exchange rate is the exchange rate of a country's currency, measured as the weighted sum of the exchange rates with its commercial partners. The nominal effective exchange rate (NEER) is an unadjusted weighted average rate at which one country's currency exchanges for a basket of multiple foreign currencies. The real effective exchange rate (REER) is adjusted for the effects of inflation.

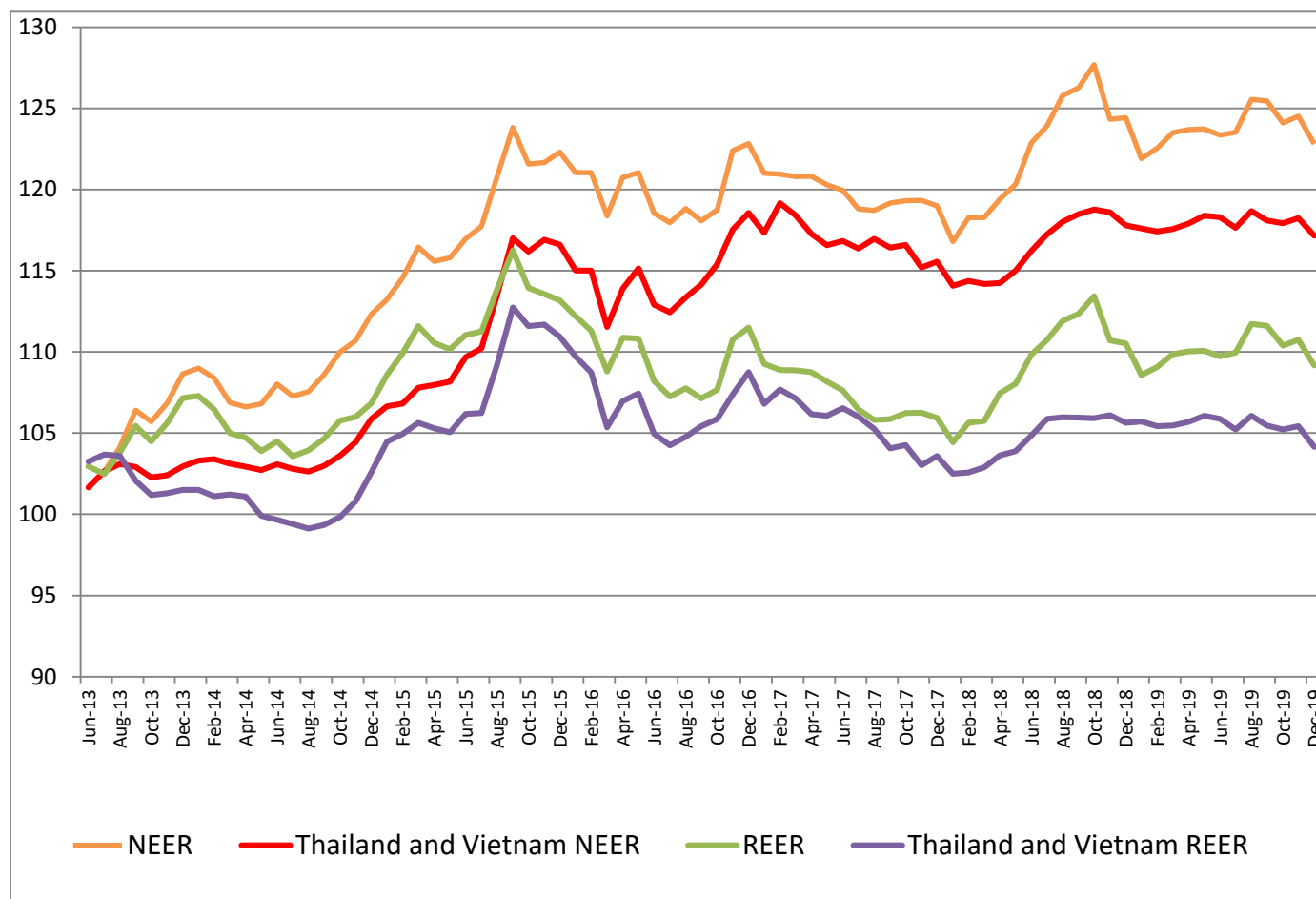
Between December 2018 and December 2019 Timor-Leste's nominal effective exchange rate (NEER) depreciated by -1.3%; this appears to have been driven by the depreciation of the US dollar against the Indonesia Rupiah (-4.0%) but impact was lessened by an appreciation against the Korean won (3.7%) and Australian dollar (0.6%). Over this period the US dollar (NEER) also depreciated by -0.5% against a weighted Thai baht and Vietnamese dong basket. This slight depreciation placed some upwards pressure on rice prices (as Thailand and Vietnam export large quantities of rice to Timor-Leste) and therefore inflation, as rice has a large weight in the CPI index. Between December 2018 and December 2019 Timor-Leste's real effective exchange rate (REER) depreciated -1.2%. Over this period the US dollar (REER) also depreciated by -1.4% against a weighted Thai baht and Vietnamese dong basket.

Between December 2018 and December 2019, crude oil (Brent)⁶ decreased by -17%. International food prices have generally been rising recently, and the World Bank (WB) food price index increased 7% for the month December 2018 to December 2019.

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

⁵ Within this section inflation refers to YoY inflation

⁶ World Bank Pink Sheet, updated October 2019

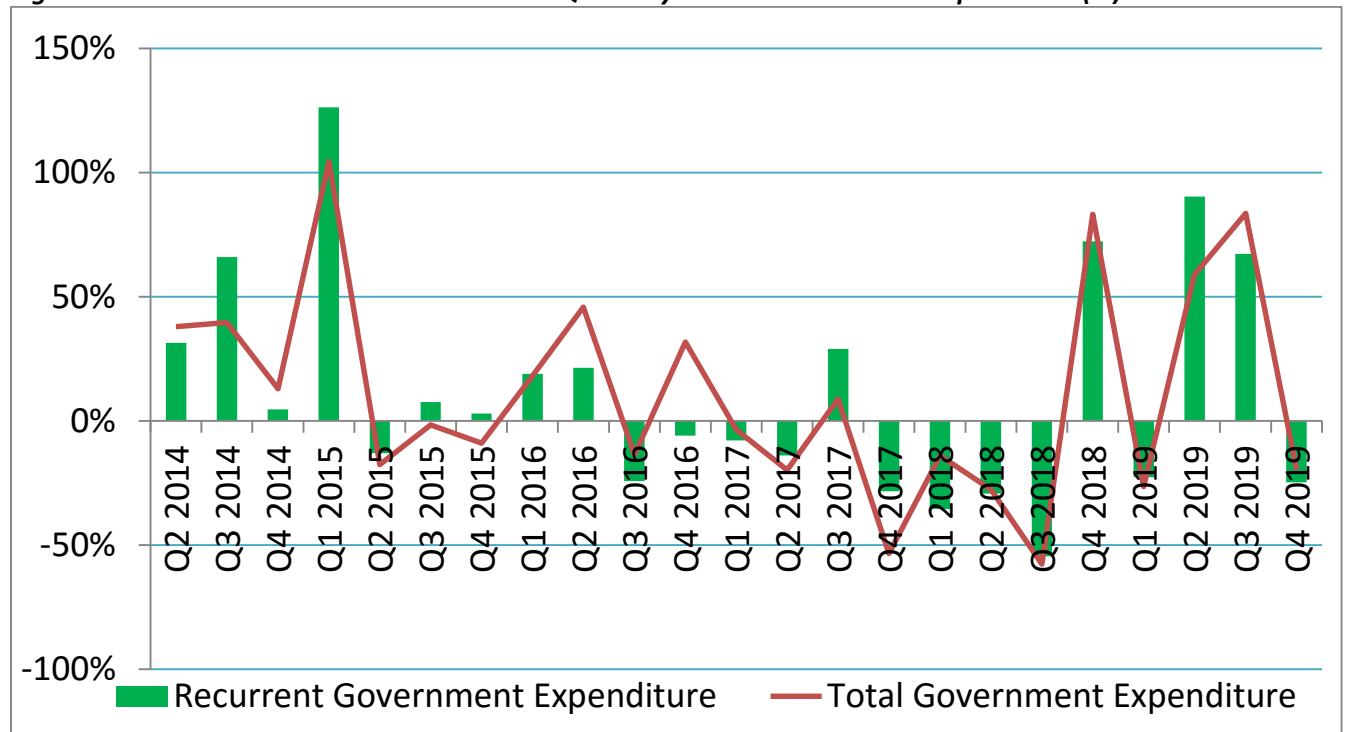


Domestic Factors

The increase in government spending during 2014 and 2015 were broadly sustained up to mid-2017, when year on year public spending fell (see figure five). This fall in government spending continued in 2018 until the last quarter, when there was a large upswing in spending. In 2019, year on year government expenditure increased in Q2 and Q3 but was negative in Q1 and Q4. A rise in government expenditure, particularly recurrent expenditures such as transfers and salaries & wages, can have an inflationary impact on the economy, however this is currently not the case in Timor-Leste. The current situation of low inflation in Timor Leste is likely the result of a combination of other factors:

- The international conditions, such as falling oil prices, as discussed above, may outweigh the domestic inflationary pressure coming from higher Government expenditure.
- Increases in government expenditure often results in an increase in imports which can mediate the inflationary impact.
- Other domestic factors such as changes to the supply side of the economy or non-Government aggregate demand may also have different impacts on inflation to changes in expenditure.

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 year to December 2019⁸, a -4.5% decrease was witnessed. This may have impacted upon inflation.

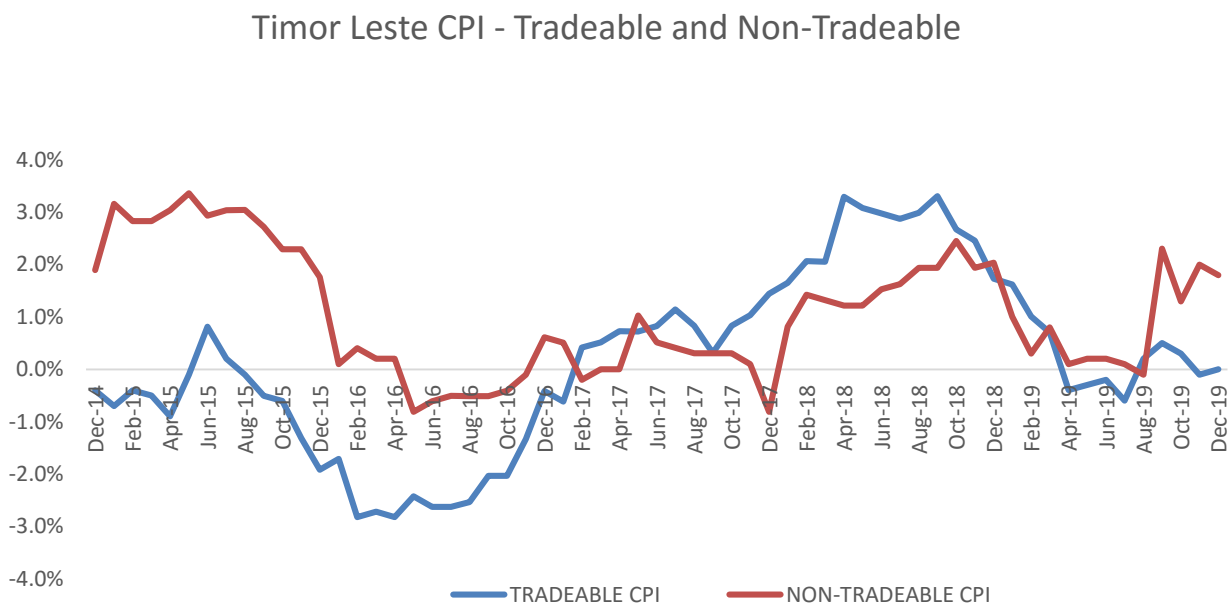
Tradable and non-tradable

Tradable goods and services refer to those whose prices are largely determined on the world market, and all other goods and services are non-tradable. 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 tradable goods and services, at a time when non-tradable prices remained stable. Since 2017 both types of prices have remained low and positive, tracking each other, except for a recent divergence in October 2019. The reduction in inflation at the end of 2019 is from a combination of tradable and non-tradable price movements. The recent reduction in inflation between September and December 2019 was largely due to tradable price movements which remained lower than non-tradable items.

⁷ This measures the year-on-year growth in quarterly nominal expenditure, i.e. the growth rate in Q1 2018 measures the change between nominal expenditure in Q1 2018 and Q1 2019.

⁸ Taking the average change in money supply for the last 12 months compared to the previous 12 months.

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



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 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:

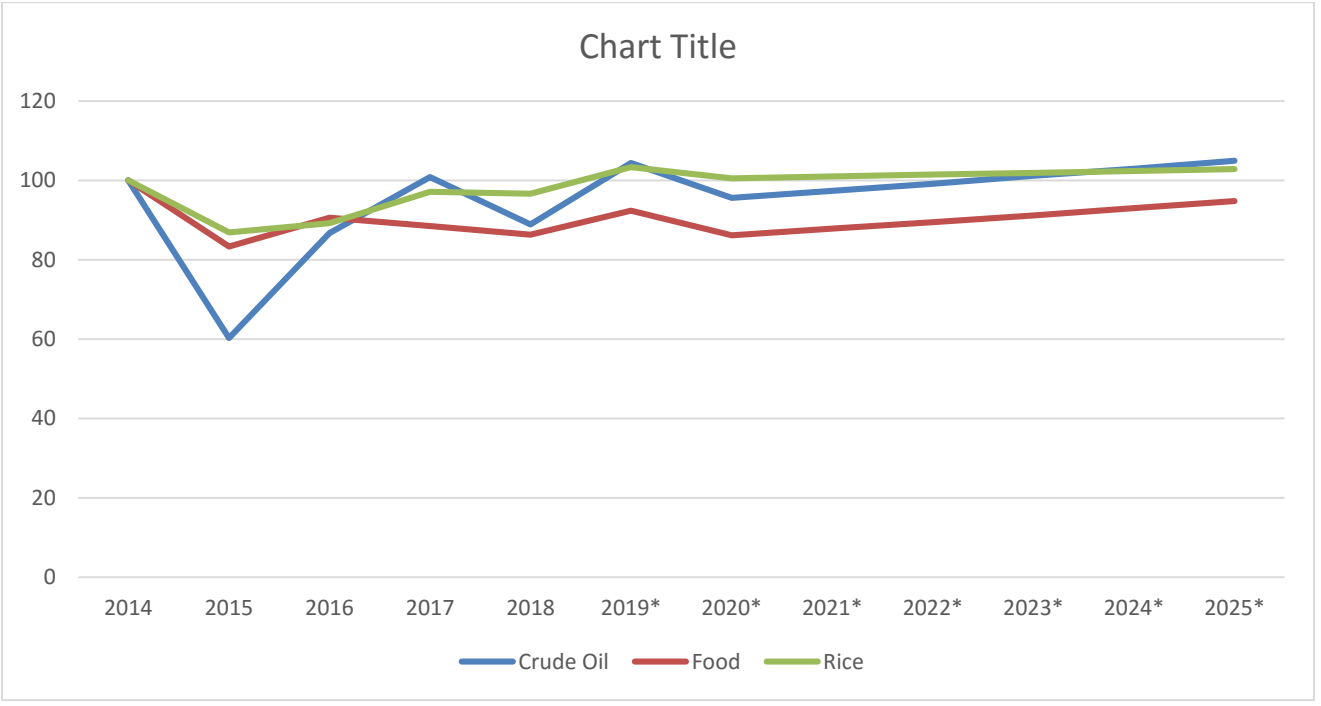
International commodity prices: between September 2019 and December 2019, international food prices increased (-9%) and between September 2019 and December 2019 the price of crude oil increased (5.5%). As changes in commodity prices have a lagged effect on inflation in Timor-Leste, these price changes may impact inflation in Q1 2020.. In the medium to long-term, the World Bank nominal commodity price forecasts show energy and food prices rising moderately⁹; this is expected to place some upward pressure on inflation, in the future.

⁹ Commodity Markets Outlook, World Bank October 2019 (<http://www.worldbank.org/en/research/commodity-markets>)

International exchange rates: between September 2019 and December 2019 Timor-Leste’s NEER depreciated - 2.1%, and the Vietnamese dong and Thai baht weighted basket depreciated--.8%. Overall these changes put only very mild impacts on inflation.

Government expenditure: The extent to which increased Government expenditure will result in higher inflation depends on the amount of imports linked to government spending and the economy’s absorptive capacity. The increase in Government expenditure in 2019 is unlikely to result in inflationary pressure due to inflation in Timor Leste being more impacted by world food prices as mentioned earlier.

Figure Seven: Commodity Price Indices, World Bank (*denotes forecast)



ANNEX 1: CONCEPTS AND TERMINOLOGY

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

The Consumer Price Index (CPI)¹⁰ 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 2019 measures the percentage change in prices between December 2018 and December 2019.

¹⁰ 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.

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. Thus quarter-on-quarter inflation in December 2019 measures the percentage change in prices between September 2019 and December 2019.

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 September 2019 measures the percentage change in prices between November 2019 and December 2019.

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 series¹¹.

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 products¹² 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)¹³. 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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¹¹ The contributions of each grouping will sum to give the overall rate of inflation

¹² The core inflation index in Timor-Leste excludes all food and non-alcoholic beverage items

¹³ See for latest CPI data from the General Directorate of Statistics (<http://www.statistics.gov.tl/category/survey-indicators/consumer-price-index/?lang=en>)