## CONTENTS





**PORT MORESBY**
23rd August 2018

## 1. GENERAL OVERVIEW

Economic indicators available to the Bank of Papua New Guinea (the Bank) point to a decline in economic activity in the March quarter of 2018, mainly due to the temporary shutdown of the Liquefied Natural Gas (LNG) production facilities and two major mines, following the 7.5 magnitude earthquake in February 2018. Economic activity in the non-mineral private sector was subdued in the quarter despite improvement in private sector lending and prices of some export commodities, and higher Government expenditure. The loss of LNG and gold production resulted in lower export values and led to a lower trade surplus in the quarter. During the quarter, the kina depreciated against all major currencies, resulting in the Trade Weighted Index (TWI) declining by 3.7 percent from 30.0 to 28.9. The price increase and effect of the depreciation of the kina was more than offset by declines in prices of seasonal items, resulting in the easing of quarterly headline inflation to 1.0 percent in the March quarter of 2018, from 1.3 percent in the previous quarter. On an annual basis, headline inflation eased to 4.5 percent in March quarter, compared to 6.0 percent in the March quarter of 2017. In consideration of the downward trend in annual headline inflation from a quarterly average of 6.7 percent in 2016 to a quarterly average of 5.4 percent in 2017, and the Bank's expectation of headline inflation to be around 5.0 percent in 2018, the Bank maintained a neutral monetary policy stance by keeping the Kina Facility Rate (KFR), at 6.25 percent throughout the first quarter of 2018.

Data from the Bank's Business Liaison Survey (BLS) show that the total nominal value of sales in the formal private sector increased by 5.6 percent in the December quarter of 2017, compared to a decline of 1.1 percent in the September quarter of 2017. Excluding the mineral sector, sales increased by 6.5 percent in the December quarter, compared to a decline of 4.9 percent in the previous quarter. By sector, sales increased in all sectors. By region, sales increased in all the regions except the Southern region, which excludes the NCD. Over the year to December 2017, total sales declined by 10.9 percent, compared to an increase of 30.9 percent in the corresponding period of 2016. Excluding the mineral sector, sales declined by 5.1 percent, compared to an increase of 25.1 percent in the corresponding period of 2016.

The Bank's Employment Index shows that the level of employment in the formal private sector increased by 0.3 percent in the March quarter of 2018, compared to a decline of 2.3 percent in the December quarter of 2017. Excluding mineral sector, the level of employment increased by 0.2 percent. By sector, the level of employment increased in the wholesale, agriculture/forestry/fishery, mineral, construction and financial/business and other services sectors, while it declined in the manufacturing, transportation and retail sectors. By region, the level of employment increased in all regions, except Morobe and NCD. Over the year to March 2018, total employment declined by 4.6 percent, compared to an increase of 0.1 percent in the corresponding period of 2017. Excluding the mineral sector, employment declined by 5.5 percent over the year to March 2018, compared to a decline of 0.4 percent in the corresponding period of 2017.

Quarterly headline inflation, as measured by the Consumer Price Index (CPI), increased by 1.0 percent in the March quarter of 2018, compared to an increase of 1.3 percent in the December quarter of 2017. There were price increases for all expenditure groups, except for the 'Alcoholic Beverages, Tobacco and Betelnut' expenditure group, which recorded a decline. By urban centre, prices increased in all the surveyed centres. Annual headline inflation was 4.5 percent over the year to March 2018, compared to 4.7 percent over the year to December 2017.

During the March quarter of 2018, the daily average kina exchange rate depreciated against all the major currencies. It depreciated against the euro by 6.1 percent to ú0.2513, pound sterling by 5.3 percent to £0.2218, yen by 4.7 percent to ¥33.4613, Australian dollar by 3.0 percent to A$0.3928 and the US dollar by 0.8 percent to US$0.3088.

The weighted average kina price of Papua New Guinea's exports, excluding LNG, increased by 17.4 percent in the March quarter of 2018, compared to the corresponding quarter of 2017. There was an increase of 22.2 percent in the weighted average kina price of mineral exports. For agricultural, logs and marine product exports, the weighted average kina price increased by 1.8 percent, due to higher kina prices for logs and marine products. Excluding logs, the weighted average kina price of agricultural and marine product exports increased by 1.4 percent in the March quarter of 2018, compared to the corresponding quarter of 2017. The higher kina export price reflected improvements in international commodity prices, combined with the price effect of the depreciation of the kina against the US dollar.

The balance of payments recorded an overall deficit of K177 million in the March quarter of 2018, compared to a surplus of K369 million in the corresponding period of 2017. A deficit in the capital and financial account more than offset a surplus in the current account.

The current account recorded a higher surplus of K4,397 million in the quarter, compared to K4,316 million in the corresponding quarter of 2017. This was due to a higher trade surplus and transfer receipts, combined with lower service and income payments.

The capital and financial account had a higher deficit of K4,574 million in the quarter, compared to K3,945 million in the corresponding quarter of 2017. The outcome was due to net outflows in portfolio and other short-term money market investments, and a build-up in offshore foreign currency account balances of mineral companies. This more than offset net inflows from direct investments reflecting intercompany financing of resident entities.

The level of gross foreign exchange reserves at the end of March 2018 was K5,397.5 (US$1,686.7) million, sufficient to cover 5.1 months of total and 8.9 months of non-mineral imports.

The downward trend in headline inflation was mainly due to lower prices for betelnut and fruit and vegetables. However, underlying inflation measures have been slowly trending upwards since September 2016. Considering the inflation outcomes and improvement in some key macroeconomic indicators, the Bank of Papua New Guinea adopted a cautious approach and maintained a neutral stance of policy by keeping the KFR at 6.25 percent during the March quarter of 2018.

The Bank utilised its Open Market Operation (OMO) instruments in the conduct of monetary policy to manage liquidity, which continued to be high and unevenly distributed in the banking system. There was a net issuance of K112.2 million in Central Bank Bills (CBB) by Bank of PNG, while the Government issued a net of K73.2 million in Treasury bills and retired K112.5 million in Treasury bonds during the quarter. The Cash Reserve Requirement (CRR) on commercial banks' total deposits and prescribed liabilities was maintained at 10.0 percent.

The average level of broad money supply (M3*) increased by 0.1 percent in the March quarter of 2018, compared to a decline of 1.8 percent in the December quarter of 2017. This outcome was due to an increase in average net domestic credit mainly reflecting a turnaround in credit to the private sector. These more than offset a decline in credit to the Central Government and net foreign assets (NFA) of the banking system. The average net domestic claims outstanding, excluding net claims on the Central Government, increased by 1.6 percent in the quarter, compared to an increase of 0.3 percent in the previous quarter.

The NFA of the financial corporations, comprising Depository Corporations (DCs) and Other Financial Corporations (OFCs), decreased by 4.0 percent to K6,975.6 million in the March quarter of 2018, compared to a decrease of 3.4 percent in the previous quarter. The decrease in DCs was from both the Central Bank and Other Depository Corporations (ODCs). The decline at the Central Bank reflected interventions in the foreign exchange market and external debt repayments during the period. For ODCs the decline reflected an increase in liabilities to non-residents while for OFCs it reflected a decline in claims on non-residents.

Net claims on the Central Government by financial corporations declined by K118.3 million to K13,033.2 million in the March quarter of 2018, compared to an increase of K37.3 million in the previous quarter. This reflected a net retirement of Government securities, both Treasury bills and Treasury bonds by ODCs and OFCs.

In the March quarter of 2018, total domestic credit extended by financial corporations to the private sector, public non-financial corporations and 'Provincial and Local level Governments' increased by K296.2 million to K16,966.9 million, compared to an increase of K168.2 million in the previous quarter. This was influenced by increases of K202.5 million to the private sector and K93.6 million to public non-financial corporations. The increase in credit to the private sector was mainly by ODCs to the 'hotels and restaurants', 'retail', and 'building and construction' sectors, as well as the household sector for housing and personal loans.

Preliminary estimates of the fiscal operations of the National Government over the three months to March 2018 show a deficit of K282.4 million, compared to the deficit of K39.9 million in the corresponding period of 2017. This represents 0.4 percent of nominal Gross

Domestic Product (GDP).

Total revenue, including foreign grants, in the March quarter of 2018 was K2,404.8 million, 18.5 percent higher than in the corresponding quarter of 2017 and represents 18.9 percent of the 2018 budgeted amount. The increase reflects higher tax and non-tax receipts. Total expenditure for the quarter was K2,687.2 million, 29.9 percent higher than in the corresponding period of 2017 and represents 18.3 percent of the 2018 budgeted amount. This was driven by significantly high recurrent expenditure, which was partially offset by a decline of 3.6 percent in development expenditure.

The deficit of K282.4 million was financed mainly from domestic sources of K1,411.8 million, more than offsetting net repayments to external sources of K1,129.4 million. Net domestic financing was mainly from other resident sectors totalling K1,608.0 million, which comprises a net purchase of Government securities by the public and Central Bank and unpresented cheques from the previous year. These more than offset net retirement of Government securities by ODCs and OFCs of K123.2 million and K264.6 million, respectively. Net external repayments comprised K773.4 million and K346.9 million to concessional and commercial sources, respectively and K9.1 million to extraordinary sources.

Total public (Government) debt outstanding as at March 2018 was K23,480.9 million, a decline of K77.3 million from December 2017, with decreases in both the external and domestic debt levels. The decline in domestic and external debt reflected net retirement of Government securities, and net repayments on both concessional and commercial loans, respectively.

The total amount of Government deposits at depository corporations decreased by K281.9 million to K1,902.3 million in March 2018, compared to December 2017.

## 2. INTERNATIONAL DEVELOPMENTS

World economic activity continued to expand during the first quarter of 2018, driven mainly by the advanced and emerging market economies. Growth in the advanced economies was led by the United States (US) and the euro area, while growth in the United Kingdom (UK) and Japan subsided. Growth in the US was mainly driven by higher investment, consumer demand and government spending, while in the euro area growth was due to higher consumer demand and capital investment. Emerging market economies continued to grow in the first quarter, mainly led by India and China. Growth in India reflected structural reforms which raised potential output, while in China growth was slightly faster than expected due to strong consumer demand and robust property investment. According to the latest International Monetary Fund (IMF) World Economic Outlook of April 2018, the global economy is estimated to grow by 3.9 percent in 2018.

In January, the 48th annual meeting of the World Economic Forum was held in Davos, Switzerland, under the theme 'Creating a Shared Future in a Fractured World'. Leaders from business, government, international organisations, academia and civil society attended the forum. The four day meeting focused on reaffirming international cooperation on international security, environment and the global economy. Main issues discussed included climate change, terrorism, the backlash against globalization, the opportunities and dangers of new emerging technologies, income inequality, job creation, international trade and investment, and "skills revolution" to open up new job opportunities. The world leaders defended free trade and global cooperation in response to protectionist trade policies. However, the US defended its recent protectionist trade policies reiterating its stance on unfair economic practices, including massive intellectual property theft, industrial subsidies and pervasive state-led economic planning. The US claimed that these and other predatory behaviours distort global markets and harm businesses and workers.

In February, the International Energy Agency, the International Energy Forum and the Organisation of the Petroleum Exporting Countries (OPEC) convened for the 8th Symposium on Energy Outlook. Energy ministers and world experts met in Riyadh, Saudi Arabia. The symposium looked at the comparability of various energy outlook scenarios as a means of enhancing producer-consumer dialogue to improve energy security and transparency in the energy market. Going forward, they reaffirmed their commitment to maintain and improve global dialogue to strengthen energy security world-wide.

In March, the Group of Twenty (G20) Finance Ministers, Central Bank Governors and the heads of international organizations met in Buenos Aires, Argentina. The meeting covered international financial architecture, global tax system, financial regulation and the technology behind crypto currencies. On the global tax system, officials stressed the importance of ensuring efficient policies to achieve inclusive global reporting and collecting tax system. The discussion on crypto currencies focused on how and where the digital economy generates and creates value. The leaders agreed that promoting digital inclusion is important to create opportunities for people living in vulnerable and difficult circumstances. However, they warned about the use of crypto currencies and risks in terms of tax evasion, money laundering and terrorism financing. Leaders recommended that crypto currencies should be monitored and subjected to the Financial Action Task Force standards.

In the US, real GDP increased by 2.8 percent over the year to March 2018, compared to a growth of 1.9 percent over the same period in 2017. The increase was primarily driven by higher non-residential fixed investment, personal consumption expenditure, exports, private inventory investment and government spending. The IMF forecasts real GDP to grow by 2.9 percent in 2018.

Industrial production grew by 4.3 percent over the year to March 2018, compared to an increase of 1.5 percent over the same period in 2017. This outcome reflected strong production from oil and gas extraction, partly reflecting shale oil producers ramping up production in response to higher international oil prices. This was further supported by increased production in the utilities sector, with higher demand for home heating during winter. The Purchasing Managers' Index was at 59.3 in March 2018, compared to 59.7 in December 2017 reflecting continued growth in the manufacturing sector. Retail sales grew by 4.5 percent over the year to March 2018, compared to an increase of 4.2 percent in the corresponding period of 2017. The increase reflected higher sales at grocery stores, restaurants and bars, and drug stores. The unemployment rate eased to 4.1

percent in March 2018, lower than 4.6 percent in March 2017.

Consumer prices increased by 2.4 percent over the year to March 2018, the same as in the corresponding period in 2017, partly reflecting tight conditions in the labour and housing markets. Broad money supply increased by 4.0 percent over the year to March 2018, compared to an increase of 6.3 percent over the corresponding period in 2017. With the pickup in growth, the Federal Reserve raised the Federal Funds rate by 25 basis points to 1.75 percent in late March from 1.50 percent in December 2017.

The trade deficit widened to US$834.0 billion over the year to March 2018, compared to a deficit of US$762.8 billion over the corresponding period in 2017 as imports rose higher than exports.

In Japan, real GDP contracted by 0.8 percent over the year to March 2018, following a growth of 1.3 percent over the same period in 2017. The decline was due to a slowdown in non-residential private investment and public spending, while household spending remained flat reflecting weak consumer spending. The IMF forecasts real GDP to grow by 1.2 percent in 2018.

Industrial production increased by 2.4 percent over the year to March 2018, compared to an increase of 3.3 percent over the same period in 2017. Retail sales increased by 2.4 percent over the year to March 2018, compared to an increase of 2.9 percent over the corresponding period in 2017. The unemployment rate was 2.5 percent in March 2018, compared to 2.8 percent in March 2017, reflecting a slight improvement in labour market conditions.

Consumer prices increased by 1.1 percent over the year to March 2018, compared to an increase of 0.2 percent over the corresponding period in 2017, mainly driven by upward movements in energy prices. Broad money supply (M3) increased by 2.6 percent over the year to March 2018, compared to 3.5 percent over the same period in 2017. The Bank of Japan kept its key short-term official interest rate unchanged at negative 0.1 percent and continued its quantitative easing by purchasing government bonds.

The trade surplus was US$43.1 billion over the year to March 2018, compared to a surplus of US$51.8 billion in the corresponding period of 2017. Despite the appreciation of the yen and the US's protectionist trade policy measures on steel and aluminium, Japan's exports increased due to higher global demand for its machinery, manufactured goods and electrical products.

In the euro area, real GDP grew by 2.5 percent over the year to March 2018, compared to 1.7 percent over the same period in 2017. The growth reflected higher household consumption expenditure, inventory changes and gross fixed capital formation. The IMF forecasts real GDP to grow by 2.4 percent in 2018.

Industrial production increased by 3.0 percent over the year to March 2018, compared to an increase of 1.9 percent over the same period in 2017. The increase was due to higher electricity production, capital goods, durable and non-durable consumer goods, and intermediate goods. Retail sales increased by 0.8 percent over the year to March 2018, compared an increase of 1.8 percent over the same period in 2017. The lower sales were mainly due to a decline in spending on non-food items, especially clothing and pharmaceutical goods. The unemployment rate was 8.5 percent in March 2018, down from 9.4 percent in March 2017, reflecting an increase in economic activity.

Consumer prices in the euro area, as measured by the Harmonized Index of Consumer Prices, increased by 1.3 percent over the year to March 2018, compared to 1.5 percent over the same period in 2017. Broad money supply increased by 3.7 percent over the year to March 2018, compared to an increase of 5.3 percent over the corresponding period in 2017. The European Central Bank maintained its refinancing rate at zero percent in March 2018 and continued its expanded asset purchase program, which aims to achieve an inflation rate of close to 2.0 percent in the long term.

The trade surplus was US$283.4 billion over the year to March 2018, slightly lower than US$285.0 billion over the same period in 2017.

In the UK, real GDP increased by 1.2 percent over the year to March 2018, compared to 2.1 percent in the corresponding period of 2017. The lower growth was mainly due to uncertainties surrounding Brexit. The IMF forecasts real GDP to grow by 1.6 percent in 2018.

Industrial production increased by 2.9 percent over the year to March 2018, compared to a growth of 1.4 percent over the same period in 2017. The growth was associated with heavy snowing as demand for electricity, gas, steam and air conditioning increased.

Activity in the manufacturing sector also contributed to this growth. Retail sales grew by 1.1 percent over the year to March 2018, following an increase of 1.7 percent in the corresponding period of 2017. The lower outcome was due to lower demand reflecting an unusual cold winter conditions. The unemployment rate was 4.2 percent in March 2018, compared to 4.6 percent in March 2017, as additional 396,000 new employees were added to the workforce.

Consumer prices increased by 2.5 percent over the year to March 2018, compared to an increase of 2.3 percent over the same period in 2017. This reflected the increased cost of recreation and cultural activities, and car prices. The weakening of the pound sterling also contributed to this outcome. Broad money supply increased by 2.2 percent over the year to March 2018, compared to an increase of 6.8 percent over the same period in 2017. The Bank of England maintained its policy rate at 0.50 percent, while it maintained its quantitative easing by purchasing UK Government and corporate bonds.

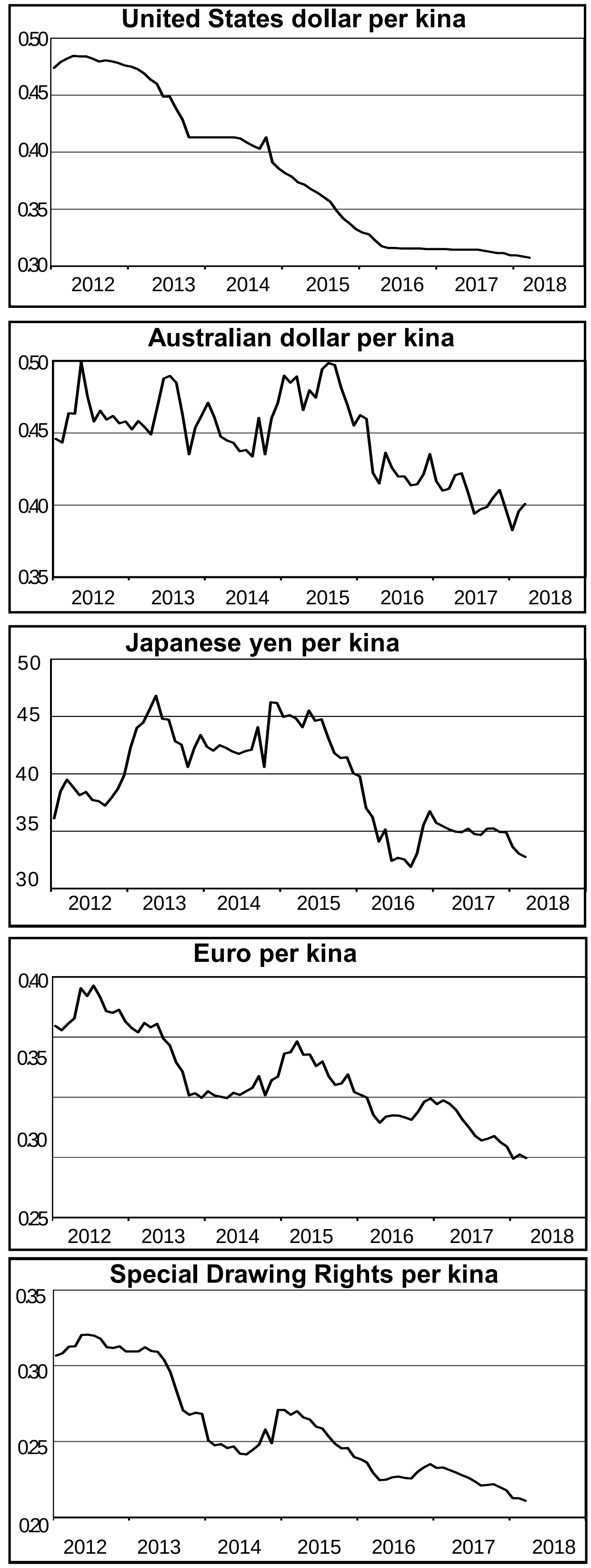
The trade account recorded a deficit of US$180.3 billion over the year to March 2018, slightly lower than a deficit of US$180.8 billion over the same period in 2017.

In China, real GDP grew by 6.8 percent over the year to March 2018, slightly lower than an increase of 6.9 percent over the same period in 2017. The growth was mainly driven by consumer demand, property investments and exports. The IMF forecasts real GDP to grow by 6.6 percent in 2018.

Industrial production increased by 6.0 percent over the year to March 2018, compared to an increase of 7.6 percent over the same period in 2017. The lower increase was driven by production associated with food processing and agricultural products, general manufacturing and supply of electricity. The unemployment rate was 3.9 percent in March 2018, slightly lower than 4.0 percent in March 2017.

Consumer prices rose by 2.1 percent over the year to March 2018, compared to an increase of 0.9 percent over the same period in 2017. Broad money supply increased by 8.2 percent over the year to March 2018, compared to an increase of 10.1 percent over the same period in 2017. The People's Bank of China increased its 7-day reverse repurchase agreements rate by 5 basis points to 2.55 percent in March. The

**EXCHANGE RATES**



adjustment was intended to contain capital outflows.

The trade account surplus was US$409.5 billion over the year to March 2018, compared to US$465.4 billion over the same period in 2017. The lower surplus was due to a fall in exports, combined with higher imports as the trade dispute with the US is starting to affect trade between China and the US.

In Australia, real GDP increased by 3.1 percent over the year to March 2018, compared to an increase of 1.7 percent over the same period in 2017. The increase was driven by business investment and public infrastructure spending. The IMF forecasts real GDP to grow by 3.0 percent in 2017.

Industrial production picked up by 4.3 percent over the year to March 2018, compared to a decline of 0.8 percent over the corresponding period in 2017. Retail sales grew by 2.6 percent over the year to March 2018, compared to an increase of 1.2 percent over the corresponding period in 2017. High consumer demand underpinned by improved labour market conditions contributed to the increase. The unemployment rate was 5.5 percent in March 2018, the same as in the corresponding period of 2017.

Consumer prices increased by 1.9 percent over the year to March 2018, compared to an increase of 2.1 percent over the corresponding period of 2017. Broad money supply increased by 3.8 percent over the year to March 2018, compared to an increase of 6.7 percent over the corresponding period in 2017. With the inflation outcome remaining within the Reserve Bank of Australia's (RBA) inflation target, the RBA kept its official cash rate unchanged at 1.5 percent in March to support and maintain a sustainable growth path.

The trade account recorded a surplus of US$6.0 billion over the year to March 2018, compared to a surplus of US$13.5 billion over the same period in 2017. Exports remained relatively flat, with increases in livestock and services offset by a fall in mineral exports. Imports remained unchanged.

In the March quarter of 2018, the US dollar appreciated against the euro by 13.0 percent, British pound sterling by 10.7 percent, Australian dollar by 4.6 percent and Japanese yen by 0.7 percent.

In the March quarter of 2018, the average daily kina exchange rate depreciated against all the major currencies. It depreciated against the euro by 6.1 percent to ú0.2513, pound sterling by 5.3 percent to £0.2218, the yen by 4.7 percent to ¥33.4613, Australian dollar by 3.0 percent to A$0.3928, and the US dollar by 0.8 percent to US$0.3088. These currency movements resulted in the Trade Weighted Index (TWI) depreciating by 3.7 percent to 28.89 in the March quarter of 2018 from 30.01 in the December quarter of 2017.

## 3. DOMESTIC ECONOMIC CONDITIONS

### DOMESTIC ECONOMIC ACTIVITY[1]

Data from the Bank's Business Liaison Survey (BLS) show that the total nominal value of sales in the formal private sector increased by 5.6 percent in the December quarter of 2017, compared to a decline of 1.1 percent in the September quarter of 2017. Excluding the mineral sector, sales increased by 6.5 percent in the December quarter, compared to a decline of 4.9 percent in the previous quarter. By sector, sales increased in all sectors. By region, sales increased in all the regions except the Southern region, which excludes the NCD. Over the year to December 2017, total sales declined by 10.9 percent, compared to an increase of 30.9 percent in the corresponding period of 2016. Excluding the mineral sector, sales declined by 5.1 percent, compared to an increase of 25.1 percent in the corresponding period of 2016.

In the construction sector, sales increased by 67.8 percent in the December quarter of 2017, compared to a decline of 3.1 percent in the previous quarter. This outcome was due to the on-going expansion and construction of the Motukea International Wharf, Star Mountain Plaza hotel, the new Gordons market, the Manus police station and several building and construction projects in Ok Tedi. In 2017, sales fell by 16.4 percent, compared to a substantial increase of 114.1 percent in 2016.

In the agriculture/forestry/fisheries sector, sales increased by 13.3 percent in the quarter, compared to a decline of 1.0 percent in the September quarter of 2017. The increase was mainly attributed to higher production of palm oil, cocoa and logs. In 2017, sales

[1]The quarterly growth rates for December 2017 quarter have been revised. The March 2018 figures are preliminary.

fell by 19.1 percent, compared to an increase of 40.2 percent in 2016.

In the transportation sector, sales increased by 9.8 percent in the quarter, compared to an increase of 6.2 percent in the September quarter of 2017. This outcome was mainly driven by higher air passenger travel, freight and shipping services. In 2017, sales fell by 25.2 percent, compared to an increase of 7.4 percent in 2016.

In the financial/business/other services sector, sales increased by 8.7 percent in the December quarter of 2017, compared to an increase of 3.2 percent in the previous quarter. This outcome was driven by higher commercial bank interest earnings from loans and investment, and higher collection of fees and charges. Higher earnings by a major hotel chain also supported this growth. In 2017, sales declined by 14.8 percent, compared to an increase of 19.2 percent in 2016.

In the retail sector, sales increased by 5.3 percent in the quarter, compared to an increase of 2.3 percent in the September quarter of 2017. This outcome was associated with higher sale of heavy equipment and machines, tyres, food and general merchandise. In 2017, sales declined by 7.1 percent, compared to a decline of 3.7 percent in the corresponding period of 2016.

In the mineral sector, sales increased by 5.0 percent in the December quarter of 2017, compared to an increase of 2.9 percent in the previous quarter. The growth was mainly attributed to higher production of gold and LNG. In 2017, sales fell by 18.7 percent, compared to an increase of 38.0 percent in 2016.

In the manufacturing sector, sales increased by 4.3 percent in the quarter, compared to a decline of 1.9 percent in the September quarter of 2017. This outcome was attributed to higher production and sale of alcoholic drinks, general food products and canned tuna. In 2017, sales increased by 5.0 percent, compared to an increase of 38.1 percent in 2016.

In the wholesale sector, sales increased by 0.7 percent in the quarter, compared to a decline of 4.9 percent in the September quarter of 2017. The increase was due to higher demand for food and drink products and fuel. In 2017, sales increased by 7.9 percent, compared to an increase of 11.6 percent in 2016.

By region, sales increased in the Islands, Highlands, NCD, Morobe and Momase (excluding Morobe) regions, while it declined in the Southern region (excluding NCD). In the Islands region, sales increased by 13.7 percent in the December quarter of 2017, compared to a decline of 26.8 percent in the previous quarter. The increase was mainly in the mineral, transport, agriculture/forestry/fishery and retail sectors, reflecting higher production and export of gold, palm oil, higher air passenger travel and sale of food and general merchandise. In 2017, sales fell by 1.1 percent, compared to a decline of 16.7 percent in 2016.

In the Highlands region, sales increased by 13.6 percent in the quarter, compared to an increase of 7.8 percent in the September quarter of 2017. This was due to increases in the mineral, transport and wholesale sectors, reflecting higher LNG and gold production and export, increase demand for food and general merchandise, as well as increased air passenger travel. In 2017, sales fell by 42.6 percent, compared to a decline of 3.9 percent in 2016.

In NCD, sales increased by 3.1 percent in the December quarter of 2017, following an increase of 1.8 percent in the previous quarter. This growth resulted from increased activity in the construction, manufacturing, wholesale, retail and financial/business/other sectors, reflecting the on-going expansion of the Motukea International Wharf, the Star Mountain Plaza hotel and other building projects, higher sale of alcoholic drinks, food, automobiles and general merchandise and increased earnings by commercial banks. In 2017, sales fell by 6.9 percent, compared to a growth of 25.5 percent in the corresponding period of 2016.

In Morobe, sales increased by 3.0 percent in the quarter, following a decline of 4.6 percent in the September quarter of 2017. This outcome mainly reflected increased activity in the transport, retail, manufacturing and wholesale sectors, with higher air passenger travel, production and sale of canned fish, and sale of food, general merchandise, fuel, tyres and heavy machinery. In 2017, sales declined by 8.1 percent, compared to an increase of 22.7 percent in 2016.

In the Momase region, sales increased by 0.6 percent in the December quarter of 2017, compared to an increase of 7.5 percent in the previous quarter. The increase reflected activity in the manufacturing, transport, retail and wholesale sectors, with higher production and sale of canned tuna, increased air passenger travel, higher sale of fuel, food and general merchandise. In 2017, sales increased by 6.6 percent, compared to an increase of 110.7 percent in 2016.

In the Southern region, sales declined by 11.6 percent in the quarter, compared to an increase of 29.3 percent in the September quarter of 2017. This outcome was primarily due to lower production and export of copper ore and palm oil, which offset higher construction activity carried out at the Ok Ted mine, higher sale of heavy equipment and machines and food and general merchandise. In 2017, sales increased by 8.4 percent, compared to massive increase of 498.5 percent in 2016.

**EMPLOYMENT[2]**

The Bank's Employment Index shows that the level of employment in the formal private sector increased by 0.3 percent in the March quarter of 2018, compared to a decline of 2.3 percent in the December quarter of 2017. Excluding mineral sector, the level of employment increased by 0.2 percent. By sector, the level of employment increased in the wholesale, agriculture/ forestry/fishery, mineral, construction and financial/ business and other services sectors, while it declined in the manufacturing, transportation and retail sectors. By region, the level of employment increased in all regions, except Morobe and NCD. Over the year to March 2018, total employment declined by 4.6 percent, compared to an increase of 0.1 percent in the corresponding period of 2017. Excluding the mineral sector, employment declined by 5.5 percent over the year to March 2018, compared to a decline of 0.4 percent in the corresponding period of 2017.

In the wholesale sector, the level of employment increased by 10.3 percent in the March quarter of 2018, compared to a decline of 3.7 percent in the December quarter of 2017. The increase was due to recruitment of casual workers by several wholesale companies, as well as recruitment for positions in a hardware company. Over the year to March 2018, the level of employment increased by 7.7 percent, compared to a decline of 5.1 percent in the corresponding period of 2017.

In the agriculture/forestry/fisheries sector, the level of employment increased by 3.1 percent in the Mach quarter of 2018, compared to a decline of 5.2 percent in the December quarter of 2017. The increase reflected recruitment of seasonal workers by three major oil palm producers for plantation replanting and expansion as well as recruitment of casuals by a major coffee exporter to hand sort coffee beans. Another company involved in the farming of crocodile and poultry also recruited casual workers due to an increase in activity. Over the year to March 2018, the level of employment declined by 6.5 percent, compared to an increase of 9.7 percent in the same period of 2017.

In the mineral sector, the level of employment increased by 2.1 percent in the quarter, compared to a decline of 3.9 percent in the December quarter of 2017. The increase reflected recruitment of graduates by a major petroleum company for its graduate trainee program and recruitment of staff for existing positions. A mining company also increased casual employees for its exploration activities. Over the year to March 2018, the level of employment increased by 3.4 percent, compared to an increase of 7.3 percent over the corresponding period of 2017.

In the construction sector, the level of employment increased by 1.9 percent in the March quarter of 2018, compared to a decline of 9.0 percent in the December quarter of 2017. The increase reflected road construction work in NCD and a recruitment drive by a construction company for a road project in Alotau. Over the year to March 2018, the level of employment fell by 20.5 percent, compared to a decline of 15.2 percent over the year to March 2017.

In the financial/business and other services sector, the level of employment increased by 1.7 percent in the March quarter of 2018, compared to a decline of 1.8 percent in the December quarter of 2017. The increase was attributed to higher activity in the hotel industry, as well as recruitment by a finance company and a recruitment agency. Over the year to March 2018, the level of employment increased by 1.0 percent, compared to a decline of 1.7 percent over the corresponding period of 2017.

In the retail sector, the level of employment fell by 6.1 percent in the March quarter of 2018, compared to an increase of 1.4 percent in the December quarter of 2017. The fall reflected the laying-off of casual workers following the end of the festive season and the completion of a project. Over the year to March 2018,

[2] The quarterly growth rates for the September 2017 quarter have been revised. The December 2017 figures are preliminary.

the level of employment fell by 5.9 percent, compared to a decline of 7.7 percent over the year to March 2017.

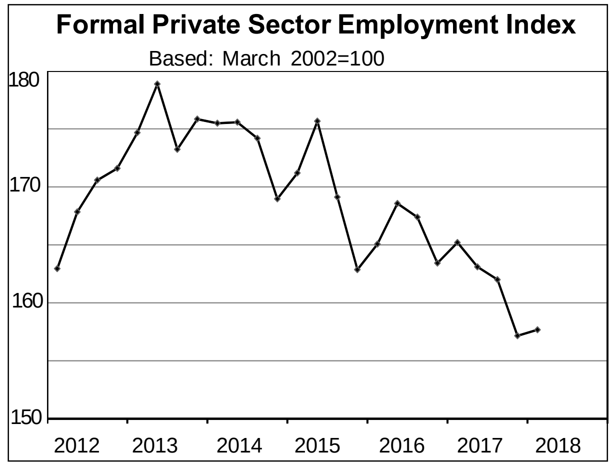
In the transportation sector, the level of employment fell by 5.5 percent in the March quarter of 2018, compared to a decline of 2.8 percent in the previous quarter. This was due to the downsizing of operations by some transport companies due to a slowdown in business activity. Over the year to March 2018, the level of employment fell by 3.9 percent, compared to a decline of 9.2 percent over the corresponding period of 2017.

In the manufacturing sector, the level of employment fell by 1.2 percent in the March quarter of 2018, compared to an increase of 3.0 percent in the December quarter of 2017. This was due to several companies scaling down operations, while others laid off casual workers following the end of the festive season. Over the year to March 2018, the level of employment fell by 6.1 percent, compared to a decline of 1.8 percent over the year to March 2017.

By region, employment increased in the Islands, Highlands, Momase and Southern regions, while it declined in Morobe and NCD. In the Islands region, the level of employment increased by 4.1 percent in the March quarter of 2018, compared to a decline of 2.3 percent in the December quarter of 2017. The increase was in the agriculture/forestry/fishing and mineral sectors, attributed to recruitment of seasonal workers by two major oil palm producers for replanting exercise and increased seasonal workers for exploration activity, respectively. Over the year to March 2018, the level of employment fell by 4.8 percent, compared to an increase of 5.0 percent in the corresponding period of 2017.

In the Highlands region, the level of employment increased by 3.2 percent in the March quarter of 2018, compared to a fall of 5.5 percent in the December quarter of 2017. The increase was mainly attributed to the hiring of seasonal and casual workers for coffee harvesting, sorting and exporting by some coffee companies and recruitment by a mineral company for existing positions as well as graduates for its graduate program. Over the year to March 2018, the level of employment increased by 3.2 percent, compared to an increase of 16.8 percent over the year to March 2017.

In the Momase region, the level of employment increased by 2.3 percent in the quarter, compared to a fall of 5.7 percent in the December quarter of 2017. The increase




mainly reflected the recruitment of additional workers by two fish canneries due to increased volume and production. Over the year to March 2018, the level of employment fell by 2.6 percent, compared to an increase of 1.2 percent in the corresponding period of 2017.

In the Southern region, the level of employment increased by 1.6 percent in the March quarter of 2018, compared to a decline of 3.0 percent in the December quarter of 2017. The increase was due to the hiring of additional workers by a contractor to demolish a workshop at a mine, recruitment of casual workers at an oil palm plantation and recruitment by a manufacturer of timber products. Over the year to March 2018, the level of employment fell by 6.5 percent, compared to an increase of 6.1 percent over the year to March 2017.

In Morobe, the level of employment fell by 5.1 percent in the March quarter of 2018, compared to a decrease of 3.3 percent in the December quarter of 2017. The decline reflected the scaling down of operations by several manufacturers and a stevedoring company due to lower demand for their goods and services. Over the year to March 2018, the level of employment fell by 6.9 percent, compared to a decline of 6.4 percent in the corresponding period 2017.

In NCD, the level of employment fell by 1.2 percent in the March quarter of 2018, compared to an increase of 1.3 percent in the December quarter of 2017. The decline was due to most retailers laying off seasonal workers at the end of the Christmas and New Year festive season, manufacturers scaling down operations and laying off workers. The decline also reflected the laying off of workers by several construction companies following completion of road and building projects. Over the year to March 2018, the level of employment fell by 7.1 percent, compared to a decline of 5.6 percent over the year to March 2017.

**CONSUMER PRICE INDEX**

Quarterly headline inflation, as measured by the Consumer Price Index (CPI), increased by 1.0 percent in the March quarter of 2018, compared to an increase of 1.3 percent in the December quarter of 2017. There were price increases for all expenditure groups, except for the 'Alcoholic Beverages, Tobacco and Betelnut' expenditure group, which recorded a decline. By urban centre, prices increased in all the surveyed centres. Annual headline inflation was 4.5 percent over the year to March 2018, compared to 4.7 percent over the year to December 2017.

The CPI for the 'Health' expenditure group increased by 4.1 percent in the March quarter of 2018, compared to an increase of 7.7 percent in the December quarter of 2017. This was accounted for by price increases in the 'medical supplies' and 'medical services' sub-groups of 5.7 percent and 1.5 percent, respectively. This expenditure group contributed 0.5 percentage points to the overall movement in the CPI.

The CPI for the 'Restaurants and Hotels' expenditure group increased by 3.3 percent in the March quarter of 2018, compared to a decrease of 0.5 percent in the previous quarter. Prices increased in the 'takeaway foods' and 'accommodation' sub-groups by 3.7 percent and 1.0 percent, respectively. This expenditure group contributed 0.1 percentage points to the overall movement in the CPI.

The CPI for the 'Clothing and Footwear' expenditure group increased by 2.8 percent in the quarter, compared to an increase of 2.2 percent in the December quarter of 2017. There were increases in the 'sewing items', 'boys wear', 'footwear', 'women and girl wear', 'headwear' and 'men's wear' sub-groups of 6.1 percent, 4.4 percent, 3.5 percent, 3.1 percent, 2.1 percent and 0.9 percent, respectively. These more than offset a decline of 1.9 percent in the 'clothing' sub-group. This expenditure group contributed 0.3 percentage points to the overall movement in the CPI.

The CPI for the 'Communication' expenditure group increased by 2.8 percent in the March quarter of 2018, compared to no price change in the quarters since the March quarter of 2016. This was influenced by price increases in the 'other services' and 'telephone equipment' sub-groups of 7.3 percent and 7.1 percent, respectively. The 'postal services' and 'telephone services' sub-groups recorded no price change. This expenditure group contributed 0.1 percentage points to the overall movement in the CPI.

Prices for the 'Education' expenditure group increased by 2.4 percent in the March quarter of 2018, compared to no price change the quarters since the March quarter of 2014. The increase came from 'education fees' and other expenses' sub-groups with 2.7 and 1.8 percent, respectively. This expenditure group contributed 0.1 percentage points to the overall movement in the CPI.

The CPI for 'Transport' expenditure group increased by 2.4 percent in the quarter, compared to an increase of 2.7 percent in the previous quarter. There were increases in the 'other services', 'fuel and lubricants', 'fares', 'operations of transport' and 'motor vehicle purchases' sub-groups, of 12.0 percent, 7.5 percent, 1.3 percent, 1.0 percent and 0.9 percent, respectively. This expenditure group contributed 0.9 percentage points to the overall movement in the CPI.

The CPI for the 'Household Equipment' expenditure group increased by 2.2 percent in the March quarter of 2018, compared to an increase of 4.3 percent in the previous quarter. This was accounted for by increases in both the 'household maintenance goods' and 'household appliances' sub-groups with 2.6 percent each, and 'household furniture and furnishings' sub-group with 0.9 percent. This expenditure group contributed 0.4 percentage points to the overall movement in the CPI.

The CPI for the 'Housing' expenditure group increased by 1.6 percent in the quarter, compared to an increase of 1.0 percent in the December quarter of 2017. There were price increases in the 'cooking', 'housing maintenance' and 'rent' sub-groups of 7.5 percent, 2.6 percent and 0.6 percent, respectively, while the 'electricity' and 'water' sub-groups recorded no price change. This expenditure group contributed 0.7 percentage points to the overall movement in the CPI.

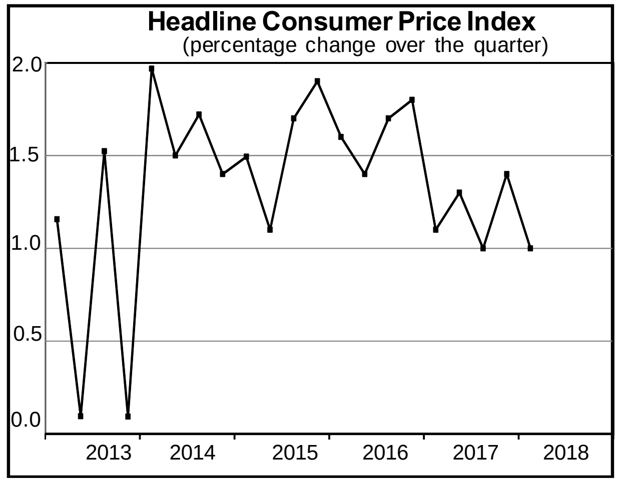
Prices for the 'Recreation' expenditure group increased by 1.2 percent in the March quarter of 2018, compared to an increase of 5.0 percent in the previous quarter. This reflected price increases for sports gate and movie fees, bicycle, magazine, television, digital camera, flash drives, DVD player and biros of 6.1 percent, 5.2 percent, 2.4 percent, 2.2 percent, 1.1 percent, 1.0 percent, 0.9 percent and 0.2 percent, respectively. These more than offset a 2.4 percent and 1.1 percent decline in the price of batteries and photography, respectively, while newspaper recorded no price change. This expenditure group contributed 0.2 percentage points to the overall movement in the CPI.

Prices for the 'Miscellaneous' expenditure group increased by 0.5 percent in the quarter, compared to a marginal increase of 0.1 percent in the previous quarter. This was accounted by price increases for children's toys, insect repellent, and baby oil and powder of 7.3 percent, 7.2 percent and 0.4 percent, respectively. This more than offset a decline in barber fees of 2.3 percent, while court fees remained constant. This expenditure group's contribution to the overall CPI was negligible.

The CPI for the 'Food and Non-alcoholic Beverages' expenditure group increased by 0.2 percent in the March quarter of 2018 compared, to a decline of 1.7 percent in the December quarter. This was driven by price increases in the 'dairy products, eggs and cheese', 'fish', 'sugars and confectionary', 'other food products', 'meat' and 'non-alcoholic beverages' sub-groups of 4.4 percent, 1.5 percent, 1.3 percent, 1.1 percent, 0.9 percent and 0.4 percent, respectively. These more than offset decreases in 'oil and fats', 'fruits and vegetables' and 'cereals' sub-groups of 1.4 percent, 1.0 percent and 0.3 percent, respectively. The expenditure group contributed 0.1 percentage points to the overall movement in the CPI.

The CPI for the 'Alcoholic Beverages, Tobacco and Betelnut' expenditure group fell by 1.8 percent in the March quarter of 2018, compared to an increase of 1.4 percent in the previous quarter. Price declined in the 'betelnut and mustard' and 'tobacco' sub-groups by 2.8 percent and 0.1 percent, respectively. These more than offset an increase of 0.7 percent in the 'alcoholic beverages' sub-group. This expenditure group contributed -1.1 percentage points to the overall movement in the CPI.

By urban centre, prices increased in all urban centres in the March quarter of 2018. Port Moresby recorded the highest increase of 1.2 percent, followed by Lae with 1.0 percent, Goroka/Mt. Hagen/Madang with 0.9 percent and Alotau/Kimbe/Rabaul with 0.8 percent.




In Port Moresby, prices increased by 1.2 percent in the March quarter of 2018, compared to an increase of 1.4 percent in the December quarter of 2017. The 'Restaurants and Hotels' expenditure group recorded the largest increase of 10.5 percent, followed by 'Recreation' with 3.2 percent, 'Clothing and Footwear' with 2.6 percent, 'Communication' with 2.5 percent, 'Health' with 2.2 percent, 'Miscellaneous' with 1.9 percent, 'Transport' with 1.8 percent, 'Education' and 'Household Equipment' both with 1.3 percent each, 'Housing' with 0.9 percent and 'Food and Non-alcoholic Beverages' expenditure group with 0.6 percent. These more than offset a decline in 'Alcoholic Beverages, Tobacco and Betelnut' expenditure group. Port Moresby contributed 1.6 percentage points to the overall quarterly movement in the CPI.

In Lae, prices increased by 1.0 percent in the March quarter of 2018, compared to an increase of 1.2 percent in the previous quarter. The 'Health' expenditure group recorded the largest increase of 9.8 percent, followed by 'Communication' with 3.2 percent, 'Household Equipment' with 2.9 percent, 'Clothing and Footwear' with 2.7 percent, both 'Restaurants and Hotels' and 'Transport' with 2.6 percent, 'Housing' with 2.0 percent, 'Food and Non-alcoholic Beverages' with 1.2 percent, 'Recreation' with 0.8 percent and 'Education' with 0.1 percent. These more than offset price decreases in the 'Alcoholic Beverages, Tobacco and Betelnut' and 'Miscellaneous' expenditure groups. Lae contributed 0.9 percentage points to the overall movement in the CPI.

In Goroka/Mt. Hagen/Madang, prices increased by

0.9 percent in quarter, compared to an increase of 1.5 percent in the December quarter. The increase came from the 'Clothing and Footwear' expenditure group with 3.7 percent, 'Communication' with 3.1 percent, 'Restaurants and Hotels' with 2.8 percent, 'Transport' and 'Housing' with 2.7 percent, 'Household Equipment' with 2.2 percent and 'Recreation' expenditure group with 1.5 percent. Marginal increases were recorded in the 'Health' and 'Food and Non-alcoholic Beverages' expenditure groups. Goroka/Mt. Hagen/Madang contributed 1.2 percentage points to the overall movement in the CPI.

In Alotau/Kimbe/Rabaul, prices increased by 0.8 percent in the March quarter of 2018, compared to an increase of 1.3 percent in the previous quarter. The 'Education' expenditure group recorded the largest increase of 11.3 percent, followed by 'Transport' with 2.7 percent, both 'Household Equipment' and 'Communication' with 2.4 percent each, 'Clothing and Footwear' with 2.2 percent, 'Housing' with 2.1 percent, 'Health' with 1.6 percent, 'Miscellaneous' with 0.9 percent and 'Restaurants and Hotels' expenditure group with 0.8 percent. These more than offset declines in the 'Alcoholic Beverages, Tobacco and Betelnut', 'Food and Non-alcoholic Beverages' and 'Recreation' expenditure groups. These centres contributed 0.8 percentage points to the overall movement in the CPI.

The annual headline inflation was 4.5 percent in the quarter, compared to 4.7 percent in the December quarter of 2017. All expenditure groups recorded a price increase. The 'Health' expenditure group recorded the largest increase of 14.6 percent, followed by 'Household Equipment' with 8.7 percent, 'Transport' with 7.8 percent, 'Recreation' with 7.3 percent, 'Alcoholic Beverages, Tobacco and Betelnut' with 6.9, 'Clothing and Footwear' with 6.5 percent, 'Housing' with 5.2 percent, 'Restaurants and Hotels' with 4.9 percent, both 'Communication' and 'Miscellaneous with 2.8 percent each, 'Education' with 2.4 percent and 'Food and Non-alcoholic Beverages' with 0.3 percent.

The NSO's quarterly exclusion-based inflation measure (which is the overall CPI excluding seasonal, customs excise and price regulated items) increased by 1.7 percent in the March quarter of 2018, compared to an increase of 1.8 percent in the December quarter of 2017. The annual exclusion-based inflation measure was 5.8 percent in the quarter, compared to 4.3 percent in the December quarter of 2017.

The quarterly trimmed mean inflation measure published by the Bank of PNG increased by 1.0 percent in March quarter of 2018, compared to an increase of 0.6 percent in the previous quarter. The annual trimmed mean inflation was 3.2 percent in the quarter, compared to an increase of 1.7 percent in the same period in 2017.

## 4. EXPORT COMMODITIES REVIEW

The total value of merchandise exports was K7,224 million in the March quarter of 2018, compared to K7,443 million in the corresponding quarter of 2017. There were lower export receipts for LNG, condensate, gold, copper, cocoa, copra oil, palm oil, tea, logs, marine products and other non-mineral exports.

The value of agricultural, marine products and other non-mineral exports, excluding forestry and refined petroleum product exports, was K897.1 million, accounting for 12.4 percent of total merchandise exports in the March quarter of 2018, compared to K1,105.8 million or 14.9 percent of total merchandise exports in the corresponding quarter of 2017. Forestry product exports were K154.0 million, which accounted for 2.1 percent of total merchandise exports in the quarter, compared to K190.7 million or 2.6 percent in the corresponding quarter of 2017. Refined petroleum product exports were K403.6 million and accounted for 5.6 percent of total merchandise exports in the quarter, compared to K265.8 million or 3.6 percent in the corresponding quarter of 2017. Mineral export receipts, including LNG and condensate were K5,765.2 million and accounted for 79.9 percent of total merchandise exports in the quarter, compared to K5,875.5 million or 79.0 percent in the March quarter of 2017.

The weighted average kina price of Papua New Guinea's exports, excluding LNG, increased by 17.4 percent in the March quarter of 2018, compared to the corresponding quarter of 2017. The weighted average kina price of mineral exports was 22.2 percent higher, reflecting higher kina prices for all mineral commodities. For agricultural, logs and marine product exports, the weighted average kina price increased by 1.8 percent, particularly due to higher kina prices for logs and marine products. Excluding logs, the weighted average kina price of agricultural and marine product exports increased by 1.4 percent in the March quarter of 2018, compared to the corresponding quarter of 2017. The higher kina export price reflected improvements in international commodity prices, combined with the price effect of the depreciation of the kina against the US dollar.

**MINERAL EXPORTS**[3]

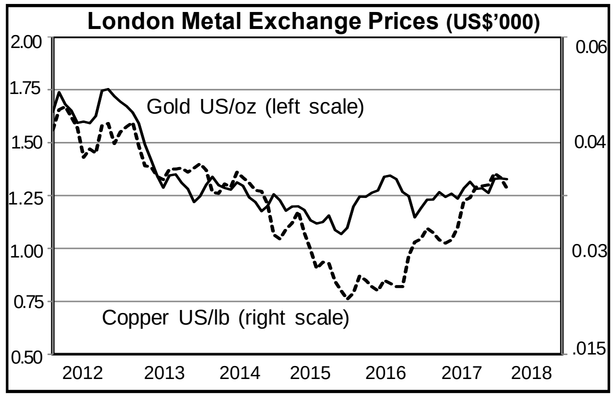
Total mineral export receipts were K5,765.2 million in the March quarter of 2018, compared to K5,875.5 million in the corresponding quarter of 2017. The decline was due to lower export volume of gold, copper, crude oil, condensate and lower value of LNG.

The value of LNG export was K2,273.0 million in the March quarter of 2018, compared to K2,383.1 million in the corresponding quarter of 2017. The decline was due to lower production, resulting from the impact of the earthquake in February 2018, which affected the production facilities.

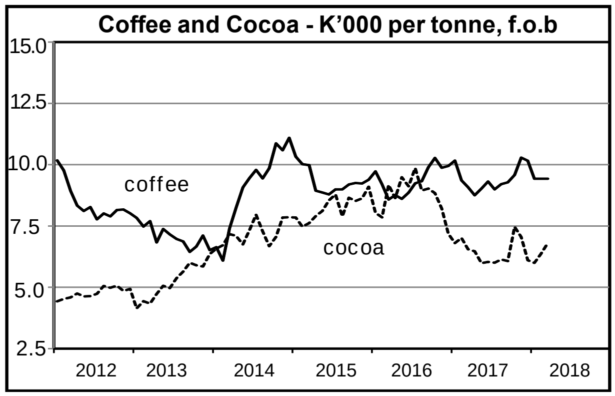
The volume of condensate exported was 1,499.1 thousand barrels in the March quarter of 2018, compared to 2,732.5 thousand barrels in the corresponding quarter of 2017. There was lower production and shipment by the PNG LNG project, following the February 2018 earthquake which affected the production facility. The average free on board (f.o.b) price for condensate export was K229 per barrel in the quarter, compared to K176 per barrel in the corresponding quarter of 2017, reflecting higher international prices. The decline in export volume more than offset the increase in export price, resulting in lower export receipts of K342.5 million in the quarter, compared to K480.7 million in the corresponding quarter of 2017.

The volume of gold exported was 12.9 tonnes in the quarter, compared to 15.2 tonnes in the March quarter of 2017. The decline reflected lower production and shipment from the Ok Tedi, Lihir and Porgera mines, which more than offset higher exports by Simberi mine and other licensed alluvial exporters. The average free on board (f.o.b.) price received for Papua New Guinea's gold exports was K135.2 million per tonne in the quarter, compared to K119.8 million per tonne in the March quarter of 2017. This reflected higher international prices as well as the depreciation of the kina against the US dollar. The average gold price at the London Metal Exchange increased by 9.2 percent to US$1,329 per fine ounce in the quarter, compared to the

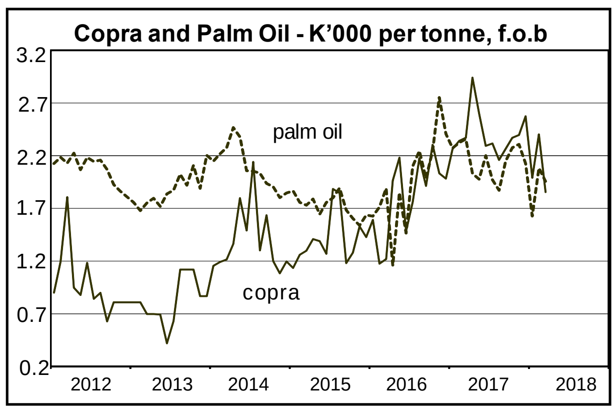
**EXPORT COMMODITY PRICES**



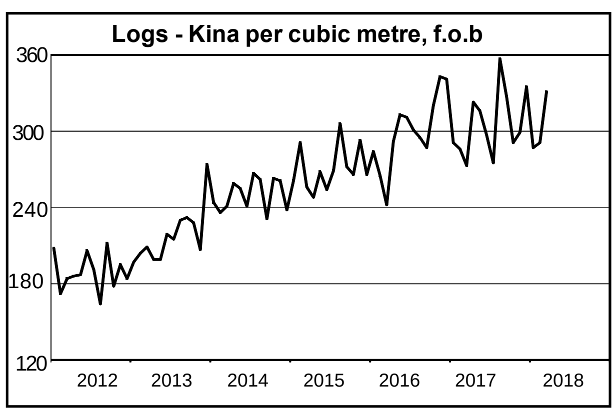
London Metal Exchange Prices (US$'000)



Coffee and Cocoa - K'000 per tonne, f.o.b



Copra and Palm Oil - K'000 per tonne, f.o.b



Logs - Kina per cubic metre, f.o.b

[3]The earthquake of February 2018 affected a major gas processing facility which supplies electricity to the mine. This resulted in the mine producing 25 percent below capacity.

corresponding quarter of 2017. The increase was due to strong demand for gold as a safe-haven investment. The decline in export volume more than offset the increase in export price, resulting in export receipts of K1,743.7 million in the quarter, compared to K1,820.4 million in the corresponding quarter of 2017.

The volume of copper exported was 14.8 thousand tonnes in the quarter, compared to 24.4 thousand tonnes in the March quarter of 2017. The decline was due to lower production of metal ore grades and shipment by the Ok Tedi mine, attributed to the earthquake, which forced a temporary shutdown of the mine for few days in March. The average f.o.b. price of PNG's copper exports was K22,932 per tonne in the quarter, compared to K18,369 per tonne in the corresponding quarter of 2017. The higher price was due to strong demand from China, combined with lower production and shipment from Indonesia, the world's second largest producer, pending the renewal of export licences. The decline in export volume more than offset the increase in export price, resulting in lower export receipts of K339.4 million in the quarter, compared to K448.2 million in the March quarter of 2017.

The volume of nickel exported was 9.0 thousand tonnes in the quarter, compared to 7.4 thousand tonnes in the corresponding quarter of 2017. The increase stemmed from higher production and shipment by the Ramu Nickel/Cobalt mine, reflecting improved operational performances, and partly in response to higher international prices. The average f.o.b. price of PNG's nickel exports was K42,967 per tonne in the quarter, compared to K32,905 in the corresponding quarter of 2017. The increase was due to higher global demand associated with growth in stainless steel sectors, combined with lower supply from the major producers, Indonesia and the Philippines. The combined increase in export price and volume, resulted in higher export receipts of K386.7 million in the quarter, compared to K243.5 million in the corresponding quarter of 2017.

The volume of cobalt exports was 0.9 thousand tonnes in the quarter, compared to 0.7 thousand tonnes in the corresponding quarter of 2017. The increase was due to higher production and shipment by the Ramu Nickel/Cobalt mine, reflecting improved production in response to higher international prices. The average f.o.b. price of PNG's cobalt exports was K254,556 per tonne in the quarter, compared to K141,714 per tonne in the March quarter of 2017. The significant increase reflected strong demand from electric car battery manufacturers, mainly from China combined with lower supply from the Democratic Republic of Congo, the world's major producer, attributed to increased export tariffs. The combined increase in export price and volume resulted in higher export receipts of K229.1 million in the quarter, compared to K99.2 million in the corresponding quarter of 2017.

The volume of crude oil exported was 1,740.9 thousand barrels in the quarter, compared to 1,782.7 thousand barrels in the March quarter of 2017. This was due to lower production from the Kutubu, Moran and Gobe oil fields[4], reflecting the impact of the earthquake in February. The average export price of crude oil was K221 per barrel in the quarter, compared to K172 per barrel in the March quarter of 2017. This was attributed to production cuts from both the Organization of Petroleum-Exporting Countries (OPEC) and non-OPEC member countries, further supply disruptions triggered by geopolitical tensions in the Middle East, combined with strong demand attributed to the weakening of the US dollar. The increase in export price more than offset the decline in export volume, resulting in higher export receipts of K385.3 million in the quarter, compared to K306.4 million in the corresponding quarter of 2017.

Export receipts of refined petroleum products, which include Naphtha from the PNG LNG project, were K403.6 million in the quarter, compared to K265.8 million in the corresponding quarter of 2017. The outcome was due to higher export volumes for various refined petroleum products, from the Napa Napa oil refinery.

**AGRICULTURE, LOGS AND FISHERIES EXPORTS**

Export prices of all non-mineral commodities, except for logs and marine products, declined in the March quarter of 2018, compared to the corresponding quarter of 2017. Cocoa prices declined by 5.1 percent, coffee by 0.7 percent, copra by 12.1 percent, copra oil by 19.6 percent, tea by 7.7 percent, palm oil by 15.9 percent and rubber by 24.6 percent. Prices for logs and marine products increased by 4.3 percent and 28.0 percent, respectively. The net effect was a 17.4 percent increase in the weighted average kina price of agricultural, logs and marine product exports. Excluding logs, the weighted average kina price of agricultural and marine

[4]The 7.5 magnitude earthquake on 26 February, 2018 damaged major well heads and the main oil field production facility located closest to the earthquake epicentre. The facility resumed operations in late March 2018.

product exports increased by 1.4 percent in the quarter, compared to the corresponding quarter of 2017.

The volume of coffee exported was 11.9 thousand tonnes in the quarter, compared to 8.8 thousand tonnes in the corresponding quarter of 2017. The increase was due to higher yields from coffee trees, reflecting higher production from the biennial harvest season, combined with the containment of the coffee berry borer blight. The average export price of coffee was K9,454 per tonne, a decline of 0.7 percent from the corresponding quarter of 2017. The decline stemmed from lower international prices as a result of higher production from the world's major producers, Brazil, Vietnam and Columbia, attributed to favourable wet weather conditions. The increase in export volume more than offset the decline in export price, resulting in export receipts of K112.5 million in the quarter, an increase of 34.2 percent from the corresponding quarter of 2017.

The volume of cocoa exported was 3.1 thousand tonnes in the quarter, compared to 7.2 thousand tonnes in the corresponding quarter of 2017. The decline was attributed to lower shipment from the major growing regions, mainly due to delays in the transportation of cocoa beans. The average export price of cocoa was K6,419 per tonne in the quarter, a decline of 5.1 percent from the corresponding quarter of 2017. The outcome reflected lower demand from North America, one of the world's major cocoa buying regions, combined with higher production from the major producers, the Ivory Coast, Cameroon and Ghana, attributed to favourable wet weather conditions. The combined decline in export price and volume resulted in export receipts of K19.9 million in the quarter, a decline of 59.1 percent from the corresponding quarter of 2017.

The volume of copra exported was 20.7 thousand tonnes in the quarter, compared to 17.6 thousand tonnes in the corresponding quarter of 2017. The increase was attributed to higher production and shipment from the major producing regions. The average export price of copra was K2,034 per tonne in the quarter, a decline of 12.1 percent from the corresponding quarter of 2017. This was due to higher production from India, one of the world's major producers, attributed to its government's policy initiative to improve copra quality and provide a price support program. The increase in export volume more than offset the decline in price resulting in export receipts of K42.1 million in the quarter, an increase of 3.4 percent from the corresponding quarter of 2017.

The volume of copra oil exported was 2.4 thousand tonnes in the quarter, compared to 5.0 thousand tonnes in the corresponding quarter of 2017. The decline was attributed to lower production and shipment from the existing copra mills in response to lower international prices. The average export price of copra oil was K3,667 per tonne in the quarter, a decline of 19.6 percent from the corresponding quarter of 2017. The outcome reflected higher supply of copra from India. The combined decline in export price and volume resulted in lower export receipts of K8.8 million in the quarter, a decline of 61.4 percent from the corresponding quarter of 2017.

The volume of palm oil exported was 124.2 thousand tonnes in the quarter, compared to 175.2 thousand tonnes in the corresponding quarter of 2017. The decline was due to lower production and shipment from the major producing regions in response to lower international prices. The average export price of palm oil was K1,953 per tonne in the quarter, a decline of 15.9 percent from the March quarter of 2017. This was due to higher production from the major producers, Indonesia and Malaysia, in preparation for the Muslim Ramadan period. The combined decline in export price and volume resulted in export receipts of K242.6 million in the quarter, a decline of 40.4 percent from the corresponding quarter of 2017.

The volume of tea exported was 0.1 thousand tonnes in the quarter, compared to 0.3 thousand tonnes in the March quarter of 2017. The decline was associated with higher production costs. The average export price of tea was K4,000 per tonne in the quarter, a decline of 7.7 percent from the corresponding quarter of 2017. This was due to higher production from the major producer, Kenya, attributed to favourable wet weather conditions. The combined decline in export volume and price resulted in export receipts of K0.4 million in the quarter, a decline of 69.2 percent from the corresponding quarter of 2017.

The volume of rubber exported was 0.8 thousand tonnes in the quarter, compared to 0.5 thousand tonnes in the corresponding quarter of 2017. The increase was attributed to higher production and shipment from the rubber producing provinces, due to favourable wet-weather conditions. The average export price of rubber was K4,375 per tonne in the quarter, a decline of 24.6 percent from the corresponding quarter of 2017. The outcome reflected lower international prices attributed to higher production from major producers, Thailand, Malaysia and Indonesia, combined with lower demand. The increase in export volume more than offset the decline in export price, resulting in export receipts of K3.5 million in the quarter, an increase of 20.7 percent from the corresponding quarter of 2017.

The volume of logs exported was 502.0 thousand cubic meters in the quarter, compared to 658.1 thousand cubic meters in the corresponding quarter of 2017. There was lower production and shipment from the major producing regions, attributed to wet-weather conditions. The average export price of logs was K294 per cubic meter in the quarter, an increase of 4.3 percent from the corresponding quarter of 2017. This was due to higher international prices, reflecting lower production from the world's major tropical hardwood producer, Malaysia, combined with a strong demand mainly from China. The decline in export volume more than offset the increase in export price, resulting in export receipts of K147.5 million in the quarter, a decline of 20.5 percent from the corresponding quarter of 2017.

The value of marine products exported was K305.2 million in the quarter, compared to K311.9 million in the corresponding quarter of 2017. A decline in export volumes more than offset an increase in export price.

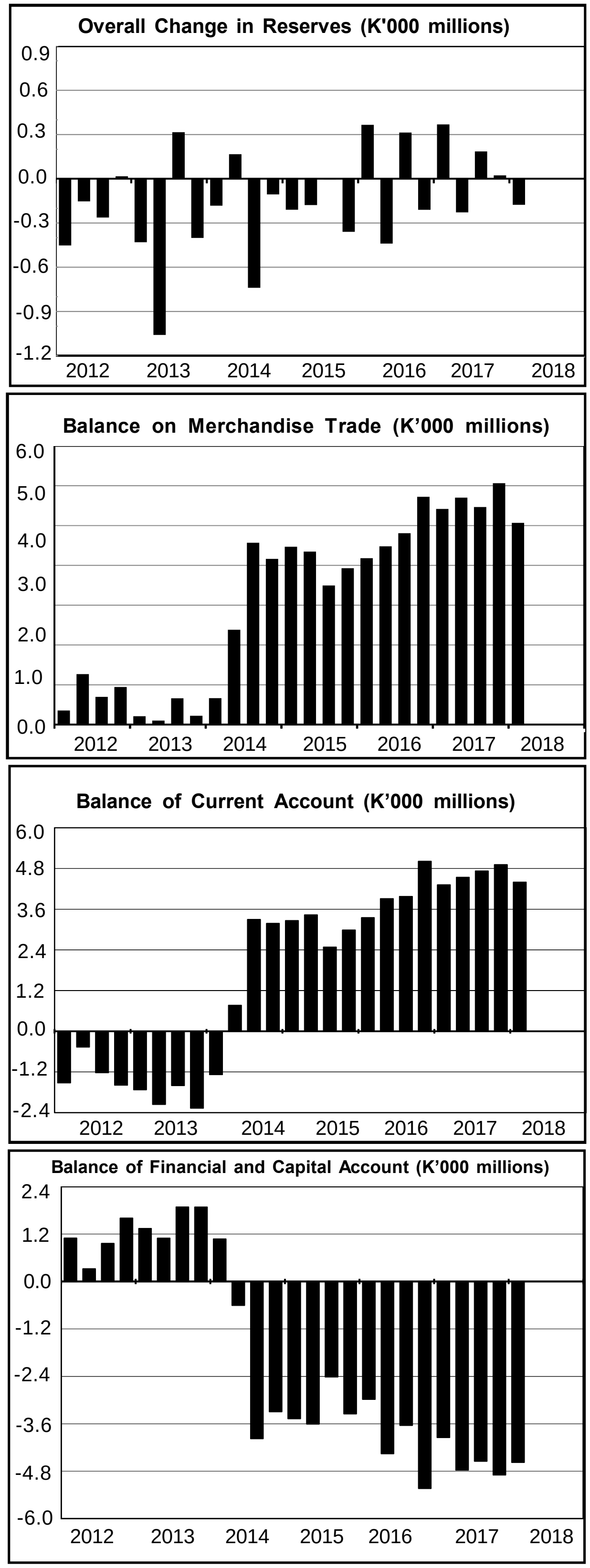
## 5. BALANCE OF PAYMENTS

The balance of payments recorded an overall deficit of K177 million in the March quarter of 2018, compared to a surplus of K369 million in the corresponding quarter of 2017. A deficit in the capital and financial account more than offset a surplus in the current account.

In the trade account, there was a surplus of K5,067 million in the quarter, compared to a surplus of K5,418 million in the corresponding quarter of 2017. The lower surplus was due to a decline in the value of merchandise exports.

The value of merchandise exports was K7,224 million in the quarter, compared to K7,443 million in the March quarter of 2017. Lower export values of LNG, condensate, gold, copper, cocoa, copra oil, palm oil,

**BALANCE OF PAYMENTS**



tea, logs, marine products and other non-mineral commodities more than offset higher export values of crude oil, nickel, cobalt, coffee, rubber and refined petroleum products.

The value of merchandise imports in the quarter was K2,158 million, compared to K2,025 million in the corresponding quarter of 2017. There were higher petroleum and mining imports, which more than offset decline in general imports. The value of petroleum sector imports was K311.8 million in the quarter, compared to K123.3 million in the corresponding quarter of 2017. This was mainly due to higher expenditure on exploration and drilling activities by a major resident petroleum company. Mining sector imports was K870.1 million in the quarter, compared to K648.8 million in the corresponding quarter of 2017. The increase was due to higher capital expenditure undertaken by the Lihir, Ok Tedi, Porgera and Simberi mines. Mining and petroleum companies used funds held in their offshore foreign currency accounts to pay for their imports allowed under their Project Development Agreements (PDAs).

The value of general imports was K956.3 million in the quarter, compared to K1,253 million in the corresponding quarter of 2017, reflecting low domestic economic activity.

The services account had a deficit of K799 million in the quarter, compared to a deficit of K857 million in the March quarter of 2017. The decline was due to lower payments for services relating to transportation, travel, education, other financial, other businesses, and refining and smelting.

The income account recorded a deficit of K178 million in the quarter, compared to a deficit of K288 million in the corresponding quarter of 2017. The outcome was mainly due to lower interest and payments in compensation of employees.

The transfers account had a surplus of K308 million in the quarter, compared to a surplus of K44 million in the corresponding quarter of 2017. The higher surplus was due to increased gifts and grants, licensing fees, superannuation funds and tax receipts, combined with lower transfer payments.

As a result of these developments in the trade, service, income and transfers accounts, the current account recorded a surplus of K4,397 million in the quarter, compared to a surplus of K4,316 million in the corresponding quarter of 2017.

The capital account recorded an even flow of K5 million in receipts and payments in the March quarter of 2018, compared to a net inflow of K6 million in the corresponding quarter of 2017, reflecting lower transfers by donor agencies for project financing.

The financial account had a deficit of K4,574 million in the quarter, compared to a deficit of K3,951 million in the corresponding quarter of 2017. The outcome was due to net outflows in portfolio and other short term money market investments, and a build-up in offshore foreign currency account balances of mineral companies. This more than offset net inflows from direct investments reflecting intercompany financing of resident entities.

As a result of these developments, the capital and financial account recorded a deficit of K4,574 million in the quarter, compared to a deficit of K3,945 million in the corresponding quarter of 2017.

The level of gross foreign exchange reserves at the end of March 2018 was K5,397.5 (US$1,686.7) million, sufficient for 5.1 months of total and 8.9 months of non-mineral import covers.

## 6. MONETARY DEVELOPMENTS

### INTEREST RATES AND LIQUIDITY

Annual headline inflation has eased from a quarterly average of 6.7 percent in 2016 to a quarterly average of 5.4 percent in 2017. Considering this, and the Bank's expectation of an annual headline inflation of around 5.0 percent in 2018, the Bank maintained a neutral stance of monetary policy by keeping the monthly Kina Facility Rate (KFR) unchanged at 6.25 percent during the March quarter of 2018. The dealing margins for the Repurchase Agreement (Repos) were also maintained at 100 basis points on both the buy and sell sides of the KFR.

The Bank utilised its Open Market Operation instruments in the conduct of monetary policy to manage liquidity, which continued to be high and unevenly distributed in the banking system. There was a net CBB issuance of K112.2 million, while the Government issued a net of

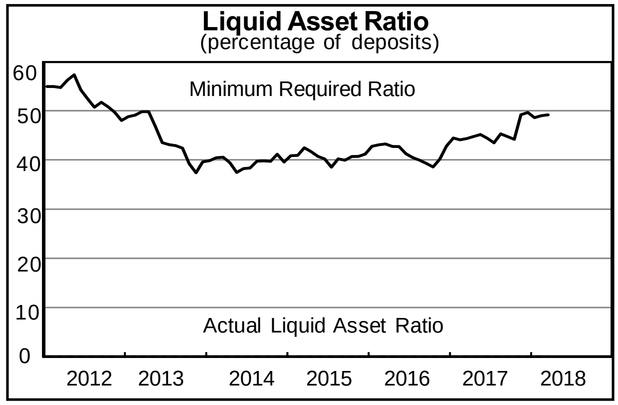
K73.2 million in Treasury bills and retired K112.5 million in Treasury bonds during the quarter. The CRR on commercial banks' total deposits and prescribed liabilities was maintained at 10.0 percent during the quarter.

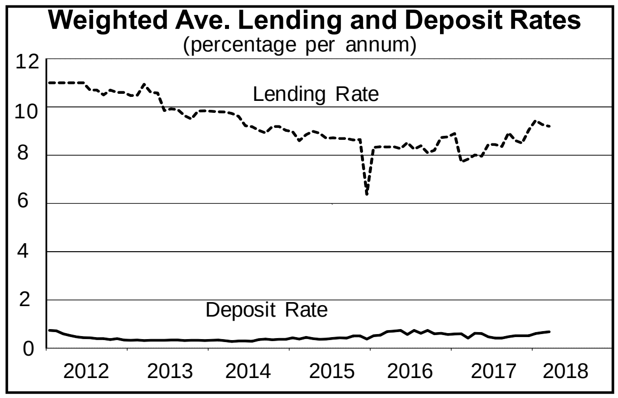
There were mixed movements in domestic interest rates for the Central Bank and Government securities over March quarter of 2018. For CBB, the weighted average rate for the 28-day term decreased to 1.40 percent at the end of March 2018 from 1.41 percent at the end of December 2017, while the 63-day rate remained at 2.35 percent. In the quarter, the Central Bank did not offer any CBBs under the 91-day and 182-day terms in the auction. For Treasury bills, the weighted average rates for the 63-day and 91-day terms were offered only in March and accepted at 2.37 percent and 2.42 percent, respectively. The 182-day term decreased to 4.72 percent at the end of March 2018 from 4.73 percent at the end of December 2017, while the rate for the 273-day term was unchanged at 6.76 percent, and the 364-day term increased to 8.04 percent from 8.03 percent.

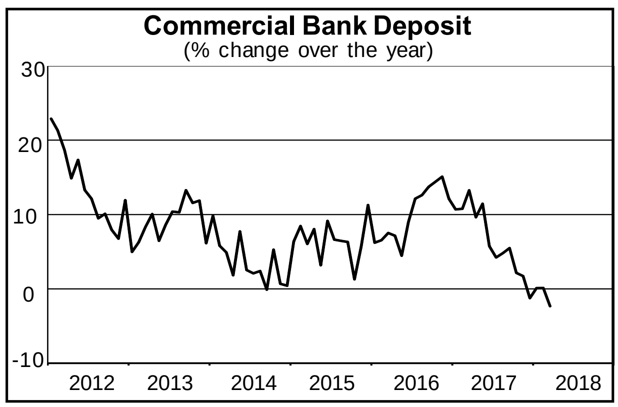
There were also mixed movements in the weighted average interest rates on wholesale deposits (K500,000 and above) quoted by commercial banks during the quarter. The 30-day rate remained unchanged at 0.20 percent at the end of March 2018, from end of December 2017, while the 60-day and 180-day rates declined to 0.04 percent and 0.70 percent, from 0.06 percent and 3.79 percent, respectively. The 90-day rate increased to 0.34 percent from 0.27 percent. The 270-day rate increased to 2.93 percent from 1.40 percent, and the 365-day rate increased to 2.42 percent from 2.12 percent in March 2018. The weighted average interest rate on total deposits increased to 0.68 percent from 0.55 percent, while it increased for total loans to 9.15 percent from 9.05 percent. The commercial banks' Indicator Lending Rates (ILR) remained between 11.20 - 11.70 percent.

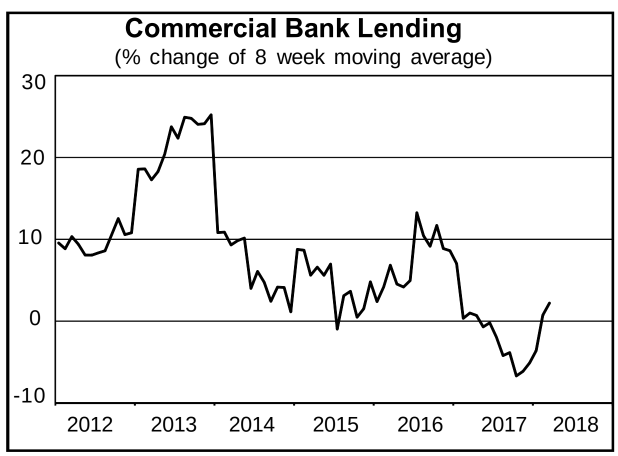
**MONEY SUPPLY**

The average level of broad money supply (M3*) increased by 0.1 percent in the March quarter of 2018, compared to a decline of 1.8 percent in the December quarter of 2017. There was an increase in average net domestic credit, reflecting a turnaround in credit to the private sector. This more than offset declines in credit to the Central Government and Net Foreign Assets (NFA) of the banking system. The average net domestic



claims outstanding, excluding net claims on the Central Government, increased by 1.6 percent in the quarter, compared to an increase of 0.3 percent in the previous quarter.

The average level of monetary base (reserve money) decreased by 2.4 percent during the March quarter of 2018, compared to a decrease of 6.2 percent in the December quarter of 2017. This reflected a decline in the deposits of commercial banks at the Central Bank.

The average level of narrow money supply (M1*) increased by 0.6 percent in the quarter, following a decline of 1.1 percent in the December quarter of 2017. This was mainly due to an increase in the average level of transferable deposits of the depository corporations. The average level of quasi money decreased by 1.3 percent in the March quarter of 2018, compared to a decline of 3.7 percent in the previous quarter.

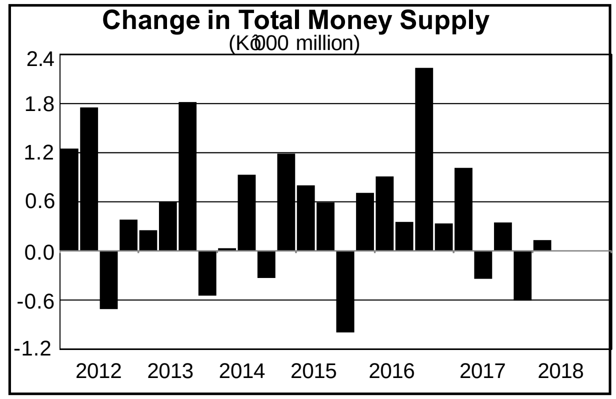
The average level of deposits in other depository corporations (ODCs) increased by 0.07 percent to K23,187.8 million in the March quarter of 2018, from K23,171.7 million in the previous quarter. This reflected increases in average deposits of other financial corporations (OFCs) and other resident sectors.

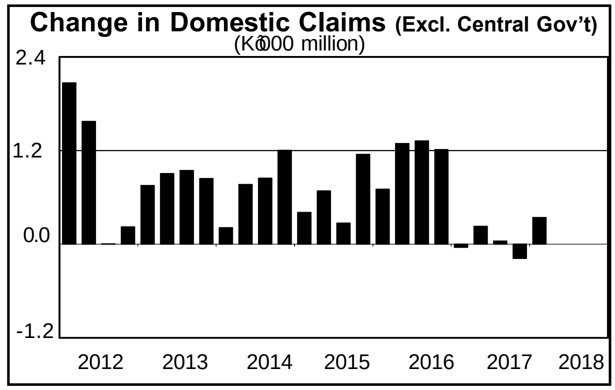
The NFA of the financial corporations, comprising Depository Corporations and OFCs, decreased by 4.0 percent to K6,975.6 million in the March quarter of 2018, compared to a decrease of 3.4 percent in the previous quarter. There were decreases in the NFA of the Central Bank, ODCs and OFCs. The decline at the Central Bank reflected interventions in the foreign exchange market to support the market, and external debt repayments during the period. For ODCs it reflected an increase in liabilities to non-residents, while for OFCs it reflected a decline in claims on non-residents during the quarter.

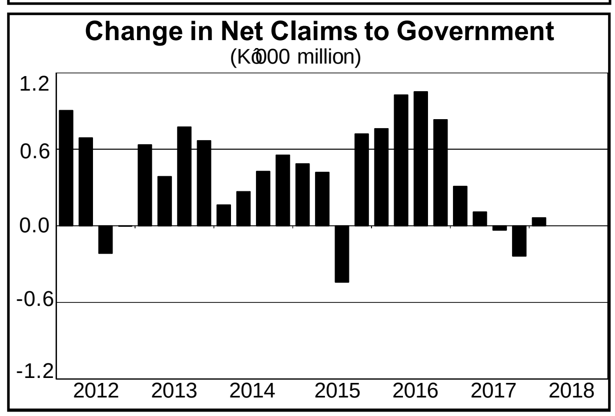
Net claims on the Central Government by financial corporations declined by K118.3 million to K13,033.2 million in the March quarter of 2018, compared to an increase of K37.3 million in the previous quarter. This reflected a net retirement of Government securities, both Treasury bills and Treasury bonds by ODCs and OFCs.

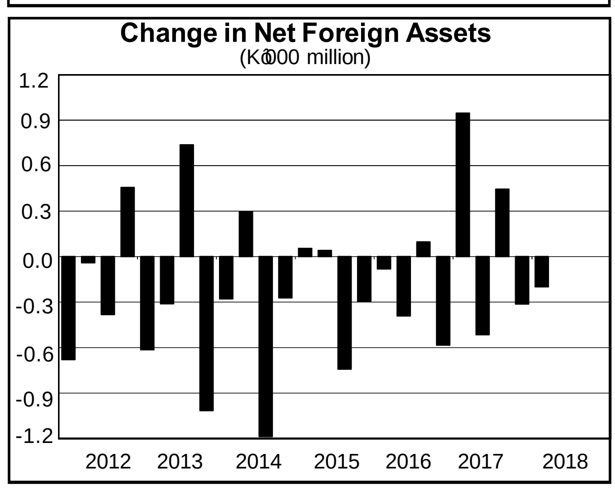
**LENDING**

In the March quarter of 2018, total domestic credit extended by financial corporations to the private sector,



public non-financial corporations and 'Provincial and Local level Governments' increased by K296.2 million to K16,966.9 million, compared to an increase of K168.2 million in the previous quarter. This was influenced by increases of K202.5 million to the private sector and K93.6 million to public non-financial corporations. The increase in credit to the private sector was mainly by ODCs to the 'hotels and restaurants', 'retail', and 'building and construction' and 'retail' sectors, as well as the household sector for housing and personal loans.

## 7. PUBLIC FINANCE

Preliminary estimates of the fiscal operations of the National Government over the three months to March 2018 show a deficit of K282.4 million, compared to the deficit of K39.9 million in the corresponding period of 2017. This represents 0.4 percent of nominal GDP.

Total revenue, including foreign grants, in the March quarter of 2018 was K2,404.8 million, 18.5 percent higher than in the corresponding quarter of 2017 and represents 18.9 percent of the 2018 budgeted amount. The increase reflects higher tax and non-tax receipts.

Total tax revenue amounted to K1,947.0 million, 8.1 percent higher than in the corresponding period in 2017 and represents 20.2 percent of the 2018 budgeted amount. Direct tax receipts totalled K998.0 million, 0.2 percent lower than in the corresponding period in 2017 and represents 17.0 percent of 2018 budgeted amount. The decline stemmed from lower personal income and company taxes.

Indirect tax receipts over the first three months to March totalled K949.0 million, 18.5 percent higher than in the corresponding three months of 2017 and represents 25.1 percent of the 2018 budgeted amount. The increase reflected higher trade taxes. Collections of Goods and Services Tax (GST) declined by 1.3 percent.

Total non-tax revenue for the quarter totalled K457.8 million, substantially higher than the corresponding quarter in 2017 and is 22.2 percent of the 2018 budgeted amount. This increase was mainly from dividends. There were no foreign grants for this quarter.

Total expenditure for the quarter was K2,687.2 million, 29.8 percent higher than in the corresponding period of 2017 and represents 18.3 percent of the 2018 budgeted amount. This was driven by significantly high recurrent expenditure, which was partially offset by a decline of 53.2 percent in the development expenditure.

Recurrent expenditure for the quarter was K2,541.2 million, 44.6 percent higher than the corresponding quarter of 2017 and represents 21.9 percent of the 2018 budgeted amount. Major expenditure increases were from National Departments and interest payments. There was higher spending on compensation of employees of National Departments, which more than offset a decline in expenditure on goods and services during the quarter, compared to the corresponding quarter of 2017. Expenditure by National Departments was K1,166.7 million, 73.2 percent higher than in the corresponding period in 2017 and represents 19.5 percent of the 2018 budgeted amount. Interest payments totalled K804.6 million, substantially higher than in the corresponding quarter of 2017, and represent 44.7 percent of the budgeted appropriation. This reflects an increase in the levels of both domestic and foreign debt during the period.

Total development expenditure for the quarter was K146.0 million, 53.2 percent lower than in the corresponding quarter of 2017 and represents 4.7 percent of the 2018 budget appropriation. The lower development spending was due to reduced capital investment spending, attributed to tight government cash flow.

As a result of these developments in revenue and expenditure, the Government recorded a budget deficit of K282.4 million. The deficit was financed mainly from domestic sources of K1, 411.8 million, more than offsetting net repayments to external sources of K1,129.4 million. Net domestic financing was mainly from other resident sectors totalling K1,608.0 million, which comprises a net purchase of Government securities by the public and Central Bank and unpresented cheques from the previous year. These more than offset net retirement of Government securities by ODCs and OFC's of K123.2 million and K264.6 million, respectively. Net external repayments comprised K773.4 million and K346.9 million to concessional and commercial sources, respectively, and K9.1 million to extraordinary sources.

Total public (Government) debt outstanding as at March 2018 was K 23,480.9 million, a decline of K77.3

million from December 2017, with decreases in both the external and domestic debt levels. The decline in external debt reflected net repayments on both concessional and commercial loans whilst the decline in domestic debt was attributed to net retirement of Government securities, particularly Treasury bonds. No new Treasury bonds were issued in the first quarter pending approval of the issuance plan for the year.

The total amount of Government deposits at depository corporations decreased by K281.9 million to K1,902.3 million in March 2018, compared to December 2017. The Government drew on its deposits to support the budget.

## PAPUA NEW GUINEA'S TOTAL EXTERNAL EXPOSURE[1]

Papua New Guinea's total external exposure is given by the stock of public and private sector external debt and foreign equity holdings in resident business enterprises by non-resident entities.

This article reviews Papua New Guinea's total external exposure for the period 2015 to 2017. Historically, inflows of loans and equity capital for public and private sector investments have financed the balance of payments gap as a result of low levels of domestic savings. Papua New Guinea's balance of repayments position for the review period as presented in Table 1 indicates current account recording a surplus in 2017, a significant improvement from a lower surplus position recorded in 2015. The outcome mainly reflects improvement in international prices of some of PNG's export commodities and ongoing production and export of LNG. Concurrently, the capital and financial account show a deficit position in 2017, a consistent trend over the review period, mainly reflecting increase in deposits held in offshore banks by resident mineral companies, as allowed under the Project Development Agreements between the State and project partners. Between 2015 and 2017, Papua New Guinea's total external exposure as a percent of nominal GDP declined from 118.3 percent in 2015 to 92.8 percent in 2017. This outcome was attributed to an increase in the nominal GDP, combined with a decrease in external debt outstanding. As a percentage of nominal GDP, total external debt outstanding declined from 96.6 percent in 2015 to 73.5 percent in 2017, whilst the total foreign equity holdings decreased from 21.6 percent in 2015 to 19.3 percent in 2017. At the end of 2017, 96.6 percent of the composition of Papua New Guinea's external debt was denominated in US dollars (40.5 percent), Special Drawing Rights (SDR) (30.1 percent), Chinese Yuan (20.6 percent) and Japanese Yen (5.4 percent). Between 2015 and 2017, the kina depreciated against all major currencies, namely SDR by 12.4 percent, US dollar by 13.2 percent, Japanese Yen by 19.6 percent and Australian dollar by 14.8 percent. The kina value of total external exposure decreased during this period as a result of a decrease in total external debt, which more than offset an increase in total equity holdings.

Papua New Guinea's total foreign exposure was K68,567 million in 2017, 6.7 percent lower than in 2015. This outcome was mainly due to a decrease in total external debt, which more than offset the increase in foreign equity holdings. The decrease in total external debt was mainly due to a decline in private sector external debt reflecting higher loan repayments by the mineral (gas subsector), agriculture and building/construction sectors. The public sector external debt increase due

**Table 1: Balance of Payments (K'million ) (a)**

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017(p) |
|---|---|---|---|---|---|---|---|---|
| Export of Goods and Services | 16,467 | 17,402 | 14,190 | r 14,294 | 22,161 | 23,727 | r 26,090 | 32,548 |
| Import of Goods and Services | 17,094 | 17,083 | 17,709 | r 20,888 | 15,492 | 10,775 | r 9,863 | 13,682 |
| Current Account Balance (b) (c) (d) | r -1,721 | r -407 | -4,793 | r -7,746 | r 5,963 | 12,153 | 16,240 | 18,489 |
| Capital & Financial Account | 3,035 | 1,599 | 3,971 | r 6,190 | -6,794 | -12,831 | -16,203 | -18,148 |
| Foreign Exchange Reserve Level | 8,170 | 9,266 | 8,416 | 6,842 | 5,980 | 5,227 | 5,257 | 5,387 |
| Months of Total Import Cover (d) | 10.5 | 11.5 | 11.0 | 7.2 | 7.3 | 10.0 | 6.4 | 4.8 |

Source: Bank of Papua New Guinea.

(a) The BOP format changed in 2002 to conform with the new IMF reporting format (BPM5), refer to "For the Record Note" in the March 2003 QEB for detail changes in the reporting format.explanations to the

(b) Beginning in 2002, transactions in the Income Account were included, due to changes in the reporting format. Prior to 2002, all Income Account transactions were recorded unders Services Account. Refer to footnote (a).

(c) Break in the series in 2006 highlights the exclusion of Income and Transfer accounts from export and import calculations which conforms with the method of calculation of the the debt-ratios used and the indicators employed in the calculation process. See "For the Record", June 2007 QEB for the detail explanation.

(d) The historical values have been revised to be consistent with the published quarterly economic bulletin (QEB) for respective years.

(e) The import cover calculation now include service payments starting with 2016 import cover. Refer to " For the Record" in December 2016 QEB.

[1] Does not include PNG LNG project equity contributions by project partners. Therefore, subsequently commentary in the article on equity does not include PNG LNG project equity. Refer foot note (g) in Table

**Table 2: External Debt Outstanding and Foreign Equity Holdings**
**(K'million) (a)**

| | | 2010 | 2011 | 2012 (h) | 2013 | 2014 | 2015 | 2016 | 2017 (p) |
|---|---|---|---|---|---|---|---|---|---|
| **External Debt** | | | | | | | | | |
| ***Official Sector (i)*** | | **2,742.5** | **2,284.4** | **2,378.9** | **3,032.3** | **3,513.0** | **4,251.3** | **6,069.5** | **7,364.8** |
| Commercial (b) | | 79.3 | 50.8 | 29.9 | 14.0 | 0.0 | 0.0 | 685.0 | 1,125.0 |
| Concessional (c) | | 2,663.2 | 2,233.6 | 2,349.0 | 3,018.3 | 3,513.0 | 4,251.3 | 5,384.5 | 6,239.8 |
| ***Private Sector*** | | **15,914.1** | **27,681.8** | **31,784.1** | **43,744.8** | **48,928.1** | **55,816.8** | **52,151.3** | **46,937.8** |
| Mineral (d) | | 14,382.1 | 26,339.5 | 30,731.2 | 42,553.5 | 47,376.6 | 54,045.8 r | 50,596.9 | 45,618.5 |
| Other (e) | | 1,532.0 | 1,342.3 | 1,052.9 | 1,191.3 | 1,551.5 | 1,771.0 r | 1,554.4 | 1,319.3 |
| Commercial Stat. Authorities. | | - | - | - | - | - | - | - | - |
| **Total Debt Outstanding** | | **18,656.6** | **29,966.2** | **34,163.0** | **46,777.1** | **52,441.1** | **60,068.1** | **58,220.8** | **54,302.6** |
| **As a % of GDP (l)** | r | **48.3 r** | **70.4 r** | **77.1 r** | **98.6 r** | **92.6** | **96.6** | **85.9** | **73.5** |
| **As a % of Export of Goods and Services (f)** | | **113.3** | **172.2** | **240.8** | **327.2** | **236.6** | **253.2** r | **223.2** | **166.8** |
| **Foreign Equity Holdings** | | | | | | | | | |
| ***Private Sector*** | | | | | | | | | |
| Mineral (g) | | 8,675.3 | 8,558.8 | 8,559.1 | 8,673.5 | 9,150.6 | 11,526.9 | 12,268.7 | 12,269.7 |
| Other | | 1,225.2 | 1,230.9 | 1,233.4 | 1,551.7 | 1,588.5 | 1,911.4 | 1,896.6 | 1,994.3 |
| **Total Foreing Equity holdings (g)(h)** | | **9,900.5** | **9,789.7** | **9,792.5** | **10,225.2** | **10,739.1** | **13,438.3** | **14,165.3** | **14,264.0** |
| **As a % of GDP (Nominal terms)(l)** | r | **25.6 r** | **23.0 r** | **22.1 r** | **21.5** | **19.0** | **21.6** | **20.9** | **19.3** |
| **Total External Exposure (m)** | | **28,557.1 r** | **39,755.9** | **43,955.5** | **57,002.3** | **63,180.2** | **73,506.4** | **72,386.1** | **68,566.6** |
| **As a % of GDP (Nominal terms)(l)** | r | **73.9 r** | **93.4 r** | **99.2 r** | **120.1** | **111.6** | **118.3** | **106.8** | **92.8** |
| **GDP (Nominal Terms) (j) (k)** | **r** | **38,627.0 r** | **42,567.0 r** | **44,315.0 r** | **47,459.0 r** | **56,621.0** | **62,157.8** r | **67,763.8** | **73,860.7** |

Source: Bank of Papua New Guinea, National Statistics Office & Department of Treasury (DOT).

(a) Figures from 2007-2015 reflect the upgrade of the debt recording system, the Commonwealth Secretariat Debt Recording and Management System (CS-DRMS).
(b) The 2014 figure excludes the United Bank of Switzerland (UBS) loan the State borrowed to purchase shares in Oil Search Ltd. The debt was transferred to Kumul Petroleum Holdings Ltd (formerly National Petroleum Company PNG) in 2014.
(c) Several concessional loans were cancelled in 2010 and 2011 but the update was delayed until 2013. Consequently, values have been revised ( r ) for concessional debt outstanding, total debt outstanding and percentage ratio for total outstanding debt to Gross Domestic Product (GDP) and exports of goods & services for the period concerned.
(d) Includes petroleum and gas sectors. In 2009 and onwards includes PNG Liquified Natural Gas (LNG) Project.
(e) Figures from 2009 to 2013 reflect the International Petroleum Investment Company (IPIC) loan obtained by the Kumul Consolidated Holdings Ltd (former Independent Public Business Corporation) to finance the State's interest in the PNG Liquified and Natural Gas (LNG) Project.
The loan was written off with International Petroleum Investment Company (IPIC) taking up the Government shares in Oil Search Ltd pledged as security for the Bond.
(f) See footnote (c) in Table 1.
(g) The values in 2010 to 2013 do not reflect equity contribution of major project partners to the PNG LNG Project. The values will be updated should data become available in future.
(h) The updated project financing data provided by Exxon Mobil (PNG) Ltd excluded equity and other loan components from the earlier reported total loan value of 19 billion US dollar. As a result, the revised total loan value was reduced to 15 billion US dollar in 2012. This resulted in a revised reduced value of private sector debt outstanding in 2012.
(i) Any data variances for the published periods that arise against published Final Budget Outcome (FBO) reports is due to adjustments by the DOT as part of its review process.
(j) The Nominal Gross Domestic Product (GDP) values for historical years 2007 to 2013 have been revised (r) following the release of updated data by the National Statistical Office. Consequently, percentage ratios of total external exposure, outstanding debt and foreign equity holdings as a percentage of nominal GDP have been updated accordingly.
(k) The Nominal Gross Domestic Product (GDP) values for years 2014 to 2017 are from National Budget Documents.
(l) The affected percentage ratios mentioned in the foot note (j) of the published 2015 exposure article were oversighted. Thus, the revisions ( r ) in 2016 exposure article to reflect the correction.
(m) The total exposure value for 2010 was revised ( r) to correct the March 2016 Quaterly Economic Bulletin report.

to higher borrowings by the Government. Between 2015 and 2017, the total foreign equity holdings increased due to higher investments in the mineral and non-mineral private sectors particularly, manufacturing, agriculture and forestry, and building/construction sectors.

## COMPOSITION OF EXTERNAL DEBT OUTSTANDING

As presented in Table 2, Papua New Guinea's total external debt outstanding decreased by 9.6 percent to K54,303 million in 2017, from K60,068 million in 2015. Total external debt outstanding, as a percentage of nominal GDP, declined from 96.6 percent in 2015 to 73.5 percent in 2017, as a result of an increase in nominal GDP, combined with a decline in private sector external debt. The decrease in the total stock of debt between 2015 and 2017 was mainly due to higher loan repayments by the private sector, which more than offset an increase in the public sector external debt.

The total private sector external debt outstanding decreased by 18.9 percent to K46,938 million in 2017, from K55,817 million in 2015. The decrease was mainly attributed to higher loan repayments by

**Table 3: Maturity Structure of Government External Debt Outstanding: 2009 - 2017**
**(K'million) (a)**

| Maturity | 2010 (b) | % | 2011 (b) | % | 2012 | % | 2013 | % | 2014(c) | % | 2015 (c) | % | 2016 (c) | % | 2017 (p) (c) | % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 to 5 years | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 635 | 10 | 1,002 | 13 |
| 6 to 9 years | 51 | 2 | 48 | 2 | 54 | 2 | 57 | 2 | 10 r | 0 | 6 | 0 | 2 | 0 | 124 | 2 |
| Over 10 years | 2,691 | 98 | 2,236 | 98 | 2,325 | 98 | 2,975 | 98 | 3,503 r | 100 | 4,245 | 100 | 5,433 | 90 | 6,239 | 85 |
| **Total** | **2,742** | **100** | **2,284** | **100** | **2,379** | **100** | **3,032** | **100** | **3,513 r** | **100** | **4,251** | **100** | **6,070** | **100** | **7,365** | **100** |

Source: Financial Management Division,(DOT).

(a) The maturity intervals have changed as per the data provided by DOT following the upgrade of CS-DRMS. Refer footnote (a) Table 2.

(b) Refer to foot note (c) in Table 2.

(c) Refer to foot note (i) in Table 2.

the mineral (gas subsector), agriculture and building/ construction sectors. The private sector debt outstanding, excluding mineral and commercial statutory authorities, decreased by 25.5 percent to K1,319 million in 2017, from 2015. This was mainly due to higher loan repayments by the agriculture and building/construction sectors.

Government's external debt outstanding increased by 73.2 percent to K7,365 million in 2017 from 2015, and comprised of 13.6 percent of total external debt in 2017, compared to 7.1 percent in 2015. The 2017 official sector debt stock constitutes 15.3 percent and 84.7 percent of commercial and concessional loans, respectively. The increasing trend in public external debt reflects the Government's borrowings from concessional and commercial sources for the budget support programs and projects.

## MATURITY STRUCTURE OF GOVERNMENT EXTERNAL DEBT OUTSTANDING

Table 3 presents the maturity structure of the Government's external debt, classified by date of maturity from borrowing. At the end of 2017, 15.0 percent of debt stock had original maturities between 1 to 9 years, while the remaining 85.0 percent of debt had maturities over 10 years. The majority of the loans

**Table 4: Maturity Structure of Private External Debt Outstanding: 2009 - 2017**
**(K'million) (a) (b)**

| Maturity | % | 2010 | % | 2011 | % | 2012 (c) | % | 2013 | % | 2014 (c) | % | 2015 (d) | % | 2016 (d) | % | 2017 (p) (d) | % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 to 5 years | 12 | 565 | 4 | 2,658 | 10 | 3,283 | 10 | 7,515 | 17 | 408 r | 9 | 1,714 r | 3 | 4,794 | 9 | 1,896 | 4 |
| 6 to 10 years | 79 | 9,293 | 58 | 6,505 | 23 | 5,712 | 18 | 3,266 | 7 | 7,649 r | 7 | 50,839 r | 91 | 1,545 | 3 | 1,635 | 4 |
| 11 to 15 years | 8 | 393 | 2 | 1,059 | 4 | 2,048 | 6 | 32,630 | 75 | 40,639 r | 84 | 1,001 | 2 | 1,198 | 2 | 1,437 | 3 |
| Over 15 years | 1 | 5,664 | 36 | 17,459 | 63 | 20,742 | 65 | 334 | 1 | 232 | 0 | 2,263 r | 4 | 44,613 | 86 | 41,970 | 89 |
| **Total** | **100** | **15,915** | **100** | **27,681** | **100** | **31,785** | **100** | **43,745** | **100** | **48,928** | **100** | **55,817 r** | **100** | **52,150** | **100** | **46,938** | **100** |

Source: Bank of Papua New Guinea.

(a) See footnote (a ) in Table 2.

(b) See footnote (d) in Table 2.

(c) See footnote (h) in Table 2.

(d) See footnote (d) in Table 2.

**Table 5: External Debt Service by Category of Borrower**
**(K'million) (a)**

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 (p) |
|---|---|---|---|---|---|---|---|---|
| **Official Sector** | **228** | **232** | **201** | **210** | **299** | **254** | **305** | **421** |
| *Principal* | 185 | 186 | 164 | 172 | 188 r | 198 | 232 | 271 |
| Commercial (b) | 19 | 18 | 16 | 14 | 14 | 0 | 0 | 0 |
| Concessional | 166 | 168 | 148 | 158 | 174 | 198 | 232 | 271 |
| *Interest (c)* | 43 | 46 | 37 | 38 | 111 | 56 | 73 | 150 |
| Commercial (d) | 1 | 1 | - | - | 62 r | - | 1 | 59 |
| Concessional | 42 | 45 | 37 | 38 | 49 r | 56 | 72 | 91 |
| **Private Sector** | **2,201** | **2,766** | **992** | **2,952** | **2,782** | **6,921** | **12,335** | **8,893** |
| *Principal* | 1,896 | 2,351 | 572 | 2,229 | 1,900 r | 5,264 | 10,391 | 6,811 |
| Mineral (e) (h) | 211 | 211 | 146 | 2,027 | 1,750 r | 5,093 r | 9,225 | 6,357 |
| Other | 1,685 | 2,140 | 426 | 202 | 150 | 171 r | 1,166 | 454 |
| Commercial Stat. Authorities (f) | - | - | - | - | - | - | | |
| *Interest (c)* | 305 | 415 | 420 | 723 | 882 r | 1,657 | 1,944 | 2,082 |
| Mineral (e) | 258 | 371 | 360 | 688 | 853 r | 1,614 r | 1,912 | 2,056 |
| Other | 47 | 44 | 60 | 35 | 29 r | 43 r | 32 | 26 |
| Commercial Stat. Authorities (f) | - | - | - | - | - | 0 | | |
| **Total Debt Service** | **2,429** | **2,998** | **1,193** | **3,162** | **3,081 r** | **7,175** | **12,640** | **9,314** |
| **Principal** | **2,081** | **2,537** | **736** | **2,401** | **2,088 r** | **5,462** | **10,623** | **7,082** |
| **Interest** | **348** | **461** | **457** | **761** | **993 r** | **1,713** | **2,017** | **2,232** |
| **Total Debt Servicing/Export of Goods and Sevices (%)** (g) | **15** | **17** | **8** | **22** | **14** | **30 r** | **48** | **29** |
| **Interest Payments/Export of Goods and Sevices (%)** (g) | **2** | **3** | **3** | **5** | **5 r** | **7 r** | **8** | **7** |

Source: Bank of Papua New Guinea & DOT.

(a) See foot note (a ) in Table 2.
(b) Refer foot note (b) in table 2.
(c) From 1999 onwards Other fees and charges are not included.
(d) External debt service interest costs incurred under the Official sector relate to the united bank of Switzerland (UBS) loan interests. Refer footnote (b) in Table 2 for additional details on the UBS loan.
(e) Includes petroleum and gas sectors.
(f) Includes Bank of Papua New Guinea's debt service.
(g) See footnote (c) in Table 1.
(h) The significant debt service in mineral sector between 2015 & 2016 is attributed to Mining & Petroleum (Gas) sectors.

are concessional provided by multilateral agencies to fund the development projects.

## MATURITY STRUCTURE OF PRIVATE EXTERNAL DEBT OUTSTANDING

As presented in Table 4, the maturity structure of private sector debt, classified by date of maturity from borrowing, shows that in 2017, 8.0 percent of the total stock had original maturities between 1 to 10 years. This is mainly commercial debt owed by mineral sector and the other non-mineral private sectors. The remaining 92.0 percent with over 10 years to maturity mainly constitutes inter-company debt, agreed to between resident companies and their foreign affiliates.

## EXTERNAL DEBT SERVICE

Table 5 illustrates Papua New Guinea's external debt service. Debt service payments increased between 2015 and 2017 by 29.8 percent to K9,314 million. Much of the increase was in the mineral (gas subsector) combined with increases in the agriculture, and building and construction sectors. The private sector external debt service, accounted for 95.5 per cent of the total external debt service payments, with public sector debt service payments making up the balance. The Government's external debt service increased between 2015 and 2017, mainly due to higher principal and interest payments combined with the depreciation of kina against major loan denominated currencies.

## DEBT SERVICE TO EXPORTS RATIO[2,3]

The debt service to exports ratio is defined as the ratio of external debt service, comprising both principle and interest payments, to the value of export of goods and services. This ratio is used as an indicator of a country's ability to meet external debt obligations from its export earnings.

As shown in Chart 1, Papua New Guinea's debt service-to-exports ratio recorded a decrease to 28.4 percent in 2017 from 30.2 percent in 2015. This is slightly higher

[2]Refer to "For the Record" in the June 2007 Quarterly Economic Bulletin for detailed explanation.

[3]2004 to 2012 figures and charts have been updated following reclassification of the regional grouping of the countries according to the World Economic Outlook publication of October 2012. It also applies to commentaries on other ratios.

than the service to export ratios of Sub-Saharan Africa but lower than the Emerging and Developing Asia, Latin America and Caribbean economies. This outcome was due to an increase in the export of goods and services of 38.3 percent to K32,820 in 2017, more than offsetting the increase in debt service payments of 29.8 percent to K9,314 million. The decrease in PNG's debt service to export ratio, indicates an increase in PNG's ability to meet its external debt obligations with proceeds from the exports.

**DEBT TO EXPORTS RATIO[4]**

The debt to export ratio is defined as the ratio of total outstanding debt to the value of export of goods and services of an economy. This ratio is used as a measure of sustainability and as an indicator of a country's ability to meet its future external debt obligations from its export earnings.

Papua New Guinea's ratio of external debt outstanding to export of goods and services in 2017, as shown in Chart 2, was lower than that of Latin America and Caribbean but relatively higher than Sub-Sahara Africa, Emerging and Developing Asian economies. The outcome was mainly due to a significant increase in the export of goods and services, combined with a decline in the outstanding debt stock over the review period.

The export of goods and services increased by 38.3 percent to K32,820 million in 2017 from K23,727 million in 2015, whilst the total debt outstanding decreased by 9.6 percent to K54,303 million in 2017 from 2015. The ratio, as a percentage of export receipt of goods and services, recorded 165.5 percent in 2017, lower than in 2015. The decline in the debt to export ratio indicates that the country is able to meet its external debt obligations.

**DEBT TO GDP RATIO**

The debt to GDP ratio is defined as total outstanding external debt to nominal GDP. It is an indication of the country's ability to service external debt by switching resources from production of domestic goods and services to the production of export commodities.

The ratio of Papua New Guinea's external debt outstanding to nominal GDP, as shown in Chart 3,

**Chart 1: Debt Service to Exports Ratio (%)**

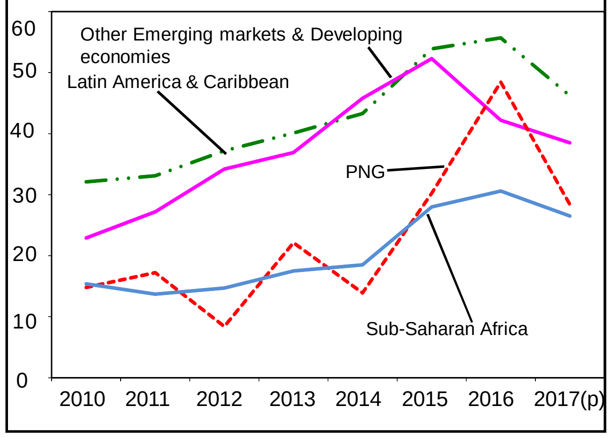



**Chart 2: Debt to Exports Ratio (%)**

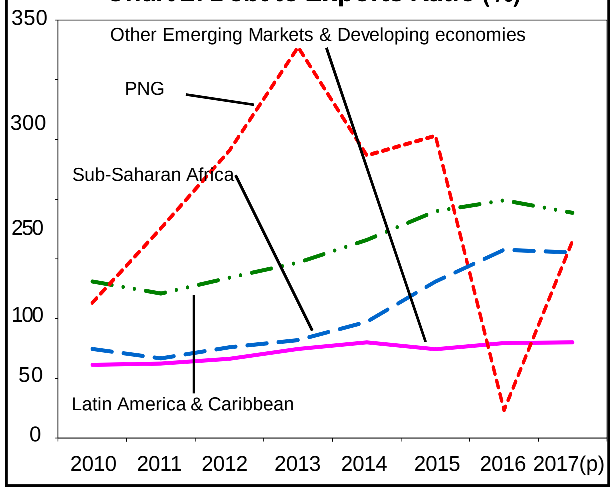
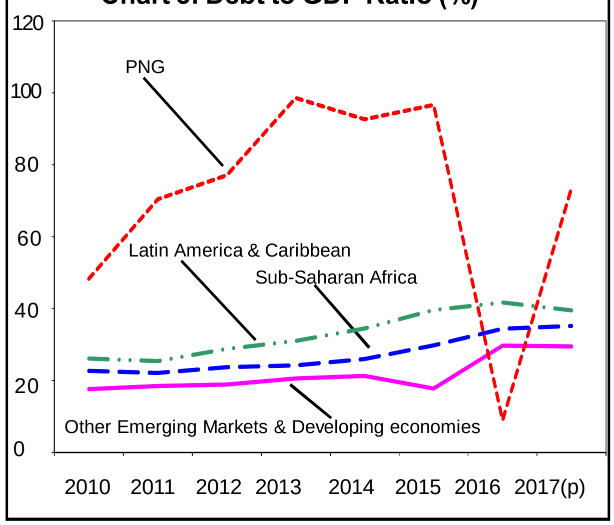



**Chart 3: Debt to GDP Ratio (%)**




[4]Refer to footnote 6.

**Table 6: Foreign Equity Holdings by Country of Origin**
**(K'million) (a)**

| Country | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 (p) |
|---|---|---|---|---|---|---|---|---|
| Australia | 5,741 | 5,690 | 5,690 | 5,804 | 6281 | 7,634 | 8,376 | 8,377 |
| Japan | 1,717 | 1,717 | 1,717 | 1,717 | 1717 | 1,717 | 1,717 | 1,717 |
| China (d) | 5 | 5 | 5 | 5 | 5 | 1,193 | 1,193 | 1,187 |
| Malaysia | 164 | 164 | 164 | 164 | 164 | 288 | 288 | 308 |
| Cayman Islands | 224 | 224 | 224 | 224 | 224 | 224 | 224 | 224 |
| British Virgin Islands | 141 | 141 | 141 | 141 | 219 | 219 | 219 | 264 |
| Bahamas | 189 | 189 | 189 | 189 | 189 | 189 | 189 | 189 |
| Isle of Man | 170 | 170 | 170 | 170 | 170 | 170 | 170 | 170 |
| Singapore | 165 | 165 | 165 | 165 | 168 | 168 | 168 | 168 |
| United Kingdom | 206 | 206 | 206 | 206 | 136 | 136 | 136 | 175 |
| Hong Kong | 69 | 69 | 69 | 69 | 69 | 99 | 99 | 99 |
| Canada | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 |
| United States | 48 | 48 | 50 | 50 | 50 | 50 | 50 | 50 |
| Taiwan | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 |
| Mauritania | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 |
| Philipines | 19 | 19 | 19 | 21 | 45 | 43 | 43 | 43 |
| Switzerland | 29 | 29 | 29 | 29 | 29 | 29 | 29 | 29 |
| South Korea | 24 | 24 | 24 | 24 | 24 r | 24 | 24 | 24 |
| Fiji | 12 | 18 | 18 | 21 | 21 | 21 | 11 | 11 |
| New Zealand | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 |
| Bermuda | 69 | 3 | 3 | 3 | 5 | 5 | 5 | 5 |
| Others | 705 | 705 | 705 | 1,019 | 1019 | 1,019 | 1,020 | 1,020 |
| **Total Foreign Equity** | **9,901** | **9,790** | **9,792** | **10,225** | **10,739** | **13,432** | **14,165** | **14,264** |
| As a % of GDP (nominal) | **25.6** | **23.0** | **22.1** | **21.5** | **19.0 r** | **21.6** | **20.9** | **19.3** |
| Gross Domestic Product (GDP) (b) (c) | 38,627 | 42,567 | 44,315 | 47,459 | 56,621 r | 62,158 | 67,764 | 73,861 |

Source: Bank of Papua New Guinea.

(a) See footnote (a ) in Table 2.
(b) See footnote (i) in Table 2.
(c) See footnote (k) in Table 2.
(d) The significant increased in equity stock from China is attributed to investment in the Mining Sector.

declined between 2015 and 2017, but remained relatively higher than the ratio of Latin America and Caribbean, Sub Sahara Africa and, Emerging and Developing Asian economies. The ratio, as a percentage of nominal GDP, declined from 96.6 percent in 2015 to 73.5 percent in 2017. This outcome was mainly due to a significant increase in the nominal GDP, combined with a decrease in total debt outstanding. The decline in the debt to GDP ratio reflects a strong GDP growth rate and PNG's ability to meet its external debt obligations.

## FOREIGN EQUITY INVESTMENT IN PAPUA NEW GUINEA

As presented in Tables 6 and 7, foreign equity holdings in Papua New Guinea increased by 6.2 percent to K14,264 million in 2017, from K13,432 million in 2015. This outcome was mainly due to an increase in investments in the mineral sector (petroleum), combined with non-mineral private sectors namely, transport, building/construction, agriculture and forestry sectors. The ratio, as a percentage of nominal GDP, decreased

**Table 7: Foreign Equity Holdings by Country of Origin**
**(K'million) (a) (b)**

| Economic Sector | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 (p) |
|---|---|---|---|---|---|---|---|---|---|
| Agriculture | 219 | 219 | 219 | 219 | 219 | 219 | 219 | 219 | 237 |
| Mineral (c) | 4,763 | 8,675 r | 8,559 | 8,559 | 8,673 | 9,151 | 11,527 | 12,268 | 12,270 |
| Transportation | 4 | 5 | 4 | 4 | 5 | 5 | 5 | 5 | 5 |
| Manufacturing | 392 | 392 r | 392 | 394 | 394 | 395 | 395 | 395 | 395 |
| Fisheries | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 |
| Bank/Insurance/Finance | 137 | 137 | 137 | 137 | 451 | 382 | 545 r | 545 | 545 |
| Retail | 38 | 38 | 44 | 44 | 44 | 48 | 48 | 48 | 48 |
| Forestry | 134 | 134 | 134 | 134 | 134 | 134 | 134 | 134 | 212 |
| Hotel/Restraurant | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Communication | 123 | 123 | 123 | 123 | 123 | 224 | 224 | 214 | 214 |
| Other | 116 | 116 | 116 | 116 | 120 | 121 | 273 r | 275 | 276 |
| **Total Foreign Equity** | **5,988** | **9,901** | **9,790** | **9,792** | **10,225** | **10,739** | **13,432** | **14,165** | **14,264** |

Source: Bank of Papua New Guinea.

(a) See footnote (a ) in Table 2.
(b) See footnote (g) in Table 2.
(c) Includes gas and petroleum sectors

**Table 8: Foreign Equity Holdings by Country of Origin**
**(K'million) (a) (b)**

| Country | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 (d) | 2015 (d) | 2016 (d) | 2017 (p)(d) |
|---|---|---|---|---|---|---|---|---|---|
| Australia | 90 | 3,355 | 26 | - | 114 | 477 | 1,353 | 962 | 1 |
| United Kingdom | - | - | - | - | - | - | - | - | 38 |
| Fiji | - | - | 6 | - | 4 | - | - | - | - |
| China | - | - | - | - | - | - | 1,187 | | 2 |
| Japan | - | - | - | - | - | - | - | - | - |
| Korea, Republic | | | | | | | | 9 | 0 |
| Philippines | - | - | - | - | - | 24 | - | - | - |
| Germany | - | - | - | - | - | - | - | - | - |
| Canada | - | - | - | - | - | - | - | - | - |
| Singapore | - | - | - | - | - | 3 | - | - | - |
| Hong Kong (PRC) | - | - | - | - | - | - | 30 | | |
| New Zealand | - | - | - | - | - | - | - | - | - |
| Taiwan (PRC) | - | - | - | - | - | - | - | - | - |
| Malaysia | - | - | - | - | - | - | 129 | | 21 |
| Italy | 1 | - | - | - | - | - | - | - | - |
| British Virgin Islands | 120 | - | - | - | - | 78 | - | - | 45 |
| United States | - | - | - | 3 | | | | | |
| Others | 10 | 561 | 1 | 0 | 314 | 4 | - | 0 | 1 |
| **Total Equity Inflows (c)** | **221** | **3,916** | **33** | **3** | **432** | **586** | **2,699** | **971** | **108** |

Source: Bank of Papua New Guinea.

(a) See foot note (a ) in Table 2.

(b) See footnote (g) in Table 2.

(c) The large inflow s in 2015 w ere from the gas, banking, finance and insurance sectors w hilst in 2014, the large inflow w as from the petroleum sector.

from 21.6 percent in 2015 to 19.3 percent in 2017. This outcome was mainly due to a significant increase in nominal GDP, more than the increase in foreign equity investments, over the review period.

By country of origin, equity holdings was led by Australia followed by Japan, China, Malaysia, British Virgin Islands, Cayman Island, Bahamas, United Kingdom, Isle of Man and Singapore. Together accounted for 89.6 percent in 2017, compared to 88.9 percent in 2015. Investments from Cayman Islands, Bahamas, Isle of Man, Singapore, Hong Kong, Canada, United Sates, Taiwan, Mauritania, Philippines, Switzerland, South Korea, New Zealand and Bermuda remained stable over the review period from 2015 to 2017.

Table 7 shows that the mineral sector accounted for 85.8 percent in 2015 and 86.0 percent of the total foreign equity 2017, reflecting the dominance of this

**Table 9: Equity Withdrawals /Transfers by Country of Destination**
**(K'million) (a) (b)**

| Country | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 (p) |
|---|---|---|---|---|---|---|---|---|---|
| Australia | 5 | 3 | 77 | - | - | - | 0 | 220 | |
| Bermuda | - | - | 66 | - | - | 3 | 1 | | |
| Canada | - | - | - | - | - | - | - | - | - |
| Japan | - | - | - | - | - | - | - | - | - |
| Korea, Republic of | - | - | - | - | - | - | - | 9 | |
| Malaysia | 6 | - | - | - | - | - | 5 | - | - |
| United Kingdom | - | - | - | - | - | 69 | 0 | - | - |
| United States | - | - | - | - | - | | 0 | | |
| South Africa | 24 | - | - | - | - | - | - | - | - |
| Others | 1 | - | - | - | - | - | 0 | 10 | 8 |
| **Withdrawals/ Transfers** | **36** | **3** | **143** | **0** | **0** | **72** | **6** | **239** | **8** |
| **Net Flows** | **185** | **3,913** | **-110** | **3** | **432** | **514** | **2,693** | **732** | **100** |

Source: Bank of Papua New Guinea.

(a) See foot note (a ) in Table 2.

(b) See footnote (g) in Table 2.

**Table 10: Foreign Equity Holdings by Country of Origin**
**(K'million) (a)**

| Country | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 (p) |
|---|---|---|---|---|---|---|---|---|
| Australia | 250 | 414 | 154 | 334 | 76 | 166 | 39 | 69 |
| United States | - | - | - | - | - | - | - | - |
| United Kingdom | 31 | 16 | 2 | 2 | 27 | - | - | - |
| Japan | 1 | 5 | 4 | - | - | - | - | - |
| France | - | - | - | - | - | - | - | - |
| New Zealand | 5 | 5 | 6 | 8 | - | 7 | 2 | 32 |
| Korea, Republic of | - | - | - | - | 6 | - | 2 | 7 |
| Philippines | - | - | - | - | - | - | - | - |
| Hong Kong (PRC) | 9 | 1 | - | 15 | 26 | - | - | 10 |
| Italy | 4 | 5 | 2 | - | 5 | 1 | | 3 |
| Canada | - | - | - | - | - | - | - | - |
| Singapore | 102 | 22 | 453 | 5 | - | - | 2 | 0 |
| Malaysia | 2 | 40 | 78 | 0 | - | 3 | 1 | 6 |
| Others | 6 | - | - | 14 | 7 | 36 | | 40 |
| **Total Dividend Payments** | **410** | **508** | **699** | **378** | **147** | **213** | **46** | **167** |

Source: Bank of Papua New Guinea.

(a) See foot note (a ) in Table 2.

sector in the economy. Equity in the non-mineral private sector increased by 4.7 percent to K1,995 million in 2017 from 2015, reflecting growth in investments.

## NET EQUITY FLOWS

The economy recorded a net equity inflow of investments for the review period from 2015 to 2017 as shown in Tables 8 and 9. In 2017, the equity inflows were mainly from the mineral (gas subsector) and non-mineral sector particularly, agriculture and forestry subsectors, building/construction and other (drilling) sectors. The total equity outflow was K8.0 million attributed to the forestry sector as illustrated in Table 9.

## DIVIDEND PAYMENTS

Dividends reflect the cash return to shareholders and are the indicator of the profitability of an enterprise. As shown in Tables 10 and 11, dividend payments declined by 21.6 percent to K167 million in 2017 from 2015. The decline was mainly attributed to no dividend payments by the mineral sector reflecting higher expenditures by the mineral companies, mainly on the expansion of existing projects. As shown in Table11, the total dividend payment of K167 million was recorded in 2017, for the Banking/Insurance/Finance and other sectors.

**Table 11: Foreign Equity Holdings by Country of Origin**
**(K'million) (a)**

| Economic Sector | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 (p) |
|---|---|---|---|---|---|---|---|---|---|
| Mineral (b) | 251 | 91 | 267 | 458 | 10 | 1 | 150 | | |
| Agriculture | - | - | 33 | 63 | 4 | - | - | - | - |
| Transportation | 2 | 5 | 4 | - | 3 | - | - | 8 | 0 |
| Manufacturing | 135 | 163 | 93 | 98 | 88 | 50 | 37 | 2 | 0 |
| Fisheries | - | - | - | - | - | - | - | - | - |
| Bank/Insurance/Finance | 35 | 90 | 74 | 42 | 185 | 30 | 10 | | 63 |
| Retail | 17 | 25 | 11 | 4 | 6 | 11 | 4 | 16 | 0 |
| Forestry | 4 | 2 | - | - | - | - | - | - | - |
| Hotel/Restraurant | - | 1 | - | - | - | - | - | - | - |
| Dredging Construction | - | 3 | - | - | - | - | - | - | - |
| Engineering Construction | - | - | - | - | - | - | - | - | - |
| Electricity, Gas and Water | 14 | - | - | - | - | - | - | - | - |
| Others (c) | 36 | 30 | 26 | 34 | 82 | 55 | 12 | 19 | 104 |
| **Total Dividend Payments** | **494** | **410** | **508** | **699** | **378** | **147** | **213** | **45** | **167** |

Source: Bank of Papua New Guinea.

(a) See footnote (a) in Table 2.

(b) Includes petroleum and gas sectors.

(c) Includes dividends from the remaining sectors and from unspecified sectors.

## THE 2018 NATIONAL BUDGET

The National Budget is the principal tool for fiscal policy; one component of a set of policy tools employed to achieve multiple objectives of macroeconomic management such as price stability and economic growth. At the macroeconomic level, the importance of the budget lies in its immediate impact on the level of aggregate demand and hence, overall economic activity. This article is in two parts. The first part reviews the 2018 National Budget, which was presented in Parliament on 28th November 2017, and the second part discusses its implications on the macro-economy and assesses the risks.

Note that the detailed budget data has been rearranged and aggregated. Some misclassification of data may occur as a result, but the primary focus here are the broad aggregates and trends.

The 2018 National Budget - Review Our Priorities, Refocus Our Energies and Reinforce Our Strengths - was framed against a backdrop of subdued economic conditions and depressed revenue. It was preceded by several noteworthy events such as the National Elections, the Alotau Accord 2, the 100-Day Plan and the subsequent 25-Point Plan, and the 2017 Supplementary Budget. The Budget is guided by the Vision 2050, PNG Development Strategic Plan (DSP) 2010-2030, the Medium Term Development Plan 2/3 (MTDP) 2016-2017, the National Strategy for Responsible Sustainable Development (StaRS) and the Fiscal Responsibility Act (FRA) 2017 (Amended). The 2018 Budget will be implemented under the new Medium Term Fiscal Strategy (MTFS) 2018-2022, which comprises: the Medium Term Debt Strategy (MTDS) 2018-2022; the Medium Term Expenditure Strategy (MTES) 2018-2022; and the Medium Term Revenue Strategy (MTRS) 2018-2022.

The Fiscal Strategy for 2018 takes into account: the slow pickup in the global economy; subdued outlook for international commodity prices; slight pick-up in domestic economic growth; low revenue receipts; foreign exchange shortages; constraints on expenditure; and accumulation of payment of arrears. The world economy is projected to improve slightly to 3.7 percent in 2018 from 3.6 percent in 2017, according to the IMF. This is driven by growth in both advanced and emerging economies, reflecting faster growth in domestic demand and output. On the domestic front, the PNG economy is projected to pick up modestly to 2.4 percent in 2018, from 2.2 percent in 2017. This growth will be driven by Asia-Pacific Economic Cooperation (APEC) meetings, higher government spending, minimizing foreign exchange imbalance through external financing, improved coffee season and expectations of increased demand in copra and copra oil. The non-mining GDP is expected to grow by 3.5 percent, rebounding from 1.9 percent in 2017, as a result of increased activities in the AFF, manufacturing, 'wholesale and retail trade', construction, and 'transport and storage' sectors.

The 2018 Budget will be implemented through the following guiding principles: facilitate the hosting of the 2018 APEC Leaders' Summit; facilitate LLG Elections; halt the rise in personnel emoluments expenditure and fund other fixed recurrent costs such as utilities and office rentals through stricter controls and also repay arrears in those areas; continue to support major government social and economic priorities in education, health, infrastructure, agriculture, tourism, renewable and non-renewable sectors, rural development and small to medium enterprises and law and order; place a greater emphasis on monitoring, evaluation and compliance to achieve improved development outcomes; increase resourcing to revenue collection agencies to increase and broaden the revenue base; strengthen efficiencies in the public sector; create a foundation for sustained growth and development of the country by investing in critical enablers and the renewable resource sector; and adhere to the MTFS 2018-22 goals of bringing the budget deficit down to 1.0 percent of GDP by 2022 and the debt to GDP ratio to 30.0 percent by 2022.

Several taxation policy measures were introduced in the 2018 Budget, including other technical amendments to improve the tax system. These measures are: establishment of a Large Tax Payers Office to increase compliance of large tax payers; removal of training levy and double deduction for training; suspension of the last phase of the current tariff reduction program (TRP) and an increase in import tariffs on refined petroleum and other imported products that will ease the adjustment on domestic manufacturing; an increase in the diesel excise to 23 toea from 10 toea to align with petrol excises; realignment of the export duty of unprocessed old-growth logs to capture resource rents at varying log species; clarification in distinguishing primary production to logging or timber operations; the removal of the Goods & Service Tax (GST) zero-rated status for educational institutions; clarification on the definition of resource company to ensure that only operating licence holders benefit from GST zero rated status; aligning the taxation treatment of royalties in the resource sector to be a deduction rather than a tax offset; a 'pay now litigate later' policy to improve compliance and increase receipts; the holding of parent companies liable for related companies' tax liabilities; providing options for taxpayers to pay their tax liability as they lodge; the imposition of penalties for incorrect or non-disclosure of losses and deductions; ensuring the income of foreign contractors is dealt with under the Foreign Contractors Withholding Tax regime and not under the corporate income tax assessment; and simplifying the administration of non-resident insurers' tax.

Other tax policy amendments include: legalizing taxpayer identification number registration; increasing the tax clearance threshold for sending money overseas to K500,000; introducing specific bribery offences; ensuring the Extractive Industry Transparency Initiative (EITI) and Financial Analysis and Supervision Unit (FASU) have access to tax data; allowing IRC to declare land owner resource trusts with approval from Treasury; reducing tax on termination payments to align with tax on superannuation payments; constructing APEC facilities under special Infrastructure Tax Credit (ITC) provisions; and announcing the introduction of a Tax Administration Bill. The Budget also introduces a number of amendments to modify the 2017 Budget measures. These comprise: carving out of resource projects with fiscal stability clauses in project agreements; introducing transitional provisions for application of Additional Profit Tax (APT) to existing projects to ensure fairness; ensuring dividends distributed through companies are taxed once; ensuring superannuation is exempt from Dividend Withholding Tax (DWT); and correcting drafting errors made to Customs Harmonised System (HS) 2017.

The Government's public sector reforms since 2012 is designed to increase the efficiency and effectiveness of the budget implementation process. The introduction of the multi-year budgeting framework is based on the Government's medium term development priorities and revenue trends, with the aim of integrating capital and operational budgets to achieve sector goals. This should improve coordination and participation for projects/programs implemented within a sector and also assist to make the sector more accountable. A two-stage budget process of approval based on project identification against projected fiscal conditions ensures key priorities are aligned to the fiscal framework, MTDP priorities and the political cycle. There are ongoing reforms such as: the Public Finance Management (PFM) reforms, Public Private Partnership (PPP) Program, the National Statistical Office (NSO) reforms, and the amalgamation of five agencies.

The Development Partners (DPs) continue to support the Country's development programs in the key priorities. In 2018, DPs assistance through grants and concessional loans is projected at K1,618.5 million or 11.0 percent of total expenditure. Grants are estimated at K1,024.6 million with the largest share of K642.9 million expected from the Australian Government. Total concessional loans from DPs amount to K593.9 million or 4.0 percent of total expenditure with the Asian Development Bank providing the largest share of the concessional loans amounting K240.2 million. Major projects in 2018 that will receive funding from DPs assistance include Transport Sector Support Program Phase 2 (K70.0 million), Health and Education Procurement Facility Program (K40.0 million), Health Investment Program (K20.0 million), Port Moresby Grid Development Program (K30.0 million), the Civil Aviation Development Investment Program 3 (K40.0 million) and other key development areas outlined in the PNG Sustainable Development Goals (SDGs) including the Economic Stimulus Package to propel growth in the Agriculture, Tourism and Forestry sectors.. It is incumbent on the Government to continue to streamline its coordination with donor countries and agencies to ensure the optimum result is delivered on some of the key development priority areas from aid assistance.

Table 1 shows the main assumptions used to frame the 2016 Budget, such as GDP growth, inflation outcomes and mineral commodity prices.

The main risks to the economic and fiscal outlook presented in the 2018 Budget include; the fragility of the global economy in terms of its impact to the demand for PNG exports and commodity prices; continued imbalance in the supply and demand of foreign exchange; adverse weather conditions and the coffee berry borer when it is expected to do well; and the Government diverting from fiscal discipline through unbudgeted expenditures, personnel emolument overruns, unplanned increase in debt and heavy reliance of domestic borrowing.

| Table 1: Key Economic Assumptions of the 2018 National Budget | | | |
|---|---|---|---|
| | 2016 Actual | 2017 Estimate | 2018 Budget |
| **Economic Growth (%)** | | | |
| Real GDP | 2.0 | 2.2 | 2.4 |
| Non-Mining Real GDP | 0.7 | 1.9 | 3.5 |
| Nominal GDP (est.) | 9.0 | 9.0 | 8.5 |
| Inflation (%) | | | |
| Dec on Dec | 6.6 | 5.9 | 6.9 |
| Interest Rates (%) | | | |
| Kina Facility Rate (KFR) | 6.3 | 6.3 | 6.3 |
| Inscribed stock (3 yr. yld) | 9.7 | 9.7 | 9.7 |
| Fiscal balance (K'm) | -3,086.9 | -1,876.4 | -1,987.2 |
| % of GDP | -4.6 | -2.5 | -2.5 |
| Mineral Prices | | | |
| Gold (US$/oz.) | 1,248.0 | 1,254.0 | 1,281.0 |
| Copper (US$/ton) | 4,865.0 | 5,945.0 | 5,960.0 |
| Oil (Kutubu: US$/barrel) | 44.0 | 50.0 | 51.0 |

The 2018 Budget is the first in the new MTDS 2018-2022. The new MTDS aims to meet Government's financing, yet places the portfolio on a declining debt-to-GDP trend wherein a 30.0 percent ratio will be attained by 2022.

Table 2 summarizes fiscal developments from 2014 to 2017 and the Budget indicators for 2018. The fiscal burden on the economy, as represented by the appropriations/nominal GDP ratio and net external borrowing, is expected to increase slightly to 18.5 percent mainly as a result of higher expenditure.

The Budget deficit of K1,987.2 million or 2.5 of GDP will be financed from domestic and external sources. A large share of the deficit, K1.613.4 million or 81.2 percent, will be financed externally, while the remainder will be sourced domestically. The external borrowing will be from concessional and other external sources, while domestic financing will be from issuance of Treasury bills and bonds. Externally borrowed funds will be mainly used for key development projects and

| Table 2: Budgetary Indicators (K'million) | | | | | | | |
|---|---|---|---|---|---|---|---|
| | 2014 | 2015 | 2016 | 2017 | | | 2018 |
| | Actuals | | | Original Budget | Revised Budget | Final Budget | Budget |
| 1. Total Internal Revenue & Grants | 11,498 | 10,964 | 10,486 | 11,473 | 10,979 | 11,525 | 12,731 |
| 2. Appropriations | 14,490 | 13,496 | 13,572 | 13,350 | 12,856 | 13,320 | 14,718 |
| 4. Surplus/(Deficit) =1-2 | -2,992 | -2,533 | -3,087 | -1,877 | -1,876 | -1,795 | -1,987 |
| 5. Primary Balance | -2,059 | 1,716 | -1,839 | 510 | -361 | -270 | -186 |
| 6. *FINANCING* | 2,992 | 2,533 | 1,877 | 1,877 | 1,876 | 1,795 | 1,987 |
| External | 422 | 521 | 1,683 | 1,683 | 964 | 878 | 1,613 |
| Domestic | 2,570 | 2,012 | 194 | 194 | 913 | 917 | 374 |
| *Memorandum Items:* | | | | | | | |
| 7. Borrowed Funds | 8,516 | 11,678 | 15,798 | 8,776 | 11,334 | 13,685 | 11,662 |
| 8. GDP (Nominal) | 43,279 | 62,158 | 67,762 | 74,625 | 74,225 | 73,861 | 80,113 |
| *(Ratios to Nominal GDP in %)* | | | | | | | |
| 9. Appropriations/GDP | 33.5 | 21.7 | 18.0 | 18.0 | 17.3 | 18.0 | 18.4 |
| 10. Total Internal Revenue & Grants/GDP | 26.6 | 17.6 | 15.5 | 17.2 | 14.8 | 15.6 | 15.9 |
| 11. Surplus or Deficit/GDP | -6.9 | -4.1 | -2.5 | -0.8 | -2.5 | -2.4 | -2.5 |
| 12. Borrowed Funds/GDP | 19.7 | 18.8 | 13.9 | 13.9 | 15.3 | 18.5 | 14.6 |
| *(Growth rates in %, year on year)* | | | | | | | |
| 13. Appropriations | 121.1 | -6.9 | 0.6 | -1.6 | -5.3 | -1.9 | 10.5 |
| 14. GDP (Nominal) | 130.2 | 43.6 | 9.0 | 10.1 | -0.5 | 9.0 | 8.5 |
| 15. Headline Inflation (Over the Year) (a) | 6.6 | 6.4 | 6.6 | 5.9 | 5.9 | 5.9 | 6.9 |

The above figures may not correspond to Table 7.1in the QEB due to some reclassification.
(a) Actual inflation figures are from the December 2016 QEB, while inflation projections are from the 2017 and 2018 Budget document, respectively. Annual inflation figures from the QEB are actual while those from the Budget documents are projections.
(p) Preliminary
Source: Bank of Papua New Guinea and 2018 Budget Papers, Volume 1, Department of Treasury

also assist the foreign exchange market.

This outcome reflects reduced debt servicing costs attributed to lower rate of borrowing. Debt servicing cost as a share of total expenditure increased from 10.4 percent in 2017 to 12.7 percent in 2018, making it the third largest expenditure item. The debt burden of the Government may increase if GDP growth remains weak, revenue raising is not effective and external budget financing does not materialize.

Table 3 shows the revenue components of the 2018 Budget as a percentage of total revenue, which are projected to increase for direct taxes and non-tax revenue, while indirect taxes and foreign grants declined, compared to the 2017 outcome. The total budgeted revenue and grants for 2018 is projected to be K52.0 million or 0.5 percent lower than the 2017 outcome.

In 2018, total direct tax is projected to increase by 3.8 percent, compared to the 2017 outcome and account for 50.9 percent of total revenue. The increase is mainly due to higher personal income and company tax receipts, supported by improved business activity from gradual improvement in commodity prices, substantial effort to improve tax compliance, and APEC related activities.

Indirect taxes, which represent domestic taxes on goods and services, are expected to increase by 7.4 percent in 2018, compared to the 2017 outcome and increase by 29.2 percent as a ratio of total revenue. Non-tax revenue is expected to increase by 18.9 percent, compared to the 2017 outcome, attributed to higher dividend payments by state owned enterprises and Departmental revenue collections through the PFMA 2016

reforms of collection of government revenue to a ratio of 90 percent to the Consolidated Revenue Fund and 10 percent to the Government entity.
Total project grants are projected to decrease by 29.0 percent in 2018, compared to the 2017 outcome. The decrease partly implies exchange rate movements and internal aid policies of donors.

The 2018 Budget shows that total expenditure is 10.5 percent higher than the 2017 outcome. National recurrent expenditure is projected to increase by 2.7 percent and Provincial Government recurrent expenditure to decline by 11.1 percent and while development expenditure increases by 29.7 percent.

Table 4 shows that the share of recurrent expenditure to total appropriation will decrease to 68.0 percent in 2018, compared to 76.0 percent in the 2017 outcome. This level is reflective of the integrated Budget process and alignment of funding for the Development Budget

**Table 3: Distribution between Revenue and Financing items in the 2018 Budget (K' million)**

| | 2014 | 2015 | 2016 | 2017 | | | 2018 |
|---|---|---|---|---|---|---|---|
| | Actuals | | | Original Budget | Revised Budget | Final Budget Outcome | Budget |
| 1. Total Internal Revenue & Grants | 11,497.6 | 10,963.4 | 10,485.5 | 11,473.1 | 10,979.2 | 11,525.0 | 12,731 |
| 2. Direct Taxes | 7,107.5 | 6,216.5 | 5,558.8 | 6,113.5 | 5,816.0 | 5,621.7 | 5,858 |
| 3. Indirect Taxes | 2,488.5 | 2,588.1 | 2,862.9 | 3,044.7 | 3,053.6 | 3,519.7 | 3,781 |
| 4. Department Rev. & Services | 368.3 | 82.8 | 82.5 | 267.8 | 480.2 | 102.2 | 817 |
| 5. Revenue from Assets | 665.8 | 1,256.5 | 551.3 | 1,075.0 | 267.5 | 841.6 | 1,250 |
| 6. Grants | 867.5 | 819.5 | 1,430.0 | 968.1 | 968.1 | 1,439.9 | 1,025 |
| 7. Borrow ings | 8,516.0 | 11,677.5 | 15,798.4 | 8,776.3 | 11,334.2 | 13,685.1 | 11,662 |
| *Ratios (%)* | | | | | | | |
| 8. Direct Taxes/Total Revenue | 61.8 | 56.7 | 53.0 | 53.3 | 53.0 | 48.8 | 46.0 |
| 9. Indirect Taxes/Total Revenue | 21.6 | 23.6 | 27.3 | 26.5 | 27.8 | 30.5 | 29.7 |
| 10. Dept. Revenue/Total Revenue | 3.2 | 0.8 | 0.8 | 2.3 | 4.4 | 0.9 | 6.4 |
| 11. Revenue from Assets/Total Revenue | 5.8 | 11.5 | 5.3 | 9.4 | 2.4 | 7.3 | 9.8 |
| 12. Grants/Total Revenue | 7.5 | 7.5 | 13.6 | 8.4 | 8.8 | 12.5 | 8.0 |
| Memorandum Item: | | | | | | | |
| 13. Borrow ings/Total Revenue | 74.1 | 106.5 | 150.7 | 76.5 | 103.2 | 118.7 | 91.6 |

Source: Table 2

with the MTDP priority areas.

The 2018 National Budget sets out the targets for revenue and expenditure which is expected to support economic growth of 2.4 percent by investing in high impact projects to encourage broad-based sectoral growth. Achieving the targets for revenue and expenditure are essential because of their implications on other macroeconomic variables such as inflation, interest rates, and the exchange rate. The continued expansionary fiscal policy requires considerable financing efforts at both the monetary and fiscal policy fronts. The fiscal developments for 2017 show that total revenue and total expenditure was higher than the revised 2017 budget. The increase in revenue was used to finance recurrent expenditure whilst greatly affecting capital expenditure commitments and increased the level of domestic financing and public debt.

The 2017 final Budget outcome was a deficit of K1795.0 million, lower than the projected deficit of K1,876.4 million. However, there is potential for the 2016 scenario to resurface which may affect the Government's fiscal policy objective which may lead to currency and interest payments risks. Further recourse to domestic debt borrowing may continue to raise domestic interest rates and eventually crowd-out private sector investments and economic activity. To mitigate this effect, the Government plans to source external financing like the planned Sovereign Bond issuance. Financing of the 2018 Budget deficit and achieving a balanced budget beyond 2021 would be difficult in light of the challenges in raising external financing due to weak global growth and financial market uncertainties. The challenges in financing of the budget deficit will have implications on macroeconomic stability and may impact adversely on GDP growth. Despite the efforts to increase revenue generation for the Government, expenditure still remains high and may contribute to high import demand which can put downward pressure on the exchange rate and lead to higher inflation.

Given the weak global economic environment, imported inflation has been relatively low. It is therefore important to ensure the budget deficit is manageable and a sustainable level of financing is achieved in 2018. The 2018 Budget is focused on 81.9 percent of external financing and 19.2 percent domestic financing. It will be possible to achieve a balanced budget, if the Government continues its 2017 strategy of controlling expenditure warrants. Its reforms on revenue mobilization through tax and non-tax sources will greatly assist the Government reach its targets; however, reforms take

**Table 4: Appropriation (K' million)**

| | 2014 | 2015 | 2016 | 2017 | | | 2018 |
|---|---|---|---|---|---|---|---|
| | Actuals | | | Original Budget | Revised Budget | Final Budget Outcome | Budget |
| 1. Total Appropriation | 14,490 | 13,496 | 13,572 | 13,350 | 12,856 | 13319.8 | 14,718 |
| 2. Current Expend. National Level (a) | 6,711 | 6,160 | 6,255 | 6,748 | 7,533 | 7602.4 | 7,810 |
| 3. Development Expenditure (b) | 5,838 | 5,093 | 4,473 | 4,009 | 2,239 | 2021.2 | 4,644 |
| 4. Provincial Governments © | 1,941 | 2,244 | 2,845 | 2,593 | 3,083 | 2546 | 2,264 |
| 5. Additional Priority Expenditure/Reappropriation to Trust Account | 0 | 0 | 0 | 0 | 0 | | 0 |
| 6. Supplementary Budget | | | | | | | |
| *Ratios (%)* | | | | | | | |
| 7. Current Expenditure/Total Appropriation | 46.3 | 45.6 | 46.1 | 50.6 | 58.6 | 57.1 | 53.1 |
| 8. Dev. Expenditure/Total Appropriation | 40.3 | 37.7 | 33.0 | 30.0 | 17.4 | 15.2 | 31.6 |
| 9. Provincial Govts/Total Appropriation | 13.4 | 16.6 | 21.0 | 19.4 | 24.0 | 19.1 | 15.4 |

Source: Table 2

Notes:

(a) Current Expenditure, National Level includes interest payments and transfers to Statutory Authorities.

(b) Development expenditure includes project grants from development partners.

(c) Provincial Government's recurrent expenditure only.

time and need resources to implement. The Government needs to honor its commitment to foresee these reforms through. Furthermore, the strategy of gradually adjusting to a balanced budget will require greater fiscal discipline, which will be challenging, particularly in the context of the hosting of the APEC summit in 2018 and the recent natural disasters.

Given manageable inflationary outcomes in 2017, and relatively unchanged expectations in 2018, the Central Bank will continue to maintain a neutral stance of monetary policy to support growth in the non-mineral private sector and to ensure a sustainable public debt level. This policy stance is expected to complement the Government's expansionary fiscal policy to support economic activity and achieve long-term sustainable growth through the priority areas of health, education, law and order and transport infrastructure.

The Governments fiscal stimulus is important to the economy during this period of low domestic economic growth and global uncertainties.

The gradual reduction in expenditure over the medium-term is important to achieve the fiscal strategy for a balanced budget beyond 2021 from the earlier target of 2020. Net financing requirement is expected to gradually decline from 2.4 percent of GDP in 2018 to 0.7 percent in 2021. Increases in domestic financing to cover short-falls in revenue can divert resources to debt servicing and undermine macroeconomic stability. The conduct of monetary policy will be challenging in an environment of low revenue and increased government spending. It is therefore important that co-ordination between fiscal and monetary policies is maintained so that both economic growth and price stability objectives are achieved.

## FOR THE RECORD

### MONTHLY KINA FACILITY RATE ANNOUNCEMENTS

The Central Bank introduced the Kina Facility Rate (KFR) in February 2001 as the official rate to indicate its stance of monetary policy. The KFR is a monthly rate and any changes to it should translate to changes in market interest rates. Changes to the KFR is based on assessment of economic fundamentals consistent with the overall objective of monetary policy of price stability in the economy. From January 2015, the KFR announcements by the Bank were;

| | | |
|---|---|---|
| **2016** | 04 January | Maintained at 6.25% |
| | 01 Febrary | Maintained at 6.25% |
| | 07 March | Maintained at 6.25% |
| | 04 April | Maintained at 6.25% |
| | 02 May | Maintained at 6.25% |
| | 06 June | Maintained at 6.25% |
| | 04 July | Maintained at 6.25% |
| | 01 August | Maintained at 6.25%. |
| | 05 September | Maintained at 6.25%. |
| | 03 October | Maintained at 6.25%. |
| | 07 November | Maintained at 6.25%. |
| | 05 December | Maintained at 6.25%. |
| **2017** | 02 January | Maintained at 6.25%. |
| | 06 Febrary | Maintained at 6.25% |
| | 06 March | Maintained at 6.25% |
| | 03 April | Maintained at 6.25% |
| | 01 May | Maintained at 6.25% |
| | 05 June | Maintained at 6.25% |
| | 03 July | Maintained at 6.25% |
| | 06 August | Maintained at 6.25% |
| | 04 September | Maintained at 6.25%. |
| | 02 October | Maintained at 6.25%. |
| | 06 November | Maintained at 6.25%. |
| | 04 December | Maintained at 6.25 %. |
| **2018** | 01 January | Maintained at 6.25% |
| | 05 Febrary | Maintained at 6.25% |
| | 05 March | Maintained at 6.25% |
| | 02 April | Maintained at 6.25% |
| | 3 April | Maintained at 6.25% |
| | 01 May | Maintained at 6.25% |
| | 04 June | Maintained at 6.25% |
| | 02 July | Maintained at 6.25% |
| | 06 August | Maintained at 6.25% |

For details of the KFR, see Table 6.3 (S34) of the QEB.
KFR announcements prior to January 2012 are reported in various bulletins starting with the March 2001 QEB.

## GLOSSARY OF TERMS AND ACRONYMS

**Balance of Payments**
A statistical statement that systematically summarises a country's economic transactions with the rest of the world, over a specific time period. It comprises the Current and Capital and Financial Accounts.

**Broad Money Supply (M3*)**
Total volume of money comprising narrow money (M1*) and quasi money in the economy at a point in time. See 'narrow' and 'quasi' money.

**Cash Reserve Requirement (CRR)**
A requirement imposed on commercial banks to hold cash as a percentage of total deposits and other prescribed liabilities at all times.

**Capital Account**
Records all transactions that involves the receipts or transfers of capital and acquisitions/disposal of non-produced, non-financial assets such as purchase of production facilities, i.e. plants and machinery, etc.

**Central Bank (CB)**
The Bank of Papua New Guinea (BPNG) is the monetary authority in Papua New Guinea (PNG) that has legislative power over the financial system and is responsible for issuing currency, managing international reserves, undertakes transactions with the IMF and providing credit to the commercial banks.

**Central Bank Bill (CBB)[6]**
A monetary policy instrument of the Bank of PNG used to manage liquidity in the banking system by either injecting or defusing it in order to achieve a desired level of interest rate.

**Central Bank Survey (CBS)**
The CBS is the balance sheet of the Central Bank, which contains data on all components of the monetary base, comprising of currency in circulation and central bank liabilities to ODCs and other sectors.

**Current Transfers Account**
Records all foreign transactions that are not transfers of capital and cannot be repaid. This includes donations, gifts and grants, superannuation funds and licensing fees.

**Depository Corporations Survey (DCS)**
The survey is a consolidation of the CBS and the ODCS, which contains data on all depository corporations' liabilities in the national definition of broad money and data on depository corporations, assts that are claims on (i.e credit) other sectors of the economy, including the external sector.

---

[6] See 'For the Record' on page 34 in the 2004 September QEB.

**Deposits**

Deposits include all claims on the Bank of PNG and ODCs. These are further classified into transferable and other deposits. (I). Transferable deposits comprises all deposits that are: a). Exchangeable on demand at par and without penalty or restrictions; b). Directly usable for making payments by cheque, draft direct debit/credit or other direct payment facilities. ii.) Other deposits comprise all claims, other than transferable deposits. These include savings and term deposits and non transferable deposits in foreign currency.

**Exchange Settlement Account (ESA)**

Accounts of the commercial banks with the Bank of PNG for settlement transactions with each other.

**Exclusion-based CPI measure**

An underlying inflation measure which involves zero weighting of volatile sub-groups or items such as fruit &vegetables, betelnut and prices that are largely determined by non-market (seasonal) forces, as well as alcoholic drinks, cigarettes & tobacco, etc. See ôUnderlying CPIô

**Financial Account**

Records all transactions associated with changes of ownership of foreign financial assets such as holdings of monetary gold, special drawing rights (SDR), claims on non-residents and foreign liabilities.

**Financial Corporations Survey (FCS)**

The FCS is the broadest set of monetary and financial statistics in terms of institutional coverage. The survey contains consolidated balance sheet data for all institutional units within the financial corporations sector, thereby providing the stock and flow data for analyzing claims on and liabilities to all other sectors of theeconomy, including the external sector.

**Financial derivatives**

A financial instrument linked to a specific financial instrument, indicator or commodity and through which specific financial risks (such as interest rates, currency equity and commodity price risk, credit risk, etc.) can be traded in their own right in financial markets.

**Headline Consumer Price Index (CPI)**

A measure of inflation as calculated and published quarterly by the National Statistical Office (NSO), which measures the total price movements in goods and services in the basket.

**Income Account**

Records transactions such as compensation of employees, which cover wages, salaries, and other benefits in cash and kind, dividends and interest earned on investments between PNG and the other countries.

**Inscribed Stock (bond)**

A Government debt instrument sold to the public for a maturity term of one year or longer for Budget financing.

**Insurance Technical Reserves**

Comprises of (i) net equity of households in life insurance corporations reserves, (ii) net equity of households in superannuation (pension) funds and (iii) prepayment of premiums. This is the major liability item of the superannuation funds and insurance corporations. On the assets side, this category records prepaid insurance premiums, which are relatively small amounts.

**Kina Facility Rate (KFR)**

Official benchmark rate used by the Bank of PNG to signal its monetary policy stance. The KFR is announced monthly by the Governor and published in the newspapers and on the Bankõs website.

**Liquid Assets**

Assets of the commercial banks, which are in near liquid form, comprising cash, ESA balances, CBBs, Treasury bills and Inscribed stocks less than 3 years to maturity.

**Minimum Liquid Asset Ratio (MLAR)**

A prudential requirement imposed by the Bank of PNG on commercial banks to hold liquid assets as a percentage of total deposits and other prescribed liabilities at all times.

**Monetary Base (or Reserve Money)**

Comprised of currency held by the public and liquid assets of the commercial banks, including deposits held with the Bank of PNG under the Repurchase Agreement Facility (RAF) or Repos.

**Narrow Money**

A component of total money supply that is considered liquid or can be converted easily to cash on demand, and comprises of currency in circulation (held outside the banking system) and demand deposits.

**Net Equity of Households in Life Insurance Reserves**

Comprises of policyholders claims on the reserves of insurance corporations. These reserves must be ultimately used to provide benefits to policyholders, upon the occurrence of other specified events, or to compensate heirs upon the death of the policyholder. These claims constitute assets of the household sector rather than of insurance corporations.

**Net Equity of Households in Pension Funds**

Comprises policyholdersôclaims on pension funds. These reserves must be ultimately used to provide benefits to policyholders upon their retirement or to compensate heirs upon death of the policyholder. Pension funds are considered assets of the household sector rather than assets of the institutional units that manage the funds. Pension funds do not include social security funds, which are considered part of the general government sector.

**Open Market Operations (OMO)**

Operations of liquidity management conducted by the Bank of PNG with commercial banks and other financial intermediaries involving Government securities, CBB, Repos and foreign exchange trading to influence short-term interest rates.

**Other Depository Corporations (ODCs)**

The ODC sub-sector in PNG comprises of the commercial banks, finance companies, merchant banks, savings and loans societies and microfinance companies. These financial corporations are mainly engaged in financial intermediation and issue liabilities included in the definition of broad.

**Other Depository Corporations Survey (ODCS)**

The ODCS shows the consolidated stock and flow balance sheet data for the institutional units covered under the ODC sub-sector.

**Other Financial Corporations (OFCs)**

The OFC sub-sector is made up of the insurancec orporations, superannuation (pension) funds, other financial intermediaries and financial auxiliaries such as insurance brokers, investment managers and fund administrators.

**Other Financial Corporations Survey (OFCS)**

The OFCS contains consolidated stock and flow balance sheet data for insurance corporations, superannuation funds, other financial intermediaries and financial auxiliaries.

**Over the year CPI**

Percentage change in the CPI of a quarter compared to the corresponding quarter of the previous year (Also called ‘annual’ CPI).

**Portfolio Investment**

Investments, mainly in equity and debt securities such as bonds and notes, money market debt instruments and financial derivatives, as well as long-term debt, equity and securities.

**Prepayment of Premiums and Reserves against Outstanding Claims**

These are current claims of policyholders rather than net equity of insurance corporations. Prepayments of premiums, which are made by customers at the beginning of the periods covered by their policies, generate reserves for insurance corporations. Such prepayments are considered to be earned by an insurance corporation on a prorated basis during the policy period. These reserves are assets of policyholders. Reserves against outstanding claims are funds set aside by insurance corporations to cover the amounts that are not settled or claims that may be disputed. Reserves against such outstanding claims are considered to be assets of the beneficiaries and liabilities of the insurance corporation. Policy benefits due to claimants are considered assets of the claimants. Until actually paid, these assets are held by insurance corporations as reserves.

**Public non-financial corporations**

Public non-financial corporations are resident non-financial corporations and quasiï corporations controlled by government units. Control may be exercised through ownership of more than half the voting shares, legislation, decree, or regulation that establish specific corporate policy or all the government to appoint the directors. In PNG this would include those institutions that are controlled by the Independent Public Business Corporation (IPBC).

**Quasi Money**

A component of total money supply that is not easily convertible to cash on demand and comprises of savings and term deposits.

**Repurchase Agreement Facility (RAF)**

A money market instrument used by Bank of PNG to lend to or borrow from the commercial banks, for liquidity management, and is unwound on maturity. The terms range from overnight to 14 days and can be collateralised, for instance, using Treasury bills.

**Securities other than Shares**

These are negotiable instruments serving as evidence that units have obligations to settle by means of providing cash, a financial instrument, or some other items of economic value. Common securities in PNG include treasury bills and inscribed stocks issued by the Government and Central Bank Bills (CBBs) issued by the Bank of PNG.

**Shares and Other equity**

Shares and other equity comprises all instruments and records acknowledging, after claims of all creditors have been met, claims on the residual value of a corporation. The components of shares and other equity include: (a). Funds contributed by owners; (b). Retained earnings; (c). Current year profit and loss; (d). General and special reserve; and (e). Valuation adjustments.

**Tap Facility**

A facility conducted by the Bank of PNG for sale of Treasury bills and Inscribed stocks to the public.

**Temporary Advance Facility**

A statutory mechanism stipulated under Section 54 of the Central Banking Act 2000, that provides the National Government with access to short-term financing to meet mismatches in revenue.

**Trade Account**

Records all economic transactions associated with merchandise exports and imports of physical goods.

**Trade Weighted Index**[7]

The Trade Weighted Index (TWI) measures the value of the kina against a basket of currencies of PNGõs major trading partners.

**Treasury Bill**

Government security or debt instrument sold at a discount value, but redeemed at face value on maturity or purposes of Budget financing. In PNG, Treasury bills are issued for 28, 61, 91, 182 and 364 day maturities.

**Trimmed-mean CPI measure**

A fixed proportion of prices at each end of the distribution of price changes are zero weighted and the mean of the remaining price changes recomputed. See also óUnderlying CPIô

**Underlying CPI (exclusion-based and Trimmed-mean CPI measures)**

A measure of inflation that excludes short-term volatile movements in prices, such as seasonal factors, Government policy decisions and price controlled items.

[7] See óFor the Recordô p.24 in the 2005 September QEB.

## REFERENCE "FOR THE RECORD"

Some issues of the Quarterly Economic Bulletin (QEB) have "For the Record" as additional information relating to changes introduced to various statistical tables. The following "For the Record" have appeared in the QEB since June 2003.

| **Issue** | | **For the Record** |
|---|---|---|
| Jun 2003 | - | Changes to Open Market Operations Instruments |
| | - | Directions of Merchandise Trade |
| Sep 2003 | - | Changes to the Treasury Bills Auction Allocation Process |
| Dec 2003 | - | Further Change to the Treasury Bills Auction Allocation Process |
| | - | Bank of PNG Employment Survey |
| Sep 2004 | - | Introduction of Central Bank Bill (CBB) |
| Mar 2005 | - | Changes to Table 9.5 to include Exports from Napanapa Oil Refinery |
| | - | Changes to Tables 1.2 and 1.3 "Other Items (Net)" |
| June 2005 | - | Changes to Tables 8.2 and 8.5 "External Public Debt" |
| Sep 2005 | - | Trade Weighted Exchange Rate Index |
| | - | Employment Index - Changes to Tables 10.4 and 10.5 |
| | - | Central Bank Bill (CBB) Auction - Changes to Tables 3.8 and 7.2 |
| Mar 2006 | - | Updated Weights for the Trade Weighted Index (TWI) |
| June 2006 | - | Expansion of Monetary and Financial Data Coverage |
| | - | Upgrade of PNG's Private Debt and Equity Recording System |
| Dec 2006 | - | Changes to Table 8.1 - Capital Transfers |
| Jun 2007 | - | Revisions to the March Quarter 2007 and December Quarter 2006 Consumer Price Index |
| Jun 2007 | - | Debt Ratios |
| Sep 2007 | - | Revisions to the Consumer Price Indices in June Quarter 2007 back to September Quarter 2005. |
| Mar 2008 | - | Updated Weights for the Trade Weighted Index (TWI) |
| Mar 2009 | - | Changed Monetary Policy Statement release month from January to March |
| Mar 2009 | - | Updated Weights for the Trade Weighted Index (TWI) |
| Dec 2009 | - | New Tables; 8.7, 8.8, 8.9 and 8.10 were included in the December Quarterly Economic Bulletin, resulting in subsequent renumbering of all other tables that follow. |
| Dec 2009 | - | Revisions to Monetary and Financial Statistics tables in the December 2009 Quarterly Economic Bulletin. |
| Jun 2010 | - | Expansion of Monetary and Financial Data Coverage. |
| Sep 2010 | - | Recalculation of months of import cover |
| Mar 2011 | - | Updated Weights of the Trade Weighted Trade (TWI) |
| Mar 2013 | - | Updated Weights of the Trade Weighted Trade (TWI) |
| Mar 2013 | - | Inclusion of Tables 4.16 and 4.17 for General Insurance Companies |
| Mar 2014 | - | Revised PNG Consumer Price Index Basket |
| Dec 2014 | - | Updated to tables 8.1, 8.2, 8.3 & 8.5 to include Ramu Nickel/Cobalt |
| Dec 2014 | - | Inclusion of LNG & Condensate in tables 8.1, 8.2, 8.3 and 8.5 |
| Dec 2014 | - | Commencement of Nickel and Cobalt production in December quarter of 2012. |
| | - | PNG LNG Project commenced production and shipment in June quarter of 2014. |
| | - | Updated Table 8.2: Exports Classified by Commodity Group |
| | - | Updated Table 8.5: Non-Agricultural Exports – Quantities Exported of Major Commodities |
| Dec 2016 | - | Recalculation of import cover taking account of the service payments. |
| | - | Inclusion of new GDP Actuals 2006-2013 tables 9.6 and 9.7 |

## REFERENCE

Each issue of the Quarterly Economic Bulletin contains a review of economic conditions for the past quarter and a comprehensive set of updated statistical tables. Articles of special interest to current economic policy are also prepared by Bank staff for inclusion in the Bulletin. The following articles have appeared in the Quarterly Economic Bulletin since December 2005.

| Issue | Title |
| --- | --- |
| Dec 2006 | Semi-annual Monetary Policy Statement, January 2007 |
| Jun 2007 | Papua New Guinea's Total External Exposure |
| Jun 2007 | Semi-annual Monetary Policy Statement, July 2007 |
| Jun 2007 | Supplement to the July 2007 Monetary Policy Statement |
| Dec 2007 | The 2008 National Budget |
| Dec 2007 | Semi-annual Monetary Policy Statement, January 2008 |
| Jun 2008 | Papua New Guinea's Total External Exposure |
| Jun 2008 | Semi-annual Monetary Policy Statement, July 2008 |
| Dec 2008 | The 2009 National Budget |
| Dec 2008 | Monetary Policy Statement, January 2009 Update |
| Mar 2009 | Monetary Policy Statement, March 2009 |
| Jun 2009 | Papua New Guinea's Total External Exposure |
| Sep 2009 | Monetary Policy Statement, September 2009 |
| Dec 2009 | The 2010 National Budget |
| Dec 2009 | Monetary Policy Statement, March 2010 |
| Mar 2010 | Papua New Guinea's Total External Exposure |
| Sep 2010 | Monetary Policy Statement, September 2010 |
| Dec 2010 | The 2011National Budget |
| Dec 2010 | Monetary Policy Statement, March 2011 |
| Jun 2011 | Papua New Guinea's Total External Exposure |
| Sep 2011 | Monetary Policy Statement, September 2011 |
| Dec 2011 | The 2012 National Budget |
| Dec 2011 | Monetary Policy Statement, March 2012 |
| Mar 2012 | Papua New Guinea's Total External Exposure |
| Sep 2012 | Monetary Policy Statement, September 2012 |
| Dec 2012 | The 2013 National Budget |
| Mar 2013 | Papua New Guinea's Total External Exposure |
| Sep 2013 | Monetary Policy Statement, September 2013 |
| Mar 2014 | Papua New Guinea's Total External Exposure |
| Mar 2014 | Monetary Policy Statement, March 2014 |
| Jun 2014 | Monetary Policy Statement, September 2014 |
| Dec 2014 | The 2015 National Budget |
| Mar 2015 | Papua New Guinea's Total External Exposure |
| Dec 2015 | The 2016 National Budget |
| Mar 2016 | Papua New Guinea's Total External Exposure |
| Jun 2016 | Monetary Policy Statement, September 2016 |
| Dec 2016 | The 2017 National Budget |
| | Monetary Policy Statement, March 2017 |
| Mar 2017 | Papua New Guinea's Total External Exposure |
| Sep 2017 | Monetary Policy Statement, September 2017 |
| Dec 2017 | Monetary Policy Statement, March 2018 |
| Mar 2018 | Papua New Guinea's Total External Exposure |
| | The 2018 National Budget |

# STATISTICAL SECTION

**Sources**

Statistics for the commercial banks have been derived from returns submitted to the Bank. Statistics on Savings and Loan Societies and Papua New Guinea Government securities are derived from sources within the Bank.

Government financial statistics are supplied by the Department of Finance and Treasury.

Information on prices of Papua New Guinea exports are gathered from marketing boards or export producers; world indicator prices are reproduced from the Public Ledger published in London. Tea prices are from the Tea Market Report, London. The general indices of commodity prices are constructed from data published in The Economist, London.

Most other statistics are published initially by the National Statistical Office.

**Symbols used**

| | |
|---|---|
| n.a | not available |
| .. | figure less than half the digit shown |
| - | nil |
| e | estimate |
| f | forecast |
| p | provisional |
| r | revised |
| n.i.e | not included elsewhere |

## LIST OF TABLES