

## Sources and Methods for the 2015 Seychelles National Accounts estimates (December 2016)

### Overview of methodology and data sources for the compilation of 2015 GDP estimates

The overall methodology has improved slightly to include some compilation methods as per international standards and the use of appropriate, reliable indicators that are readily available.

The methods used can be summarised as follows, in order of preference, although data quality considerations also play a role in the methodology decisions for each estimation component.

#### For *current prices*:

- a. Direct compilation from financial statements of companies (Private and Parastatals) or the Government Finance Statistics (GFS). This approach was mainly limited to the financial sector, sourced from Central Bank of Seychelles (CBS), major public enterprises, sourced from Public Enterprise Monitoring Commission (PEMC), budgetary government (GFS) and Net Taxes on products and Imports, sourced from Seychelles Revenue Commission (SRC)
- b. Growth based on turnover indicators; primarily VAT taxable supplies and survey of the largest construction companies.
- c. Inflation using the most suitable price index available.
- d. Growth based on compensation of employees (COE)

#### For *constant prices*:

- a. Volume indicators; volume of fish catch, production of canned tuna, production of beverages and tobacco...etc.
- b. Deflation using the most suitable price index available.
- c. Growth based on employment numbers as derived from quarterly GDP estimates.
- d. Midpoint between growth implied by deflation of current price estimate and growth based on employment numbers.

Table: Data source and methods used for compilation of 2015 GDP, by estimation component.

| ISIC group | GDP estimation component                          | Current price method (CP)   | Constant price method (KP)   |
|------------|---|---|--|
| A01        | Agriculture                                       | Inflated by using relevant CPI component for agriculture.   | Estimated on trend since 2006 based year. Direct estimate in NA_Agriculture, using growth in employment numbers. |
| A03        | Fishing   | Inflated by using relevant CPI component for Fishing - CPI Fish.  | Moved with domestic fish catch volumes (artisanal plus semi industrial)  |
| B          | Mining and quarrying                              | Not separately estimated. Included with companies in Manufacturing (C23) or Construction (F)  |  |
| C10        | Manufacture of food - Tuna Cannery                | Inflated by using relevant Producer Price Index (PPIM) component for tuna cannery, PPIM - PROCESSING AND PRESERVING OF FISH, CRUSTACEANS AND MOLLUSCS | Moved with volume of canned tuna produced  |
| C10        | Manufacture of food - Other                       | Growth rate in Compensation of employees (COE) as recorded in quarterly GVA at basic price.   | Growth rate in employment numbers as recorded in quarterly GVA at basic price.                                   |
| C11-12     | Manufacture of beverages and tobacco - Beverages  | Inflated using relevant CPI component for Manufacture of beverages.   | Moved with volume of alcoholic and non- alcoholic beverages produced.  |
| C11-12     | Manufacture of beverages and tobacco - Tobacco    | Inflated using relevant CPI component for Manufacture of tobacco  | Moved with volume of tobacco produced  |
| C23        | Manufacture of concrete, rock products, glass etc | Inflated by using relevant CPI component for Manufacture of concrete, rock products..etc  | Moved with concrete production index trend since 2006 based year.  |

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| C13-22, 24-33 | Manufacturing, other  | VAT growth rate  | Deflated by using relevant CPI component.   |
| D             | Electricity, gas, steam and air conditioning supply   | Direct compilation from financial statements. Value added at basic price.  | Double deflation method applied to output and intermediate consumption and value added was derived from the difference between the two. |
| E36           | Water supply; sewerage, waste management and remediation activities                           | Inflated using the relevant CPI component  | Moved with the volume of treated water produced   |
| E37-39        | Water supply; sewerage, waste management and remediation activities - Other                   | Growth rate in Compensation of employees (COE) as recorded in quarterly GVA at basic price.  | Deflated by using relevant CPI component.   |
| F             | Construction  | Growth rate from turnover survey for three largest companies supported by growth rate in the value of imported construction materials. | Deflated by using relevant by construction cost index.  |
| G             | Wholesale and retail trade; repair of motor vehicles and motorcycles - fuel (domestic market) | Direct compilation from financial statements. Value added at basic price.  | Deflated by using relevant CPI component.   |
| G             | Wholesale and retail trade; repair of motor vehicles and motorcycles - fuel (re-exports)      | Direct compilation from financial statements. Value added at basic price.  | Deflated by using relevant CPI component.   |
| G             | Wholesale and retail trade; repair of motor vehicles and motorcycles- Other                   | Growth rate in Compensation of employees (COE) as recorded in quarterly GVA at basic price.  | Deflated by using relevant CPI component.   |
| H             | Transportation and storage  | Direct compilation from financial statements. Value added at basic price.  | Deflated by using relevant CPI component.<br>Tanker Volume index - Tankers<br>Total passenger movements                                 |

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| H   | Water Transportation                           | Growth rate in Compensation of employees (COE) as recorded in quarterly GVA at basic price.   | Total visitors arrival (including cruise ships)                                   |
| H   | Transportation and storage -Other              | Growth rate in Compensation of employees (COE) as recorded in quarterly GVA at basic price.   | Deflated by using relevant CPI component.   |
| I55 | Hotels   | VAT growth rate   | Deflated by using relevant CPI component.   |
| I56 | Restaurants & Beverage serving activities      | VAT growth rate   | Deflated by using relevant CPI component.   |
| I56 | Other food service activities                  | VAT growth rate   | Deflated by using relevant CPI component.   |
| J   | Information and communication                  | Inflated by using relevant CPI component.   | Volume indicator: index of telecommunication services based on production survey. |
| K   | Financial and insurance activities - Banks     | The Central Bank is treated as non-market thus value added is derived from the sum of costs method.<br><br>Direct compilation from financial statements for Other banks. Source: CBS. | Deflated by using relevant CPI component.   |
| K   | Financial and insurance activities - Insurance | Direct compilation from financial statements. Value added at basic price.   | Deflated by using relevant CPI component.   |
| K   | Financial and insurance activities - Other     | VAT growth rate   | Deflated by using relevant CPI component.   |

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| L | Real estate activities   | Inflated by using relevant CPI component.   | Estimated at 50% of employment growth.   |
| L | Residential rentals  | Not separately estimated. Implicitly included where the rent is paid to businesses, but the rent paid to households is not currently included.                              |  |
| L | Owner Occupied dwellings   | 2006 Benchmark value from Household Budget Survey “ <i>imputed rent</i> ”, less 10% for intermediate consumption (i.e. repairs)<br><br>Quantity revaluation, using CPI rent | Deflated by using volume index for owner occupied dwellings from base year 2006. |
| M | Professional, scientific and technical activities                                    | Growth rate in Compensation of employees (COE)  | Deflated by using relevant CPI component.  |
| N | Car hire   | Inflated by using relevant CPI component.   | Moved with total visitors arrival (including cruise ships)                       |
| N | Other Tourism related  | Inflated by using relevant CPI component.   | Moved with total visitors arrival (including cruise ships)                       |
| N | Administrative and support service activities-Other                                  | Inflated by using relevant CPI component.   | Moved with growth in employment numbers  |
| O | Public administration and defence; compulsory social security - Budgetary Government | Compensation of employees, from Government Finance Statistics.  | Moved with growth in employment numbers  |
| O | Public administration and defence; compulsory social security - remainder            | Compensation of employees: based on NBS employment statistics   | Moved with growth in employment numbers  |

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| P | Education - Budgetary Government                                     | Compensation of employees, from Government Finance Statistics;        | Moved with growth in employment numbers   |
| P | Education - Other  | Compensation of employees: based on NBS employment statistics         | Moved with growth in employment numbers   |
| Q | Human health and social work activities - Budgetary Government       | Compensation of employees, from Government Finance Statistics;        | Moved with growth in employment numbers   |
| Q | Human health and social work activities - Other                      | Compensation of employees: based on NBS employment statistics         | Moved with growth in employment numbers   |
| R | Arts, entertainment and recreation                                   | Compensation of employees - QNA growth rate                           | Moved with growth in employment numbers   |
| S | Other service activities   | Inflate by using relevant CPI component                               | Moved with growth in employment numbers   |
| T | Activities of households as employers and undifferentiated producers | Not estimated   |   |
|   | <i>less intermediate FISIM</i>                                       | FISIM allocated to users, by assumed ratios.                          | Deflated using an implicit price deflator for banks   |
|   | <i>Taxes on products</i>   | Direct compilation from Seychelles Revenue Commission (SRC)           | Extrapolate using growth rate in Gross Value added from appropriate sectors of the economy. |
|   | <i>Subsidies on products</i>   | Direct compilation from fiscal reports<br>Source: Ministry of Finance | Extrapolate using growth rate in Gross Value added in Primary Sector                        |