



BRITISH VIRGIN ISLANDS

**NATIONAL ACCOUNTS STATISTICS  
2014**



CENTRAL STATISTICS OFFICE  
OFFICE OF THE PREMIER  
ROAD TOWN, TORTOLA  
BRITISH VIRGIN ISLANDS





**CENTRAL STATISTICS OFFICE**  
**OFFICE OF THE PREMIER**  
**NATIONAL ACCOUNTS STATISTICS**

**2014**

---

**Section I: Background and Methodological Framework**



| <b>Table Of Contents</b>                 | <b>Page</b> |
|--|-------------|
| Table Of Contents                        | i           |
| Foreword                                 | ii          |
| Acknowledgements                         | iii         |
| Selected Acronyms                        | iv          |
| Introduction And Background.....         | 1           |
| The National Accounts Framework.....     | 3           |
| Key Concepts And Definitions.....        | 4           |
| Notes On Sources Of Data And Methodology | 9           |



## FOREWORD

This National Accounts 2014 report is the first publication of actual GDP figures since the break in the series of concrete National Accounts Statistics Estimates ending in 1999.

National Accounts aggregates, indicators and data estimated for the period after 1999 were informed by the ratios from the 1995 – 1999 Supply and Use Tables, along with key definitions and concepts of National Accounts as outlined in the SNA 1993 Manual<sup>1</sup>.

From the year 2000 forward the National Accounts Estimates were extrapolated using those informed ratios based on the 1995-1999 SUT, and making appropriate adjustments to account for current periods', through the use of broad sector indicators like Government Revenue and recurrent Current and Capital Expenditure, Tourism Expenditure, Number of Incorporated Business Companies, and Value of Electricity Consumption.

For more than one reasons this report marks a very important moment for the Central Statistics Office and the B.V.I, in that, it records the recommencement of the use of actual data from current local operators across all industries. It has also adopted the concepts and definition of the 2008 SNA, along with revised classification of industry activities according to ISIC rev4, thus making the figures more comparable regionally and internationally. Further, the process involved in preparing these figures allowed for rebasing the GDP from 1995 prices to 2012 prices, matching the current annual base of the CPI, whereby providing more accurate volume estimates and showing higher level estimates for Real growth in GDP accordingly.

Despite this achievement, the CSO recognizes that there's still much improvement to be made on the estimates by striving continuously to minimize data gaps and optimizing data sources already established. It is the goal of the CSO to work, in the future, to include the Balance of Payments and other major national accounts aggregates as part of this report.

The objective of this publication is to provide the Government, policy makers, the business community, academics and the general public with information on the trajectory of the economic performance of the traditional industries within the B.V.I, and to allow for assessment of the overall economic local environment.

This report presents data on Gross Domestic Product in current and constant 2012 prices, by economic activity from 2010 to 2014. It contains also, figures for Gross Output and Intermediate Consumption at both current and constant prices.

Comments and Suggestions are appreciated and should be directed to the Central Statistics Office, Office of the Premier.

**Raymond Phillips**  
*Director*  
*Central Statistics Office*

**Benson Tyson**  
*Statistician II, National Accounts and GFS*  
*Central Statistics Office*

---

<sup>1</sup> SOURCE: METHODOLOGY FOR 2010 to 2014 PROJECTIONS OF GROSS DOMESTIC PRODUCT

## ACKNOWLEDGEMENTS

Producing a National Accounts publication requires collection and processing of a large set of data from both Public and Private sector entities and therefore cooperation between both sectors is vital for the overall benefit of both. It involves administration of specially designed surveys including censuses and encompasses assistance from a myriad of institutions and individuals alike.

Therefore, the Central Statistics Office wishes to acknowledge the kind cooperation of the many businesses, statutory bodies, other government agencies and departments that participated and supplied data through the Annual National Accounts Survey. Also, to the many ordinary individuals that participated in targeted surveys on taxi operations, apartment rentals, and surveys on agriculture and fishing production, this report is a culmination of all your effort and kind cooperation. It would have been impossible otherwise, and for that we express sincere gratitude and implore future assistance, as this is an annual exercise.

Particularly special mention must be made of the Inland Revenue Department as a major source of administrative data, as well as the Social Security Board for providing vital data on annual employment within the BVI territory.

The staff of the CSO is recognized for their committed effort, specifically the staff of the National Accounts and GFS unit who directly collected and manipulated data towards this end. A special note of thanks goes to the IMF CARTAC for technical assistance provided in the person of Mr. N. David Hughes; CARTAC expert on National Accounts, for assistance on methodology and setting up National Accounts Tables. Also the CSO recognizes Mrs. Michelle Phillips of the MFU for offering necessary background guidance throughout the process and participating actively in producing the actual estimates.



## SELECTED ACRONYMS AND ABBREVIATIONS

|        |   |
|--------|---|
| BVI    | BRITISH VIRGIN ISLANDS  |
| CARTAC | CARIBBEAN REGIONAL TECHNICAL ASSISTANCE CENTRE                              |
| CPI    | CONSUMER PRICE INDEX  |
| CSO    | CENTRAL STATISTICS OFFICE   |
| FISIM  | FINANCIAL INTERMEDIATION SERVICES INDIRECTLY MEASURED                       |
| GDP    | GROSS DOMESTIC PRODUCT  |
| GO     | GROSS OUTPUT  |
| GVA    | GROSS VALUE ADDED   |
| HES    | HOUSEHOLD EXPENDITURE SURVEY  |
| IC     | INTERMEDIATE CONSUMPTION  |
| IMF    | INTERNATIONAL MONETARY FUND   |
| IRD    | INLAND REVENUE DEPARTMENT   |
| ISIC   | INTERNATIONAL STANDARD INDUSTRIAL CLASSIFICATION OF ALL ECONOMIC ACTIVITIES |
| LFS    | LABOUR FORCE SURVEY   |
| MFU    | MACRO FISCAL UNIT   |
| MOF    | MINISTRY OF FINANCE   |
| NAS    | NATIONAL ACCOUNTS SURVEY  |
| PAD    | PUBLIC ADMINISTRATION AND DEFENSE   |
| Rev4   | FOURTH REVISION   |
| SSB    | SOCIAL SECURITY BOARD   |
| SUT    | SUPPLY AND USE TABLE  |
| UNSNA  | UNITED NATIONS SYSTEM OF NATIONAL ACCOUNTS                                  |
| US\$M  | MILLION US DOLLARS  |

## I. INTRODUCTION AND BACKGROUND

---

The CSO in its most recent short term strategic plan has identified the improvement of National Accounts Statistics as an area of fundamental importance in its overall *vision* to become the primary source of statistical information in the BVI. The improvement is also fundamental to the fulfillment of CSO's *mission* to inform the process of socio-economic development in the Virgin Islands, through provision of timely and accurate statistics.

As a result, in 2015 the CSO benefitted from two technical assistance missions facilitated through the Caribbean Regional Technical Assistance Centre (CARTAC/IMF) where expertise was provided in national accounts compilation. The missions took the form of two country visits, both for two weeks each, in 2015 in order to analyze the existing local national accounts system and make recommendations for improvement accordingly. The CARTAC/IMF consultant also assisted in restructuring support staff to facilitate this objective. The missions were organized with assistance from the Ministry of Finance, which is the point-of-contact for CARTAC/IMF in the BVI.

During the process of evaluation, it was decided that the method for estimating GDP be changed from a benchmark SUT based approach to an Industry Production based approach in order to more accurately estimate current GDP levels and monitor structural economic changes over time. Following this recommendation, a number of changes had to be adopted to produce an entirely new and independent national accounts series. Most notably, there was a total rewriting of estimation methodology for this new series.

Part of the dilemma in compiling these new statistics was to identify at what year this series would begin. Clearly it would depend on the quality and volume of data available and how far back this information could be consistent. A primary source of information for production based GDP compilation would come from private establishments operating within the BVI's economic territory. This information would be sourced from the financial statements of these establishments either by direct survey or from administrative sources such as the Inland Revenue department (financial statements filed with tax returns) and the Social Security Board (employment data).

However, estimates would also need to be made for informal operators, although they generally keep little or no record of transactions. Some of the other core data sources include Central Government estimates (Revenue, Expenditure), statutory bodies, nonprofit organizations, household surveys (LFS, HES, and Census), Consumer Price Indices (CPI) and external trade statistics.

Proactively, the CSO had begun collecting some data to feed into this project prior to 2015. In 2014, there were targeted surveys done for informal operators in Agriculture, Fishing, Taxi and Rental Property Owners. Also considerable effort was put into private establishment paper based surveys. In the end, though some data were collected, the response rate on establishment surveys

was less than anticipated, and so administrative sources had to be explored to improve the volume of the sample.

For timeliness, and based on data constraints to reliably back-cast on this new series it was decided that the new series of National Accounts GDP estimates will begin from 2010 in this instance. However, the CSO will endeavor to link the current series to the previous SUT based series moving back possibly to the year 2000. Technical advice should be sought to bridge these two series, if only at the aggregate GDP level.

## II. THE NATIONAL ACCOUNTS FRAMEWORK

---

On a daily basis a number of transactions are taking place in the BVI as in any other economic jurisdiction. Much of these transactions are recorded, though some are not. The objective of the National Accounts is to organize these transactions in an orderly comprehensible manner to inform decision makers of twists and turns within the different industries, and economic sectors. Governments, researchers, investors and the like all hold vested interest in understanding these figures, whether to measure policy incentives by government or to inform business decisions by investors.

As one can imagine these records are not available in any one central location and so considerable effort must be made to collect these records in order to perform this function. However, if there were not established common standards in the methods used to collect, arrange and collate these transactions, these statistics would be less meaningful and incomparable from one country to the other. The basic international standard for compilation of national accounts, adopted by the United Nations Statistical Commission, and endorsed by the Economic and Social Council is The System of National Accounts 2008 (2008 SNA). The 2008 SNA had several predecessors, including the 1993 SNA.

The BVI subscribes to the 2008 SNA. However there are areas where it is not yet possible to fully adopt certain methodology because of the lack of details and certain kinds of data. It is also necessary to note that presently the national accounts framework in the BVI does not comprise a full set of integrated macroeconomic accounts, but follow the UNSNA in terms of concepts, definitions and applicable methodology. Economic activities and Industries for GDP compilation are classified according to the International Standard Industry Classifications of All Economic Activities (ISIC) Rev. 4.

In this report the accounts prepared include the compilation of the basic measure of output, intermediate consumption and value added by industry and subgroups where available, all in both current and constant price series. The constant price series is always compiled relative to a base year which will be updated periodically. This current series compiled has a base year of 2012. In the interest of maintaining confidentiality and avoiding identification of data of any one company some industries have been merged for publication.

### ***Revision Policy***

Periodic revisions to the National Accounts estimates are necessary as actual information becomes available from surveys, audited financial statements, administrative records, etc. The general practice is to revise at least the previous year's estimate as necessary, when the current year's accounts are being generated. Revisions will be noted where applicable.

### III. KEY CONCEPTS AND DEFINITIONS

---

**OUTPUT:** measures the value of goods and services produced within an establishment. For our purpose it is recorded on an annual basis. There are different kinds of Output but in this instance the only distinction we note is *market output* and *non-market output*. Market output is sold at economically significant prices, in the case of private businesses, while, *non-market output* is offered free or at economically non-significant prices, as in the case of Government and non-profit institutions serving households. Output is valued at basic prices.

**INTERMEDIATE CONSUMPTION:** Consists of non-durable goods and services purchased by producers to facilitate production. Intermediate consumption items are used up as inputs during production. It does not include compensation of employees and purchases made as capital formation. Taxes paid to Government also do not form part of intermediate consumption. Intermediate Consumption is valued at purchaser's prices.

#### **VALUATION OF GOODS AND SERVICES**

**Basic Price** is the amount receivable by the producer from the purchaser for a unit of good or service produced, *less* any tax payable, *plus* any subsidy receivable on that unit as a consequence of its production or sale. It excludes any transport charges invoiced separately by the producer.

**Producer's Price** is the amount receivable by the producer for a unit of good or service produced, less any VAT invoiced to the purchaser. Also excludes any transport charges invoiced separately by the producer.

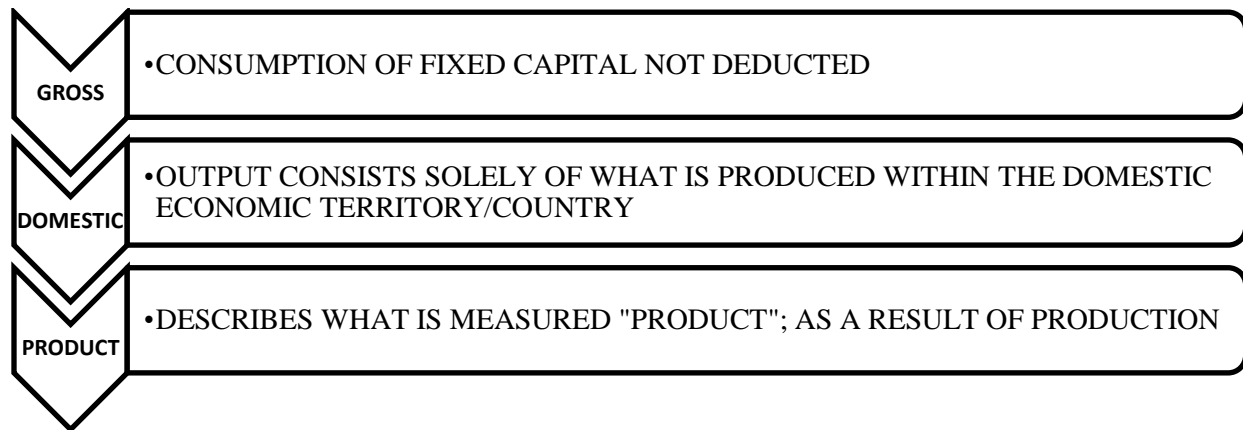
**Purchasers' Price** is the amount paid by the purchaser, excluding any deductible VAT or similar deductible tax. It includes separate transport charges.

**FINANCIAL INTERMEDIATION SERVICES INDIRECTLY MEASURED (FISIM):** is measured as the total property income receivable by financial intermediaries minus their total interest payable, excluding the value of any property income receivable from investment of their own funds. Notably, income does not come from financial intermediation. FISIM must be recorded in one or more of the following ways; as intermediate consumption by enterprises, as final consumption by households or as exports to non-residents.

**GROSS VALUE ADDED (GVA):** GVA is a measure of each Producer's contribution to GDP. It is a measure of the increased or newly created value generated by the production process in that period. Gross means that it includes the implicit value of consumption of fixed capital.

**GROSS VALUE ADDED AT BASIC PRICES:** It is equal to the sum of compensation of employees, consumption of fixed capital, other taxes less subsidies on production, mixed income and operating surplus. Essentially, GVA is the result of Gross Output minus Intermediate Consumption and is the precursor to Gross Domestic Product.

FIGURE 1: COMPONENTS OF GROSS DOMESTIC PRODUCT



**GROSS DOMESTIC PRODUCT AT MARKET PRICES:** is equal to the sum of gross value added of all producers, plus taxes on products paid to government minus subsidies on products.

**NATIONAL ACCOUNTS AT CURRENT AND CONSTANT PRICES:** Data reported in current or nominal prices are recorded in the value of the currency in that particular year, while constant price data reports data for each year in the value of a particular base year. The current series are influenced by inflation, while constant prices data are adjusted for inflation and is used to measure the real growth in volume. Constant price estimates are usually derived by deflating the current output values by price indices or by extrapolating base year values by appropriate volume indices. The result is the same in expressing current year quantities at base year prices.

## METHODOLOGY FOR ESTIMATING GROSS DOMESTIC PRODUCT

Internationally there are three recognized approaches to derive Gross Domestic Product: The *production approach*, the *income approach* and the *expenditure approach*.

### 1. Production Approach.

GDP by the production approach is designed to derive the value of total output of all activities in production within the economy. The value added is the result of deducting the value of intermediate consumption from the corresponding total output.

### 2. Income Approach

This takes into account the sum of income of all activities in production of goods and services in a given period. It includes income in the form of compensation of employees, inclusive of social benefits plus income received from self-employment plus profits received by companies from economic activity and taxes on production less subsidies on production and import.

### **3. Expenditure Approach.**

The expenditure approach GDP is estimated according to categories of final use. This consists of consumption expenditure of households plus services rendered by non-profit institutions serving households and a collective of services offered by General government plus the value of Gross Capital Formation and adjustment for changes in inventories and net imports of goods and services.

In theory GDP calculations derived from different approaches should be equal, but might differ as data sources are different. Calculation of GDP in this report is done using the Production approach and activities classified according to the ISIC Rev.4.

### **COMPENSATION OF EMPLOYEES**

This is defined to include all payments by resident producers of wages and salaries to their employees in cash and in kind, and of contributions, paid or imputed in respect of their employees, to social security schemes and to private pensions, family allowance, casualty insurance, life insurance and similar schemes.

**1.0 Wages and salaries:** consists of all payments that employees receive in respect of their work, whether in cash or in kind, and before any deductions to social security, income tax, etc. Included are:

- a) Commissions, overtime payments
- b) Tips
- c) Bonuses
- d) Cost-of-living and dearness allowances
- e) Fees to ministers of religion
- f) Fees to members of board of directors
- g) Holiday and paid vacation or sick leave

Included also are the values in whole or in part of any other unrequited personal benefit received by an employee from his/her employer. For example, the cost of food, lodging, etc.

Excluded from wages and salaries is expenditure by employers which is of benefit to both the employees and employers. Examples of these are outlays on:

- a) Medical examinations
- b) Sporting and other recreational facilities
- c) Amenities at place of work
- d) Reimbursement of expenses for travel and entertainment
- e) Reimbursement of expenses or provision of uniforms, tools and equipment.

### **1.1 Employer's contribution to Social Security Schemes**

This is the amount payable by employers to social security schemes for the benefit of their employees.

## **1.2 Employer's contribution to Private Pension Funds and other pensions**

This is defined as contributions to private funds, reserves or other special schemes in respect of family allowances, lay-off and severance pay, casualties and maternity leave and pensions. The System of National Accounts (SNA) states that if in the absence of special schemes of reserves, employers make direct payments of this type to their employees, imputed contributions in respect of these obligations should be included in the employer's contribution to private schemes.

## **THE OPERATING SURPLUS**

This is equivalent to the excess of value added at the producers' prices over the sum of compensation of the employees, taxes less subsidies on production and imports and allowances for the consumption of fixed capital. If a strict income approach to estimation value added is used, operating surplus is estimated directly and value added is estimated as the sum of its elements. If a combination of the production and income approaches to estimation is used, value added is computed as the difference between gross output and intermediate consumption and operating surplus is calculated as the residual between value added and its other components. Operating surplus is simply the sum of net profits and property income. It is the surplus or deficit from production before taking into account interest and land rents payable by the establishments, as any non-allowable items such as bad debts, donations, miscellaneous provisions and capital items written off as current expense.

## **CONSUMPTION OF FIXED CAPITAL**

This is defined as the value at current replacement cost of the reproducible fixed assets used up during a period of account as a result of normal wear and tear, foreseen obsolescence and the normal rate of accidental damage. However, unforeseen obsolescence, major catastrophes and the depletion of natural resources are not included in consumption of fixed capital.

## **TAXES ON PRODUCTION AND IMPORTS**

These are defined as compulsory, unrequited payments to government, which industries treat as part of the cost of production. The SNA no longer uses the term "indirect taxes". Indirect taxes have been renamed "taxes on production and imports". They do not include direct taxes on the income or wealth of enterprises. Taxes on production and imports consist of the following two groups:

### **1- Taxes on Products**

Tax usually payable per unit of specific goods and services

i. Production tax/excise duties:

Include excise duties on rum, beer, cigarettes and soft drinks

ii. Taxes on exports.

iii. Other taxes on products: Other taxes on specific goods and services, e.g. hotel occupancy tax and entertainment tax.



## **2- Other Taxes on Production**

Taxes that establishments incur as a result of engaging in production but which are not directly tied to specific goods and services

- i. Property taxes
- ii. Business and professional licenses
- iii. Other taxes and licenses: Include stamp duties, vehicle taxes and licenses.

## **SUBSIDIES**

These are grants on the current account made by government to private industries and public corporations.

They also comprise grants made by the public authorities to government enterprises in compensation for operating losses when these losses are clearly the consequences of the policy of the government to maintain prices at a level below cost of production. Any government grants to producers which are not connected with their productive activities but are given to them in the capacity of consumers, such as social assistance grants and social security benefits, should be treated as current transfers and not as subsidies. Also grants from government to enterprises in order to finance their capital formation or compensate for damage of capital assets are not subsidies but rather capital transfers.

#### IV. NOTES ON THE SOURCES OF DATA AND METHODOLOGY FOR ESTIMATING GVA IN CURRENT AND CONSTANT PRICES

---

This section outlines the methodology and data sources for compilation of the various national accounts variables by economic activity. Economic Activities follow the ISIC rev 4. See Appendix 1.

The activities that follow comprise the formal sector. This sector is made up of various types of businesses, along with private households with employed persons. The formal and informal sectors together make up the entire economy of the Virgin Islands.

##### **Agriculture and Fishing**

Agriculture: accounts for both Crops and Livestock production continue here

The estimation of national accounts aggregates for this activity is derived as a result of a special Agriculture Survey conducted in 2014. The data collected was in respect of annual production figures for 2013. This survey presented a benchmark figure for Gross Output (GO) and Intermediate Consumption (IC) for this activity. GO for the other years were moved by the mean (mid-year) population figure and CPI. IC for the other years was estimated using the ratio of IC/GO in 2013.

To arrive at value-added, the value of intermediate consumption, consisting of material inputs such as seeds and planting materials, fertilizers, pesticides, irrigation supplies for Crops and animal feeds, vet fees, maintenance and repair expenses for Livestock was deducted from the gross value of output.

Constant price GO was derived by deflation of Current Price GO using the CPI for food items. IC in constant prices is derived by applying the IC/GO ratio of the base year 2012, to derived constant price GO for respective years.

Fishing:

The 2013 agriculture survey also collected data for fishing, which has been used to drive a benchmark estimates for that year. The same methodology as applied for Agriculture has been used to estimate GO and IC for fishing.

Constant price GO was derived by deflating Current Price GO using CPI for fish. Constant Price IC also derived as the ratio of IC/GO of the 2012 base year, applied to constant price GO for each respective year.

## **Mining and Quarrying**

This activity accounts for extraction of minerals occurring naturally. The output includes production of gravel, sand and stones in the B.V.I. Financial statements of the companies involved in this activity are the main source of data for estimating GO, IC and Value-added.

Constant prices GO is derived by deflation of current prices GO by CPI for *Cement, Sand and Tile* (combined index) as most if not all quarry materials produced are used in local construction. Constant prices IC is revalued at 2012 prices using the IC/GO ratio in 2012 applied to constant prices GO for respective years. Mining and Quarrying is combined with Construction for publication.

## **Manufacturing**

This section includes the physical or chemical transformation of materials, substances or components into new products, also includes activities making substantial alteration, renovation or reconstruction of goods. In the BVI these include a range of activities including Bakeries, Bottled Water plants, Sails, Repair and refinishing of Boats, Sewing Clothes, Wooden Furniture, Metal forging, Printing, Ready mix Concrete and other handcraft works.

GO and IC for this sector is derived using data from financial statements provided by the NAS or from records at the IRD, for companies involved in each sub activity. Grossing of the estimates is based on employment data provided from the SSB.

Constant prices GO estimates are a result of deflation of Current price GO for each subgroup by an appropriate price index provided in the CPI. Constant prices IC is revalued at 2012 prices using the IC/GO ratio in 2012 applied to constant prices GO for respective years.

## **Electricity and Water**

### Electricity:

The electricity sub-sector includes activities related to production, transmission and distribution of electricity. The BVI Electricity Corporation (BVIEC) is the only producer of electricity in the BVI. Data for estimating GO and IC is provided by the corporation through their financial statements.

Constant prices GO was derived by deflation of Current Price GO by the index of electricity prices in the CPI.

### Water supply:

The water sub-sector includes activities of collection, purification and supply of water. Also includes management (including collection, treatment and disposal) of various forms of waste, including treatment of sewerage.

Water and Sewerage management in the BVI form part of the General Government Accounts and are accounted for under Public Administration and Defense (PAD). Solid Waste management also forms part of PAD.

Estimates were generated for this sub-sector accounts for two private desalination plants and individuals distributing water by truck. The main source of data for Current prices GO and IC comes from financial statements accessed at the IRD.

Constant prices GO estimates are a result of deflation of Current price GO by the price index of *public water supply* provided in the CPI. Constant prices IC is revalued at 2012 prices using the IC/GO ratio in 2012 applied to constant prices GO for respective years.

Electricity and Water are combined for publication based on maintaining confidentiality and convention.

### **Construction**

This section includes all construction activities for buildings and civil engineering works. It includes new work, repair, alteration and additions of permanent or temporary nature. Also included with specific construction activities is the renting of construction equipment with operator for that purpose. Further, specialized services like plumbing and electrical works and other construction installation services are also included.

The current price GO and IC are based on financial statements from construction companies. Adjustments are made for non-response and the industry is grossed up based on number of employees as provided by the SSB.

Constant price estimates are derived by deflation of current price GO using an index of CPI prices for *Cement, Sand and Tile* (combined index). Constant price IC is based on the base year IC/GO ratio applied to constant price GO for each respective year. Value-added is calculated as GO *minus* IC.

## **Wholesale and Retail Trade**

This section includes wholesale and retail sale, (*without transformation*) of any type of goods and related services incidental to the sale of these goods. Also included in this section are activities of repair and maintenance of motor vehicles and motorcycles. The number of active establishments involved in this activity is significant, bordering 300 annually and averaging around 2200 employees, according to the records of the Social Security Board.

Current Price GO and IC is estimated by analyzing the income and expenditure statements received from selected wholesale and retail companies and the IRD. Grossing up for total industry estimates is done using the output per employee ratio applied to employment of non-responding establishments provided by the SSB.

Constant Price GO is derived by deflating Current Price GO by the All Items in from the CPI. Constant price IC is based on the base year IC/GO ratio applied to constant price GO for each respective year. Value-added is calculated as GO *minus* IC.

## **Accommodation and Food Services (Hotels and Restaurants)**

This section includes the provision of short-stay accommodation and the provision of complete meals and drinks fit for immediate consumption.

### Accommodation

Current Price estimates for GO and IC are based on data provided through financial statements of accommodation establishments.

Constant Price estimates are derived by deflating Current price GO by the *Restaurant and Hotel Services* index from the CPI. Constant price IC is based on the base year IC/GO ratio applied to constant price GO for each respective year. Value-added is calculated as GO *minus* IC.

### Restaurants

Current Price estimates for GO and IC are based on data provided through financial statements of restaurant service establishments.

Constant Price estimates are derived by deflating Current price GO by the *Restaurant and Hotel Services* index from the CPI. Constant price IC is based on the base year IC/GO ratio applied to constant price GO for each respective year. Value-added is calculated as GO *minus* IC.

## **Transportation and Storage**

This section includes the provision of passenger or freight transport by road, water or air and associated support service activities such as parking facilities, cargo handling, storage etc., also included are postal and courier activities.

Gross Output and Intermediate Consumption in current price for this industry includes activities of Taxi, Ferries, Freight Shippers, Air Transport, Road Freight, Courier services and Ports Administration.

The BVI Ports Authority and the BVI Airport Authority are the biggest contributors to this sub-sector and data is collected directly from the statutory bodies financial accounts to derive GO and IC.

Information for taxi operation was collected directly through a special survey conducted by the CSO in 2012.

Estimated GO and IC for the other sub-activities are derived from financial information collected at the IRD for a sample frame.

The constant price GO for the total sector *transportation and storage*, is derived by deflation of the combined current price GO by a *combined index of all fares* for transportation services in the CPI.

## **Information and Communication**

The Information and Communication sector accounts for the production and distribution of information and cultural products. The main components of this section are publishing activities, motion picture and sound recording activities, radio and television broadcasting and Telecommunication service activities.

Data for estimated GO and IC for this sector was supplied through the financial statements of the main Telecommunication providers on island, and other businesses in this activity. Value-added is calculated as GO *minus* IC.

Constant price GO estimate is derived by deflating current price GO by the *communication* price index taken for CPI prices. Constant price IC is based on the base year IC/GO ratio applied to constant price GO for each respective year. Value-added is calculated as GO *minus* IC.

## **Financial and Insurance Activities**

Activities in this section account for financial service providers, including insurance, pension funds and support activities to financial services. Holding companies, Trusts and Funds and similar financial entities also form part of this section.

Current price GO and IC is led by data provided through the financial statements of the various banks, trusts and insurance services in the Territory.

Constant price GO estimate is derived by deflating current price GO by the *All Groups* price index taken for CPI. Constant price IC is based on the base year IC/GO ratio applied to constant price GO for each respective year. Value-added is calculated as GO *minus* IC.

## **Real Estate**

This sector consists of owner-occupied dwellings, rental of dwellings and other structures and real estate agents.

### *Owner-Occupied Dwellings*

The 2010 Population Census collected the number of owner-occupied dwellings broken down by the number of bedrooms from one to nine. The estimates for other years have been derived by applying the change in the mid-year population to the figures for 2010.

The number of dwellings, with one two and three bedrooms, was multiplied by the annual imputed rent for each year collected in the CPI. It was agreed that the rent of four bedroomed properties was assumed to be the same increase as between two and three bedroomed properties. The same calculation was used to derive the rent for each of the five to nine bedroomed properties. All of these results were added together to derive the total imputed rent for each year.

### *Other Real Estate*

For other real estate operations GO and IC is obtained from the financial accounts of these establishments. Constant price GO is derived by deflating current price GO by a combined index of Housing, Rental and Imputed Rents from the CPI. Constant price IC is based on the base year IC/GO ratio applied to constant price GO for each respective year. Value-added is calculated as GO minus IC.

## **Professional, Scientific and technical activities**

This section includes specialized professional, scientific and technical activities for which a high degree of training is required. Legal, Accounting, Management Consultancy, Architectural and Engineering services and also Animal Veterinary services are prominent activities in this section.

Current Price GO and IC data is accessed through the financial records of these companies. Value-added is calculated as GO minus IC.

Constant price GO is derived by deflating current price GO by the *All Groups CPI*. Constant price IC is based on the base year IC/GO ratio applied to constant price GO for each respective year. Value-added is calculated as GO *minus* IC.

### **Administrative and Support Service Activities**

This section includes a variety of services that support general business operations. Primary activities comprise rental service activities not including dwellings, activities of employment agencies and personnel recruitment services, travel agencies, tour operators and other reservation services, security services, general cleaning services, landscaping activities and other business support services.

Estimation of current price GO and IC for this sector relies on financial data supplied through the annual establishment survey and IRD, then grossed up using employment data from the SSB records.

Constant price GO are derived by deflating current price GO by several price indices appropriate to each sub-activity. Constant price IC is based on the base year IC/GO ratio applied to constant price GO for each respective year. Value-added is calculated as GO *minus* IC.

### **Public Administration, Defense and Social Security**

This section comprises central government operations including a number of statutory bodies that do not produce at economically significant prices. Social Security services are also included under this sector. Statutory bodies that produce at economically significant prices, like the BVI Ports Authority (BVIPA) and BVI Electricity Corporation (BVIEC) are not included in this section but instead are placed with their respective industries. Education and Human Health services are also separated to their respective industry.

Estimation of current price GO for this sector is equal to the sum of cost of operation. The value added is estimated at cost and therefore consists entirely of employee compensation. Same applies for estimates of Social Security. IC is estimated as residual GO *minus* GVA.

Constant price GO is derived by extrapolating current price base year value of GO by a volume index of total number of government employees. Constant price IC is based on the base year IC/GO ratio applied to constant price GO for each respective year. Value-added is calculated as GO *minus* IC.



## **Education**

This industry is divided into public and private education activity and accounts for all levels of education.

### Public education

Public education mainly refers to education services provided in public schools at the primary, secondary and tertiary levels.

Current price GO and GVA are taken from government recurrent expenditure on education. GO being the sum of total cost and GVA being total compensation of employees. IC is derived as residual GO *minus* GVA.

### Private education

Current price GO and IC were taken from data provided through the financial statements of private education providers at all levels. Value-added is calculated as GO *minus* IC

Constant price GO for the total education industry is derived by deflating current GO by a price index of education services in the CPI. Constant price IC is based on the base year IC/GO ratio applied to constant price GO for each respective year. Value-added is calculated as GO *minus* IC.

## **Human Health and Social Work**

This section includes health care provided by trained medical practitioners and also social work activities not requiring any particular health service. It is separated into public and private health and social work activities.

### Public Health

GO of health services provided by government is measured as the total sum of cost through the financial records of the British Virgin Islands Health Services Authority (BVIHSA), the Adina Donovan Home and the central ministerial administration for health. Gross Value-added is valued as the sum of employees' compensation, inclusive of all personal emoluments (wages and salaries), and other benefits and allowances. IC is derived as residual of GO *minus* GVA

### Private Health

GO and IC for private health is extracted from financial statements of private sector providers of health services. Value-added is calculated as GO *minus* IC.

Constant Price GO is derived by deflating total industry current price GO by a price index of health services in the CPI. Constant price IC is based on the base year IC/GO ratio applied to constant price GO for each respective year. Value-added is calculated as GO *minus* IC.

### **Other Services**

This section is termed a residual category and includes activities of membership organizations, repair of computers and personal and household goods and a variety of other personal service activities not classified elsewhere. This section is very diverse and includes from churches to laundry services.

The section *Arts, Entertainment and Recreational* activities is combined with **Other Services** for publication. This section includes a wide range of activities to meet the cultural, entertainment and recreational interests of the general public.

GO and IC for both sections are obtained from financial statements from sample establishments in these categories. Value-added is calculated as GO *minus* IC.

Constant price GO is derived by deflating current price GO by the CPI index for *miscellaneous goods and services*.

### **Private Households with Employed Persons**

This section includes activities of households as employers of domestic personnel.

GO and GVA for this category of employees are taken from information provided by the SSB on number of employees and total earnings of this class paying into the social security system. No IC is recorded for this sub-sector.

Constant price GO estimates are derived by extrapolating current price base year Go by an index of employees in this activity as recorded in the social security system.

### **Taxes less subsidies on products**

*Taxes on products* recorded as part of government recurrent revenue are:

- Import Duties on alcoholic and non-alcoholic products
- Surcharge on Fossil Fuels imports
- Hotel Accommodation Tax
- Surcharge-Motor Vehicle Tax
- Other import Duties

Constant price estimates for import duty taxes are derived by deflating the current price series by the US price index for export of goods, as this is the source of the bulk of goods imports into the BVI.

Constant price estimates for hotel accommodation tax are derived through extrapolation of current price base year value using a volume index of constant price GO for the accommodation industry.

### *Subsidies*

Data from the MOF reports annual subsidies in the transportation sector to Local Ferries, Local Air travel providers and to the BVI Airport Authority. The TRC received government subsidies only in 2010. Subsidies were added to the GO of the related industries.

Constant price estimates are based on extrapolation of base year values using volume indices of GO for relevant industries receiving subsidies.

### **INFORMAL SECTOR**

Estimates for the informal sector's GO were derived using data from the 2015 LFS. The number of informal workers to formal employees for each industry was applied to the formal sector GO estimates. IC was derived as a ratio of IC/GO in the formal sector applied to the informal GO.