



THE CAYMAN ISLANDS' 2015 ANALYTICAL INPUT-OUTPUT TABLES

December 2019



**The Economics and Statistics Office
Ministry of Finance and Economic Development**



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Preface

This document presents the Cayman Islands' Analytical Input-Output tables and describes the methodology employed along with the relevant data sources. The methodology and guide was produced by the Economics Unit of the ESO. Significant assistance and input information from the Cayman Island's Supply & Use tables were provided by the System of National Accounts (SNA) Unit of the ESO.

1. Summary

The input-output (I-O) model of the economy presents a comprehensive and detailed outline of the sales and purchases of goods and services among producing industries, final consumers, and resource owners for an economy during a particular period of time. One key feature of input output tables is its contribution to various demand multipliers. Multipliers typically show the effects of an exogenous change in an industry's demand on final output.

If there is an increase in demand for a particular industry's output, we can assume that there will be an increase in the output of that industry, as sellers react to meet the increased demand, this is the **direct impact**. As these sellers increase their output, there will also be an increase in demand on their suppliers along the supply chain, the **indirect impact**. As a result of these two impacts, the level of household income throughout the economy will increase due to increased employment/wages. A proportion of this increased income will be re-spent on final products, the **induced impact**. **Type I multipliers** sum the **direct** and **indirect** impacts while **Type II multipliers** sum all three impacts. Some key multipliers for the Cayman Islands are presented below with a detailed outline of the methodology presented the the subsequent section.

Table 1. Industries with the Largest Output Multipliers

	Water Supply & Waste Management	Construction	Wholesale & Retail Trade	Hotels & Restaurants	Public Admin. & Defense	Education Services
Direct	1.00	1.00	1.00	1.00	1.00	1.00
Indirect	0.69	1.05	0.51	0.65	0.46	0.41
Type I Multiplier	1.69	2.05	1.51	1.65	1.46	1.41
Induced	0.41	0.51	0.48	0.39	0.81	0.72
Type II Multiplier	2.10	2.56	1.99	2.03	2.26	2.13

1.1 Construction

The construction industry was estimated to have the largest output multiplier of 2.56 (see Table 1), suggesting that for every \$1.00 of additional construction output demanded, total output in the economy would increase by \$2.56. The direct impact, which is assumed to be the initial \$1.00 in additional demand, reflects the new injection. The indirect impact of \$1.05 reflect, the intermediate output that the sector will in turn demand from other industries in order to produce the \$1.00 worth of output. The induced impact of \$0.51 is the new demand that will be generated as a result of increased income associated with the production of the \$1.00 worth of additional output.

The high multiplier in the industry largely emanates from its heavy reliance on output from other domestic industries (the indirect impact). Chief among these are *other manufacturing* which provides concrete and *finance and insurance* and *professional activities* which supply architects and engineers etc. Specifically, in order to increase its output by \$1.00, the construction industry

would stimulate additional output valued at approximately \$0.72 from those three industries combined.

Additionally, the income and employment multipliers were estimated to be 0.55 and 16, respectively (see Figure 1). The income multiplier suggested that for every \$1.00 of additional output demanded from the industry, total income from compensation across the economy would increase by \$0.55. The employment multiplier estimates that for every \$1million dollars worth of construction output demanded, 16 additional workers would be demanded across the economy.

1.2 Public Administration and Defence

This industry, which forms a large portion of the civil service, was found to have the second highest output multiplier in the economy of 2.26, suggesting that for every \$1.00 of additional output demanded, total output in the economy would increase by \$2.26. This was largely attributed to the induced impact of the industry which has a high employee compensation component. The induced impact amounted to 0.81, suggesting that for every \$1.00 of additional output demanded, an additional \$0.81 of output would be created from further demand associated with the increased income generated. The direct and indirect impact in the industry amounted to 1.00 and 0.46, respectively.

The income and employment multipliers in the industry were estimated at 0.87 and 15. This suggested that for every \$1.00 of additional output demanded, total income from compensation in the economy would increase by \$0.86. Further, for every \$1million dollars worth of output demanded, 15 additional workers would be demanded across the economy.

1.3 Education Services

The education services industry was found to have an output multiplier of 2.13, also largely due to its high compensation component. The induced impact amounted to 0.72, suggesting that for every \$1.00 of additional output demanded, an additional \$0.72 of output will be created from further demand associated with the increased income generated. The direct and indirect impact in the industry amounted to 1.00 and 0.41, respectively.

The income and employment multipliers in the industry were estimated at 0.78 and 16, respectively.

1.4 Water Supply and Waste Management

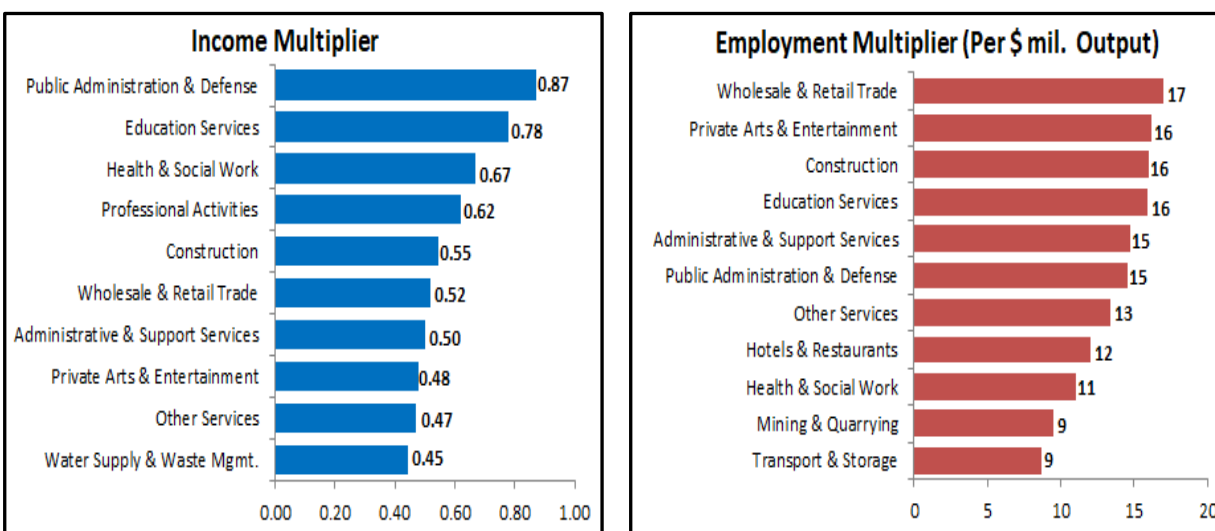
This industry was estimated to have an output multiplier of 2.10, the direct, indirect and induced impact were estimated at 1.00, 0.69 and 0.41, respectively. While, the income and employment multipliers in the industry were estimated at 0.45 and 8, respectively.

1.5 Hotels and Restaurants

The hotels and restaurants industry was estimated to have an output multiplier of 2.03. This implied that for every \$1.00 of additional output demanded, total output would increase by

\$2.03. The direct impact, which is assumed to be the initial \$1.00 in additional demand, reflected the new injection. The indirect impact of \$0.65 reflected the intermediate output that the sector will in turn demand from itself and other industries in order to produce the \$1.00 worth of output. The induced impact of \$0.39 is the new demand that will be generated as a result of increased income associated with the production of the \$1.00 worth of additional output. The income and employment multipliers in the industry were estimated at 0.42 and 12, respectively.

Figure 1. Industries with the Largest Type II Income and employment multipliers



Overview of Methodology

2. An Overview of the System of National Accounts and Supply and Use Tables¹

The SNA is a system of accounts that is used globally to measure the economic performance of countries and jurisdictions using accepted international standards issued by the United Nations and the International Monetary Fund (among others). The SNA estimates contained in this report are based on the Annual National Accounts Survey (ANAS) conducted among all relevant establishments included in the ESO Business Register. The survey was conducted during the period March to May 2016.

The SNA methodology is used to compile the Supply and Use tables (SUT) which represents a detailed view of all economic activity taking place within the economy in an accounting period. It records the total supply of goods and services available for consumption and their uses. The supply of goods and services available is based on the sum of domestic production and imports. The SUT also records how and where the supply of goods and services are allocated/used, whether as intermediate consumption (used by businesses), final consumption (used by individuals & households), capital formation (the acquisition less disposal of fixed and intellectual assets primarily by business), changes in inventories held by businesses or exports of goods and services. The SUT describes the interrelationship between producers and consumers of goods and services and interdependence among the different industries. An essential function of the SUT is to confront and reconcile the GDP estimates from the three approaches to calculating GDP, i.e. the production, income and expenditure approaches. The SUT is also the base on which input-output tables are developed and analyzed.

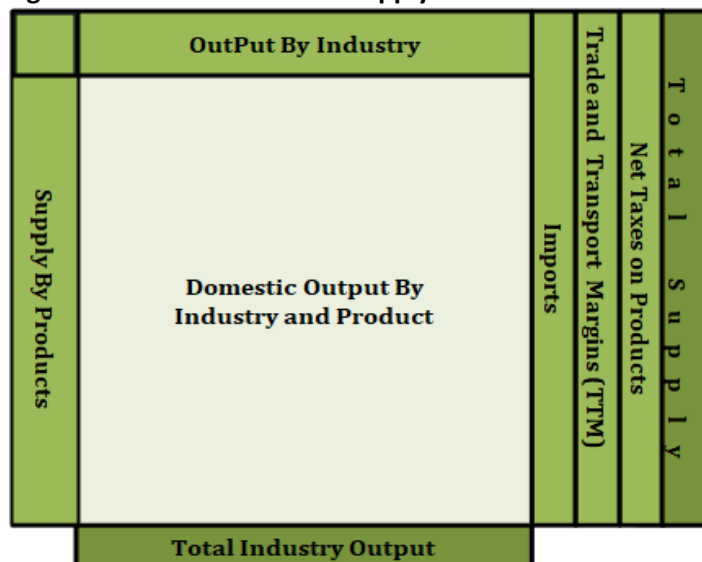
2.1 Supply Tables

The supply table is a product by industry based table with products in the rows and industries and imports in the columns (see Figure 2). A supply table shows the supply of goods and services by product and by type of supplier, distinguishing supply by domestic industries and imports from those of other countries. The vector of imports lists total imports of the nation by product. The last row of the supply table shows total output by industry, total imports and total supply. In the last column of the supply table, total supply by product is reported consisting of domestic and imported products.

The production of products characteristic for an industry is called primary output, while the production of other products not characteristic for the industry is called secondary output. Primary (main) activities of industries are reported on the diagonal of the supply table, while secondary activities of industries are reported off the diagonal. As each industry can produce not only products characteristic for that industry but also other products, the supply table of domestic output has data entries on the main and off-diagonal.

¹ See the 2017 National Accounts report for a detailed review of the System of National Accounts and the Supply and Use tables. Report posted at www.eso.ky

Figure 2: Schematic View of Supply Table Framework



2.2 Use Tables

The use table is a product by industry based table with products and components of value added in the rows and industries and categories of final uses and exports in the columns. A use table shows the use of goods and services by product and by type of use, i.e. as intermediate consumption by industry, final consumption, gross capital formation or exports. Furthermore, the table shows the components of value added by industry, i.e. compensation of employees, other taxes less subsidies on production, consumption of fixed capital and net operating surplus. The table of intermediate use shows the intermediate consumption by products and by industry, the table of final uses shows the uses of products for final consumption, gross capital formation and exports, and the table of value added shows the components of value added by industry.

Totals over the columns of intermediate and final uses show total use by products, totals over the rows of the intermediate table and the value added table identify total inputs by industries. The columns of industries in the use table reflect the cost structure of each specific industry. The intermediate consumption table thus identifies goods and services that are necessary to produce the primary and secondary outputs of industries. This table has many more entries than the output matrix as some products are required in many industries to produce their output. For example, electricity is a product that is required in almost all industries. On the other hand, there are certain products that are only required in one or few industries. An example is crude oil which is only used in refineries.

Figure 3: Schematic View of Use Table Framework

Purchases By Industry		Final Demand					
Used By Products	Domestic Output By Industry and Product	Total Demand	Export	Gross Capital Formation (GCF)	Government Final Consumption (GFCE)	Household Final Consumption (HFCE)	Total Intermediate Demand
		Total Intermediate Consumption					
		Compensation of Employee					
		Net Taxes on Production					
		Consumption of Fixed Capital					
		Net Operating Surplus					
		Total Output					
Gross Value Added							

3. Introduction to Input-Output Analytical Tables

Supply and Use Tables form an integral part of the system of national accounts. Their main use is to assist in tracking industry activities and assist in balancing the national accounts. They are also the starting point for the production of Input-Output Analytical (I-O) Tables (also known as symmetric input-output tables). These form the foundation on which a wide range of macroeconomic models and impact analyses can be constructed. The intermediate part of a symmetric input-output table is a square matrix where the number of rows is equal to the number of columns, hence the term symmetric. The fact that input-output tables are square matrices allows for unique mathematical manipulation and analytics.

The analytical tables present a version of the Use Table in either an industry by industry or product by product form, as opposed to the product by industry basis of the Supply and Use tables and are used to model the impacts of changes on the domestic economy. In order to construct the analytical tables, some assumptions must be made about secondary production or the off-diagonal elements shown in the domestic part of the Supply Table. For industry by industry tables, the assumption relates to the sales structure of secondary production. For product by product tables, the assumption relates to the input structures of secondary production.

There are many ways of using symmetric input-output tables in analysis. Well-known examples are productivity analysis, energy analysis and environmental analysis. For any type of analysis in which product relations in the production process or inter-industry relations play a role, symmetric input-output tables can be a useful tool. The industry by industry analytical tables are typically generated from the Supply and Use tables under the assumption that the sales structure for a given product is the same regardless of which industry it is produced by. This means that secondary production of a given product is sold to other industries and final demand in the same proportions as production of that product by its principal producing industry. A product-by-product input-output table describes the technological relations between products and homogeneous units of production (branches). The intermediate production is assumed to reflect the amount of products that were used in the production of that good, irrespective of the producing industry. In other words, it is assumed that agriculture products were only produced by production units of the homogeneous branch agriculture.

While product-by-product input-output tables are believed to be more homogeneous, industry-by-industry input-output tables are closer to statistical sources and actual observations. In empirical research it depends on the objectives of analysis which type of input-output table is better suited for analysis. For example, it may more feasible to use product-by-product input-output tables for the analysis of new technologies in the economy. On the other hand, industry-by-industry tables are a better option if the economic impact of a major tax reform is studied on the basis of input-output data. ***This methodology focuses on the procedure used to estimate the industry by industry input-output table which is presented in the rest of the document.***

4. Methodology for Creating Industry by Industry I-O Tables

Step 1: Transpose the domestic supply table S to derive S^t and create a transformation matrix T by dividing each element of S^t by their respective column total O (note that O is now the total product outputs). This creates a matrix of commodity output proportions; theoretically the market shares of the industries.

$$T = S^t \cdot Q^{-1}$$

Where; Q is a diagonal matrix with the diagonals equal to the column totals of O .

Step 2: Transform the intermediate and final demand components of the Use table to an industry by industry matrix using the transformation matrix derived in step 1. Note that the Use table has three components; intermediate consumption, value added and final consumption. The value added component is presented in terms of industry and does not have a product dimension hence there is no need to perform any transformation on this component.

Let **I** represent the transformed intermediate component of the Use table (industry by industry) then:

$$I = T \cdot D$$

Where; **D** is the actual intermediate component of the Use table.

Similarly if **F** represents the transformed final demand component then:

$$F = T \cdot Y$$

Where; **Y** is the actual final demand component of the Use table.

All three components are then combined to form the Input-Output table. The transformed intermediate component which is a square matrix is what is typically referred to as the symmetric I-O table. The symmetric I-O table and value added component presented below for the Cayman Island's also account for imports as part of the production process to generate gross output.

The rows in the I-O table depict the output of each industry, with each row total being the total intermediate output produced by that industry. The columns depict the intermediate inputs required from each industry, with each column total showing the total intermediate inputs for that industry. To interpret the IO table in *table 2* below it can be seen that that majority of the intermediate output produced by the agriculture sector is used in the hotels and restaurants industry while majority of the output from mining a quarry is used in the construction industry.

4.1 Treatment of Imports

Imports are treated as a leakage from the domestic production process where expenditure on foreign inputs reduces the expenditure spent on domestic intermediate goods. In accordance with the methodology proposed by the (United Nations Department of Economic and Social Affairs 2018) imports is abstracted from domestic output but aggregated in gross value added. The GVA presented in *table 2* below accounts for basic output which excludes taxes on product. Taxes on product are not disaggregated by industry for the Cayman Islands.

4.2 Main Components of Industry Output

Domestic intermediate consumption accounts for the largest portion of gross output in most industries with construction, electricity production and hotels & restaurants having the largest intermediate consumption component (*See table 3*). Food, beverage and other manufacturing were the industries with the lowest intermediate consumption. These industries were heavily dependent on imports which were their main contributor to output. As expected compensation of employees is the largest component of most service industries such as professional activities, education services and public administration & defence.



The Cayman Islands' 2015 Analytical Input-Output Tables



Table 2: Industry-by-Industry Intermediate IO Matrix (\$ Million)

	Agriculture & fishing	Mining & quarrying	Food & beverage manufacturing	Other manufacture	Electricity production	Water supply & waste management	Construction	Wholesale & retail trade	Transport & storage	Hotels & restaurant	Information & comm.	Financial & insurance services	Real estate	Professional activities	Admin. & support services	Public admin. & defense	Education services	Health & social work	Private arts & ent.	Other services
Agriculture & fishing	1.06	0.00	1.88	0.00	0.00	0.04	0.31	0.04	0.10	10.54	0.08	0.16	0.64	0.21	0.87	0.23	0.08	0.14	0.12	0.71
Mining & quarrying	0.01	1.20	0.00	10.50	0.03	0.30	14.33	0.61	0.92	0.24	0.09	0.48	0.48	0.18	0.13	0.09	0.04	0.33	0.02	0.02
Food & beverage manufacturing	0.60	0.22	3.65	0.69	0.41	0.29	0.70	3.65	1.86	74.94	0.89	2.35	0.31	2.06	0.38	2.69	0.55	1.46	1.89	0.41
Other manufacturing	2.21	2.69	1.54	13.26	89.26	3.82	121.60	3.77	26.36	19.79	6.65	6.15	15.41	10.84	4.45	16.45	3.20	16.35	7.23	4.09
Electricity production	0.49	0.69	0.40	0.56	0.11	3.68	1.67	8.43	3.65	24.05	4.21	7.18	6.59	5.70	1.62	6.81	5.52	5.12	2.10	3.50
Water supply & waste mgmt.	0.28	0.59	0.19	0.52	0.14	0.53	0.50	1.83	0.73	7.83	0.66	1.60	4.56	1.37	1.04	2.12	1.01	1.50	0.64	0.75
Construction	0.13	0.27	0.08	0.31	0.34	6.03	105.96	2.85	1.89	6.91	1.08	4.63	36.57	3.82	0.55	2.54	2.18	2.42	0.55	1.33
Wholesale & retail trade	0.23	0.19	0.25	1.11	4.53	1.34	7.61	2.45	5.33	2.06	1.17	0.75	0.88	1.45	3.74	2.02	0.39	1.35	0.64	0.49
Transport & storage	0.17	1.72	0.19	1.00	0.18	1.49	6.02	13.80	24.37	5.66	2.87	18.01	0.78	7.38	1.41	4.36	0.79	1.11	0.31	0.67
Hotels & restaurant	0.15	0.22	0.12	0.93	5.71	0.28	8.06	1.06	3.65	2.29	0.73	4.51	1.72	2.32	0.61	1.71	0.47	2.04	0.70	0.51
Information & communication	0.56	0.34	0.28	1.15	4.04	1.37	6.67	10.09	5.02	6.13	27.40	30.99	2.79	12.41	3.84	7.02	1.96	2.92	1.40	2.52
Financial & insurance services	0.67	0.82	1.09	3.09	2.60	3.80	10.00	34.05	18.25	15.35	6.45	829.02	129.88	28.28	5.64	14.34	8.02	6.88	4.22	5.30
Real estate	0.04	0.38	0.43	2.00	0.08	0.11	2.22	7.32	4.17	25.27	5.07	36.11	26.17	26.33	4.54	5.04	5.33	2.84	5.53	5.91
Professional activities	0.13	0.15	0.40	0.72	1.99	1.67	34.90	12.33	8.17	18.83	11.54	114.30	15.84	58.07	4.35	17.93	2.59	3.57	2.40	4.31
Administrative & support services	0.25	0.34	0.28	0.70	2.48	1.17	5.34	18.83	10.12	14.47	8.24	41.36	8.38	15.11	2.86	7.14	3.75	4.90	1.28	1.98
Public administration & defense	0.03	0.06	0.03	0.09	0.02	0.07	0.41	0.90	0.18	1.21	0.38	2.52	0.28	2.16	0.38	0.61	0.46	0.28	0.44	0.24
Education services	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.38	0.00	1.41	0.00	1.56	0.00	2.51	0.32	0.01	0.00	0.00
Health & social work	0.00	0.00	0.00	0.01	0.01	0.01	0.04	0.10	0.07	0.09	0.05	0.22	0.06	0.09	0.04	0.19	0.02	2.98	0.01	0.74
Private arts & entertainment	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.02	0.03	0.63	0.02	0.01	0.00	0.02	0.03	0.09	0.07	0.01	0.33	0.00
Other services	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.02	0.04	0.01	0.07	0.04	0.05	0.02	0.19	0.01	0.01	0.01	0.56
Total (IC)	7.00	9.89	10.82	36.65	111.94	26.02	326.36	122.14	114.89	236.72	77.60	1101.83	251.39	179.41	36.49	94.10	36.75	56.21	29.82	34.03
Imports	23.8	5.9	150.6	644.6	0.0	0.0	0.0	0.0	68.4	63.3	35.2	331.7	1.4	165.3	66.4	0.2	15.4	38.6	11.0	1.6
Compensation of employees plus Net taxes on production	6.88	6.03	5.60	14.68	12.14	14.76	121.87	118.79	86.37	127.74	49.18	340.66	47.89	378.60	73.29	186.48	81.67	111.93	26.07	31.21
plus Consumption of fixed capital (CFC)	0.34	0.36	0.29	0.67	0.25	0.58	4.45	8.75	1.72	6.83	11.52	111.21	1.50	23.72	4.35	0.20	0.39	1.90	1.19	1.79
plus Net operating surplus/mixed income	0.63	1.46	1.04	1.46	22.22	5.07	3.42	23.67	11.22	5.62	20.37	27.30	51.02	10.51	5.91	14.67	6.07	8.12	2.15	2.03
Total Gross Output	45.67	24.41	169.84	705.46	168.99	60.51	468.49	361.53	321.08	502.26	222.07	2697.38	595.26	851.96	201.34	295.67	140.93	225.30	81.94	103.73

Table 3: Value Added Components by Industry (%)

	Agriculture & fishing	Mining & quarrying	Food & beverage manufacturing	Other manufacture	Electricity production	Water supply & waste management	Construction	Wholesale & retail trade	Transport & storage	Hotels & restaurant	Information & comm.	Financial & insurance services	Real estate	Prof. activities	Admin. & support services	Public admin. & defense	Education services	Health & social work	Private arts & ent.	Other services
Intermediate consumption	15%	41%	6%	5%	66%	43%	70%	34%	36%	47%	35%	41%	42%	21%	18%	32%	26%	25%	36%	33%
Imports	52%	24%	89%	91%	0%	0%	0%	0%	21%	13%	16%	12%	0%	19%	33%	0%	11%	17%	13%	2%
Compensation of employees	15%	25%	3%	2%	7%	24%	26%	33%	27%	25%	22%	13%	8%	44%	36%	63%	58%	50%	32%	30%
Net taxes on production	1%	1%	0%	0%	0%	1%	1%	2%	1%	1%	5%	4%	0%	3%	2%	0%	0%	1%	1%	2%
Consumption of fixed capital (CFC)	1%	6%	1%	0%	13%	8%	1%	7%	3%	1%	9%	1%	3%	1%	3%	5%	4%	4%	3%	2%
Net operating surplus/mixed income	15%	3%	1%	1%	13%	23%	3%	24%	12%	12%	13%	29%	41%	11%	7%	0%	0%	4%	14%	32%

5. Derivation of the Leontief Inverse Matrices

The Leontief² inverse matrix is derived from the I-O matrix and show how much of each industry's output is needed, in terms of direct, indirect and, in type II matrices, induced requirements, to produce one unit of a given industry's output. It shows industry linkages by presenting a summary of the proportional demand on intermediate goods by each industry. The direct impact of a \$1.00 increase in demand from an industry is the full amount of that \$1.00 that is transferred to the industry to produce the equivalent value of goods. The indirect impact is the expenditure that the industry will spend with other industries to acquire inputs and other intermediate goods. The induced impact is the second round effect of the initial spending where the income generated across the industries from producing that \$1.00 worth of goods, for example when salaries paid, is used to demand more goods which creates an additional round of demand-induced output.

The main diagonal of the Leontief matrix shows the aggregation of the direct impacts of the various rounds of demand. For this methodology the direct impact of demand refers to the first round of demand, ie the \$1.00 mentioned in the scenario above. Notwithstanding the diagonal values in most cases will be greater than one due to reverse linkages and second round demand. Reverse linkages occur when an industry requires intermediate goods from an industry which in turn requires inputs from the demanding industry. For instance, the electricity industry uses refined petroleum from the "other manufacturing" industry but the "other manufacturing" industry will then demand electricity to supply that additional fuel. The off diagonals of the matrix show the aggregation of the indirect impact of the different rounds of demand.

If we let **L** represents the Leontief inverse matrix it is calculated as:

$$L = (I - A)^{-1}$$

Where; **I** is an identity matrix and **A** is the direct requirement matrix computed as each of the cells in the IO table divided by its respective column total (gross output).

The type II matrix is calculated by adding an extra row and column to the direct requirements table (the **A** matrix) for 'compensation of employees' and 'household expenditure' coefficients respectively. This effectively treats households as an additional industry and estimates the impact of the flow of money in and out of households and the effect of these transactions upon the original industries (i.e. the induced effect). Notably, induced effect reflects that additional output that will be produced once household spending is brought into the model.

5.1 Consistency Test

The estimated Leontief matrix presented in *table 4* was calibrated or tested for consistency using the calibration method suggested by (Scotland Input-Output Methodology Guide 2011). The

² The use of input output tables to model sectoral linkages was first presented by economist and Nobel Laureate Wassily Leontief in his 1928 paper "The Economy as Circular Flow".

authors posited that the Leontief inverse can be authenticated by calculating the product of the Leontief matrix and the vector of final demands. The outcome of this calculation (if the Leontief's are correctly calibrated) is to recreate the base year gross outputs at basic prices. Applying this method on the type 1 Leontief matrix and the vector of final demand resulted in gross output of approximately \$8,433 million, generally in line with the base year gross output for of \$8,447 million.

5.2 Output Multipliers

The Type 1 output multiplier for a particular industry is estimated as the total of all outputs from each domestic industry required in order to produce one additional unit of output. This is calculated as the column sums from the Type I Leontief inverse matrix seen in *table 4* below.

If we let O_j represent the output multiplier for industry J then:

$$O_j = \sum_i L_{ij}$$

Where; i and j represent the industries in the rows and columns of the Leontief inverse matrix.

The construction sector is estimated to have the largest type 1 output multiplier estimated at 2.05. Other sectors with relatively high multipliers include electricity production, water supply and real estate. The output multiplier is interpreted as follows; for every \$1.00 of output demanded from the industry, total output produced in the economy increases by the value of the multiplier.

The Type II output multiplier is an aggregate of the type I multiplier and the induced impact as seen in *table 5* below. Construction and public administration and defence has the largest type II multipliers. The large employee compensation component of public administration and defence (over 60%) supported a high level of induced demand from the sector.

5.3 Estimation of income in the type II matrix

One potential limitation of the type II multiplier highlighted by (Miller and Blair 2009) is that the use of labour income (compensation) alone is likely to overestimate the impact of induced demand while using total income is likely to underestimate the impact. The recommended solution is to use a proxy for household income/earnings. In the absence of a proxy for household earnings, this methodology presents a conservative estimation using total compensation and operating surplus as a proxy for the type II matrix. This estimate is used as the denominator when calculating consumer expenditure coefficients in *table 5* below.



The Cayman Islands' 2015 Analytical Input-Output Tables



Table 4: Leontief Type 1 Inverse Matrix (I-A)⁻¹

	Agri. & fishing	Mining & quarrying	Food & beverage manuf.	Other manufacture	Electricity production	Water supply & waste management	Construction	Wholesale & retail trade	Transport & storage	Hotels & restaurant	Information & com.	Financial & insurance services	Real estate	Prof. activities	Admin. & support services	Public admin. & defense	Education services	Health & social work	Private arts & ent.	Other services
Agriculture & fishing	1.02	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Mining & quarrying	0.00	1.06	0.00	0.02	0.01	0.01	0.05	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Food & beverage manufacturing	0.01	0.01	1.02	0.00	0.01	0.01	0.01	0.01	0.01	0.16	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.03	0.01
Other manufacturing	0.06	0.15	0.01	1.02	0.55	0.14	0.36	0.04	0.11	0.09	0.06	0.01	0.06	0.03	0.04	0.08	0.06	0.10	0.12	0.07
Electricity production	0.01	0.03	0.00	0.00	1.01	0.07	0.01	0.03	0.02	0.05	0.02	0.01	0.02	0.01	0.01	0.03	0.04	0.03	0.03	0.04
Water supply & waste mgmt.	0.01	0.03	0.00	0.00	0.00	1.01	0.00	0.01	0.00	0.02	0.00	0.00	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.01
Construction	0.01	0.02	0.00	0.00	0.01	0.13	1.30	0.02	0.01	0.03	0.01	0.01	0.09	0.01	0.01	0.02	0.03	0.02	0.02	0.02
Wholesale & retail trade	0.01	0.01	0.00	0.00	0.03	0.03	0.02	1.01	0.02	0.01	0.01	0.00	0.00	0.00	0.02	0.01	0.01	0.01	0.01	0.01
Transport & storage	0.01	0.08	0.00	0.00	0.01	0.03	0.03	0.05	1.09	0.02	0.02	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.01
Hotels & restaurant	0.00	0.01	0.00	0.00	0.04	0.01	0.02	0.01	0.01	1.01	0.01	0.00	0.01	0.00	0.00	0.01	0.01	0.01	0.01	0.01
Information & communication	0.02	0.02	0.00	0.00	0.03	0.04	0.03	0.04	0.02	0.02	1.15	0.02	0.01	0.02	0.03	0.03	0.02	0.02	0.03	0.03
Financial & insurance services	0.03	0.08	0.01	0.01	0.04	0.11	0.06	0.16	0.11	0.08	0.07	1.46	0.34	0.07	0.06	0.09	0.11	0.06	0.11	0.11
Real estate	0.00	0.02	0.00	0.00	0.01	0.01	0.02	0.03	0.02	0.06	0.03	0.02	1.05	0.04	0.03	0.02	0.04	0.02	0.08	0.07
Professional activities	0.01	0.02	0.00	0.00	0.02	0.05	0.11	0.05	0.04	0.05	0.07	0.07	0.06	1.08	0.03	0.08	0.03	0.03	0.04	0.06
Administrative & support services	0.01	0.02	0.00	0.00	0.02	0.03	0.02	0.06	0.04	0.04	0.05	0.03	0.02	0.02	1.02	0.03	0.03	0.03	0.02	0.03
Public administration & defense	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.01	0.00
Education services	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	1.00	0.00	0.00	0.00
Health & social work	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.01	0.00	0.01
Private arts & entertainment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
Other services	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.01
Total	1.20	1.58	1.08	1.07	1.77	1.69	2.05	1.51	1.51	1.65	1.51	1.65	1.69	1.31	1.27	1.46	1.41	1.35	1.52	1.50
Direct	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Indirect	0.20	0.58	0.08	0.07	0.77	0.69	1.05	0.51	0.51	0.65	0.51	0.65	0.69	0.31	0.27	0.46	0.41	0.35	0.52	0.50



The Cayman Islands' 2015 Analytical Input-Output Tables



Table 5: Leontief Type II Inverse Matrix (I-A)⁻¹

	Agri. & fishing	Mining & quarrying	Food & beverage manufacture	Other manufacture	Electricity production	Water supply & waste management	Construction	Wholesale & retail trade	Transport & storage	Hotels & restaurant	Information & com.	Financial & insurance services	Real estate	Prof. activities	Admin. & support services	Public admin. & defense	Education services	Health & social work	Private arts & ent.	Other services	Consumer Exp.
Agriculture & fishing	1.03	0.01	0.01	0.00	0.00	0.01	0.01	0.01	0.01	0.03	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02
Mining & quarrying	0.00	1.06	0.00	0.02	0.01	0.01	0.05	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00
Food & beverage manufacturing	0.03	0.04	1.03	0.00	0.02	0.03	0.04	0.04	0.04	0.18	0.03	0.02	0.02	0.04	0.03	0.06	0.05	0.05	0.05	0.03	0.07
Other manufacturing	0.09	0.21	0.02	1.03	0.57	0.20	0.43	0.11	0.17	0.14	0.11	0.05	0.10	0.11	0.10	0.20	0.16	0.19	0.18	0.14	0.16
Electricity production	0.02	0.05	0.00	0.00	1.01	0.08	0.03	0.05	0.03	0.07	0.04	0.02	0.02	0.03	0.03	0.06	0.07	0.05	0.05	0.05	0.04
Water supply & waste mgmt.	0.01	0.03	0.00	0.00	0.00	1.02	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02
Construction	0.01	0.03	0.00	0.00	0.01	0.14	1.31	0.02	0.02	0.03	0.02	0.01	0.09	0.02	0.02	0.03	0.04	0.03	0.03	0.03	0.02
Wholesale & retail trade	0.01	0.02	0.00	0.00	0.03	0.03	0.03	1.02	0.03	0.01	0.01	0.01	0.01	0.01	0.03	0.02	0.02	0.02	0.02	0.01	0.02
Transport & storage	0.01	0.10	0.00	0.00	0.01	0.05	0.05	0.07	1.10	0.03	0.03	0.02	0.02	0.04	0.03	0.05	0.04	0.03	0.03	0.03	0.05
Hotels & restaurant	0.02	0.04	0.00	0.00	0.05	0.04	0.06	0.04	0.04	1.03	0.03	0.02	0.02	0.04	0.04	0.06	0.05	0.05	0.04	0.04	0.07
Information & communication	0.03	0.04	0.00	0.00	0.04	0.05	0.05	0.06	0.04	0.04	1.16	0.03	0.02	0.05	0.05	0.07	0.05	0.05	0.05	0.05	0.05
Financial & insurance services	0.07	0.16	0.02	0.02	0.07	0.20	0.17	0.26	0.19	0.16	0.15	1.51	0.39	0.19	0.15	0.26	0.26	0.19	0.20	0.20	0.23
Real estate	0.03	0.08	0.01	0.01	0.03	0.07	0.09	0.10	0.08	0.12	0.09	0.07	1.09	0.13	0.10	0.15	0.15	0.11	0.14	0.13	0.17
Professional activities	0.01	0.03	0.01	0.00	0.03	0.06	0.13	0.07	0.05	0.06	0.08	0.08	0.06	1.10	0.04	0.10	0.05	0.04	0.06	0.07	0.03
Administrative & support services	0.01	0.03	0.00	0.00	0.02	0.04	0.03	0.07	0.05	0.04	0.06	0.03	0.03	0.04	1.03	0.05	0.05	0.04	0.03	0.04	0.03
Public administration & defense	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.01	0.01	0.00	0.01	0.00	0.00
Education services	0.00	0.01	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.03	1.02	0.01	0.01	0.01	0.03
Health & social work	0.01	0.02	0.00	0.00	0.01	0.02	0.03	0.03	0.02	0.02	0.02	0.02	0.01	0.03	0.03	0.05	0.04	1.05	0.03	0.03	0.07
Private arts & entertainment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	1.01	0.00	0.01
Other services	0.00	0.01	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	1.02	0.03
Compensation of Employees	0.21	0.41	0.05	0.04	0.17	0.45	0.55	0.52	0.44	0.42	0.40	0.29	0.24	0.62	0.50	0.87	0.78	0.67	0.48	0.47	1.20

	Agriculture & fishing	Mining & quarrying	Food & beverage manufacture	Other manufacture	Electricity production	Water supply & waste management	Construction	Wholesale & retail trade	Transport & storage	Hotels & restaurant	Information & comm.	Financial & insurance services	Real estate	Prof. Activities	Admin. & support services	Public admin. & defense	Education services	Health & social work	Private arts & ent.	Other services
Direct	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Indirect	0.20	0.58	0.08	0.07	0.77	0.69	1.05	0.51	0.51	0.65	0.51	0.65	0.69	0.31	0.27	0.46	0.41	0.35	0.52	0.50
Type I Multiplier	1.20	1.58	1.08	1.07	1.77	1.69	2.05	1.51	1.51	1.65	1.51	1.65	1.69	1.31	1.27	1.46	1.41	1.35	1.52	1.50
Induced	0.20	0.38	0.05	0.04	0.15	0.41	0.51	0.48	0.41	0.39	0.37	0.27	0.22	0.58	0.46	0.81	0.72	0.62	0.44	0.44
Type II Multiplier	1.40	1.97	1.13	1.11	1.92	2.10	2.56	1.99	1.91	2.03	1.88	1.92	1.92	1.88	1.73	2.26	2.13	1.97	1.97	1.93

5.4 Income/Compensation of Employees Multiplier

If we let I_j represent the income multiplier for industry J then:

$$I_j = \sum_i v_i L_{ij}$$

Where; i and j represents the industries in the rows and columns of the Leontief inverse matrix and v is the fraction of output that goes to compensation of employee for industry i .

The income multiplier indicates that for every \$1.00 increase in the demand for the industry's output, household income from compensation would increase by the value of the income multiplier. *Table 6* below shows that public administration and defence has the highest income multiplier of 0.87.

4.5 Employment Multiplier

If we let E_j represent the Employment multiplier for industry J then:

$$E_j = \sum_i w_i L_{ij}$$

Where; i and j represents the industries in the rows and columns of the Leontief inverse matrix and w is the amount of full time employment required to produce \$1 million worth of output for industry i .

The employment multiplier indicates that for every \$1million increase in demand for output in the industry, the number of new jobs created will rise by the value of the employment multiplier. The table shows that wholesale and retail has the highest employment multiplier of 17.

Table 6: Income and Employment Multipliers

Industries	Income Multiplier	Employment Multiplier (Per \$ Million Output)
Agriculture & Fishing	0.21	7
Mining & Quarrying	0.41	9
Food & Beverage Manufacturing	0.05	2
Other Manufacturing	0.04	1
Electricity Production	0.17	4
Water Supply & Waste Mgmt.	0.45	8
Construction	0.55	16
Wholesale & Retail Trade	0.52	17
Transport & Storage	0.44	9
Hotels & Restaurants	0.42	12
Information & Communication	0.40	7
Financial & Insurance Services	0.29	4
Real Estate	0.24	4
Professional Activities	0.62	7
Administrative & Support Services	0.50	15
Public Administration & Defense	0.87	15
Education Services	0.78	16
Health & Social Work	0.67	11
Private Arts & Entertainment	0.48	16
Other Services	0.47	13



6. References

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7. Appendix

2015 Cayman Island's Supply Table (CIS\$ million)

Supply by Products	Output by Industry																				Total Domestic Supply	Valuation Matrix			Total Supply (Purchasers' Price)
	Agriculture & fishing	Mining & quarrying	Food & beverage manufacturing	Other manufacturing	Electricity production	Water supply & waste management	Construction	Wholesale & retail trade	Transport & storage	Hotels & restaurant	Information & communication	Financial & insurance services	Real estate	Professional activities	Administrative & support services	Public administration & defense	Education services	Health & social work	Private arts & entertainment	Other services		Trade & Transport Margin (TTM)	Net taxes on Products	Imports	
Agriculture & fishing	20.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20.7	10.0	2.6	23.8	57.1
Mining & quarrying	-	16.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16.2	5.0	1.3	5.9	28.5
Food & beverage manufacturing	-	-	19.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19.2	89.8	35.8	150.6	295.4
Other manufacturing	-	-	-	59.9	-	-	-	2.6	-	3.8	2.1	-	-	-	-	-	-	-	-	-	68.5	224.1	116.4	644.6	1,053.6
Electricity production	-	-	-	-	169.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	169.0	-	-	-	169.0
Water supply & waste mgmt.	-	-	-	-	-	59.1	-	-	-	-	-	-	-	-	-	2.8	-	-	-	-	61.9	-	-	-	61.9
Construction	-	-	-	-	-	-	465.8	-	-	-	-	-	-	-	-	-	-	-	-	-	465.8	-	39.3	-	505.0
Wholesale & retail trade	1.2	-	-	-	-	0.0	-	356.0	0.3	-	4.8	-	-	2.0	2.2	-	-	1.9	2.6	0.8	371.7	(329.0)	-	0.0	42.7
Transport & storage	-	0.9	-	-	-	-	0.2	-	249.3	-	-	-	-	-	-	-	-	-	-	-	250.4	-	(17.7)	68.4	301.0
Hotels & restaurant	-	-	-	-	-	-	-	-	-	409.7	-	-	-	-	-	-	-	-	-	-	409.7	-	22.3	63.3	495.3
Information & communication	-	-	-	-	-	-	-	-	-	-	179.4	-	-	-	-	0.4	-	-	-	-	179.8	-	-	35.2	214.9
Financial & insurance services	-	-	-	-	-	-	-	-	-	-	-	2,363.4	-	-	-	-	-	-	-	-	2,363.4	-	0.5	331.7	2,695.5
Real estate	-	-	-	-	-	-	0.3	2.7	2.6	13.4	0.5	2.3	589.3	1.0	0.1	0.5	0.1	0.4	0.1	0.9	614.2	-	-	1.4	615.6
Professional activities	-	-	-	-	-	-	-	-	-	-	-	-	-	683.3	-	-	-	-	-	-	683.3	-	5.7	165.3	854.3
Administrative & support services	0.0	1.3	-	1.0	0.0	1.4	2.2	0.2	0.5	1.5	0.1	0.0	4.5	0.4	132.6	-	-	0.6	0.0	0.1	146.3	-	-	66.4	212.8
Public administration & defense	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	291.8	-	-	-	-	291.8	-	-	0.2	292.0
Education services	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	125.4	-	-	-	125.4	-	(2.3)	15.4	138.6
Health & social work	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	183.8	-	-	183.8	-	(0.6)	38.6	221.7
Private arts & entertainment	-	-	-	-	-	-	-	-	-	10.6	-	-	-	-	-	-	-	-	68.3	-	78.9	-	-	11.0	89.9
Other services	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.4	100.4	-	(0.0)	1.6	102.0
Total Output	21.9	18.5	19.2	60.9	169.0	60.5	468.5	361.5	252.7	439.0	186.9	2,365.7	593.8	686.7	134.9	295.4	125.5	186.7	70.9	102.1	6,620.4	-	203.2	1,623.4	8,447.0



The Cayman Islands' 2015 Analytical Input-Output Tables



2015 Cayman Island's Use Table (CIS\$ million)

Use by Products	Purchases by Industry																				Total IC	Final Demand (GDP)				Total Use (Purchasers' Price)														
	Agriculture & fishing	Mining & quarrying	Food & beverage manufacturing	Other manufacturing	Electricity production	Water supply & waste management	Construction	Wholesale & retail trade	Transport & storage	Hotels & restaurant	Information & communication	Financial & insurance services	Real estate	Professional activities	Administrative & support services	Public administration & defense	Education services	Health & social work	Private arts & entertainment	Other services		Household Final Consumption Expenditure (HFCE)	Government Final Consumption Expenditure (GFCE)	Gross Capital Formation (GCF)	Export															
Agriculture & fishing	1.1	0.0	1.9	0.0	-	0.0	0.3	0.0	0.1	10.5	0.1	0.2	0.6	0.2	0.9	0.2	0.1	0.1	0.1	0.7	17.1	39.5	-	0.1	0.4	57.1														
Mining & quarrying	0.0	1.2	-	10.5	-	0.3	14.3	0.4	0.7	0.1	-	-	0.4	0.0	0.1	-	-	0.3	0.0	-	28.2	-	-	0.3	-	28.5														
Food & beverage manufacturing	0.6	0.2	3.6	0.7	0.4	0.3	0.7	3.6	1.9	74.9	0.9	2.4	0.3	2.1	0.4	2.7	0.6	1.5	1.9	0.4	100.0	155.9	-	0.0	39.5	295.4														
Other manufacturing	2.5	3.1	1.8	15.1	102.0	4.4	139.0	4.1	30.1	22.5	7.5	6.7	17.5	12.3	5.1	18.7	3.6	18.6	8.3	4.7	427.6	328.9	-	173.2	123.8	1,053.6														
Electricity production	0.5	0.7	0.4	0.6	0.1	3.7	1.7	8.4	3.6	24.1	4.2	7.2	6.6	5.7	1.6	6.8	5.5	5.1	2.1	3.5	92.1	76.9	-	-	-	169.0														
Water supply & waste mgmt.	0.3	0.6	0.2	0.5	0.1	0.5	0.5	1.7	0.6	8.0	0.6	1.2	4.7	1.3	1.1	2.1	1.0	1.5	0.7	0.8	28.1	33.8	-	-	-	61.9														
Construction	0.1	0.3	0.1	0.3	0.3	6.0	105.9	2.5	1.7	6.7	0.9	3.9	36.4	3.5	0.5	2.4	2.1	2.3	0.5	1.3	177.8	-	-	327.2	-	505.0														
Wholesale & retail trade	0.1	0.1	0.2	0.5	0.6	1.2	2.3	2.3	4.3	1.1	0.9	0.3	0.1	0.9	3.7	1.3	0.2	0.6	0.3	0.3	21.4	21.4	-	-	-	42.7														
Transport & storage	0.2	1.7	0.2	1.0	0.2	1.5	6.0	13.8	24.4	5.5	2.8	17.8	0.6	7.2	1.4	4.3	0.8	1.1	0.3	0.6	91.4	103.3	3.6	-	102.7	301.0														
Hotels & restaurant	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.5	1.8	0.2	0.1	2.9	0.1	0.9	0.2	0.5	0.1	0.9	0.0	0.1	8.5	158.2	-	-	328.6	495.3														
Information & communication	0.5	0.2	0.2	0.7	0.9	1.2	2.4	9.9	4.0	5.4	27.2	30.8	2.2	12.0	3.6	6.4	1.8	2.3	1.1	2.4	115.4	83.7	-	8.3	7.5	214.9														
Financial & insurance services	0.7	0.8	1.1	3.1	2.6	3.8	10.0	34.0	18.2	15.3	6.4	828.9	129.8	28.2	5.6	14.3	8.0	6.9	4.2	5.3	1,127.1	286.5	-	-	1,281.9	2,695.5														
Real estate	0.0	0.4	0.4	2.1	-	0.1	2.1	7.0	4.0	25.8	5.0	36.2	27.0	26.9	4.6	5.0	5.4	2.8	5.7	6.1	166.6	420.1	-	25.0	4.0	615.6														
Professional activities	0.1	0.2	0.4	0.7	2.0	1.7	34.9	12.3	8.1	18.7	11.5	114.1	15.8	58.0	4.3	17.9	2.6	3.6	2.4	4.3	313.4	7.0	-	6.1	527.8	854.3														
Administrative & support services	0.3	0.4	0.3	0.8	2.7	1.3	5.9	20.8	11.1	16.0	9.1	45.7	9.2	16.7	3.1	7.9	4.1	5.4	1.4	2.2	164.3	22.0	-	-	26.4	212.8														
Public administration & defense	0.0	0.0	0.0	0.1	0.0	0.0	0.4	0.8	0.1	0.8	0.3	2.4	0.0	2.1	0.3	0.5	0.4	0.2	0.4	0.2	9.1	4.3	270.7	-	7.9	292.0														
Education services	-	-	-	-	-	-	-	-	-	0.4	-	1.4	-	1.6	-	2.5	0.3	0.0	-	-	6.2	71.0	55.6	-	5.8	138.6														
Health & social work	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	3.0	0.0	0.7	3.8	179.4	34.2	-	4.2	221.7														
Private arts & entertainment	-	-	-	-	-	-	-	-	-	0.7	0.0	-	-	0.0	-	0.1	0.1	-	0.4	-	1.3	26.9	4.5	-	57.2	89.9														
Other services	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	0.5	0.7	70.2	26.2	-	4.9	102.0														
Intermediate Consumption	7.0	9.9	10.8	36.7	111.9	26.0	326.4	122.1	114.9	236.7	77.6	1,101.8	251.4	179.4	36.5	94.1	36.8	56.2	29.8	34.0	2,900.1	2,089.1	394.8	540.2	2,522.7	8,447.0														
Total Output (from Supply Table)	21.9	18.5	19.2	60.9	169.0	60.5	468.5	361.5	252.7	439.0	186.9	2,365.7	593.8	686.7	134.9	295.4	125.5	186.7	70.9	102.1	6,620.4																			
GDPP (basic prices)	14.9	8.6	8.4	24.2	57.0	34.5	142.1	239.4	137.8	202.3	109.3	1,263.9	342.4	507.3	98.4	201.4	88.8	130.5	41.1	68.1	3,720.3																			
plus Net taxes on products																					203.2																			
GDPP (purchasers' price)																					3,923.5																			
Compensation of employees	6.9	6.0	5.6	14.7	12.1	14.8	121.9	118.8	86.4	127.7	49.2	340.7	47.9	378.6	73.3	186.5	81.7	111.9	26.1	31.2	1,841.9																			
plus Net taxes on production	0.3	0.4	0.3	0.7	0.3	0.6	4.5	8.8	1.7	6.8	11.5	111.2	1.5	23.7	4.4	0.2	0.4	1.9	1.2	1.8	182.0																			
plus Consumption of fixed capital (CFC)	0.6	1.5	1.0	1.5	22.2	5.1	3.4	23.7	11.2	5.6	20.4	27.3	51.0	10.5	5.9	14.7	6.1	8.1	2.2	2.0	223.9																			
plus Net operating surplus/mixed income	7.0	0.8	1.5	7.4	22.4	14.1	12.4	88.2	38.5	62.1	28.2	784.7	242.0	94.4	14.9	0.0	0.6	8.6	11.7	33.1	1,472.5																			
GDPPI (basic prices)	14.9	8.6	8.4	24.2	57.0	34.5	142.1	239.4	137.8	202.3	109.3	1,263.9	342.4	507.3	98.4	201.4	88.8	130.5	41.1	68.1	3,720.3																			
plus Net taxes on products																					203.2																			
GDPPI (purchasers' price)																					3,923.5																			

Final Demand	5,546.9
less Imports	1,623.4
GDPE (purchaser' price)	3,923.5



The Cayman Islands' 2015 Analytical Input-Output Tables



Industry-by-Industry IO Table (\$ Million)

	Agriculture & fishing	Mining & quarrying	Food & beverage manufacturing	Other manufacture	Electricity production	Water supply & waste management	Construction	Wholesale & retail trade	Transport & storage	Hotels & restaurant	Information & com.	Financial & insurance services	Real estate	Professional activities	Admin. & support services	Public admin. & defense	Education services	Health & social work	Private arts & ent.	Other services	Household Final Consumption Expenditure (HFCE)	Government Final Consumption Expenditure (GFCE)	Gross Capital Formation (GCF)	Export	Total
Agriculture & fishing	1.06	0.00	1.88	0.00	0.00	0.04	0.31	0.04	0.10	10.54	0.08	0.16	0.64	0.21	0.87	0.23	0.08	0.14	0.12	0.71	39.57	0.00	0.06	0.45	57.3
Mining & quarrying	0.01	1.20	0.00	10.50	0.03	0.30	14.33	0.61	0.92	0.24	0.09	0.48	0.48	0.18	0.13	0.09	0.04	0.33	0.02	0.02	0.58	0.01	0.30	0.62	31.5
Food & beverage manufacturing	0.60	0.22	3.65	0.69	0.41	0.29	0.70	3.65	1.86	74.94	0.89	2.35	0.31	2.06	0.38	2.69	0.55	1.46	1.89	0.41	155.92	0.00	0.05	39.47	295.4
Other manufacturing	2.21	2.69	1.54	13.26	89.26	3.82	121.60	3.77	26.36	19.79	6.65	6.15	15.41	10.84	4.45	16.45	3.20	16.35	7.23	4.09	287.91	0.00	151.55	108.52	923.1
Electricity production	0.49	0.69	0.40	0.56	0.11	3.68	1.67	8.43	3.65	24.05	4.21	7.18	6.59	5.70	1.62	6.81	5.52	5.12	2.10	3.50	76.92	0.00	0.00	0.00	169.0
Water supply & waste mgmt.	0.28	0.59	0.19	0.52	0.14	0.53	0.50	1.83	0.73	7.83	0.66	1.60	4.56	1.37	1.04	2.12	1.01	1.50	0.64	0.75	32.50	0.00	0.00	0.25	61.1
Construction	0.13	0.27	0.08	0.31	0.34	6.03	105.96	2.85	1.89	6.91	1.08	4.63	36.57	3.82	0.55	2.54	2.18	2.42	0.55	1.33	0.64	0.00	327.22	0.48	508.8
Wholesale & retail trade	0.23	0.19	0.25	1.11	4.53	1.34	7.61	2.45	5.33	2.06	1.17	0.75	0.88	1.45	3.74	2.02	0.39	1.35	0.64	0.49	35.04	0.00	6.81	4.84	84.7
Transport & storage	0.17	1.72	0.19	1.00	0.18	1.49	6.02	13.80	24.37	5.66	2.87	18.01	0.78	7.38	1.41	4.36	0.79	1.11	0.31	0.67	104.74	3.61	0.11	102.37	303.1
Hotels & restaurant	0.15	0.22	0.12	0.93	5.71	0.28	8.06	1.06	3.65	2.29	0.73	4.51	1.72	2.32	0.61	1.71	0.47	2.04	0.70	0.51	189.45	0.60	10.19	343.52	581.5
Information & communication	0.56	0.34	0.28	1.15	4.04	1.37	6.67	10.09	5.02	6.13	27.40	30.99	2.79	12.41	3.84	7.02	1.96	2.92	1.40	2.52	94.32	0.00	13.64	11.33	248.2
Financial & insurance services	0.67	0.82	1.09	3.09	2.60	3.80	10.00	34.05	18.25	15.35	6.45	829.02	129.88	28.28	5.64	14.34	8.02	6.88	4.22	5.30	288.09	0.00	0.09	1281.93	2697.9
Real estate	0.04	0.38	0.43	2.00	0.08	0.11	2.22	7.32	4.17	25.27	5.07	36.11	26.17	26.33	4.54	5.04	5.33	2.84	5.53	5.91	403.77	0.00	23.96	4.63	597.3
Professional activities	0.13	0.15	0.40	0.72	1.99	1.67	34.90	12.33	8.17	18.83	11.54	114.30	15.84	58.07	4.35	17.93	2.59	3.57	2.40	4.31	7.82	0.00	6.16	527.85	856.0
Administrative & support services	0.25	0.34	0.28	0.70	2.48	1.17	5.34	18.83	10.12	14.47	8.24	41.36	8.38	15.11	2.86	7.14	3.75	4.90	1.28	1.98	20.17	0.00	0.00	23.94	193.1
Public administration & defense	0.03	0.06	0.03	0.09	0.02	0.07	0.41	0.90	0.18	1.21	0.38	2.52	0.28	2.16	0.38	0.61	0.46	0.28	0.44	0.24	6.35	270.72	0.04	7.89	295.7
Education services	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.38	0.00	1.41	0.00	1.56	0.00	2.51	0.32	0.01	0.00	0.00	71.04	55.57	0.00	5.84	138.7
Health & social work	0.00	0.00	0.00	0.01	0.01	0.01	0.04	0.10	0.07	0.09	0.05	0.22	0.06	0.09	0.04	0.19	0.02	2.98	0.01	0.74	179.95	34.23	0.02	4.33	223.3
Private arts & entertainment	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.02	0.03	0.63	0.02	0.01	0.00	0.02	0.03	0.09	0.07	0.01	0.33	0.00	23.48	3.89	0.00	49.51	78.2
Other services	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.02	0.04	0.01	0.07	0.04	0.05	0.02	0.19	0.01	0.01	0.01	0.56	70.86	26.22	0.03	4.89	103.1
Total (IC)	7.00	9.89	10.82	36.65	111.94	26.02	326.36	122.14	114.89	236.72	77.60	1101.83	251.39	179.41	36.49	94.10	36.75	56.21	29.82	34.03					
Imports	23.8	5.9	150.6	644.6	0.0	0.0	0.0	0.0	68.4	63.3	35.2	331.7	1.4	165.3	66.4	0.2	15.4	38.6	11.0	1.6					
Compensation of employees	6.88	6.03	5.60	14.68	12.14	14.76	121.87	118.79	86.37	127.74	49.18	340.66	47.89	378.60	73.29	186.48	81.67	111.93	26.07	31.21					
plus Net taxes on production	0.34	0.36	0.29	0.67	0.25	0.58	4.45	8.75	1.72	6.83	11.52	111.21	1.50	23.72	4.35	0.20	0.39	1.90	1.19	1.79					
plus Consumption of fixed capital (CFC)	0.63	1.46	1.04	1.46	22.22	5.07	3.42	23.67	11.22	5.62	20.37	27.30	51.02	10.51	5.91	14.67	6.07	8.12	2.15	2.03					
plus Net operating surplus/mixed income	7.01	0.75	1.46	7.42	22.43	14.08	12.39	88.16	38.49	62.07	28.24	784.71	242.01	94.45	14.85	0.00	0.62	8.58	11.70	33.06					
Total Gross Output	45.67	24.41	169.84	705.46	168.99	60.51	468.49	361.53	321.08	502.26	222.07	2697.38	595.26	851.96	201.34	295.67	140.93	225.30	81.94	103.73					