

# THE CAYMAN ISLANDS' SYSTEM OF NATIONAL ACCOUNTS REPORT 2012

NOVEMBER 2013



THE ECONOMICS AND STATISTICS OFFICE



# TABLE OF CONTENTS

ACKNOWLEDGEMENT	i
ABBREVIATIONS AND ACRONYMS	ï
1. EXECUTIVE SUMMARY	l
2. INTRODUCTION	\$
2.1 Importance of the SNA	3
2.2 Key Data Sources	ł
2.3 Valuation of Gross Domestic Product (GDP)	1
3. GROSS DOMESTIC PRODUCT ESTIMATES-PRODUCTION APPROACH5	5
3.1 Overview of GDP at basic and purchasers' prices	5
3.2 GDP by industrial origin	7
3.3 Contribution to GDP by industry	3
3.4 GDP rates of growth by industry 17	Ł
3.4.1 Goods-producing industries12	2
3.4.2 Service-producing industries	2
3.5 Industrial Sector GDP at Current Prices	5
3.6 Detailed Value Added by Industry	ó
4. GROSS DOMESTIC PRODUCT ESTIMATES-THE INCOME APPROACH 18	3
4.1 GDP and Rate of Growth of GDP at Purchasers' Prices by Income	3
4.2 Contribution to GDP at Purchasers' Prices	)
4.3 Income Components of GDP at Purchasers' Prices	)
4.3.1 Compensation of employees (COE)	)
4.3.2 Operating surplus/mixed income	ł
4.3.3 Consumption of fixed capital	2
4.3.4 Taxes less subsidies on production and imports	3
APPENDIX 1: KEY CONCEPTS AND DEFINITIONS	ł
APPENDIX 2: IMPLEMENTATION OF THE CAYMAN ISLANDS' SNA	2
APPENDIX 3: INTERNATIONAL STANDARD INDUSTRIAL CLASSIFICATION of ALL ECONOMIC ACTIVITIES (Revision 4)	1
APPENDIX 4: CENTRAL REGISTER OF ESTABLISHMENTS QUESTIONNAIRE	7



#### ACKNOWLEDGEMENT

The estimation of the Gross Domestic Product is dependent on a wide range of data gathered from administrative records and a specially designed survey – the Annual National Accounts Survey (ANAS). This data gathering involves the participation of a large number of individuals, organizations and institutions. The Economics and Statistics Office (ESO) acknowledges the assistance and cooperation of all those individuals, government departments and agencies, non-governmental organizations and the private sector that supplied the relevant data utilized in the composition of this report. The ESO anticipates the continued support and cooperation of these individuals and entities.

This report was produced by the System of National Accounts (SNA) Unit of the ESO. Some field work assistance was provided by the Survey Staff of the Social Statistics Unit of the ESO. The general support and effort of the ESO staff is acknowledged and greatly appreciated.





## ABBREVIATIONS AND ACRONYMS

AAC:	A comparts A dries to Committee
ANA:	Aggregate Advisory Committee Annual National Accounts
ANA: ANAS:	
	Annual National Accounts Survey
BR:	Business Register
CARTAC:	Caribbean Regional Technical Assistance Centre
CBBEC	Classification by Broad Economic Categories
CIDOT:	Cayman Islands Department of Tourism
CIF:	Cost, Insurance, Freight
CIIB:	Cayman Islands Investment Bureau
CIMA:	Cayman Islands Monetary Authority
CISNA:	Cayman Islands System of National Accounts
CI\$:	Cayman Islands Dollars
CPI:	Consumer Price Index
CRE:	Central Register of Establishments
ECLAC:	Economic Commission for Latin America and the Caribbean
ESO:	Economics and Statistics Office
FISIM:	Financial Intermediation Services Indirectly Measured
FOB:	Free On Board
GDP:	Gross Domestic Product
GO:	Gross Output
GVA:	Gross Value Added
HBS:	Household Budget Survey
IMF:	International Monetary Fund
ISIC:	International Standard Industrial Classification of Economic Activity
LFS:	Labour Force Survey
NEC:	Not Elsewhere Classified
NPISG:	Non-Profit Institutions Serving Government
NPISH:	Non-Profit Institutions Serving Household
PSPB:	Public Sector Pension Board
ROW:	Rest of the World
SBU:	Simple Blow Up
SITC:	Standard International Trade Classification
SNA:	System of National Accounts
SR:	Sample Ratio
UNSD:	United Nation Statistics Division



## **1. EXECUTIVE SUMMARY**

- 1.1 The Cayman Islands' System of National Accounts Report 2012 presents the gross domestic product (GDP) estimates for the period 2008–2012. The estimates were calculated using both the production and income approaches. The production approach to estimating GDP is obtained by summing the value added of all industries within the economy (i.e. the gross value of outputs minus the value of intermediate consumption). The income approach is obtained by summing the income earned by the factors of production, i.e. compensation of employees, consumption of fixed capital, taxes less subsidies on production and imports and operating surplus/mixed income.
- 1.2 The overall GDP estimate comprises the value added of 18 industries as classified using the International Standard Industrial Classification (ISIC) Revision 4. The data shown are the most recent estimates of GDP and include any revisions (to previously published data) due to revised figures obtained from businesses during the most recent Annual National Accounts Survey. In general, figures for the most recent year are to be regarded as preliminary.
- 1.3 GDP estimates in this report are presented in both basic prices and purchaser's (market) prices. The main difference between basic and purchasers' price is the taxes less subsidies (net taxes) on product. A tax on a product is a tax that is payable per unit of some good or service. The tax may be a specific amount of money per unit or a specified percentage of the value of the goods or services. In the Cayman Islands, taxes on product are primarily taxes and duties on imports, and other taxes on product excluding taxes and duties on import (e.g. hotel occupancy tax).
- 1.4 In 2012, nominal (current) basic price GDP for the Cayman Islands stood at CI\$2,575.9 million which resulted in an estimated per capita GDP of CI\$45,896.40.
- 1.5 Basic price real GDP (i.e. GDP at constant 2007 prices or GDP adjusted for inflation) stood at CI\$2,454.5 million in 2012. The corresponding per capita GDP for 2012 was estimated at CI\$43,732.25.
- 1.6 The local economy continued its expansion in 2012 registering a 1.4 percent growth in real GDP when compared to 2011. The six industries that recorded the highest rates of expansion in 2012 are: (*i*) Administrative & Support Services Activities which consists mainly of security and car rental services (4.6%); (*ii*) Manufacturing (4.0%); (*iii*) Mining & Quarrying (3.8%); (*iv*) Hotels & Restaurants (3.0%); (*v*) Agriculture & Fishing (2.5%); and (*vi*) Construction (2.5%). The Financial &



Insurance Services industry posted growth of 1.5 percent in 2012, the highest rate since 2007.

- 1.7 The expansion in the domestic economy in 2012 was tempered by declines in the following two industries: (*i*) Electricity, Gas & Air Conditioning Supply (-1.1%) and (*ii*) Real Estate Activities (-0.1%).
- 1.8 Financial and Insurance Services maintained its position as the largest single contributor to real GDP in 2012 accounting for 42.1 percent of total GDP. The ranking of the industries (in terms of contribution to GDP) remained unchanged in 2012. The other industries making up the top six contributors include: (*i*) Professional, Scientific & Technical Activities, which includes legal and accounting services (13.9%); (*ii*) Real Estate Activities (8.7%); (*iii*) Wholesale & Retail Trade (8.4%); (*iv*) Public Administration & Defense, which consists primarily of central government operations (7.5%); and (*v*) Hotels and Restaurants (5.7%).
- 1.9 This report also presents the GDP broken down by income components GDP using the income approach. With this approach GDP is calculated (in current purchasers' prices) as the sum of income accruing to the factors of production. All income components posted growth in 2012 when compared to 2011; (*i*) Compensation of Employees (2.2%); (*ii*) Operating Surplus/Mixed Income (3.4%); (*iii*) Consumption of Fixed Capital (1.3%); and (*iv*) Taxes (less subsidies) on Production and Imports (2.7%). For 2012, Compensation of Employees amounted to CI\$1,402.2 million or 50.5 percent of GDP. Operating Surplus/Mixed Income amounted to CI\$805.4 million or 29.0 percent of GDP. Taxes on Production and Imports (less subsidies) amounted to CI\$394.8 million or 14.2 percent of GDP.



## **2. INTRODUCTION**

#### 2.1 Importance of the SNA

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). In the context of the Cayman Islands, its main uses are to:

- a. Comply with the Public Management & Finance Law (2005 Revision) which requires the reporting of gross domestic product in the Strategic Policy Statement. Governments in general use the SNA statistics as key indicators for evaluating the potential and actual macro-economic impact and sustainability of fiscal policies.
- b. Comply with data requirements of foreign investors and creditors. For example, data from the SNA are required for inclusion in official borrowing documents (i.e., Offering Memorandum or Private Placement Memorandum). These statistics are necessary to making an assessment of the worthiness of the jurisdiction as an investment site and/or the worthiness of its entities as borrowers.
- c. Comply with data requirements of international credit rating agencies which provide credit ratings for the Cayman Islands Government and private entities who borrow from the global financial market.
- d. Provide necessary data for the conduct of economic impact assessments of hurricanes and other disasters, which are required by funding and other donor agencies. As pointed out by previous teams from the Economics Commission for Latin America and the Caribbean (ECLAC), the GDP statistics by sector for Cayman are necessary in calculating the economic impact of disasters in each sector and therefore, the approximate amount of resources required for the reconstruction of these sectors.
- e. Provide data necessary for government departments and business associations to monitor the economic performance and contribution of their respective sectors; and
- f. Provide data that can assist government departments, local businesses and nongovernment organizations in preparing business plans or determining the level of assistance to businesses. These statistics help determine the *"buying power"* or the size of the local market, the potential growth of the market, and alternative sectors for investment.



## 2.2 Key Data Sources

The SNA estimates contained in this report are based on the Annual National Accounts Survey (ANAS) conducted among all businesses and establishments included in the ESO Business Register. The survey was conducted during the period March to May 2013. Information from the survey is augmented by secondary data provided by various government ministries, departments and statutory authorities including the Cayman Islands Monetary Authority (CIMA), Department of Agriculture, and other informal interviews with industry sources.

As in any survey, the response rate to the ANAS is mainly a function of the appreciation and understanding of the respondents on how the data will be used. It is hoped that this report will be an instrument in demonstrating the potential uses of the SNA to the business sector, business associations and those providing services to the businesses in the Cayman Islands.

## 2.3 Valuation of Gross Domestic Product (GDP)

Some tables are presented at both basic and purchasers' (i.e. market) price. The main difference between basic and purchasers' price is the taxes less subsidies (net taxes) on products. Taxes on products are taxes on goods and services that become payable when the goods are produced, sold, imported or otherwise disposed of by their producer. The tax may be a specific amount of money per unit or a specified percentage of the value of the goods or services. The following are the categories of this type of tax:

- a. Taxes and duties on imports
- b. Other taxes on product excluding taxes and duties on import (e.g. hotel occupancy tax).



## **3. GROSS DOMESTIC PRODUCT ESTIMATES-PRODUCTION APPROACH**

#### 3.1 Overview of GDP at basic and purchasers' prices

The Cayman Islands' System of National Accounts Report 2012 presents the gross domestic product (GDP) estimates for the period 2008-2012. The estimates were calculated using both the production and income approaches. The production approach to estimating GDP is obtained by summing the value added of all industries within the economy (i.e. the gross value of outputs minus the value of intermediate consumption). The income approach is obtained by summing the income earned by the factors of production - compensation of employees, consumption of fixed capital, taxes less subsidies on production and imports, and operating surplus.

This section presents a series of tables and figures showing various presentations of the preliminary 2012 estimates of GDP by industry as follows:

- Main aggregates of GDP and the per capita indicators (Table 1);
- GDP by industrial origin (Table 2);
- Goods and service-producing industries' contribution to GDP at constant basic prices (Table 3);
- Industry ranking by contribution to GDP at constant (2007) basic prices (Table 4);
- GDP rate of growth at constant prices (Table 5);
- GDP at current basic prices (Table 6); and
- Detailed value added by industries (Table 7).

In 2012, the Cayman Islands' economy continued the recovery that was started in 2011 by registering the strongest annual expansion since 2007. The total value of goods and services produced (as reflected by the GDP) grew by 1.4 percent in 2012. This expansion was fuelled by a 2.9 percent increase in the goods-producing industries and a 1.6 percent increase in the services industries. The growth in the goods-producing industries mainly emanated from growth in the Manufacturing and Mining & Quarrying industrial sectors. For services, the increase was due mainly to increases in Administrative & Support Service Activities and Hotels & Restaurant Services.

The total value of domestic output for the years 2008 to 2012 are presented in Table 1 below. Domestic output relates to all entities that have a physical presence in the Cayman Islands; therefore, they exclude entities registered in the Cayman Islands but have no physical presence in the country. Table 1 show the current and constant (inflation adjusted) price estimates of GDP valued in both basic and purchasers' prices. The table also show the per capita indicator relating to the respective GDP aggregates.



Despite the increase in the overall real GDP, there were declines in the per capita indicators. This resulted from the growth in real GDP being outstripped by the growth in the estimated mid-year population. The inflation adjusted per capita GDP (at basic prices) contracted to CI\$43,732.25 in 2012 from CI\$43,780.83 in 2011.

Main Aggregates (CI\$'000)	2008	2009	2010 <sup>R</sup>	2011 <sup>R</sup>	2012
GDP (Current Basic Prices)	2,657,900.5	2,528,864.0	2,472,720.0	2,513,729.1	2,575,935.2
GDP (Constant Basic Prices)	2,630,501.2	2,464,824.6	2,398,999.7	2,420,073.0	2,454,472.5
GDP (Current Purchasers' Prices)	2,873,636.7	2,703,056.2	2,646,332.0	2,707,135.2	2,776,938.4
GDP (Constant Purchasers' Prices)	2,837,801.3	2,633,465.9	2,561,951.6	2,584,197.9	2,620,019.0
Mean Population ('000)	56.0	56.5	55.5	55.3	56.1
Per Capita Indicators (CI\$)	2008	2009	2010 <sup>R</sup>	<b>2011</b> <sup>R</sup>	2012
GDP (Current Basic Prices)	47,464.2	44,752.3	44,536.7	45,475.1	45,896.4
GDP (Constant Basic Prices)	46,974.9	43,619.0	43,208.9	43,780.8	43,732.3
GDP (Current Purchasers' Prices)	51,316.8	47,834.9	47,663.6	48,974.0	49,477.7
GDP (Constant Purchasers' Prices)	50,676.8	46,603.4	46,143.8	46,750.0	46,681.9

#### Table 1: System of National Accounts Main Aggregates and Per Capita Indicators

Notes:

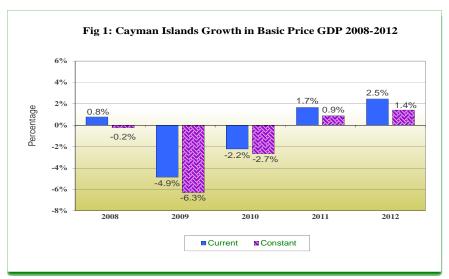
1. GDP at basic price excludes net taxes on goods and services

2. GDP at purchasers' price includes net taxes on goods and services

3. Mean Population refers to the mid-year population

#### R-revised

Figure 1 shows the comparative growth rates of GDP at current and constant basic prices. GDP at constant prices grew by 1.4 percent in 2012 as the economy continued the recovery that commenced in 2011 when GDP expanded by 0.9 percent. A similar trend is also evident when we examine the GDP at current basic price. GDP at current prices grew by 2.5 percent in 2012, an increase compared to the 1.7 percent in 2011.





#### **3.2 GDP by industrial origin**

The estimated real GDP for the Cayman Islands increased to CI\$2,454.5 million in 2012 from the CI\$2,420.1 million recorded for 2011. This resulted from the expansion in economic activity in all sectors with the exception of Real Estate Activities and Electricity, Gas & Air Conditioning Supply. Table 2 below provides a breakdown of real GDP by industrial sectors in basic prices.<sup>1</sup> The table also shows the real GDP in purchasers' prices.

CAYMAN ISLAND	6 GDP BY IN	DUSTRIAL	ORIGIN		
TABLE 2: GDP AT CONSTANT BA	SIC & PURCH	ASERS' PRIC	ES, 2007=100	(CI\$'000)	
INDUSTRIAL SECTORS	2008	2009	2010 <sup>R</sup>	2011 <sup>R</sup>	2012
01 Agriculture & Fishing	8,069.2	8,893.8	8,763.3	9,081.7	9,307.1
02 Mining & Quarrying	21,355.9	20,321.2	18,263.6	17,826.9	18,504.9
03 Manufacture	26,528.1	24,566.7	22,053.8	21,658.6	22,515.1
04 Electricity, Gas & Air Conditioning Supply	58,738.6	59,694.6	59,252.8	59,463.3	58,811.4
05 Water Supply, Sewerage & Waste Management	34,291.7	36,394.9	34,994.0	34,209.4	34,616.7
06 Construction	142,352.1	100,666.8	77,500.3	74,109.6	75,927.2
07 Wholesale & Retail Trade	244,540.0	216,449.0	198,458.0	202,236.0	205,112.0
08 Transport & Storage	103,656.5	95,959.8	94,595.2	94,948.7	96,955.5
09 Hotels & Restaurants	134,405.0	120,845.9	128,813.2	136,316.3	140,363.0
10 Information & Communication	115,114.2	118,966.3	113,883.3	113,804.3	114,412.5
11 Financial & Insurance Services	1,226,053.9	1,053,303.5	1,017,164.7	1,018,377.5	1,033,318.3
12 Real Estate Activities	222,381.7	218,554.2	214,577.8	213,330.3	213,191.9
13 Professional, Scientific & Technical Activities	317,215.8	323,027.9	327,583.3	334,150.6	341,877.5
14 Administrative & Support Service Activities	54,152.3	51,251.0	50,298.8	51,158.2	53,536.3
15 Public Administration & Defense	194,860.5	187,197.1	181,368.5	181,284.0	185,311.8
16 Education Services	66,643.7	67,230.6	65,652.1	65,123.9	65,172.9
17 Human Health & Social Work	74,808.6	74,839.9	75,319.2	76,182.4	77,304.6
18 Other Services	75,310.8	75,889.5	75,790.0	76,343.4	78,190.9
Total	3,120,478.5	2,854,052.6	2,764,331.7	2,779,605.3	2,824,429.4
Less: Financial Services Indirectly Measured (FISIM)	489,977.3	389,228.0	365,332.0	359,532.2	369,956.9
GDP at Constant Basic Prices	2,630,501.2	2,464,824.6	2,398,999.7	2,420,073.0	2,454,472.5
Add: Taxes Less Subsidies on Products	207,300.1	168,641.2	162,951.9	164,124.9	165,546.5
GDP at Constant Purchasers' Prices	2,837,801.3	2,633,465.9	2,561,951.6	2,584,197.9	2,620,019.0

R-revised

<sup>&</sup>lt;sup>1</sup> The classification of the industrial sectors is according to the International Standard Industrial Classification of all Economic Activities (ISIC) Revision 4 which is an activity based classification. The detailed ISIC Rev. 4 classification is presented in Appendix 3.



#### **3.3 Contribution to GDP by industry**

Table 3 shows the industries classified as goods-producing and service-producing. The combined share of total real GDP remained unchanged in 2012; services accounted for 94.9 percent of domestic production and goods-producing industries 5.1 percent. The service industries increased its contribution every year over the review period except for 2012 where upward trajectory seems to have abated.

CAYMAN ISLANDS GI	OP BY IND		DRIGIN		
TABLE 3: INDUSTRY CONTRIBUTION TO	GDP AT CO	DNSTANT B	ASIC PRICE	S, 2007=100	)
INDUSTRY	2008	2009	2010 <sup>R</sup>	2011 <sup>R</sup>	2012
Goods Producing Industries	7.5%	6.3%	5.3%	5.1%	5.1%
01 Agriculture & Fishing	0.3%	0.4%	0.4%	0.4%	0.4%
02 Mining & Quarrying	0.8%	0.8%	0.8%	0.7%	0.8%
03 Manufacture	1.0%	1.0%	0.9%	0.9%	0.9%
06 Construction	5.4%	4.1%	3.2%	3.1%	3.1%
Service Producing Industries	92.5%	93.7%	94.7%	94.9%	94.9%
04 Electricity, Gas & Air Conditioning Supply	2.2%	2.4%	2.5%	2.5%	2.4%
05 Water Supply, Sewerage & Waste Management	1.3%	1.5%	1.5%	1.4%	1.4%
07 Wholesale & Retail Trade	9.3%	8.8%	8.3%	8.4%	8.4%
08 Transport & Storage	3.9%	3.9%	3.9%	3.9%	4.0%
09 Hotels & Restaurants	5.1%	4.9%	5.4%	5.6%	5.7%
10 Information & Communication	4.4%	4.8%	4.7%	4.7%	4.7%
11 Financial & Insurance Services	46.6%	42.7%	42.4%	42.1%	42.1%
12 Real Estate Activities	8.5%	8.9%	8.9%	8.8%	8.7%
13 Professional, Scientific & Technical Activities	12.1%	13.1%	13.7%	13.8%	13.9%
14 Administrative & Support Service Activities	2.1%	2.1%	2.1%	2.1%	2.2%
15 Public Administration & Defense	7.4%	7.6%	7.6%	7.5%	7.5%
16 Education Services	2.5%	2.7%	2.7%	2.7%	2.7%
17 Human Health & Social Work	2.8%	3.0%	3.1%	3.1%	3.1%
18 Other Services	2.9%	3.1%	3.2%	3.2%	3.2%
Less: Financial Services Indirectly Measured (FISIM)	18.6%	15.8%	15.2%	14.9%	15.1%
GDP at Constant Basic Prices	1 <b>00.0%</b>	100.0%	100.0%	100.0%	100.0%

An examination of the contribution of the various industries to the domestic economy is useful in discerning their relative ranking. Table 4 below shows the contribution of the eighteen (18) industries as well as their ranking over the period under review. The rankings reflect the relative importance of an industry (as it pertains to contribution to GDP) for the Cayman Islands' economy. There were changes in the individual contribution of seven (7) of the eighteen (18) industrial sectors. However, these changes



were not significant enough to have affected the overall rankings of the various industrial sectors as the ranking in 2012 remained unchanged from 2011.

										TABLE 4: INDUSTRY CONTRIBUTION TO GDP AT CONSTANT BASIC PRICES, 2007=100												
		TAE	BLE 4: I	NDUST	RY CONTRIBUTION TO GDP AT CONSTANT BASIC	PRICES	5, 2007=	:100														
	F	Ranking	9		INDUSTRY	Q	% Contr	ibution	to GDP													
2008	2009	2010	2011	2012		2008	2009	2010	2011	2012												
1	1	1	1	1	Financial & Insurance Services	46.6	42.7	42.4	42.1	42.1												
2	2	2	2	2	Professional, Scientific & Technical Activities	12.1	13.1	13.7	13.8	13.9												
4	3	3	3	3	Real Estate Activities	8.5	8.9	8.9	8.8	8.7												
3	4	4	4	4	Wholesale & Retail Trade	9.3	8.8	8.3	8.4	8.4												
5	5	5	5	5	Public Administration & Defense	7.4	7.6	7.6	7.5	7.5												
7	6	6	6	6	Hotels & Restaurants	5.1	4.9	5.4	5.6	5.7												
8	7	7	7	7	Information & Communication	4.4	4.8	4.7	4.7	4.7												
9	9	8	8	8	Transport & Storage	3.9	3.9	3.9	3.9	4.0												
10	10	10	9	9	Other Services	2.9	3.1	3.2	3.2	3.2												
11	11	11	10	10	Human Health & Social Work	2.8	3.0	3.1	3.1	3.1												
6	8	9	11	11	Construction	5.4	4.1	3.2	3.1	3.1												
12	12	12	12	12	Education Services	2.5	2.7	2.7	2.7	2.7												
13	13	13	13	13	Electricity, Gas & Air Conditioning Supply	2.2	2.4	2.5	2.5	2.4												
14	14	14	14	14	Administrative & Support Service Activities	2.1	2.1	2.1	2.1	2.2												
15	15	15	15	15	Water Supply, Sewerage & Waste Management	1.3	1.5	1.5	1.4	1.4												
16	16	16	16	16	Manufacture	1.0	1.0	0.9	0.9	0.9												
17	17	17	17	17	Mining & Quarrying	0.8	0.8	0.8	0.7	0.8												
18	18	18	18	18	Agriculture & Fishing	0.3	0.4	0.4	0.4	0.4												
					Less: Financial Services Indirectly Measured (FISIM)	18.6	15.8	15.2	14.9	15.1												
					GDP at Constant Basic Prices	100.0	100.0	100.0	100.0	100.0												

Financial and Insurance Activities maintained its dominance as the largest single contributor to the real GDP of the Cayman Islands accounting for 42.1 percent in 2012. This represents a stabilization of the industry's contribution compared to the gradual decline posted between 2007 and 2011 as the industry grappled with the effects of the global economic crisis.

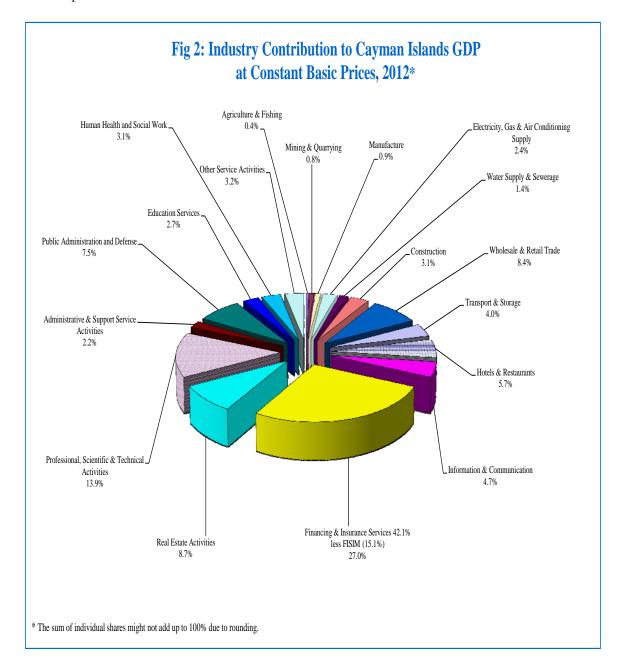
Professional, Scientific & Technical Activities continued its upward trend increasing its share of real GDP and maintaining its position as the second largest contributor. The review period saw the industry's contribution further increasing to 13.9 percent in 2012 from the 12.1 percent recorded in 2008. The performance of this industry is influenced primarily by legal and accounting services.

Other significant contributions to GDP in 2012 came from Real Estate Activities (8.7 %) notwithstanding its continued decline from the 8.8 percent in 2011 and 8.9 percent



registered in 2010. Wholesale & Retail Trade maintained its 8.4 percent contribution and Public Administration and Defence its 7.5 percent in 2012. Hotel & Restaurant Activities continued to increase its contribution to 5.7 percent from 5.6 percent in 2011 and 5.1 percent in 2008.

Construction seemed to have stemmed its slide down the ranking from sixth place in 2008 to eleventh place in 2011 and 2012. It posted a contribution of 3.1 percent in 2012 and 2011, representing a curbing of the continued decline in its contribution over the review period.





#### **3.4 GDP rates of growth by industry**

Table 5 shows the growth rate of real GDP broken down by industry. The economic expansion in 2012 was evident in all but two industries; Electricity, Gas & Air Conditioning Supply Services (-1.1%) and Real Estate Activities (-0.1%).

The expansion in the domestic economy was due to increased activity in the service industries as well as the goods-producing industries. The services industries (which account for 94.9 percent of GDP in 2012) grew by 1.6 percent fuelled mainly by growth in Administrative & Support Service Activities, and Hotel and Restaurant.

The 2.9 percent growth in the goods-producing industries reversed the continuous decline since 2007 as all related industries grew in 2012.

CAYMAN ISLAND	S GDP BY II		ORIGIN		
TABLE 5: RATE OF GROWTH OF GDP A	T CONSTANT	BASIC & PUR	CHASERS' PRI	CES, 2007=10	0
INDUSTRY	2008	2009	2010 <sup>R</sup>	2011 <sup>R</sup>	2012
Goods Producing Industries	-1.2%	-22.1%	-18.0%	-3.1%	2.9%
01 Agriculture & Fishing	5.5%	10.2%	-1.5%	3.6%	2.5%
02 Mining & Quarrying	-27.8%	-4.8%	-10.1%	-2.4%	3.8%
03 Manufacture	12.0%	-7.4%	-10.2%	-1.8%	4.0%
06 Construction	1.8%	-29.3%	-23.0%	-4.4%	2.5%
Service Producing Industries	-0.4%	-7.6%	-2.3%	0.7%	1.6%
04 Electricity, Gas & Air Conditioning Supply	2.9%	1.6%	-0.7%	0.4%	-1.1%
05 Water Supply, Sewerage & Waste Management	0.3%	6.1%	-3.8%	-2.2%	1.2%
07 Wholesale & Retail Trade	3.4%	-11.5%	-8.3%	1.9%	1.4%
08 Transport & Storage	-0.2%	-7.4%	-1.4%	0.4%	2.1%
09 Hotels & Restaurants	0.7%	-10.1%	6.6%	5.8%	3.0%
10 Information & Communication	1.1%	3.3%	-4.3%	-0.1%	0.5%
11 Financial & Insurance Services	-3.3%	-14.1%	-3.4%	0.1%	1.5%
12 Real Estate Activities	0.2%	-1.7%	-1.8%	-0.6%	-0.1%
13 Professional, Scientific & Technical Activities	-0.1%	1.8%	1.4%	2.0%	2.3%
14 Administrative & Support Service Activities	-1.0%	-5.4%	-1.9%	1.7%	4.6%
15 Public Administration & Defense	8.0%	-3.9%	-3.1%	0.0%	2.2%
16 Education Services	7.6%	0.9%	-2.3%	-0.8%	0.1%
17 Human Health & Social Work	7.1%	0.0%	0.6%	1.1%	1.5%
18 Other Services	-6.6%	0.8%	-0.1%	0.7%	2.4%
Total	-0.4%	-8.5%	-3.1%	0.6%	1.6%
Less: Financial Services Indirectly Measured (FISIM)	-1.4%	-20.6%	-6.1%	-1.6%	2.9%
GDP at Constant Basic Prices	-0.2%	-6.3%	-2.7%	0.9%	1.4%
Add: Taxes Less Subsidies on Products	-1.7%	-18.6%	-3.4%	0.7%	0.9%
GDP at Constant Purchasers' Prices	-0.4%	-7.2%	-2.7%	0.9%	1.4%

R-revised



## 3.4.1 Goods-producing industries

The growth in the output of the goods-producing industries in 2012 is a welcome occurrence, reversing five (5) consecutive years of decline.

Agriculture and Fishing continued its expansion, growing by 2.5 percent in 2012 relative to the 3.6 percent posted in 2011. The industry's expansion resulted from growth in the production of agricultural crops (3.4%) and fishing activities (4.0%).

The Mining and Quarrying industry experienced some expansion after four (4) years of decline. The industry realized a 3.8 percent expansion in 2012 after posting declines of 2.4 percent and 10.1 percent in 2011 and 2010 respectively. This is influenced by increased demand for stone, fill and marl due to growth in domestic construction activity.

The Manufacturing industry returned to growth in 2012 reflecting the higher demand for food and beverage products, concrete and concrete products. The industry grew by 4.0 percent in 2012, after declining by 1.8 percent in 2011.

The Construction industry returned to growth after three (3) consecutive years of decline. The industry expanded by 2.5 percent in 2012 after declining by 4.4 percent in 2011, 23.0 percent in 2010, and 29.3 percent in 2009.

## 3.4.2 Service-producing industries

In 2012, the service-producing industries continued on the growth trajectory which started in 2011. The service industries grew by 1.6 percent in 2012, a higher rate of growth than the 0.7 percent posted in 2011. All but two industries registered growth in 2012 as the economy continued its recovery from the effects of the global economic downturn.

The Electricity, Gas & Air Conditioning Supply industry is one of the two service industries that contracted in 2012. The industry declined by 1.1 percent in 2012, a reversal of the 0.4 percent growth registered in 2011. The contraction is associated with the decrease in electricity consumption which moved from 573,615 megawatt hours (Mwhrs) in 2011 to 567,381 megawatt hours (Mwhrs) in 2012. The decrease in electricity consumption is due to declines in both commercial and residential consumption.

The Water Supply, Sewerage and Waste Management industry expanded in 2012 by 1.2 percent, following declines of 2.2 percent in 2011 and 3.8 percent in 2010. The growth in the industry emanated mainly from increase in water consumption which moved from 1,697.9 million US gallons in 2011 to 1,752.6 million US gallons in 2012.



The output of Wholesale & Retail trade grew in 2012, albeit at a slower rate than that recorded for 2011. The industry posted growth of 1.4 percent in 2012, relative to the 1.9 percent posted for 2011. The expansion in activity resulted, in part, from the 2.2 percent increase in the year-end resident population which serves to increase domestic demand. The growth in this industry is also reflected in the increase in imported consumer and intermediate goods.

Transport and Storage grew by 2.1 percent in 2012, continuing on the 0.4 percent growth experienced in 2011. The transport services sub-industry grew by 2.6 percent on the back of growth in cargo transportation (3.2%), cruise arrival (7.6%) and stay-over visitors (4.1%). There was also positive performance for supporting transport activities which posted growth of 2.0 percent in 2012.

The Hotels and Restaurants industry continued on it upward trajectory in 2012, albeit at a reduced rate of growth. The industry grew by 3.0 percent in 2012 after growing by 5.8 percent in 2011, and 6.6 percent in 2010. The industry benefitted from the 4.1 percent increase in the number of stay-over visitors in 2012 which grew to 321.7 thousand from 309.1 thousand in 2011.

The value added of the Information and Communication industry increased by 0.5 percent in 2012, after declining by 0.1 percent in 2011. The performance of the industry was driven by the 0.7 percent increase in the Telecommunications (including radio and television broadcasting) sub-industry. The increase in the year-end resident population also had a positive impact on the performance of the industry.

The Financial and Insurance Services industry continues to free itself from the effects of the global situation, posting growth of 1.5 percent in 2012 – the strongest rate of expansion since 2007. The industry continued on the growth path started in 2011 while accelerating the rate of growth. The growth in the industry was generated directly via the expansion in the Insurance Services (4.6 %), Other Financial Institutions (2.9%), Financial Services (1.1%), and Monetary Institutions (0.3%) sub-industries.

Real Estate Activities continued its contraction in 2012 (-0.1%) albeit at a slower rate than the -0.6 percent recorded in 2011. This was mainly due to the decline in the Renting of Commercial Buildings group (-1.1%), offsetting the marginal growth in all other groups within the industry.

The Professional, Scientific & Technical Activities industry continued its expansion in 2012, recording growth of 2.3 percent on the back of the 2.0 percent expansion registered for 2011. This expansion was due mainly to the performance of Legal Services (1.0%) and Accounting Services (2.5).



Administrative & Support Service Activities posted the strongest growth of all industries in 2012. The industry grew by 4.6 percent compared to the 1.7 percent increase in 2011. The growth in the industry was predominantly generated by the 6.0 percent expansion in car rental services and the 6.2 percent growth in the security activities.

The output of the Public Administration and Defense industry grew by 2.2 percent in 2012. This was due to a combination of higher staff count and the reinstatement of the Cost of living Allowance (COLA) for eight (8) months of 2012. The number of civil servants (including teachers) increased by 1.1 percent in 2012, moving to 3,634 up from 3,593 in 2011. The increase in the number of civil servant, coupled with the reinstatement of the COLA resulted in a 4.7 percent increase in personnel cost in 2012.

Education Services reversed the 0.8 percent decline experienced in 2011, expanding by 1.0 percent in 2012. The growth in this industry was fuelled mainly by a 1.0 percent growth in private education services. This is underpinned by the increase in student enrolment in 2011.

Human Health and Social Work continued its expansion, accelerating its rate of growth to 1.5 percent in 2012 following growth of 1.1 percent in 2011 and 0.6 percent in 2010. There was growth in both the Private Health & Social Work (1.9%), and Public Health & Social Service (1.3%) sub-industries.

The value added of the Other Services industry grew by 2.4 percent in 2012, after posting growth of 0.7 percent in 2011. The growth was on the back of the 4.8 percent expansion in the Private Households with Employed Persons and the 3.3 percent growth in the Arts, Entertainment and Recreation sub-industry. The growth in arts & entertainment is fuelled by the 2.8 percent expansion in diving and related activities which is directly impacted by the growth in stay-over and cruise visitors.

In summary, the Cayman Islands' economy continued on the growth trajectory started in 2011 while, accelerating the rate of expansion. There are still some lingering ill-effects of the global economic situation and this will continue to curtail the expansion of the local economy. The continued growth in stay-over visitors, increased activity in construction and continued improvement in financial services are all positive signs for the future expansion of domestic economic activity.



# 3.5 Industrial Sector GDP at Current Prices

CAYMAN ISLAND	S GDP BY II	NDUSTRIAL	ORIGIN		
TABLE 6: GDP AT CURREN	IT BASIC & PU	JRCHASERS'	PRICES (CI\$'0	)00)	
INDUSTRIAL SECTORS	2008	2009	2010 <sup>R</sup>	2011 <sup>R</sup>	2012
01 Agriculture & Fishing	8,112.7	8,943.5	8,814.0	9,226.4	9,564.2
02 Mining & Quarrying	22,458.9	22,344.4	20,295.6	18,624.3	19,300.4
03 Manufacturing	27,206.3	24,875.7	23,216.3	23,308.7	24,690.7
04 Electricity, Gas & Air Conditioning Supply	47,147.4	51,705.8	54,574.6	55,235.1	55,729.2
05 Water Supply, Sewerage & Waste Management	32,436.7	34,681.1	35,867.8	33,414.7	35,372.0
06 Construction	147,866.7	106,589.2	85,115.9	82,570.5	85,703.1
07 Wholesale & Retail Trade	242,926.0	220,612.0	203,302.9	211,591.2	218,772.8
08 Transport & Storage	107,702.9	98,524.4	98,801.0	100,705.7	104,548.6
09 Hotels & Restaurants	139,492.3	129,983.2	137,431.1	149,870.3	152,752.5
10 Information & Communication	111,790.2	110,105.3	101,917.3	101,676.8	101,502.0
11 Financial & Insurance Services	1,240,112.2	1,096,258.8	1,056,103.6	1,063,994.9	1,082,133.6
12 Real Estate Activities	230,954.2	223,492.9	218,323.2	219,481.1	220,604.4
13 Professional, Scientific & Technical Activities	325,739.8	332,927.4	338,810.6	346,434.6	360,489.3
14 Administrative & Support Service Activities	55,462.9	52,802.7	52,524.5	53,540.0	55,720.9
15 Public Administration & Defense	198,987.1	189,231.9	180,483.8	178,474.7	185,818.5
16 Education Services	68,838.5	69,768.2	68,235.7	67,129.1	67,900.6
17 Human Health & Social Work	72,275.1	72,764.4	75,572.1	79,495.4	84,179.1
18 Other Services	78,527.5	78,827.7	79,346.0	80,105.2	83,575.8
Total	3,158,037.5	2,924,438.5	2,838,735.8	2,874,878.6	2,948,357.8
Less: Financial Services Indirectly Measured (FISIM)	500,137.0	395,574.6	366,015.8	361,149.5	372,422.6
GDP at Current Basic Prices	2,657,900.5	2,528,864.0	2,472,720.0	2,513,729.1	2,575,935.2
Add: Taxes Less Subsidies on Products	215,736.2	174,192.3	173,612.0	193,406.0	201,003.2
GDP at Current Purchasers' Prices	2,873,636.7	2,703,056.2	2,646,332.0	2,707,135.2	2,776,938.4

R-revised



## **3.6 Detailed Value Added by Industry**

Table 7: DETAILED VALUE ADDED BY INDUSTRY		CU	IRRENT (CI\$'	)00)			CON	ISTANT (CI\$'	000)	
INDUSTRIAL SECTOR	2008	2009	2010 <sup>R</sup>	2011 <sup>R</sup>	2012	2008	2009	2010 <sup>R</sup>	2011 <sup>R</sup>	2012
AGRICULTURE & FISHING	8,112.7	8,943.5	8,814.0	9,226.4	9,564.2	8,069.2	8,893.8	8,763.3	9,081.7	9,307.1
Growing of Agricultural Crops	4,607.0	5,303.2	5,074.3	5,385.1	5,656.1	4,658.3	5,369.7	5,139.1	5,382.8	5,567.7
Farming of Animals	1,123.4	1,051.4	1,019.0	1,114.0	1,004.7	1,028.5	935.1	903.6	971.7	901.8
Capture Fishing	2,382.4	2,589.0	2,720.7	2,727.3	2,903.4	2,382.4	2,589.0	2,720.7	2,727.3	2,837.7
MINING & QUARRYING	22,458.9	22,344.4	20,295.6	18,624.3	19,300.4	21,355.9	20,321.2	18,263.6	17,826.9	18,504.9
Quarrying incl. Stone, Sand and Gravel	22,458.9	22,344.4	20,295.6	18,624.3	19,300.4	21,355.9	20,321.2	18,263.6	17,826.9	18,504.9
MANUFACTURE	27,206.3	24,875.7	23,216.3	23,308.7	24,690.7	26,528.1	24,566.4	22,053.8	21,658.6	22,515.1
Food Products, Beverages and Tobacco Products	11,408.8	10,949.3	11,022.5	11,754.7	12,537.0	11,329.6	10,876.6	10,065.2	10,421.7	10,811.5
Builders' Carpentry and Joinery, incl. Furniture and Rubber and Plastic Product	3,320.0	3,252.4	2,934.4	2,238.3	2,443.8	3,194.1	3,202.4	2,895.5	2,184.8	2,372.8
Non-Metallic Mineral Products (incl. Glass and Glass	3,520.0	0,202.4	2,004.4	2,200.0	2,440.0	J, 104. I	0,202.4	2,000.0	2,104.0	2,012.0
Products, Concrete, Cement) Basic Metals, Fabricated Metal Products, Machinery &	3,253.7	2,986.3	2,200.6	2,212.2	2,357.5	3,132.9	2,917.3	2,145.6	2,129.3	2,241.0
Equipment	5,876.9	4,723.9	3,915.3	3,705.0	3.855.3	5,654.1	4.651.2	3,863.4	3,616.7	3,743.3
Other Manufacturing Goods n.e.c.	3,347.0	2,963.8	3,143.6	3,398.5	3,497.0	3,217.4	2,918.9	3,084.1	3,306.1	3,346.5
ELECTRICITY, GAS & AIR CONDITIONING SUPPLY	47,147.4	51,705.8	54,574.6	55,235.1	55,729.2	58,738.6	59,694.6	59,252.8	59,463.3	58,811.4
Production, Collection and Distribution of Electricity and the										
Manufacture of Ice	47,147.4	51,705.8	54,574.6	55,235.1	55,729.2	58,738.6	59,694.6	59,252.8	59,463.3	58,811.4
WATER SUPPLY, SEWERAGE & WASTE MANAGEMENT	32,436.7	34,681.1	35,867.8	33,414.7	35,372.0	34,291.7	36,394.9	34,994.0	34,209.4	34,616.7
Water Collection, Treatment and Distribution, Sewerage and Waste Collection	32,436.7	34,681.1	35,867.8	33,414.7	35,372.0	34,291.7	36,394.9	34,994.0	34,209.4	34,616.7
CONSTRUCTION	147,866.6	106,589.2	85,115.9	82,570.5	85,703.1	142,352.1	100,666.8	77,500.3	74,109.6	75,927.2
Construction (incl building installation, building completion, etc.)	147,866.6	106,589.2	85,115.9	82,570.5	85,703.1	142,352.1	100,666.8	77,500.3	74,109.6	75,927.2
WHOLESALE AND RETAIL TRADE & REPAIRS	242,926.0	220,612.0	203,302.9	211,591.2	218,772.8	244,540.0	216,449.0	198,458.0	202,236.0	205,112.0
Wholesale & Retail Trade	242,926.0	220,612.0	203,302.9	211,591.2	218,772.8	244,540.0	216,449.0	198,458.0	202,236.0	205,112.0
TRANSPORT AND STORAGE	107,702.9	98,524.4	98,801.0	100,705.7	104,548.6	103,656.5	95,959.8	94,595.2	94,948.7	96,955.5
Transport	43,943.8	38,833.2	40,090.0	40,194.9	42,351.0	43,408.9	39,331.9	40,933.2	40,488.2	41,536.6
Supporting Activities for Transport (incl Cargo)	56,432.1	52,478.2	52,229.4	53,781.7	55,369.7	53,267.7	49,982.2	47,672.6	48,401.5	49,370.5
Post and Courier Activities	7,327.0	7,213.0	6,481.5	6,729.2	6,827.9	6,980.0	6,645.6	5,989.3	6,059.1	6,048.4
HOTELS & RESTAURANTS	139,492.3	129,983.2	137,431.1	149,870.3	152,752.5	134,405.0	120,845.9	128,813.2	136,316.3	140,363.0
Hotels and Restaurants (incl Bars)	139,492.3	129,983.2	137,431.1	149,870.3	152,752.5	134,405.0	120,845.9	128,813.2	136,316.3	140,363.0
INFORMATION AND COMMUNICATION	111,790.2	110,105.3	101,917.3	101,676.8	101,502.0	115,114.2	118,966.3	113,883.3	113,804.3	114,412.5
Motion Picture Projection, Radio & TV Programming and										
Broadcasting and Telecommunications Activities	90,869.0	88,382.5	78,165.2	77,323.2	77,004.4	94,517.3	97,480.6	90,433.1	89,818.8	90,459.8
Publishing, Printing and Computer & Data Processing Services	20,921.2	21,722.9	23,752.1	24,353.6	24,497.7	20,596.9	21,485.7	23,450.2	23,985.5	23,952.7



#### SYSTEM OF NATIONAL ACCOUNTS REPORT 2012

Table 7 cont'd: DETAILED VALUE ADDED BY INDUSTRY		Cl	JRRENT (CI\$'	000)			CO	NSTANT (CI\$	000)	
INDUSTRIAL SECTOR	2008	2009	2010 <sup>R</sup>	2011 <sup>R</sup>	2012	2008	2009	2010 <sup>R</sup>	2011 <sup>R</sup>	2012
FINANCIAL & INSURANCE SERVICES	1,240,112.2	1,096,258.8	1,056,103.6	1,063,994.9	1,082,133.6	1,226,054.0	1,053,303.5	1,017,164.7	1,018,377.5	1,033,318.3
Monetary Institutions (incl. CIMA)	745,029.0	649,181.3	616,462.2	621,461.1	624,426.7	730,323.1	588,908.0	561,429.9	558,717.9	560,607.8
Other Financial Institutions & Financial Services	279,128.1	246,892.1	240,824.8	241,967.9	247,716.8	277,076.9	258,796.1	250,915.0	252,844.7	256,345.5
Insurance, Pension Funding (incl. Auxiliary Activities)	215,955.2	200,185.4	198,816.6	200,565.9	209,990.1	218,654.0	205,599.4	204,819.8	206,814.9	216,364.9
REAL ESTATE ACTIVITIES	230,954.2	223,492.9	218,323.2	219,481.1	220,604.4	222,381.7	218,554.2	214,577.8	213,330.3	213,191.9
Operating of Owner-Occupied Dwellings	83,789.3	83,387.3	78,798.9	80,175.9	80,736.9	81,709.5	82,839.4	79,764.7	80,105.7	80,236.5
Renting of Residential Buildings	62,736.7	61,013.4	60,583.9	58,607.3	58,631.5	61,107.2	60,332.8	59,726.3	57,628.7	57,763.1
Renting of Commercial Buildings	61,151.1	57,052.5	57,025.1	58,431.5	58,700.2	57,143.1	53,413.8	52,791.0	53,073.8	52,482.6
Other Real Estate Activities	23,277.1	22,039.7	21,915.4	22,266.4	22,535.8	22,421.9	21,968.3	22,295.9	22,522.2	22,709.7
PROFESSIONAL, SCIENTIFIC AND TECHNICAL ACTIVITIES	325,739.8	332,927.4	338,810.6	346,434.6	360,489.3	317,215.8	323,027.9	327,583.3	334,150.6	341,877.5
Business Activities (incl. Legal & Accounting Services)	325,739.8	332,927.4	338,810.6	346,434.6	360,489.3	317,215.8	323,027.9	327,583.3	334,150.6	341,877.5
ADMINISTRATIVE AND SUPPORT SERVICE ACTIVITIES	55,462.9	52,802.7	52,524.5	53,540.0	55,720.9	54,152.3	51,251.0	50,298.8	51,158.2	53,536.3
Administrative and Support Service to Businesses (incl.	,	,	,	,			,	,	.,	
Renting of Machinery & Equipment)	55,462.9	52,802.7	52,524.5	53,540.0	55,720.9	54,152.3	51,251.0	50,298.8	51,158.2	53,536.3
PUBLIC ADMINISTRATION AND DEFENSE	198,987.1	189,231.9	180,483.8	178,474.7	185,818.5	194,860.5	187,197.1	181,368.5	181,284.0	185,311.8
Public Administration and Defense	198,987.1	189,231.9	180,483.8	178,474.7	185,818.5	194,860.5	187,197.1	181,368.5	181,284.0	185,311.8
EDUCATION SERVICES	68,838.5	69,768.2	68,235.7	67,129.1	67,900.6	66,643.7	67,230.6	65,652.1	65,123.9	65,172.9
Public Education	45,305.9	45,652.9	44,523.0	43,296.2	43,647.3	43,870.5	44,249.9	43,231.8	42,880.3	42,705.5
Private Education	23,532.6	24,115.3	23,712.7	23,832.9	24,253.4	22,773.2	22,980.7	22,420.3	22,243.7	22,467.4
HEALTH AND SOCIAL WORK	72,275.1	72,764.4	75,572.1	79,495.4	84,179.1	74,808.6	74,839.9	75,319.2	76,182.4	77,304.6
Public Health and Social Services	50,945.8	50,277.6	52,894.9	56,347.2	60,048.4	53,755.9	53,069.2	53,475,1	53,846.0	54,535.0
Private Health & Social Services	21,329.2	22,486.9	22,677.2	23,148.2	24,130.7	21,052.7	21,770.7	21,844.1	22,336.4	22,769.6
OTHER SERVICES	78,527.5	78,827.7	79,346.0	80,105.2	83,575.8	75,310.8	75,889.5	75,790.0	76.343.4	78,190.9
Private Arts. Entertainment & Recreational	27,179.7	27,178.4	27,480.9	27.884.5	29,129.4	25,436.4	25,582.6	25,309.4	25,513.8	26,353.0
Personal & Household Services (incl. Activities of Membership		-1,110.4	_1,100.0	21,007.0	20,120.4	-0,100.7	-0,002.0	-0,000.4	-0,010.0	-0,000.0
Organization)	30,719.6	29,913.0	30,479.1	30,589.3	31,488.8	30,060.0	28,682.5	29,204.6	29,309.6	29,279.2
Private Households with Employed Persons	20,628.2	21,736.3	21,386.0	21,631.3	22,957.6	19,814.4	21,624.4	21,276.0	21,520.0	22,558.6
FINANCIAL SERVICES Indirectly Measured (FISIM)	500,137.0	395,574.6	366,015.8	361,149.5	372,422.6	489,977.3	389,228.0	365,332.0	359,532.2	369,956.9
VALUE ADDED AT BASIC PRICES	2,657,900.5	2,528,864.0	2,472,720.0	2,513,729.1	2,575,935.2	2,630,501.3	2,464,824.3	2,398,999.7	2,420,073.0	2,454,472.5
TAXES LESS SUBSIDIES ON PRODUCTS	215,736.2			193,406.0	201,003.2	207,300.1	168,641.2		164,124.9	
GROSS DOMESTIC PRODUCTS AT PURCHASERS' PRICES	2,873,636.6	2,703,056.3	2,646,332.0	2,707,135.2	2,776,938.4	2,837,801.4	2,633,465.6	2,561,951.6	2,584,197.9	2,620,019.0

R-revised



## 4. GROSS DOMESTIC PRODUCT ESTIMATES-THE INCOME APPROACH

#### 4.1 GDP and Rate of Growth of GDP at Purchasers' Prices by Income

The Cayman Islands' Gross Domestic Product (GDP) at current purchasers' prices for 2012 stood at CI\$2,776.9 million. The components of GDP by type of income and their rates of growth are shown in Tables 7a and 7b below.

Table 7a: GROSS DOMESTIC PRODUCT (GDP) BY INCOME AT CURRENT PRICES (CI\$'000)											
Type of Income	2007	2008	2009	2010 <sup>R</sup>	2011 <sup>R</sup>	2012					
Compensation of Employees	1,400,405.5	1,458,640.8	1,396,727.0	1,358,148.3	1,371,628.2	1,402,214.3					
Operating Surplus\Mixed Income	912,912.7	861,575.7	793,494.0	760,284.0	778,635.6	805,441.0					
Consumption of Fixed Capital	173,338.6	173,708.1	174,170.9	174,355.6	172,295.8	174,475.0					
Taxes less Subsidies on Production and Imports	361,323.1	379,712.1	338,664.4	353,544.3	384,575.6	394,808.2					
Gross Domestic Product at Purchasers' Prices	2,847,979.9	2,873,636.7	2,703,056.2	2,646,332.1	2,707,135.3	2,776,938.5					

R-revised

Table 7b: PERCENTAGE GROWTH of GDP BY INCOME AT CURRENT PURCHASERS' PRICES										
Time of Income	Percentage Growth									
Type of Income	2007	2008	2009	2010 <sup>R</sup>	2011 <sup>R</sup>	2012				
Compensation of Employees	8.7	4.2	(4.2)	(2.8)	1.0	2.2				
Operating Surplus\Mixed Income	5.6	(5.6)	(7.9)	(4.2)	2.4	3.4				
Consumption of Fixed Capital	14.9	0.2	0.3	0.1	(1.2)	1.3				
Taxes less Subsidies on Production and Imports	(2.2)	5.1	(10.8)	4.4	8.8	2.7				
Gross Domestic Product at Purchasers' Prices	6.6	0.9	(5.9)	(2.1)	2.3	2.6				

R-revised

Total GDP at current purchasers' prices grew by 2.6 percent in 2012 when compared to 2011 (see Table 7b above). All income types experienced growth in 2012 relative to 2011. Consumption of fixed capital reversed the decline posted in 2011 reflecting the increased level of activity in capital-intensive industries.

Total compensation of employees amounted to CI\$1,402.2 million in 2012, an increase of 2.2 percent when compared to 2011. The increase is consistent with the 3.2 percent growth in employed persons in 2012.

Operating surplus/mixed income posted its second year of consecutive growth in 2012, registering growth of 3.4 percent following the 2.4 percent realized in 2011. This reflects the growth in the domestic economy in 2012.



Taxes (less subsidies) on production and imports continued on its upward trend, increasing by 2.7 percent in 2012 following an 8.8 percent increase in 2011. This performance is consistent with the higher revenue intake of the central government in 2012.

Table 8: PERCENTAGE CONTRIB	UTION to G	DP BY INC	OME AT CL	IRRENT PR	ICES	
Type of Income	2007	2008	2009	2010 <sup>R</sup>	2011 <sup>R</sup>	2012
Compensation of Employees	49.2	50.8	51.7	51.3	50.7	50.5
Operating Surplus\Mixed Income	32.1	30.0	29.4	28.7	28.8	29.0
Consumption of Fixed Capital	6.1	6.0	6.4	6.6	6.4	6.3
Taxes less Subsidies on Production and Imports	12.7	13.2	12.5	13.4	14.2	14.2
Gross Domestic Product at Purchasers' Prices	100.0	100.0	100.0	100.0	100.0	100.0

## 4.2 Contribution to GDP at Purchasers' Prices

R-revised

Compensation of employees accounted for 50.5 percent of GDP in 2012 compared to 50.7 percent in 2011. This reflects the Cayman Islands economy's heavy dependence on labour due to its service-oriented nature. The estimation of GDP by income type shows the relative importance of labour as a factor of production relative to physical capital and equity.

The second largest contribution (29.0%) came from operating surplus/mixed income with a total value of CI\$805.4 million in 2012. The share of operating surplus continues to increase as the economy continues on its expansionary path.

The share of taxes has gradually increased over the years, but seems to have levelled off at 14.2 percent in 2012, the same as that posted for 2011.

Lastly, the share of fixed capital consumption declined to 6.3 percent in 2012, from 6.4 percent in 2011. Even though there was a decline in its share, the value of fixed capital consumption increased from CI\$172.3 million in 2011 to CI\$174.5 million in 2012.



#### 4.3 Income Components of GDP at Purchasers' Prices

#### 4.3.1 Compensation of employees (COE)

Table 9 below shows the breakdown of total compensation by industry in the Cayman Islands for the period 2007-2012.

Table 9: C	OMPENSATI		OYEES (CI\$'00	)0)		
Industry	2007	2008	2009	2010 <sup>R</sup>	2011 <sup>R</sup>	2012
Agriculture & Fishing	3,618.3	4,776.5	4,046.4	3,916.3	4,127.2	4,264.7
Mining & Quarrying	17,493.3	10,809.7	13,104.9	12,171.6	11,390.7	11,591.3
Manufacture	11,497.7	13,030.3	11,647.1	11,002.6	10,764.5	11,503.8
Electricity, Gas & Air Conditioning Supply	15,445.0	13,291.1	13,555.7	12,732.6	12,731.5	12,808.7
Water Supply, Sewerage & Waste Management	19,381.4	16,056.1	15,563.0	15,701.3	15,888.0	17,808.7
Construction	91,413.0	93,801.2	62,514.3	50,431.2	51,159.4	53,125.2
Wholesale & Retail Trade	91,180.3	122,029.9	118,125.5	110,572.8	110,799.3	111,035.0
Transport & Storage	65,824.4	72,099.5	68,808.1	66,449.6	67,182.0	67,200.9
Hotels & Restaurants	67,552.5	73,378.5	68,579.8	70,517.7	82,021.6	81,919.1
Information & Communication	46,340.6	46,434.8	44,825.5	44,909.9	46,434.7	47,072.6
Financial & Insurance Services	367,016.6	361,045.8	351,066.9	344,424.5	338,351.7	340,671.6
Real Estate Activities	33,080.3	35,618.8	34,347.3	32,712.3	32,017.2	32,764.1
Professional, Scientific & Technical Activities	198,687.9	199,156.3	200,464.0	203,190.8	206,426.7	215,378.1
Administrative & Support Service Activities	39,502.7	40,953.7	41,034.4	41,294.2	42,171.4	43,923.4
Public Administration and Defense	162,449.1	178,940.8	170,675.9	160,222.3	160,584.5	166,206.4
Education Services	56,684.4	62,847.9	62,956.6	61,125.8	59,764.2	59,456.5
Health and Social Work	61,755.2	63,396.3	63,740.5	65,544.5	68,970.2	72,695.0
Other Services	51,482.9	50,973.8	51,671.1	51,228.5	50,843.2	52,789.2
TOTAL	1,400,405.5	1,458,640.8	1,396,727.0	1,358,148.3	1,371,628.2	1,402,214.3

#### R-revised

As can be seen from the table above, the following three industries dominated in the distribution of total compensation:

- The Financial and Insurance Services industry with CI\$340.7 million in compensation or 24.3 percent of the total compensation in 2012;
- Professional, Scientific and Technical Activities (including legal and accounting services) with CI\$215.4 million or 15.4 percent of total compensation in 2012; and
- Public Administration and Defense with CI\$166.2 million or 11.9 percent of total compensation in 2012.

The three above-mentioned industries accounted for 51.6 percent of the total compensation generated in the Cayman Islands in 2012.



## 4.3.2 Operating surplus/mixed income<sup>2</sup>

Table 10: OPERA	TING SURPL	US AND MIXE	D INCOME (C	:1\$'000)		
Industry	2007	2008	2009	2010 <sup>R</sup>	2011 <sup>R</sup>	2012
Agriculture & Fishing	3,369.7	2,387.5	3,992.3	3,989.5	4,162.6	4,313.6
Mining & Quarrying	9,579.4	9,467.6	6.655.6	5,558.3	4,639.5	5,227.7
Manufacture	10,991.0	12,878.9	11,711.1	10,684.7	10,977.1	11,581.3
Electricity, Gas & Air Conditioning Supply	27,203.0	17,492.6	20,474.2	23,028.8	22,615.7	20,879.2
Water Supply, Sewerage & Waste Management	8,798.6	10,026.4	13,247.4	13,090.8	11,393.5	11,391.8
Construction	38,253.3	46,573.8	38,260.8	30,397.9	27,248.5	28,559.1
Wholesale & Retail Trade	119,848.1	40,573.8 91,673.0	75,773.8	68,296.9	75,446.3	81,669.2
Transport & Storage	28,016.5	23,396.0	18,623.6	22,044.3	23,701.8	26,986.1
Hotels & Restaurants	······	60,821.9	55,449.9	59,486.4	60,386.5	63,228.4
	53,252.7	,	,	,	,	,
Information & Communication	38,209.7	41,808.7	39,059.0	31,227.2	28,126.4	27,749.2
Financial & Insurance Services	763,436.4	726,852.9	590,576.4	540,327.0	546,833.0	562,765.9
Real Estate Activities	164,509.3	161,784.9	155,927.4	155,069.7	157,093.4	158,393.0
Professional, Scientific & Technical Activities	101,713.1	110,237.6	116,673.1	119,024.9	121,827.9	126,524.6
Administrative & Support Service Activities	9,433.8	8,247.4	5,210.1	4,805.6	5,037.9	5,555.5
Public Administration and Defense	-	-	-	-	-	-
Education Services	1,902.6	2,233.0	2,634.5	3,084.3	3,016.9	3,130.6
Health and Social Work	4,350.6	5,411.9	5,561.3	6,096.6	6,375.0	6,658.6
Other Services	27,145.2	30,418.5	29,238.1	30,087.0	30,903.1	33,249.9
Sub-Total	1,410,013.1	1,361,712.7	1,189,068.6	1,126,299.8	1,139,785.1	1,177,863.6
Less Financial Services Indirectly Measured (FISIM)	497,100.4	500,137.0	395,574.6	366,015.8	361,149.5	372,422.6
TOTAL	912,912.7	861,575.7	793,494.0	760,284.0	778,635.6	805,441.0

R-revised

In 2012, Financial and Insurance Services, Real Estate Activities and Professional, Scientific and Technical Activities together accounted for 72.0 percent of operating surplus/mixed income (before deducting interest expenses).

The largest share of operating surplus/mixed income was recorded by the Financial and Insurance Services industry at CI\$562.8 million in 2012. The second largest share was recorded for the Real Estate Activities industry (CI\$158.4 million). This is followed by the Professional, Scientific and Technical Activities industry, with CI\$126.5 million.

<sup>&</sup>lt;sup>2</sup> As shown in Table 10, the total amount of this income type comprises two parts:

<sup>(</sup>a) The amount before deducting interest expense across industries, equivalent to CI\$1,177.9 million in 2012; and

<sup>(</sup>b) The total amount after deducting overall interest expense (CI\$805.4 million). Overall interest expense is equivalent to the line "Financial Services Indirectly Measured" (FISIM). Ideally, FISIM should be apportioned across the various spending industries. However the currently available data does not permit this exercise.



## 4.3.3 Consumption of fixed capital

Table 11: C	ONSUMPTION	OF FIXED C	APITAL (CI\$'	)00)		
Industry	2007	2008	2009	2010 <sup>R</sup>	2011 <sup>R</sup>	2012
Agriculture & Fishing	472.5	697.3	634.9	650.1	662.4	700.5
Mining & Quarrying	2,309.8	1,995.0	2,398.7	2,388.9	2,408.6	2,271.0
Manufacture	962.5	942.3	1,195.8	1,207.0	1,246.7	1,282.7
Electricity, Gas & Air Conditioning Supply	13,587.0	15,278.9	16,623.9	17,589.1	18,017.9	19,957.7
Water Supply, Sewerage & Waste Management	5,808.3	6,209.4	5,734.4	6,931.6	5,985.5	6,002.6
Construction	6,350.3	5,511.2	4,125.5	2,773.9	2,574.0	2,516.6
Wholesale & Retail Trade	19,471.1	22,991.0	20,207.0	19,867.8	20,618.8	21,162.1
Transport & Storage	9,384.6	11,448.8	10,470.8	9,709.3	9,251.9	9,773.6
Hotels & Restaurants	11,476.6	3,953.5	5,084.7	6,509.9	6,516.2	6,610.8
Information & Communication	22,472.7	16,482.9	19,731.6	19,056.0	20,040.3	19,261.6
Financial & Insurance Services	26,251.0	28,320.9	28,114.9	28,142.7	27,435.2	26,506.8
Real Estate Activities	15,188.2	23,677.5	23,152.4	21,212.3	20,894.5	19,407.4
Professional, Scientific & Technical Activities	8,670.8	7,590.6	7,299.5	6,982.6	7,180.5	7,219.5
Administrative & Support Service Activities	4,562.3	4,988.3	5,772.7	5,599.1	5,301.5	5,121.5
Public Administration and Defense	10,049.3	11,193.6	10,177.4	11,726.4	9,679.3	10,397.8
Education Services	3,347.5	3,718.3	4,132.4	3,969.6	4,300.5	5,273.8
Health and Social Work	3,560.7	3,247.4	3,351.1	3,812.7	3,997.0	4,665.2
Other Services	9,413.6	5,461.4	5,963.3	6,226.6	6,185.2	6,344.0
TOTAL	173,338.6	173,708.1	174,170.9	174,355.6	172,295.8	174,475.0

R-revised

Consumption of fixed capital or the depreciation cost of capital represented only 6.3 percent of the GDP in 2012 (see Table 8). This is consistent with the economic structure of the Cayman Islands which is driven by services rather than by manufacturing.

As presented in Table 11, the largest amounts of depreciation in 2012 occurred in the Financing and Insurance Services industry (CI\$26.5 million), followed by Wholesale and Retail Trade (CI\$21.2 million), Electricity, Gas and Air Conditioning Supply (CI\$20.0 million), Real Estate Activities (CI\$19.4 million), and Information & Communication (CI\$19.3 million). Though the Electricity, Gas and Air Conditioning Supply and Information & Communication industries are relatively small in terms of their contribution to GDP, they have significant depreciation because of the capital intensive nature of the industries.





4.3.4 Taxes <i>less</i> subsidies on production	and imports
---	-------------

Table 12: TAXES less S	UBSIDIES OI		ON AND IMPO	ORTS (CI\$'000	)	
Industry	2007	2008	2009	2010	2011	2012
Taxes less Subsidies on Production	150,400.1	163,975.9	164,472.1	179,932.3	191,169.6	193,805.0
Agriculture & Fishing	189.3	251.5	270.0	258.0	274.1	285.4
Mining & Quarrying	194.5	186.6	185.1	176.9	185.5	210.4
Manufacture	227.0	354.9	321.7	322.0	320.4	322.9
Electricity, Gas & Air Conditioning Supply	848.0	1,084.8	1,052.1	1,224.0	1,870.0	2,083.6
Water Supply, Sewerage & Waste Management	185.8	144.9	136.2	144.3	147.6	169.0
Construction	3,823.6	1,980.4	1,688.6	1,513.0	1,588.7	1,502.3
Wholesale & Retail Trade	5,900.4	6,232.1	6,505.7	4,565.3	4,726.9	4,906.4
Transport & Storage	612.4	758.7	621.8	597.8	570.1	588.0
Hotels & Restaurants	1,199.6	1,338.3	868.8	917.1	946.0	994.2
Information & Communication	6,819.0	7,063.9	6,489.3	6,724.2	7,075.5	7,418.8
Financial & Insurance Services	110,949.9	123,892.6	126,500.6	143,209.5	151,375.0	152,189.3
Real Estate Activities	9,076.1	9,873.2	10,065.8	9,329.0	9,476.0	10,039.9
Professional, Scientific & Technical Activities	8,451.8	8,755.3	8,490.8	9,612.3	10,999.4	11,367.2
Administrative & Support Service Activities	1,201.4	1,273.5	785.5	825.6	1,029.3	1,120.6
Public Administration and Defense	82.9	103.9	9.8	11.0	7.8	13.2
Education Services	27.2	39.3	44.7	56.0	47.5	39.7
Health and Social Work	213.7	219.5	111.5	118.3	153.3	160.2
Other Services	397.5	422.7	324.1	328.1	376.8	393.8
Taxes less Subsidies on Products	210,922.9	215,736.2	174,192.3	173,612.0	193,406.0	201,003.2
TOTAL	361,323.1	379,712.1	338,664.4	353,544.3	384,575.6	394,808.2

Table 12 shows two data sets:

- 1. Other taxes on production net of other subsidies on production charged to industries; and
- 2. Taxes net of subsidies charged to buyers of products and imports.

The two types are almost equal in proportion, with the net taxes on products accounting for 50.9 percent of the total in 2012.

The industrial breakdown of other taxes on production shows that the Financial and Insurance Services industry accounted for 78.5 percent of the total. This data show the continued importance of the industry as a revenue earner.



## **APPENDIX 1: KEY CONCEPTS AND DEFINITIONS**

#### A1.1 Classifications in the National Accounts

The main building blocks in the system of national accounts are classifications. These are used in different ways and situations throughout the system. The system of national accounts involves a large number of economic transactions in goods and services that are undertaken by a number of economic agents. The function of the national accounts is to organize and group the basic units of transactions to provide meaningful information. The classification system also guarantees comparability over time and internationally.

The Cayman Islands' national accounts use the International Standard Industrial Classification of all Economic Activities (ISIC) for the classifications of industries, as follows (see also Appendix 3):

- i. Agriculture, Forestry and Fishing
- ii. Mining and Quarrying
- iii. Manufacturing
- iv. Electricity, Gas, Steam and Air Conditioning Supply
- v. Water Supply; Sewerage, Waste Management and Remediation Activities
- vi. Construction
- vii. Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles
- viii. Transport and Storage
- ix. Accommodation and Food Service Activities
- x. Information and Communication
- xi. Financial and Insurance Activities
- xii. Real Estate Activities
- xiii. Professional, scientific and Technical Activities
- xiv. Administrative and Support Service Activities
- xv. Public Administration and Defence; Compulsory Social Security
- xvi. Education
- xvii. Health and Social Work
- xviii. Other Services

It should be noted that establishments owned or controlled by government are excluded from the industry "Public Administration and Defence" using the following criteria:

- (a) if the prices they charge for the goods and services they produce are economically significant;
- (b) if they are operated and managed like a corporation; and
- (c) if they have a complete set of accounts such that their operating surplus, savings, assets and liabilities can be separately identified and measured. These



establishments are included in the industries in which their principal activity falls.

## A1.2 Measuring Gross Domestic Product (GDP) using the Production Approach

This approach calculates GDP as the sum of the value added of all industries. This is the difference between gross output (essentially sales) of producers and the value of their intermediate inputs (that is purchases of commodities that are used up in the production of other commodities):

## **Gross Output – Intermediate Input = Value Added**

The production account for industries allows for the compilation of GDP using the production approach. It records the production of goods and services as defined by the production boundary. Output generated from the production process is recorded as a resource on the left hand side of the 'T' account and the inputs used up in the production process is recorded as a use on the right hand side of the account. The value added is the balancing item for this account.

Production Ac	ccount of a Producer
Uses (Debit)	Resources (Credit)
Intermediate consumption 30	Gross Output 100
	Market 95
	For own final use 5
	Other non-market 0
Gross Value Added 70	

## **Production Account of a Producer**

#### A1.2.1 Valuation of output, intermediate consumption and value added

Output can be valued at either basic or producers' prices. The SNA93 recommends basic prices for the valuation of output; intermediate consumption should be valued at purchasers' price.

<u>Basic price</u> is defined as the amount receivable by the producer from the purchase of a unit of good or service less any tax payable, plus any subsidy receivable as a consequence of its production or sale. Separately invoiced transport charges by the producer are excluded.

<u>*Producer's price*</u> (net of all valued tax (VAT)) is the amount receivable by the producer from the purchase of a unit of good or service less any VAT invoiced to the purchaser. Separately invoiced transport charges by the producer are excluded.



<u>Purchaser's value</u> is the amount paid by the purchaser, excluding any deductible VAT but includes any transport charges paid separately by the purchaser for delivery of the goods.

The above three concepts are related as follows:

- Basic Price
   plus taxes on product excluding VAT
   less subsidies on product
- Equals Producer's Price
   *plus* trade and transport margins
   *plus* non- deductible VAT
- Equals Purchaser's Price

It should be noted that in the Cayman Islands, there is no VAT; hence, producers' prices is the same as purchasers' price if there are no trade and transport margins.

## A1.3 Measuring Gross Domestic Product at Constant Prices

The change in GDP results from the contribution of (i) the quantity of goods and services produced and (ii) the price at which these goods and services are sold. GDP at current prices reflects both these contributions as the production of the period is measured at the prices at that period. GDP at constant prices, on the other hand, reflects only the change in quantities produced. This indicator measures the production of the period at the prices of another period referred to as the base year.

**GDP at constant price** is a measure of the real growth, which takes place within an economy. The rate of change of GDP at constant prices from period to period is often used to assess the economic performance of a country as it shows only the change in the volume of goods and services produced as the price effect is removed. In theory, correcting for inflation refers to the process of revaluing current production using the average prices prevailing in the base year as follows:

**GDP** at current prices =  $Quantity_t \times Price_t$ 

(Current quantities of goods and services produced multiplied by their current prices)

# **GDP** at constant prices = $Quantity_t \times Pr ice_0$

(Current quantities of goods and services produced multiplied by their prices in a year chosen as the base year)<sup>3</sup>.

<sup>&</sup>lt;sup>3</sup> The base year chosen for the Cayman Islands System of National Accounts is 2007.



Movement in GDP at constant prices over time indicates whether the economy is growing or is in decline. An increase in GDP at constant prices means that output is growing faster than the rate of inflation and hence the economy is considered to be growing. The reverse would be true for a fall in GDP at constant prices.

The explanation given above is an oversimplification of the actual computation but is necessary to convey what the process is intended to accomplish. The final estimates of GDP contain different components which all have to be adjusted for inflation. Even though the process of deflation varies depending on the industry, the process always entails the compilation of indices. The deflation process can be effected by either directly deflating the current price estimates with a price index (usually the CPI) or by extrapolating the base year estimates by a volume index.<sup>4</sup> The two approaches might also be used simultaneously.

The process recommended by the SNA to estimate GDP at constant prices is to deflate both gross output and intermediate consumption separately and then subtract the latter from the former. Basically, the recommendation is that estimations be made for both gross output and intermediate consumption at constant prices; taking the difference would yield GDP at consistent prices. This is referred to as double deflation and though intuitively appealing, it is difficult to apply in practice as it requires detailed data of good quality on price indicators for both gross output and intermediate inputs.

The alternative to double deflation is the use of a single indicator to extrapolate or deflate GDP at current prices. Although single indicators are generally unsuitable in industries where the relationship between value-added, gross output and intermediate consumption vary significantly from one year to the other, they are less sensitive to errors in other industries and hence extensively used.<sup>5</sup> The single indicator method was the method of choice for the Cayman Islands and hence is discussed below in more details.

The single indicator method used in the Cayman Islands is the extrapolation of base year value added by a volume index of gross output. Where relevant quantity data were available, the volume index was calculated directly. In the absence of quantity data, the volume index was calculated indirectly by deflating gross output at current prices by the appropriate price index from the CPI. This approach tends to be the most frequently used single indicator and is based on the assumption that the ratio of value added to gross output in current prices remains unchanged at constant prices. This assumption

<sup>&</sup>lt;sup>4</sup> In the base year the current and constant estimates are the same.

<sup>&</sup>lt;sup>5</sup> The agriculture industry is one such industry where the relationship between gross output, intermediate consumption and valued added vary significantly from one year to another due to disease, weather conditions, etc.



might hold in the short run but becomes progressively less relevant in the long run hence periodic rebasing of the constant price estimates is recommended.

Another single indicator approach is the deflation of current value added by a price index of gross output. SNA defines a price index as "an average of the proportionate changes in the prices of a specified set of goods or services between two periods of time." This approach is referred to as single deflation due to the fact that only the current value added is deflated and not the gross output and the intermediate consumption. The ideal price index for this approach would be one based on wholesale or producer prices. However, these types of indices are not always available; as a result indices based on retail or consumer prices (e.g. CPI) are used. The disadvantage with using the CPI in this case is that the CPI relates specifically to price movements of goods and services purchased by households for consumption and so should not be used as a deflator for gross output destined for non-household consumption.

Extrapolation of value added by a volume index of employment is another single indicator method employed in the Cayman Islands System of National Accounts. This method entails the use of proxy indicators of gross output, such as hours worked, or numbers employed to extrapolate gross value added in the base year. These proxy indicators are most often used in services industries where it is difficult to specify direct volume measures. The weakness of this method is that it assumes constant labour productivity between the base year and subsequent years. This assumption inevitably leads to mismatches between employment and gross output hence the necessity for frequent revisions. According to accepted convention, where this method is employed an explicit assumption should be made about growth in labour productivity of about 1% per year.

Material input is another proxy indicator that can be used to extrapolate base year gross value added. This volume index should comprise of the most important material inputs to the production process. This method is usually employed in industries with heterogeneous output (e.g. construction, garment manufacturing, manufacturing of bakery products, etc). This method also necessitates frequent rebasing to account for changes in the ratio of gross output to value added and inputs.

## A1.4 Measuring Gross Domestic Product (GDP) using the Income Approach

The income approach measures GDP as the sum of all income accruing to the factors of production. With this approach, GDP is calculated as sum of the compensation of employees, operating surplus/mixed income, consumption of fixed capital and taxes on production and imports less subsidies on production and imports.



## GDP = Compensation of Employees

- + Consumption of Fixed Capital
- + Operating Surplus
- + Taxes on production and imports
- Subsidies on production and imports

The definitions employed in the calculation of each of the above components are discussed below.

## A1.4.1 Compensation of employees (COE)

This is defined as the total remuneration (in cash and kind) paid by employers to employees for work done during the accounting period. Compensation consists of two components:

- 1. Gross wages and salaries
- 2. Employers' social contributions

#### A1.4.1a Gross wages and salaries

This is defined to include all payments which employees receive in respect of their work. Included are:

- (a) Commissions, tips, bonuses and gratuities;
- (b) Allowances such as housing, uniform and travelling;
- (c) Wages paid during vacation and sick leave;
- (d) Overtime payments; and
- (e) Wages and salaries in kind.

The following items are among the consumption goods and services provided by the employer to the employee without charge or at a markedly reduced cost, which are of clear and direct benefit to the employees as consumers and are therefore included as part of wages and salaries:

- (a) Meal and drinks;
- (b) Housing services that can be used by all members of the household;
- (c) Uniforms that employees choose to wear frequently outside of the workplace as well as at work;
- (d) Sports, recreation and holiday facilities for employees and their families;
- (e) Transportation to and from work, car parking; and
- (f) Nurseries for the children of employees.



## A1.4.1b Employers' social contribution

This includes contributions paid by employers on behalf of their employees to social security schemes, private pension funds and insurances schemes. These are geared towards providing benefits for the employees in the event that circumstances affect their ability to earn income, such as sickness, accidents, redundancy, retirement, etc. These social contributions may be actual or imputed.

- Employers' actual social contributions These consists of social contributions paid directly by employers for the benefit of their employees to social security funds, insurance enterprises or other instituted units responsible for the administration and management of social insurance schemes.
- Employers' imputed social contributions Some employers provide social benefits directly to their employees or dependents out of their resources without the use of an insurance enterprise or special pension fund. Remuneration should therefore be imputed equal in value to the amount of social contributions that would be needed to secure the entitlement.

## A1.4.2 Consumption of Fixed Capital

This is the cost of production associated with the decline in the value of fixed assets used in the production process. It can be viewed in general terms as the replacement cost of the fixed assets used up in the process of production.

The SNA recommends that this be valued using the actual or estimated prices of fixed assets prevailing at the time the production takes place but not the prices at the time the fixed asset was originally acquired. However, in the case of the Cayman Islands depreciation is used as a proxy for consumption of fixed capital.

#### A1.4.3 Taxes on production and imports

Taxes are compulsory, unrequited payments made to the government by other institutional units. Taxes are said to be unrequited because the government does not directly provide a specific good or service in return for the payments made. There are two types of taxes on production and imports:

- 1. Taxes on products are taxes on goods and services that become payable when the goods are produced, sold, imported or otherwise disposed of by their producers. The following are categories of this type of tax:
  - a) Taxes and duties on import



- b) Other taxes on product excluding taxes and duties on import (e.g. hotel occupancy tax).
- 2. Other taxes on production are all taxes excluding taxes on products that establishments incur as a result of engaging in production (e.g. business and professional licences, property tax, stamp duties).

## A1.4.4 Subsidies on production and imports

It should be noted that in the Cayman Islands, subsidies as defined by SNA are negligible.

Subsidies are current unrequited transfers that government makes to resident producers and importers. These transfers or payments are based on the levels of production and/or the quantity and value of goods and services produced, imported or sold. Subsidies are seen as negative taxation as producers receive them rather than pay them. There are two types of subsidies on production and imports:

- 1. Subsidies on products subsidies payable per unit of a good or service e.g. fertilizer sold to farmers;
- 2. Other subsidies on production subsidies excluding subsidies on products that are paid to resident establishments as a result of engaging in production.

#### A1.4.5 Operating surplus/mixed income

Operating surplus/mixed income is the income accruing to the production process before deducting interest charges, rent or property incomes payable. It is equivalent to the excess of the value added over the sum of the compensation of employers, net taxes on production, and allowances for the consumption of fixed capital, i.e.:

Operating Surplus = Gross Value Added – (Compensation of Employees + net Taxes on Production and Imports + allowance for the Consumption of Fixed Capital)



## APPENDIX 2: IMPLEMENTATION OF THE CAYMAN ISLANDS' SNA

#### A2.1 Introduction

This section provides an overview of the work done in developing the System of National Accounts for the Cayman Islands. It examines the classification system employed in delineating institutional units into specific industries. This is fundamental to the measurement of output and value added by industry. The section also examines the main sources of data used in compiling the estimates. The Annual National Accounts Survey was the main data source and was supplemented by data from government accounts and other administrative sources. The section concludes by examining the estimation techniques employed in deriving gross value added by industry at current and constant prices.

#### A2.2 Coverage of Industries

As indicated in Appendix 1, all active business units were classified according to the International Standard Industrial Classification (ISIC) Revision 4, which is the industrial classification scheme recommended by SNA93 manual.<sup>6</sup> In accordance with SNA93 and ISIC guidelines, business units were assigned codes based on their principal economic activity.<sup>7</sup> The ISIC Revision 4 was adapted to accommodate a more detailed disaggregation of economic activity. For the most part, estimation and analysis were done at the product group level (5-digit ISIC code). However, some estimation had to be done at the class level (4-digit code) due to data constraints.

#### A2.3 Data Sources

Gross value added at current and constant prices was compiled using data from a variety of primary and/or secondary sources. Primary sources relate to data collected and compiled by the Economics and Statistics Office (ESO). The main source of primary data was the Annual National Accounts Survey. Other primary data sources were the consumer price index (CPI), Labour Force Survey (LFS), Survey of Living Conditions (SLC) and the Household Budget Survey (HBS). Secondary data sources, i.e., sources external to the ESO, consist mostly of administrative records and data generated as by-

<sup>&</sup>lt;sup>6</sup> The System of National Accounts Manual 1993 (SNA93) is the manual the guides the calculation of GDP estimates. It outlines the internationally accepted methodology and rules that govern the derivation of estimates of GDP. The SNA 2008 is now available and aspects have been incorporated in the Cayman Islands' National Accounts.

<sup>&</sup>lt;sup>7</sup> The principal activity of a business is the activity whose value added exceeds that of any other activity carried out by the business.



products of the administrative process. Revenue and expenditure accounts of government and statutory agencies, merchandise trade data, and specified data from the Cayman Islands Monetary Authority (CIMA) comprised the main secondary data sources.

The Annual National Accounts Survey is designed primarily to collect information from active business units on their income and expenditure. Questionnaires are hand-delivered to business units on Grand Cayman (for entities for which we have a physical address) and mailed to those in Cayman Brac and Little Cayman. The survey was administered to all establishments in ESO's Business Register. Data on government ministries and departments were obtained from government accounting reports.

The consumer price index (CPI) was predominantly used in computing gross value added at constant 2007 prices. The gross value added (at current prices) of a number of industries are deflated by a relevant price index of CPI items, or groups of items. The CPI was also used in estimating the current price gross value added of owner-occupied dwellings, some groups within the agriculture and fishing industries and mining.

The government accounts comprise a voluminous amount of data that had to be classified, partitioned and adjusted to suit national accounts purposes. Revenue and expenditure data were gathered from the government database and then exported to Excel where it was adjusted for national accounts purposes. The database allows for the generation of reports based on cost centres. Through this process, public administration was identified and separated from government companies. Additionally, revenue was classified into three groups: taxes (customs duties, property tax, hotel occupancy tax, cruise ship departure tax, stamp duty, etc.), sales of goods and services (work permits, departmental sales, etc.) and other revenue (interest, fines and forfeitures, etc.).

#### A2.4 Revision Policy

In order to improve the System of National Accounts, revisions are undertaken periodically. New and revised data from regular surveys, administrative records, audited financial statements from companies, public sector accounts, etc. are incorporated into the system as they become available. Previous year estimates are revised when current year estimates are being generated.





## APPENDIX 3: INTERNATIONAL STANDARD INDUSTRIAL CLASSIFICATION OF ALL ECONOMIC ACTIVITIES (REVISION 4)

#### A - Agriculture, Forestry and Fishing

01-Crop and animal production, hunting and related service activities

- 02-Forestry and logging
- 03-Fishing and aquaculture

#### **B** - Mining and Quarrying

05-Mining of coal and ignite

06-Extraction of crude petroleum and natural gas

07-Mining of metal ores

08-Other mining and quarrying

09-Mining support service activities

#### C - Manufacturing

- 10-Manufacture of food products
- 11-Manufacture of beverages
- 12-Manufacture of tobacco products
- 13-Manufacture of textiles

14-Manufacture of wearing apparel

15-Manufacture of leather and related products

16-Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials

17-Manufacture of paper and paper products

18-Printing and reproduction of recorded media

19-Manufacture of coke and refined petroleum products

20-Manufacture of chemicals and chemical products

21-Manufacture of pharmaceuticals, medicinal chemical and botanical products

22-Manufacture of rubber and plastics products

23-Manufacture of other non-metallic mineral products

24-Manufacture of basic metals

25-Manufacture of fabricated metal products, except machinery and equipment

26-Manufacture of computer, electronic and optical products

27-Manufacture of electrical equipment

28-Manufacture of machinery and equipment n.e.c.

29-Manufacture of motor vehicles, trailers and semi-trailers

30-Manufacture of other transport equipment

31-Manufacture of furniture

32-Other manufacturing

33-Repair and installation of machinery and equipment

#### D - Electricity, Gas, Steam and Air Conditioning Supply

35-Electricity, gas, steam and air conditioning supply

#### E - Water Supply; Sewerage, Waste Management and Remediation Activities

36-Water collection, treatment and supply

37-Sewerage

38-Waste collection, treatment and disposal activities; materials recovery

39-Remediation activities and other waste management services





#### F - Construction

- 41-Construction of buildings
- 42-Civil engineering
- 43-Specialized construction activities

#### G - Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles

45-Wholesale and retail trade and repair of motor vehicles and motorcycles 46-Wholesale trade, except of motor vehicles and motorcycles 47-Retail trade, except of motor vehicles and motorcycles

#### H - Transportation and storage

49-Land transport and transport via pipelines

- 50-Water transport
- 51-Air transport
- 52-Warehousing and support activities for transportation
- 53-Postal and courier activities

#### - Accommodation and Food Service Activities

55-Accommodation 56-Food and beverage service activities

#### J - Information and Communication

58-Publishing activities

59-Motion picture, video and television programme production, sound recording and music publishing activities

60-Programming and broadcasting activities

- 61-Telecommunications
- 62-Computer programming, consultancy and related activities
- 63-Information service activities

#### K - Financial and Insurance Activities

64-Financial service activities, except insurance and pension funding65-Insurance, reinsurance and pension funding, except compulsory social security66-Activities auxiliary to financial service and insurance activities

#### L - Real Estate Activities

68-Real estate activities



#### M - Professional, Scientific and Technical Activities

69-Legal and accounting activities

- 70-Activities of head offices; management consultancy activities
- 71-Architectural and engineering activities; technical testing and analysis
- 72-Scientific research and development
- 73-Advertising and market research
- 74-Other professional, scientific and technical activities
- 75-Veterinary activities

#### N - Administrative and Support Service Activities

- 77-Rental and leasing activities
- 78-Employment activities

79-Travel agency, tour operator, reservation service and related activities

- 80-Security and investigation activities
- 81-Services to buildings and landscape activities
- 82-Office administrative, office support and other business support activities

#### O - Public Administration and Defence; Compulsory Social Security

84-Public administration and defence; compulsory social security

#### P - Education

85-Education

#### **Q** - Human Health and Social Work Activities

- 86-Human health activities
- 87-Residential care activities
- 88-Social work activities without accommodation

#### R - Arts, Entertainment and Recreation

- 90-Creative, arts and entertainment activities
- 91-Libraries, archives, museums and other cultural activities
- 92-Gambling and betting activities
- 93-Sports activities and amusement and recreation activities

#### S - Other Service Activities

94-Activities of membership organizations 95-Repair of computers and personal and household goods 96-Other personal service activities

#### <u>T - Activities of Households as Employers; Undifferentiated Goods-and Services-Producing</u> Activities of Households for Own Use

97-Activities of households as employers of domestic personnel 98-Undifferentiated goods- and services-producing activities of private households for own use

#### U - Activities of Extraterritorial Organizations and Bodies

99-Activities of extraterritorial organizations and bodies



## APPENDIX 4: CENTRAL REGISTER OF ESTABLISHMENTS QUESTIONNAIRE

	Box 127, Government Administration Building George Town KY1-9000 Grand Cayman, Cayman Islands, B.W.I. <u>www.eso.ky</u> , email: <u>infostats@gov.ky</u> 1-345) 949-0940 Fax: (1-345) 949-8782	ECONOMIC AND STATISTICS OFFIC OCCUMENTS OF THE CAMPAGING Information on hand
CENTRAL	REGISTER OF ESTABLISHMENT	S
1. Legal Name:		
2. Trading Name:		
3. Address:		
PO Box:	Postal Code:	
Street Name and No:	District	t:
Telephone No.:	Fax No.:	
Email address:	Website:	
4. Contact Person:		
Name:	Position:	
Telephone:		
<ul> <li>5. What is the legal form of this bus</li> <li>Corporation</li> <li>Joint Venture</li> <li>Cooperative</li> </ul>	Sole proprietor Partnership Other (please Specify)	
6. In what year did this establishmen	nt begin operation? (Year of commencement)	
7. What is the type of organization t	hat best describes this establishment?	
Single establishment (without	or independent of any subsidiary or branch	) (Go to 10)
Holding company/Head office	with Branch or Subsidiary: 🔲 Foreign	🗌 Local
Branch of another establishme Name of main office		🗌 Local
Subsidiary: Name of parent company	☐ Foreign	□ Local (Go to 9)
<ol> <li>Number of Branches</li> <li>Number of Subsidiaries</li> </ol>		
		Page 1 o



10. What is this establ	ishment's	form of ownership?			
Private Enter	prise	Government enterprise	🗌 Non-	Profit Organisation	n
<ol> <li>Is the establishmer</li> </ol>	nt a franch	isee of a foreign company?	□Yes	□No	
12. Ownership of Equ	ity:	% Caymanian			
		% Foreign (Please list n	ationalities): _ _		
13. Is this establishme	nt operati	ng as an offshore company?	– ∏Yes	□ No	
14. What are the main	activities	of this Establishment (Produ	ct/Service):	List in order of impor	tance:
construction of	of residen	s possible: e.g. retail of cloth tial buildings, renting of co evelopment and sales, rentin	onstruction e	quipment with/with	out
-					
a.					
b					
ь с					
b c 15. How many persons	s are curre		shment?		
b c 15. How many person Full Time:	s are curre	ently employed at this establi	shment? _ On contr	ract:	
b c 15. How many person Full Time: 16. Does this establish	s are curre 	ently employed at this establi Part Time:	shment? _ On conti m/to abroad?	ract:	- □Yes □N
b c 15. How many person Full Time: 16. Does this establish 17. Does this establish	s are curre  ment dire ment sell	ently employed at this establi Part Time: ctly import/export goods from	shment? _ On conti m/to abroad? ices from abr	ract:	– □Yes □N □Yes □N
<ul> <li>b</li> <li>c</li> <li>15. How many personary full Time:</li> <li>Full Time:</li> <li>16. Does this establish</li> <li>17. Does this establish</li> <li>18. Does this establish</li> </ul>	s are curre ment dire ment sell ment rece	ently employed at this establi Part Time: ctly import/export goods from services to, or purchase serv	shment? _ On contr m/to abroad? ices from abr m outside the	ract:	- □Yes □N □Yes □N □Yes □N
<ul> <li>b</li> <li>c</li> <li>15. How many personary full Time:</li> <li>Full Time:</li> <li>16. Does this establish</li> <li>17. Does this establish</li> <li>18. Does this establish</li> </ul>	s are curre ment dire ment sell ment rece	ently employed at this establi Part Time: ctly import/export goods from services to, or purchase serv ive financing/investment fro	shment? _ On contr m/to abroad? ices from abr m outside the	ract:	– □Yes □N □Yes □N
<ul> <li>b</li> <li>c</li> <li>15. How many personary full Time:</li> <li>Full Time:</li> <li>16. Does this establish</li> <li>17. Does this establish</li> <li>18. Does this establish</li> </ul>	s are curre ment dire ment sell ment rece se hold inv	ently employed at this establi Part Time: ctly import/export goods from services to, or purchase serv ive financing/investment fro	shment? _ On contr m/to abroad? ices from abr m outside the Islands?	ract: road? e Cayman Islands?	- □Yes □N □Yes □N □Yes □N

38