

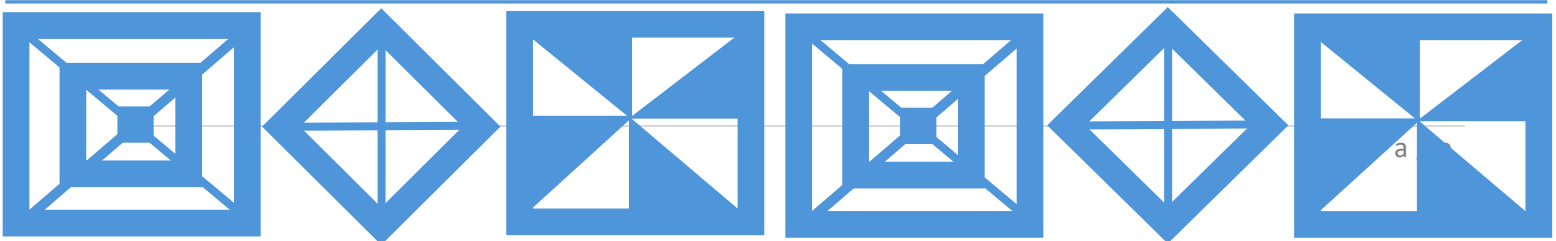
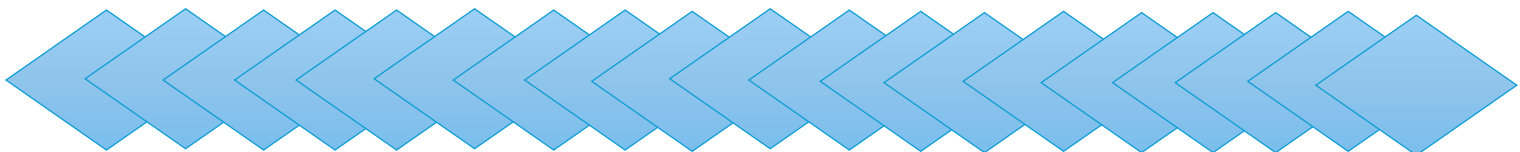
Government of Tonga

Tonga Statistics Department

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Preface

This Bulletin is the 20th in the series to be published by Tonga Statistics Department (TSD), following the last report published in April 2024.

This report presents the estimates of Gross Domestic Product (GDP) by industry for the fiscal years 2012-13 to 2022-23. GDP estimates are revised annually when new information becomes available to the Department or when production figures are firmed up for some industries. Data for earlier years from 1993-94 to 2011-12 is available from TSD upon request.

This GDP estimates continue to use the base period 2016-17 for real prices based on the results of Household Income and Expenditure Survey (HIES) 2015-16 and the Population Census 2021 conducted by TSD. The Consumer Price Index (CPI) rebased to September 2018 is also used. These estimates are prepared and aligned with the United Nations System of National Accounts (UN_SNA 2008) in so far as data permits.

TSD wishes to acknowledge with appreciation the contribution made by businesses and other Government ministries in providing relevant documents and data to facilitate the preparation of this report. TSD also acknowledges the contribution of the Pacific Financial Technical Assistance Centre (PFTAC) in continuing their support and assistance to TSD staff of National Accounts Statistics (NAS) whenever there is a need for assistance in the compilation.

These GDP estimates were prepared by staff members of the National Accounts Statistics division. The Department gratefully acknowledges the work done by staff of this division as well as contribution made by staff members of other Divisions of the Department in supplying the most up-to-date figures for this GDP estimates.

Tonga Statistics Department would welcome any comments and suggestions for future improvement of the contents of this report. Please contact the Economics Statistics Division, Statistics Department at this address: P.O. Box 149, Nuku'alofa, Tonga or Telephone (676) 23- 300, Fax (676) 24-303 or email dept@stats.gov.to for any queries.




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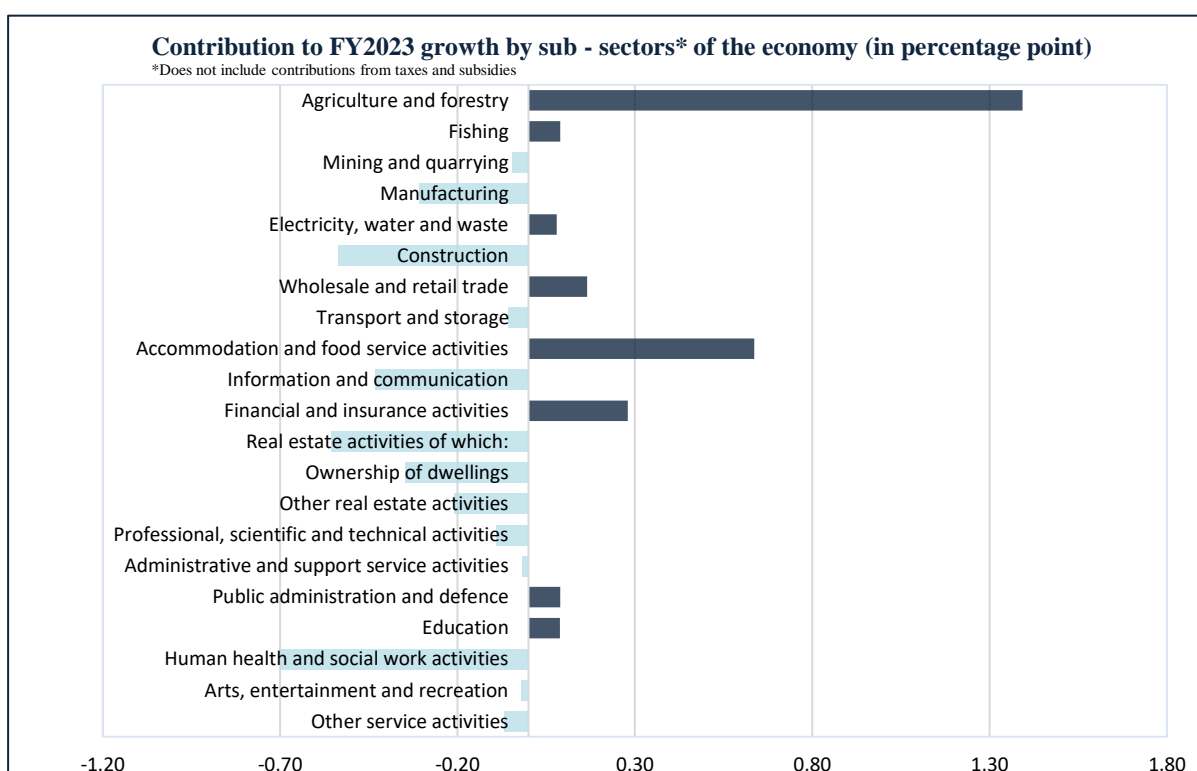
Abbreviations

BOP	Balance of Payments
CT	Consumption Tax
CPI	Consumer Price Index
FCE	Final Consumption Expenditure
fob	Free on board
GDP	Gross domestic product
GDP(E)	GDP by expenditure
GDP(P)	GDP by production
GFCE	Government Final Consumption Expenditure
GFCF	Gross fixed capital formation
GNI	Gross national income
GNDI	Gross national disposable income
GVA	Gross value added
HIES	Household Income and Expenditure Survey
HFCE	Household final consumption expenditure
IC	Intermediate Consumption
IMF	International Monetary Fund
IPD	Implicit price deflator
NA	National Accounts
NPISH	Non-profit institutions serving households
TSD	Tonga Statistics Department
VA	Value Added

Key indicators for GDP 2022-23

GDP growth rate (real prices)	2.08%
GDP (real prices)	T\$ 1040.7 million
GDP (nominal prices)	T\$ 1201.4 million
GDP per capita (real prices)	T\$ 10,410

- Tonga real Gross Domestic Product (GDP) in volume terms is estimated to have increased by 2.08% in the financial year 2022 – 2023.
- Agricultural and forestry activities, Accommodation and food service activities, Financial and insurance activities, and Wholesale and retail trade were the main drivers of the GDP growth.
- The Accommodation and Food Services activities rebounded to pre-COVID levels of value added to GDP with an influx of tourists, growing more than double the rate compared to the previous year 2021 – 2022.
 - Accommodation and Food Service Activities (147.6 %)
- Four sub-sectors saw a contraction in their growth rate in 2022 – 2023:
 - Professional, Scientific and Technical activities (- 45.5%)
 - Human health and Social work activities (- 30.8%)
 - Information and Communication (- 27.7%)
 - Mining and Quarrying (- 24.7%)
 - Real estate activities (- 17.2%)



1. Executive Summary

1.1 Overview

The economic activity, as measured by the Gross Domestic Product (GDP) increased by 2.08% in the year 2022-23, recording a total GDP in real prices of T\$ 1040 million. This follows from the previous year's negative growth rate of -2.31%. (Figure 1) The economy shows significant positive growth as it rebounds from the effect of the COVID-19 pandemic and the Hunga Tonga–Hunga Ha‘apai (HTHH) volcanic eruption. The economy was able to recover through growth in key sub-sectors, driven by an influx of tourism and an increase in the export of goods and services. These include agriculture, financial and insurance activities, and accommodation and food services.

Figure 1 GDP growth rates at real prices from FY2016 to FY2023

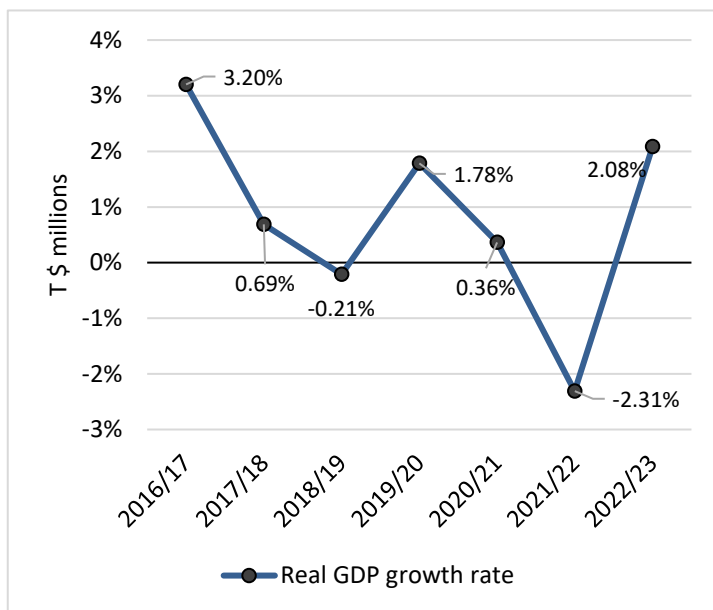


Figure 1 shows the trend of GDP growth rates year-on-year at real prices from 2016-17 to 2022-23. The GDP growth rate climbed from -2.31% in 2021-22 to 2.08% in 2022-23 in real prices. The GDP estimates calculated through the expenditure approach also showed a positive growth in all its components. While the estimates for final consumption expenditure and exports of goods and services showed a big jump in growth rate, the gross capital formation and import of goods and services also showed a small positive growth from the previous year of 2021-22.

1.2 Sectoral performance

The year 2022-23 saw a marked increase in the value added by the primary and service sectors of the economy to GDP. The service sector continued to contribute the biggest share of the GDP but saw a contraction of 3 percent from the previous financial year. Two of the major sub-sectors, accommodation and food services, and financial service activities saw high growth with the influx of tourism in the country. The marked rise in the primary sector was seen in agriculture and forestry activities with the local market produce being an important driver. The economy rebounded after recovering from the effects of the COVID-19 lockdown and travel restrictions both globally and within the Kingdom of Tonga. The HTHH eruption in January 2022 adversely impacted infrastructure development and transport activities, causing significant delays in major construction and reconstruction efforts in the disaster’s aftermath. In conclusion, the year 2022-23 saw a much-needed rebound in economic activities in the country. The value added to the GDP by some of the important industries helped to put the economy back to pre-COVID-19 pandemic levels.

2. Introduction

2.1 General

This report provides the provisional estimates of Gross Domestic Product (GDP) by industry for the fiscal year 2022-23. It provides information on the annual GDP with growth rates by production and expenditure approach, contribution to GDP, and implicit price deflators by industry. It also shows the key aggregates such as GDP per capita, Gross National Income (GNI) and Gross National Disposable Income (GNDI).

The latest national accounts estimate for 2016-17 to 2022-23 are analysed in this section of the bulletin. Estimates for 2022-23 are provisional and the estimates for previous years have been revised. More details on data sources and revisions can be found in Appendix I.

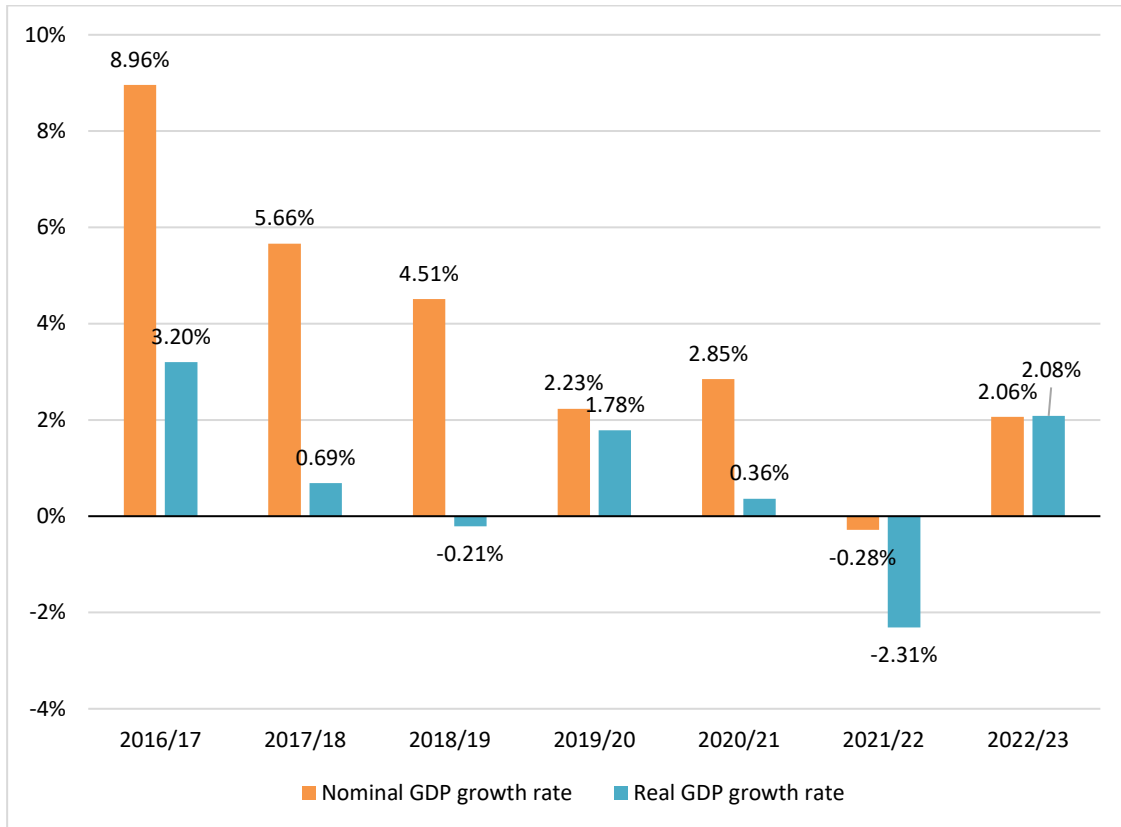
The analysis focuses on growth in real 2016-17 prices unless stated otherwise. The detailed estimates are presented with statistical figures in Parts 2 and 3, technical information on data sources, compilation and concepts can be read in Appendix I and the detailed statistical tables in Appendix II.

We would like to acknowledge the continuing co-operation of businesses and government agencies for making data available for this bulletin. An on-going data sharing agreement for tax data was formalised in a Memorandum of Understanding signed by the Government Statistician and the Commissioner of Revenue which continues to provide very useful information for these estimates.

2.2 Gross Domestic Product (GDP)

The Tongan economy rebounded in 2022-23 with a positive growth rate compared to the negative growth in the previous year of 2021-22. The year 2022-23 recorded a rise of 2.08 percent compared to the previous year in real prices. Nominal GDP for 2022-23 rose by 2.06 percent following a -0.28 percent fall from the previous year. (Figure 2) At the same time, real GDP growth has averaged 1.53 percent per annum over the past ten years. We observe the equivalent nominal and real growth rates for 2022- 23. These will be investigated ahead of future GDP releases.

Figure 2: GDP growth rates in nominal and real prices



The GDP for 2022-23 in real prices is estimated at T\$1040.7 million, recording a 2.08 percent rise from T\$1,019.5 million in 2021-22. The nominal GDP for 2022-23 is T\$1201.4 million, which is a 2.06 percent rise from T\$1177.1 million in 2021-22. (Figure 2) Nominal GDP growth has averaged 4.4 percent per annum over the past ten years.¹

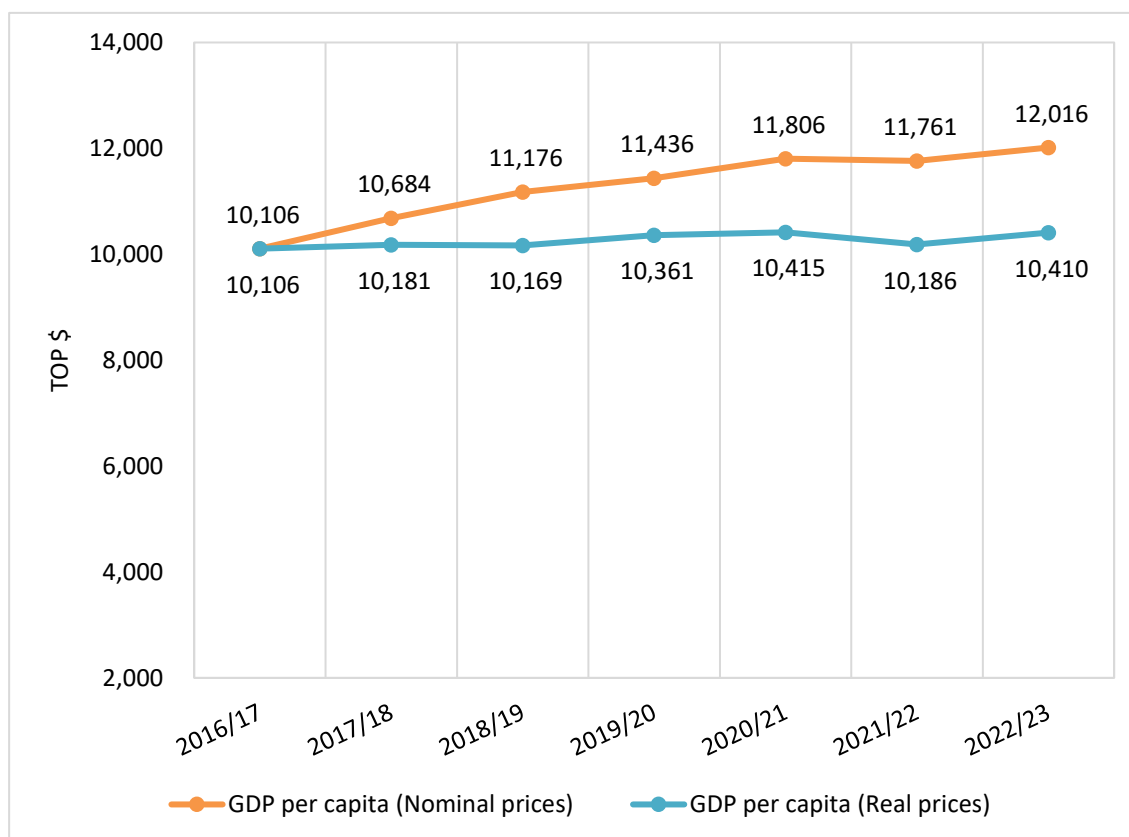
In real prices, the estimated market GVA increased by 0.7 percent in real prices from T\$661.1 million in 2021-22 to T\$666.2 million in 2022-23. It also accounted for 64.01 percent of GDP. However, non-market GVA decreased slightly by 2.9 percent from T\$184.3.6 million in 2021-22 to T\$178.8 million in 2022-23 and accounted for 17.1 percent of GDP. Taxes less subsidies on products increased by 12 percent in 2022-23 and accounted for 18.9 percent of total GDP.

2.3 Gross Domestic Product (GDP) Per Capita

GDP per capita is a core indicator of economic performance and is commonly used as a broad measure of average living standards or economic well-being. Figure 3 shows the estimated gross domestic product (GDP) per capita in Tonga from 2016-17 to 2021-22. In 2022-23, the GDP per capita in real prices amounted to T\$10,410 which is a rise of 2.1% from T\$10,186 in 2021-22. GDP per capita has averaged growth of 1.8% per annum over the past ten years. Population figures are showing a decrease by 0.09% from the previous year.

¹ The GDP growth rate at nominal prices

Figure 3: GDP per capita in nominal and real prices from 2016-17 to 2022-23

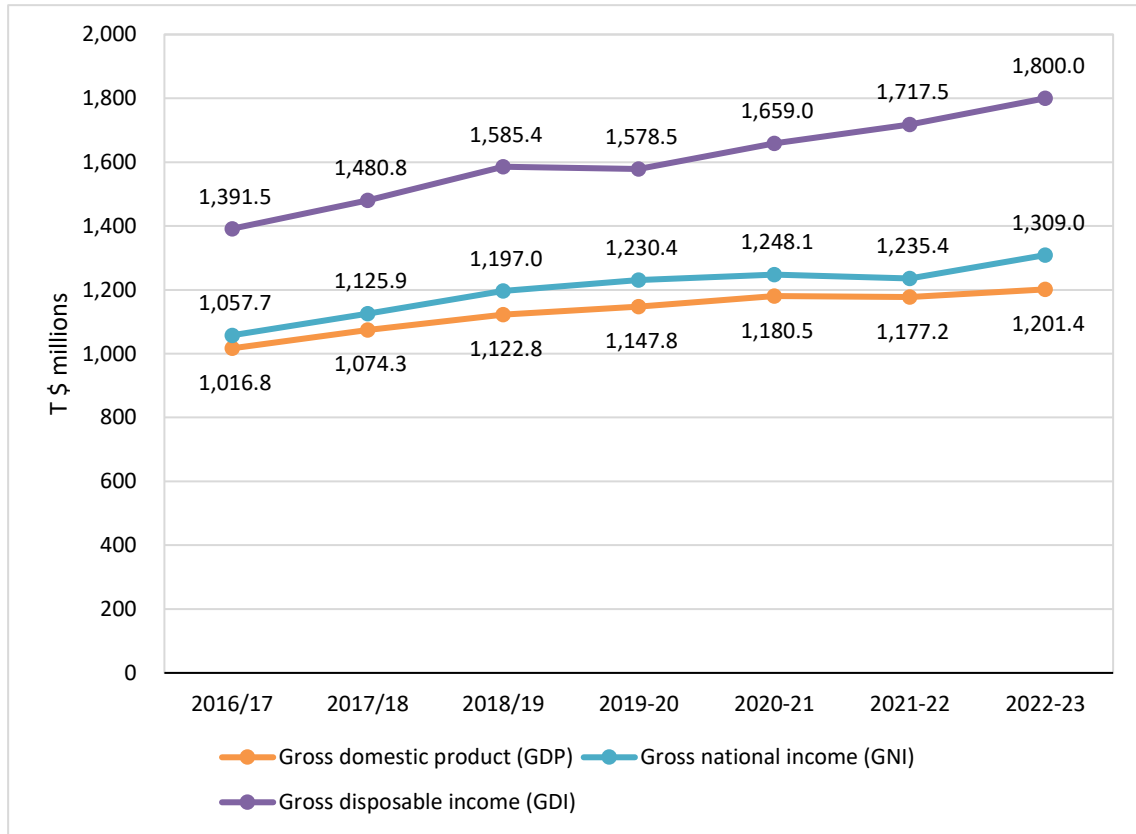


2.4 Key National Accounts Aggregates

When considering the welfare of Tongan residents and their income available for consumption, that is when we look at other measures such as the Gross National Income (GNI), Gross Disposable Income (GDI) and Gross National Disposable Income (GNDI). GNI, which was previously known as gross national product (GNP) measures the total income of residents (excluding capital gains and losses); and GNDI also includes current transfers which include remittances sent to Tonga.

Nominal GDP rose by T\$24.2 million (or 2 percent) to an estimated T\$1,201.4 million in 2022-23. (Figure 4) There was a significant rise of 84.7 percent in net primary income from abroad primarily due to a substantial increase in compensation of employees from rest of the world. Moreover, Gross National Income (GNI) also recorded an increase by 5.9 percent in 2022-23. Gross Disposal Income (GDI) continued to increase by 4.8 percent in 2022-23.

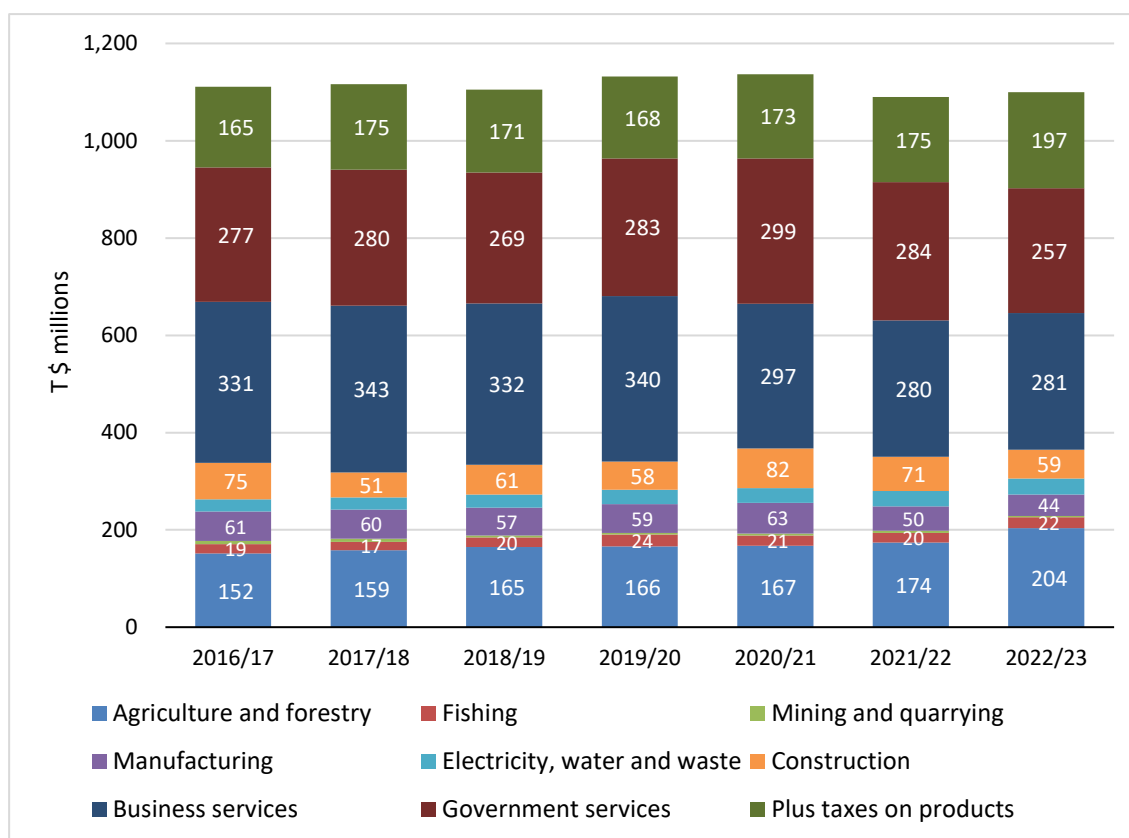
Figure 4: Key aggregates of GDP in nominal prices



3. Analysis of Main Aggregates

3.1 Gross Domestic Product by Industry

Figure 5 GDP by production components in real prices²



Gross Domestic Product is estimated by the sum of industries value-added, in nominal (current) and real (constant) 2016-17 prices. The industries are classified using Tonga Standard of International Classification (TSIC 2016) which is based on PACSIC and was derived from the United Nations International Standard Industrial Classification (UN-ISIC Revision 4) of economic activities.

In real prices, **the primary sector's** gross value added (GVA) grew by 16.4 percent in 2022-23. Figure 5 shows how the primary sector is one of the major driving force for growth in this year. Both the *Agriculture, Forestry and Fishing* sub-sectors showed an increase during 2022-23. The primary sector remains the second largest share of GDP as it contributed 22 percent of total GDP in real prices. (Figure 6)

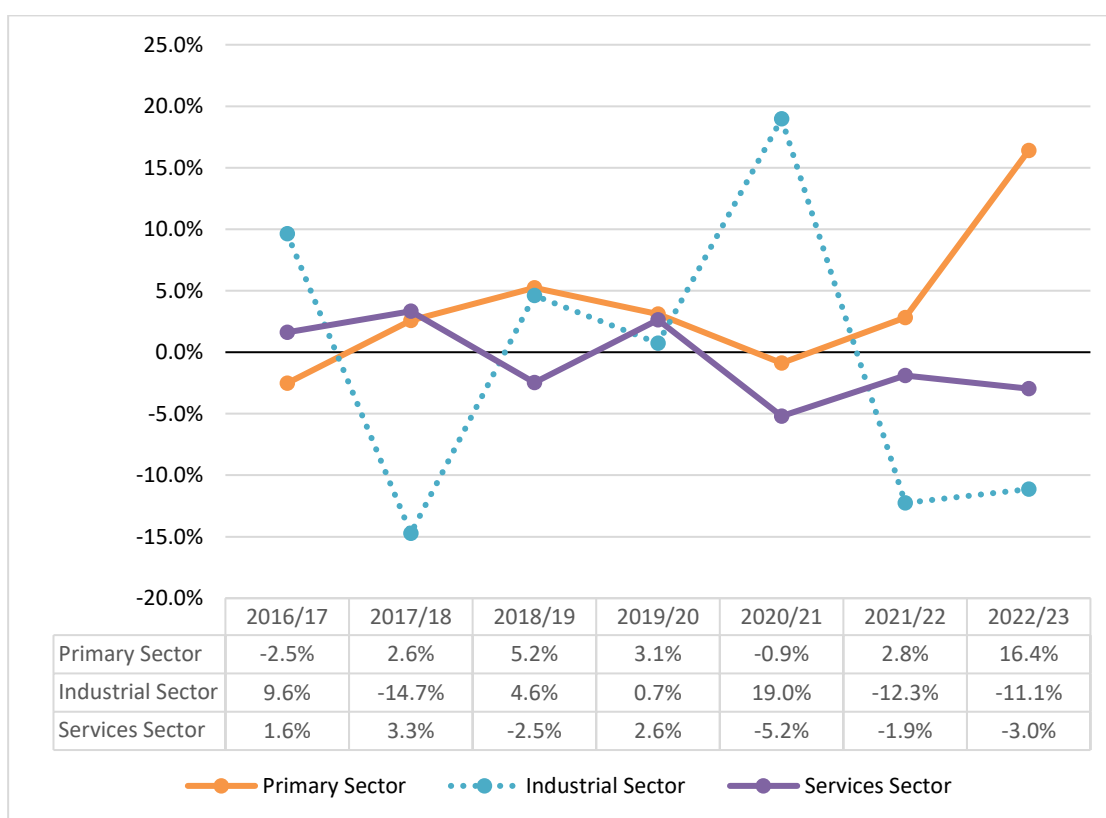
The **industrial sector decreased** by -11.1 percent in real prices for the year 2022-23. This contraction has continued from 2021-22 which saw a similar fall in growth by -12.3 percent Year-on-year (Figure 6). The fall in this sector was due to a decrease in value added by the *Manufacturing, Mining and*

² Business services include wholesale and retail trade; transport and storage; accommodation and food services; information and communication; real estate activities; and financial and insurance activities. Government services include professional, scientific, and technical activities; administrative and support services; arts, entertainment and recreation; public administration and defense; education; human health and social work activities; other services services.

Quarrying, and Construction industries. The industrial sector share of GDP decreased from 15.4 percent in 2021-22 to 13.4 percent in 2022-23.

The **services sector** makes up 46 percent of GDP, which continues to be the major contributing sector to the GDP. However, the rate of growth continued to stay negative in 2022-23 and went from -1.9 percent in 2021-22 to -3.0 percent in 2022-23. This implies that the contraction of the sector is more compared to the previous year. Health industries from Public Administration are continually incorporated in this report and are included in their respective industries mainly due to implementation of SNA 2008 and classification by ISIC Rev 4.4.

Figure 6: Growth rates of the three sectors of the economy in real prices



3.1.1 Primary Sector

This sector is one of the main driving force for growth in the economy in 2022-23. The estimates of nominal values for **agriculture and forestry** for 2022-23 increased by 14.6 percent. This was also seen in the **fishery industries** which saw a 15.3 percent increase. Looking at the sub - sectors in real prices, there is a smaller increase in fisheries, and but a bigger increase in agriculture and forestry. **Agriculture and forestry** increased by 17.2 percent whereas the **fishing industry** increased by 9.6 percent in real prices. (Figure 5)

Primary sector GVA in 2022-23 slightly increased by 16.4 percent in real prices, after a slow rise of 2.8 percent in 2021-22. In real prices, activities under Agriculture and Forestry remain the largest share (19.6 percent) of GDP. Locally market produce showed an increase while non-market produce decreased slightly in 2022-23. The exports of agriculture and forestry also showed a rebound and

increased at a fast rate in real prices.

The increase in the fisheries industry is driven by the rise in marketed domestic consumption and exports this year. The fish industry together saw a rise of 9.6 percent from 2021-22 in real prices.

However, the relatively small size of the fishing industry within the Primary sector leads to a smaller impact on the movement of the whole industry. The fishing industry has a share of 2.1 percent of total GDP in real 2016-17 prices.

3.1.2 Secondary Sector

In real prices, the secondary sector experienced a contraction of 11.1 percent in 2022-23 which was a slightly smaller rate from the previous year's 12.3 percent. In nominal prices, the secondary sector saw a contraction of 11.2 percent in 2022-23 which is less than it was in 2021-22.

In real prices, gross value added by **manufacturing activities** decreased by a rate of 13.1 percent in 2022-23 continuing from a decrease of 20.2 percent in 2021-22. The sub-sector saw a fall in the value-added from the manufacturing of soft drinks, bottled water, malt liquor, and furniture while bakery products showed a rise. Manufacturing contributed 4.2 percent of total GDP in 2022-23.

Electricity, water supply and waste activities showed an estimated growth of 5.5 percent in 2022-23, compared to a growth of 4.5 percent in 2021-22 in real prices. This sub-sector contributed a share of 3 percent to the GDP in 2022-23.

Construction GVA contracted by a rate of 16.3 percent in 2022-23 compared to a slower contraction of 13.1 percent in 2021-22 in real prices. This industry saw a decline by a rate of 16.2 percent in nominal prices. These numbers have been revised from the previous bulletin due to the revision of data used in estimating the GDP. (More details in Appendix I) The construction share of GDP in real prices was 5.7 percent compared to 7 percent in 2021-22.

Mining and quarrying GVA saw a decline by a rate of 24.7 percent in 2022-23 compared to a rise of 6.9 percent in 2021-22 in real prices. This was mainly due to decrease in quarrying activities compared to previous year. Mining and quarrying share of GDP in real prices is 0.3 percent.

3.1.3 Tertiary Sector

The service or the tertiary sector recorded a fall in growth of 3 percent in real prices in 2022-23 following a decline of 1.9 percent in the previous year 2021-22. Tertiary sector has the largest share of GDP, about 46.1 percent even with a fall from its share of 48.3 percent in 2021-22. In real prices, more than half of the industries under business services saw a positive growth from the previous year of 2021-22. Wholesale and retail trade recorded a rise of 3.8 percent and accommodation and food services rebounded with the influx of tourists and showed a growth of 147.6 percent in 2022-23. The rise in accommodation and food services could be attributed to its regaining the pre-COVID-19 pandemic and pre-lockdown levels in 2019 – 20. Conversely, industries in information and communication saw a contraction of 27.7 percent in real prices.

Wholesale and retail trade increased by 3.8 percent in 2022-23. The small but positive growth rate

for this industry in 2022-23 is a contrast to the slower contraction of 0.9 percent in 2021-22. The COVID-19 pandemic and border restrictions had an adverse impact on trade seen in the reduced value added in 2021-22. But trade regained its level when restrictions were removed as seen in the positive growth. Trade share of GDP is 9.4 percent in real prices for 2022-23. Trade has the largest share in the services sector.

The **accommodation and food services** industry saw a growth spike of 147.6 percent in 2022-23 in real prices. The share in GDP from this industry rose from 0.9 percent to 2.2 percent. Tax returns reported from activities in this industry rose with the influx of tourists after the reopening of borders in globally and in Tonga which saw a rise in resorts, hotel and restaurant activities.

The **information and communication services** industry saw a fall of 27.7 percent in 2022-23 from a positive growth of 18.1 percent in 2021-22 in real prices. The fall was primarily seen in the telecommunication industry which saw a negative 15 percent growth in 2022-23. The COVID-19 pandemic and border restrictions resulted in an uptake of technologies and ICT services during 2021 – 22, this subsequently reduced when restrictions were removed and things went back to normal. The industry's contribution in GDP is 2.3 percent which is a fall from 3.3 percent in 2021-22 in real prices. A similar trend was seen in its contribution to the services sector.

Financial and insurance services saw a rise in activities in the year 2022-23. The negative growth of 11.3 percent in 2021-22 was counterbalanced by the positive 13.3 percent growth in activities in 2022-23 in real prices. The increase in activities in this industry can be linked to the rise in the business activities of financial institutions and the rise in demand for household and business loans. The share of the industry in GDP also saw a small rise from 4.4 percent to 4.9 percent year-on-year.

The **transport and storage services** industry saw a contraction of 4 percent year-on-year. The industry fell from a positive growth in 2021-22 of 34.9 percent. The air transport and land transport services saw a positive growth while water transport services and other miscellaneous services to all transport showed a decline. The rise in air and land transport correlates with the opening of borders put in place during the period of COVID-19 and the resulting influx of tourists. The industry's share in GDP fell from 2.7 percent in 2021-22 to 2.6 percent in 2022-23.

Gross Value Added for **public administration and defence services** increased by a rate of 2.2 percent in real prices while the growth rate of **Education services** remained stable at 3.6 percent in 2022-23 similar to the previous year.

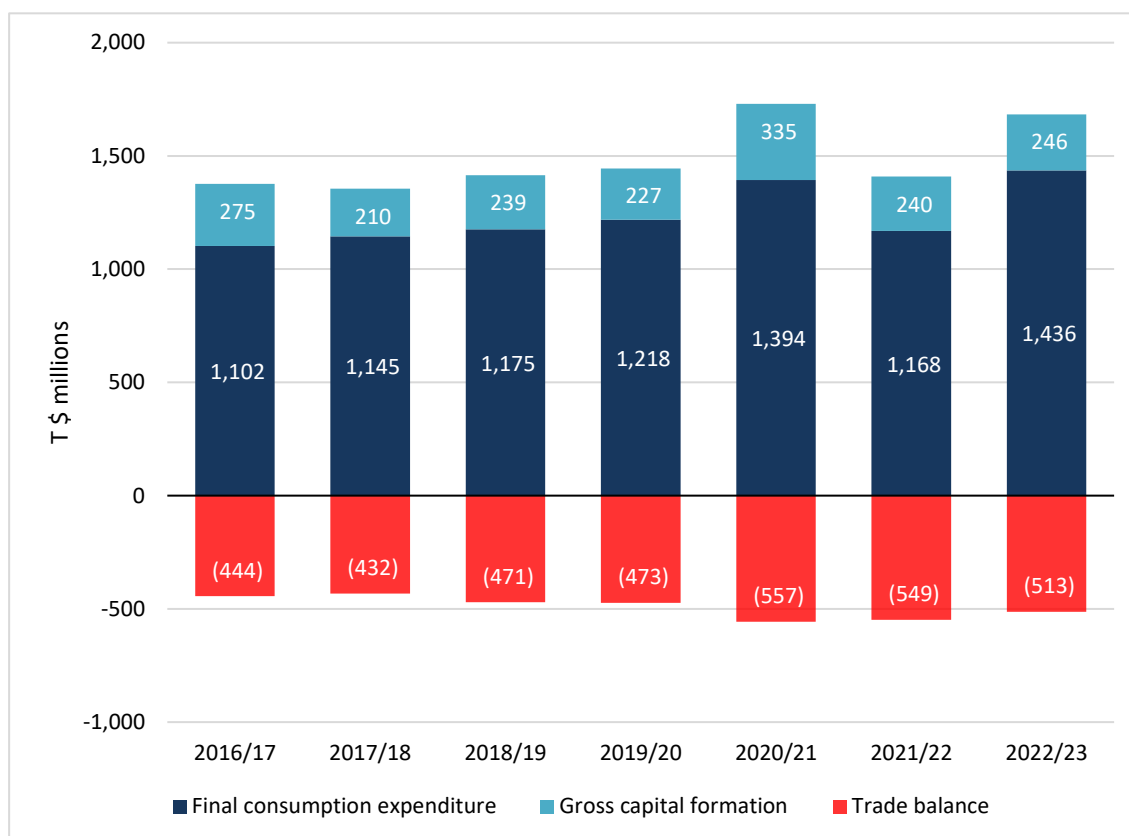
Human health and social work activities saw a sharp fall from 16.1 percent in 2021-22 to negative 30.8 percent in 2022-23. The GDP contribution of this industry decreased from 4.8 percent in 2021-22 to 3.2 percent in 2022-23.

Real estate activities which include the ownership of dwellings and other real estate activities contracted by 17.2 percent in real prices in 2022-23.

3.2 Gross Domestic Product by Expenditure (GDP(E))

Annual growth in the Tongan economy is measured using the production approach that is, GDP by industry, as it is generally considered a more reliable measure than the expenditure approach that is, GDP by expenditure. Nevertheless, GDP(E) estimates are a useful cross-check to ensure consistency of the GDP(P) estimates. The difference is considered to be the Statistical Discrepancy (SD).

Figure 7: GDP by Expenditure components in real prices



In real prices (2016-17), GDP(E) estimates for 2022-23 was T\$ 1.2 million as compared to GDP(P) estimates. The components of gross domestic product by expenditure method showed mostly positive growth figures. The final consumption expenditure and exports of goods and services showed an increase in activities, but a slower though positive growth was seen in the activities under the gross capital formation and import of goods and services. (Figure 7)

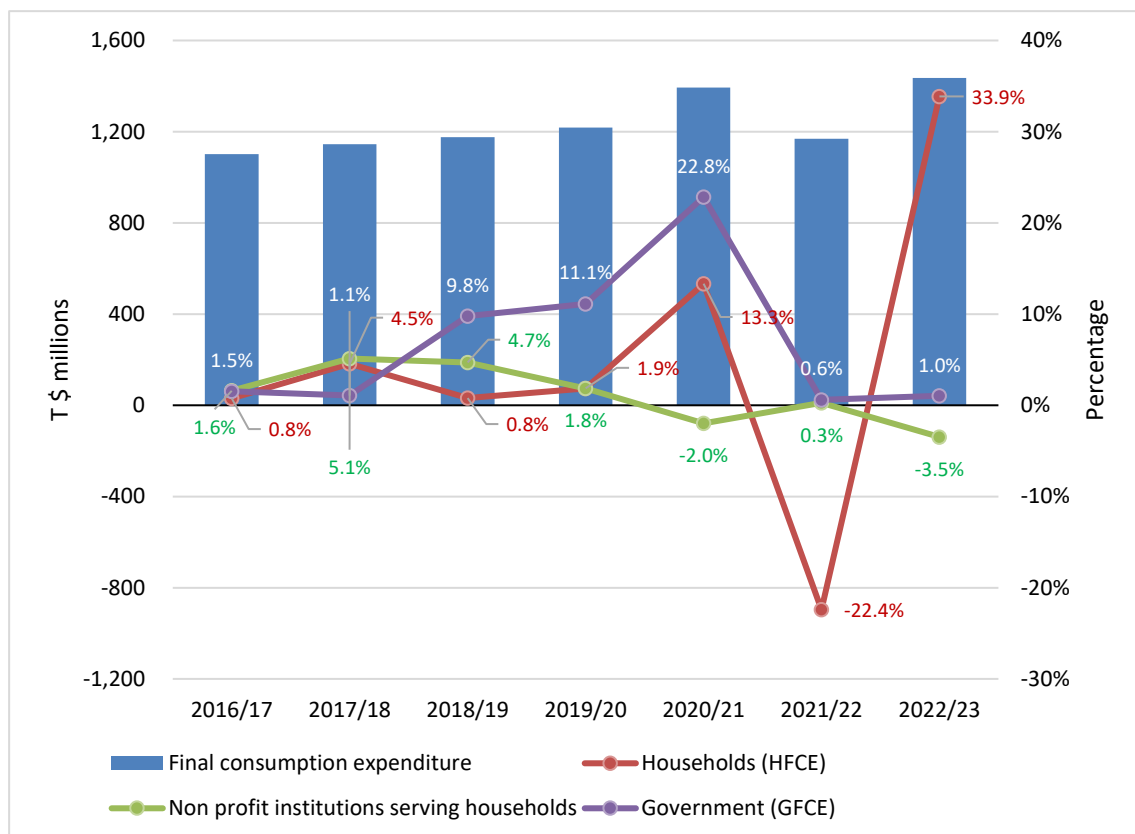
Final consumption expenditure (FCE) increased by 22.9 percent in 2022-23 in real prices. *Gross capital formation (GCF)* which is the sum of gross fixed capital formation (GFCF) and inventories rose by 2.0 percent compared to a decline of 23 percent in 2021-22 year-on-year. *Exports of goods and services* recovered and saw a high growth of 101.2 percent in 2022-23 in contrast to the fall in the previous year by 3 percent in real prices. *Imports of goods and services* increased by 11.5 percent in 2022-23 following a decline of 1.7 percent in the previous year in real prices.

3.2.1 Final Consumption Expenditure (FCE)

Household final consumption expenditure (HFCE) has significantly increased by 33.9 percent in 2022-23, after a fall of 22.4 percent in 2021-22 in real prices. (Figure 8) The estimates consist of the expenditure incurred by resident households on individual consumption of goods and services, including those sold at prices that are not economically significant and consumption goods and services acquired abroad (*as per SNA 2008 paragraph 9.113*). Final consumption Expenditure by **non-profit institutions serving households (NPISHs)** decreased by 3.5 percent, mainly due to a decline in the education component in NPISHs. **Government final consumption expenditure (GFCE)** showed a slow growth of 1.0 percent in 2022-23 due to slow growth of wages and salaries and FISIM and a small rise in revenue from other goods and services.

GFCE includes the expenditure incurred by general government on both individual consumption goods and services and collective consumption services (*2008 SNA 9.114*). GFCE also represents the value of goods and services provided by the producers of government services for current consumption by the community. This is estimated including the output of the Retirement Fund Board.

Figure 8: Final consumption expenditure and the growth rates of its components in real prices



3.2.2 Gross Fixed Capital Formation (GFCF)

Gross Fixed Capital Formation (GFCF) is measured by the total value of a producer’s acquisitions less disposals of fixed assets during the accounting period (2008 SNA 10.32). Capital formation must be durable, that is, have a usable lifetime of one year or more.

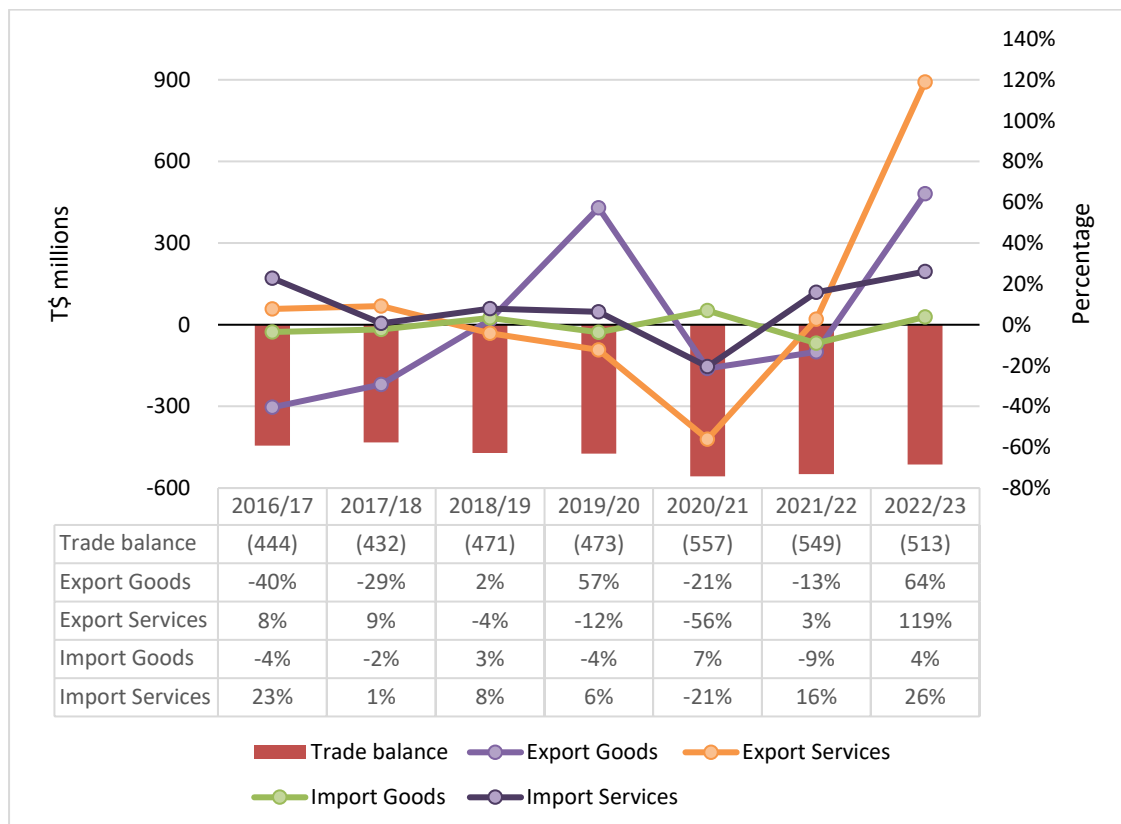
GFCF went up by 2 percent in 2022-23, after a fall of 23 percent in the previous financial year. **Construction GFCF** decreased by 13.5 percent in 2022-23 continuing from the year before with a decline of 16.1 percent. Its trend identifies the delay in construction activities due to the prolonged COVID-19 pandemic and the HTHH volcano eruption.

Investment in durable equipment for 2022-23 rose by 62.2 percent compared to a substantial decrease of 41.8 percent in 2021-22. **Change in inventories** showed a negative value for the second time in the past six years which could be an indicator of higher demand in the economy.

3.2.3 External Trade

Exports are goods and services produced by Tongan residents and purchased by non- residents. Likewise, imports cover all goods and services produced by the rest of the world and purchased by Tongan residents. Data is sourced from the Balance of Payments (BOP) statistics. Merchandise trade data is used in BOP and national accounts, and some adjustments are made for under-coverage where alternative credible data is available.

Figure 9: External trade and growth rate of its components in real prices



The estimates for **exports** in Tonga have grown significantly by a rate of 101.2 percent in 2022-23 year-on-year due to a rise in growth of both exports in goods and services. (Figure 9) **Export of goods**

increased by 64.2 percent in 2022-23, this is mainly due to a higher export value³ of agriculture products such as taro. **Export of services** for 2022-23 have increased by a large scale of 119 percent due to favourable growth in international tourism seen in both air and sea (cruise ships and yachts) passenger arrivals. With international tourism rising following COVID-19, and the resumption of events such as the yacht rally here in Tonga, tourism-related activities are expected to further increase.

Imports in Tonga for 2022-23 increased by 11.5 percent compared to a small fall of 1.7 percent in the previous year due to a fall in imports of goods. **Imported goods** rose by 3.8 percent in 2022-23 mainly due to increase in imports of industrial supplies, and consumer and other goods. **Import of services** increased by 26.1 percent in 2022-23 mainly due to a rise in transportation and other miscellaneous services.

³ Export value is the exported volume multiplied by price.

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