



# Samoa Bureau of Statistics

## Gross Domestic Product

September 2021 Quarter

### Overview

24<sup>th</sup> Dec 2021

**NEW!**

New base year for computing GDP at constant prices is now 2013 replacing the old base year of 2009.

2013 = 100

#### Special points of interest:

- GDP Growth - -0.4%
- GDP at Constant 2013 Prices (real) - WST \$459.1 million
- GDP at Current Prices (nominal) - WST \$497.9 million

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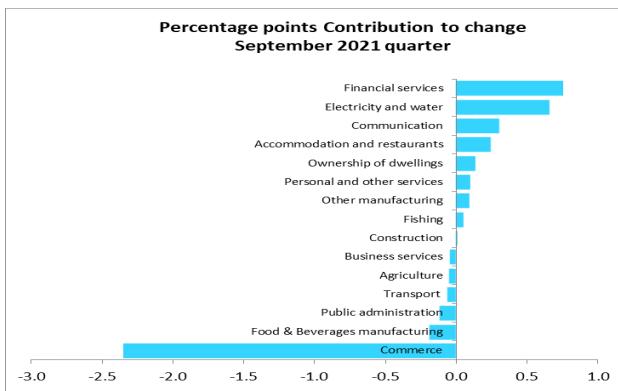
Economic activity, as measured by Gross Domestic Product (GDP) fell 0.4% in the September 2021 quarter. GDP continues to plummet making this reviewed quarter the eighth consecutive quarterly decline starting from the December 2019 quarter. The decline this quarter follows growth rates of -1.8% and -6.8% in the June and March 2021 quarters respectively. Total GDP at constant prices stood at \$459.1 million, making it the lowest quarterly outturn since the March 2015 quarter. The unprecedented nature of this economic deterioration caused by the Covid-19 pandemic significantly affected economic activity in the September 2021 quarter through travel restrictions, reduced trade, global control measures and national lockdown. This has directly affected many sectors of the economy with retailing and wholesaling activities, food and beverage manufacturing, air and land transport and business services being the hardest hit this quarter.

#### GDP Growth:

Gross Domestic Product for the **September 2021 Quarter** at constant 2013 prices amounted to \$459.1 million, decreasing by 0.4% compared to the September 2020 quarter. This follows negative growths of 1.8% and 6.8% in the June and March 2021 quarters respectively.

Chart 1 shows GDP at constant prices from September 2017 to September 2021 and the year-on-year (y-o-y) growth rates as measured by the percentage change on the same quarter of the previous year. The economy continues to decline since December 2019 as a result of the measles epidemic and the onset of Covid-19 pandemic. As a result, services industries which make up three quarters of the economy fell by 0.7 percentage points. On the other hand, Goods-producing industries increased by 0.6 percentage points while primary industries remained the same in September 2021 quarter compared to the same quarter of 2020.

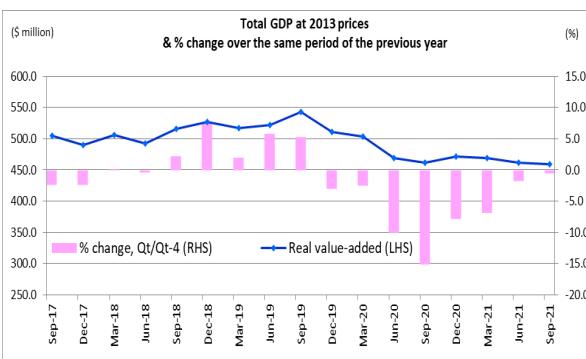
#### Chart 2: Percentage-point contributions to GDP growth by industry; September 2021 Quarter



As depicted by Chart 2 above, few of the industries recorded negative growth in the period. The major contributors to the downturn in September 2021 were Commerce, Food & Beverage manufacturing, Public Administration, Transport, Agriculture and Business Services with contributions of -0.2 pp, -0.1 pp, -0.1 pp, -0.05 pp and -0.04 pp respectively to overall growth of -0.4%.

Commerce, the biggest industry in the economy has yet again recorded another decline trending three consecutive quarters of negative growth. Wholesaling activities related to food, beverages, construction materials, liquid

**Chart 1: Total GDP at constant prices & growth rates, September 2017 - September 2021**



# Overview cont'd

and gaseous products decreased in September 2021. Food and Beverage manufacturing was the second biggest contributor to the overall decline this quarter, it went down by 4.5% compared to September 2020 due to the decline in beverage production throughout the reviewed quarter. Relaxed conditions on national lockdown was not enough to counter the negative effect on Business services which include tour operators and travel oriented businesses; demand on real estate services also declined during this period. Although legal and consultancy services increased during the quarter, it was not high enough to offset the negative effect its other services have experienced.

Conversely, some of the industries that increased in September 2021 were Financial services, Electricity and Water, Communication and Accommodation & Restaurants with respective contributions of 0.8 pp, 0.7 pp, 0.3 pp and 0.2 pp respectively to overall growth.

## GDP Levels (Nominal):

Gross Domestic Product at current prices or nominal GDP for the **September 2021 quarter** amounted to \$497.9 million. It increased by 0.2% compared to the corresponding quarter of 2020. GDP per capita fell 0.6% compared to September 2020.

## Chart 3: Composition of Nominal GDP, Sept 2021 Quarter

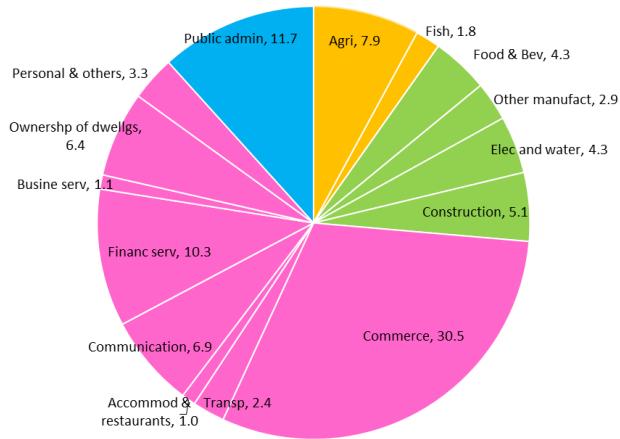


Chart 3 shows the industry composition of GDP at current market prices in the September 2021 quarter. Tertiary sector (services industries) comprising 73.6% of total nominal GDP, went down by 0.4 pp compared to September 2020. On the other hand, the Secondary sector (good-producing industries) which is the second largest sector went up by 1.4 pp on a y-o-y basis due to the positive growth in all four of its industries.

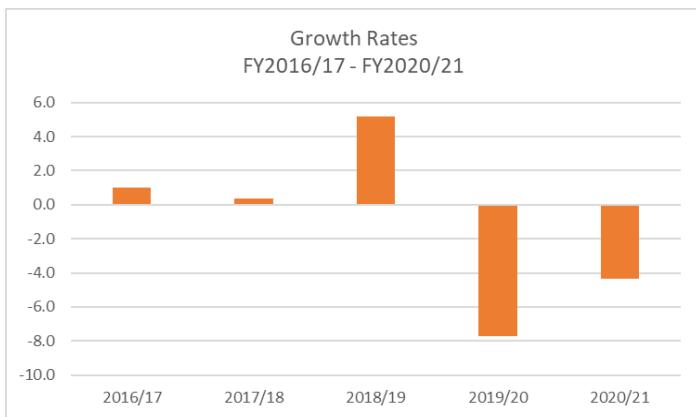
The Primary sector which accounts for 9.8% of GDP decreased its shares by 1.0 pp as a result of the decline in Agriculture industry's share compared to the same quarter of 2020. Public Administrations' share which accounts for 11.7% of GDP increased by 3.9 pp compared to September 2020.

## Twelve Months Review for the year ended Sep 2021:

GDP for the **year ended September 2021** (October 2020 - September 2021) at current market prices was \$2,027.5 million, decreasing by 3.1% compared to the \$2,092.8 million recorded in the year ended September 2020. At this level, GDP per capita was \$9,926 decreasing by 4.1% over the Financial Year 2019/20.

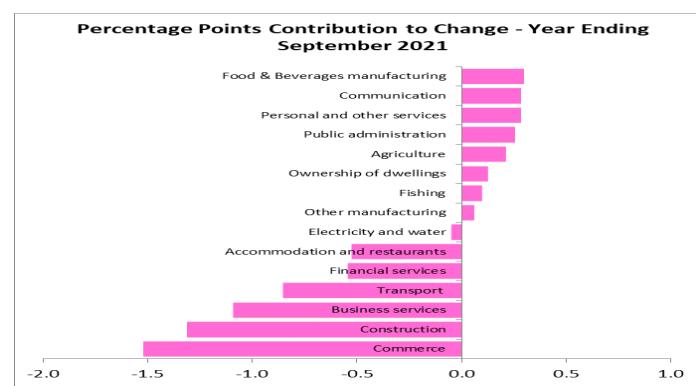
In constant 2013 prices, GDP stood at \$1,861.8 million in the year ended September 2021, decreasing by 4.3% over the \$1,945.8 million recorded in the year ended September 2020. This makes it the lowest GDP recorded for the year ended September since FY2014/15.

## Chart 4: Percentage change in Constant Prices for the FYs ending September (2016/17 - 2020/21)



Depicted in Chart 4 are the real growth rates in the last five years ending September. The economy reversed its growth to record a decrease for two fiscal years ending September with the current FY2020/21 at a recorded decline of 4.3%. This was mainly driven by the downturn in economic activity in Commerce, Construction, Business services, Transport, Financial services, Accommodation & Restaurants and Electricity & Water with respective contributions of -1.5 pp, -1.3 pp, -1.1 pp, -0.9 pp, -0.5 pp, -0.5 pp and -0.1 pp each to overall growth of -4.3% as shown in Chart 5 below.

## Chart 5: Percentage-point contributions to GDP growth for FY20/21

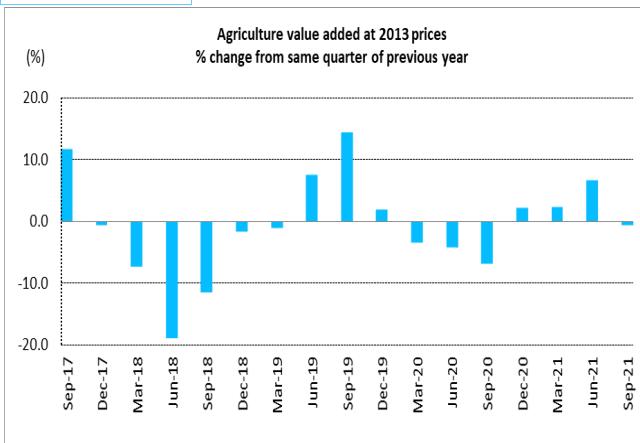


# Individual Industry Quarterly Performance

AGRICULTURE	GDP Sep 2020 Quarter	GDP Jun 2021 Quarter	GDP Sep 2021 Quarter	% change from Jun 2021 quarter (q-o-q)	% change from Sep 2020 quarter (y-o-y)
Value Added (current prices)	43.9	40.5	39.5	-2.3	-9.9
WST (millions)					
Value added (constant 2013 prices)	37.9	39.4	37.6	-4.5	-0.6
WST (millions)					
Contribution to aggregate (y-o-y) real growth rate: <i>percentage points</i>	-0.5	0.5	0.0		
Contribution to aggregate nominal GDP: <i>percent</i>	8.8	8.1	7.9		

**Chart 6: Percentage change in Agriculture real value added; Sep 2017 - Sep 2021**

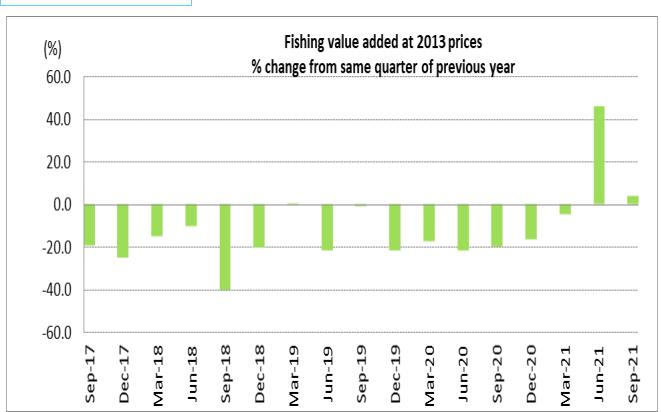
Agriculture recorded a total value added of \$37.6 million at constant 2013 prices for September 2021, down by 0.6% compared to the September 2020 quarter. This outcome reflects the decline in domestic consumption of crops by 6.9%; livestock, exported produce and horticulture on the other hand increased by 4.6%, 14.8% and 0.2% respectively. Major crops supplied to the markets such as yam, cucumber, pumpkin, taro, breadfruit and Chinese cabbages recorded respective declines of 37.3%, 16.7%, 15.9%, 13.8%, 3.1% and 2.4% compared to September 2020 quarter. The industry's share to total Nominal GDP decreased by 0.9 percentage-points to 7.9% in September 2021. The industry also recorded a decline of 0.6% in constant 2013 price of \$37.6 mil.



FISHING	GDP Sep 2020 Quarter	GDP Jun 2021 Quarter	GDP Sep 2021 Quarter	% change from Jun 2021 quarter (q-o-q)	% change from Sep 2020 quarter (y-o-y)
Value Added (current prices)	9.7	11.3	9.2	-18.3	-5.1
WST (millions)					
Value added (constant 2013 prices)	6.7	9.5	6.9	-27.0	3.7
WST (millions)					
Contribution to aggregate (y-o-y) real growth rate: <i>percentage points</i>	-0.3	0.6	0.1		
Contribution to aggregate nominal GDP: <i>percent</i>	2.0	2.3	1.8		

**Chart 7: Percentage change in Fishing real value added; Sep 2017 - Sep 2021**

Fishing value added in real terms increased by 3.7% compared to the September 2020 quarter. Conversely, it declined by 27.0% compared to the previous quarter. The industry has now recorded two consecutive quarters of positive growth following eight consecutive quarters of negative growth as indicated in Chart 7. This reflects the increase in domestic monetary fishing by 24.6%. Subsistence fishing also went up by 26.5% in the period under review. The industry contributed 0.1 percentage-point to GDP growth in the September 2021 quarter. The Fishing industry recorded value added in nominal terms of \$9.2 million; a -5.1% decrease compared to the corresponding quarter of the previous year.



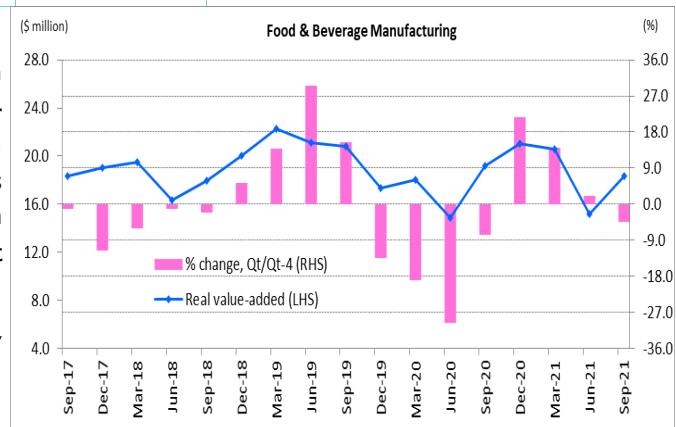
# Individual Industry Quarterly Performance

FOOD & BEVERAGE MANUFACTURING	GDP Sep 2020 Quarter	GDP Jun 2021 Quarter	GDP Sep 2021 Quarter	% change from Jun 2021 quarter (q-o-q)	% change from Sep 2020 quarter (y-o-y)
Value Added (current prices)	20.7	18.2	21.2	16.3	2.5
WST (millions)					
Value added (constant 2013 prices)	19.2	15.2	18.3	20.6	-4.5
WST (millions)					
Contribution to aggregate (y-o-y) real growth rate: <i>percentage points</i>	-0.3	0.1	-0.2		
Contribution to aggregate nominal GDP: <i>percent</i>	4.2	3.6	4.3		

**Chart 8: Food & Beverage Manufacturing quarterly value added at constant prices & % change over the same period of the previous year; Sep 2017 - Sep 2021**

Food and Beverage industry produced a total value added in real terms of \$18.3 million in September 2021, decreasing by 4.5% on a year-on-year basis. The industry contributed -0.2 percentage-points to the overall real growth in the period. The decline in the local production of beverages by 19.1% contributed to this negative outcome for the period under review. Value added in constant prices compared to June 2021 quarter however went up by 20.6%.

The industries' contribution to total nominal GDP went up by 0.1 percentage point from 4.2 percent in September 2020 to 4.3 percent in September 2021.

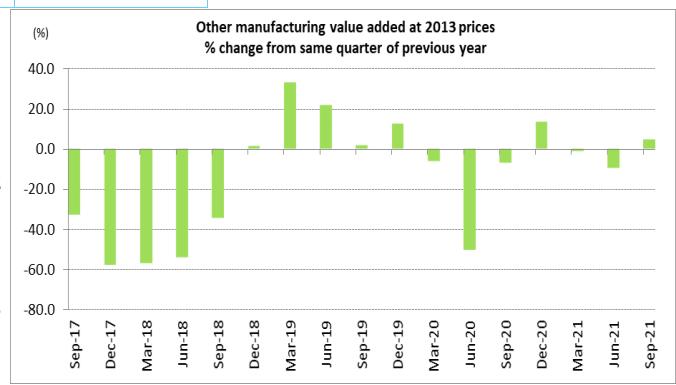


OTHER MANUFACTURING	GDP Sep 2020 Quarter	GDP Jun 2021 Quarter	GDP Sep 2021 Quarter	% change from Jun 2021 quarter (q-o-q)	% change from Sep 2020 quarter (y-o-y)
Value Added (current prices)	12.0	6.8	14.5	112.8	20.5
WST (millions)					
Value added (constant 2013 prices)	9.5	5.2	9.9	89.3	4.6
WST (millions)					
Contribution to aggregate (y-o-y) real growth rate: <i>percentage points</i>	-0.1	-0.1	0.1		
Contribution to aggregate nominal GDP: <i>percent</i>	2.4	1.4	2.9		

**Chart 9: Percentage change in Other Manufacturing real value added; Sep 2017 - Sep 2021**

In real terms, the industry recorded a total value added of \$9.9 million in the period under review increasing by 4.6% in comparison to the September 2020 quarter. It contributed 0.1 percentage-points to GDP growth in the period under review. However, when compared to the previous quarter, the industry went up by 89.3%.

In nominal terms, Other Manufacturing industry recorded a total value added of \$14.5 million in the September 2021 quarter. It also increased by 20.5% compared to the corresponding quarter of the previous year.

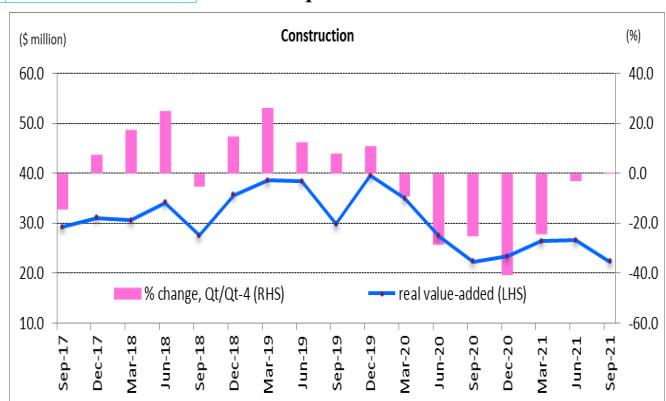


# Individual Industry Quarterly Performance

CONSTRUCTION	GDP Sep 2020 Quarter	GDP Jun 2021 Quarter	GDP Sep 2021 Quarter	% change from Jun 2021 quarter (q-o-q)	% change from Sep 2020 quarter (y-o-y)
Value Added (current prices)	24.4	28.6	25.5	-10.9	4.2
WST (millions)					
Value added (constant 2013 prices)	22.3	26.5	22.3	-15.9	0.2
WST (millions)					
Contribution to aggregate (y-o-y) real growth rate: <i>percentage points</i>	-1.4	-0.2	0.0		
Contribution to aggregate nominal GDP: <i>percent</i>	4.9	5.7	5.1		

**Chart 10: Construction quarterly value added at constant prices & % change over the same period of the previous year; Sep 2017 - Sep 2021**

Construction produced a total value added of \$22.3 million at constant prices making it the lowest quarterly outturn by the industry since December 2009. It increased by 0.2% when compared to September 2020 quarter. This is consistent with the increase in imported construction materials by 4.0%. Acquisition of fixed assets as reported by the Government Finance Statistics September 2020 report also went up by 28.9%. Heavy civil construction work and major residential building increased in the period under review. The industry has recorded its first quarter of positive growth after six consecutive quarters of negative growth as depicted in Chart 10. On the other hand, value added for Construction industry went down by 15.9% compared to the September 2020 quarter.

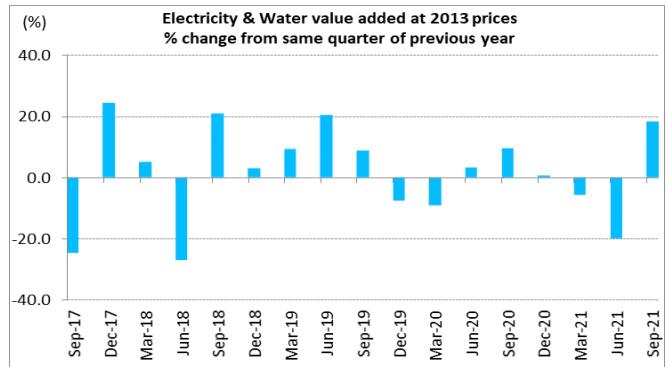


ELECTRICITY AND WATER	GDP Sep 2020 Quarter	GDP Jun 2021 Quarter	GDP Sep 2021 Quarter	% change from Jun 2021 quarter (q-o-q)	% change from Sep 2020 quarter (y-o-y)
Value Added (current prices)	18.5	15.2	21.4	40.9	15.6
WST (millions)					
Value added (constant 2013 prices)	16.7	13.4	19.8	47.5	18.2
WST (millions)					
Contribution to aggregate (y-o-y) real growth rate: <i>percentage points</i>	0.3	-0.7	0.7		
Contribution to aggregate nominal GDP: <i>percent</i>	3.7	3.0	4.3		

**Chart 11: Percentage change in Electricity & Water real value added; September 2017 - September 2021**

Electricity & Water generated a total value added of \$19.8 million at constant prices in the September 2021 quarter, increasing by 18.2% on a year-on-year basis. The favorable performance reflects the increase in electricity production by 6.2%. On the other hand, Water production decreased by 64.2% compared to the September 2020 quarter.

The industry's total nominal value added recorded a 15.6% increase compared to the corresponding quarter of 2020. Its share to total nominal GDP went up by 0.4 percentage-points from 0.3 percent in September 2020 to 0.7 percent in the current period under review.



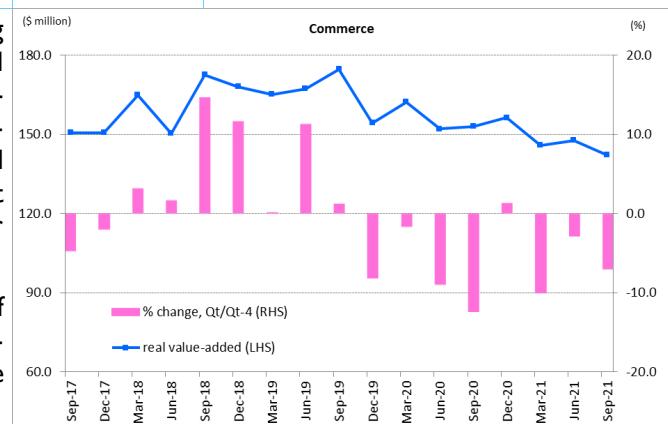
# Individual Industry Quarterly Performance

COMMERCE	GDP Sep 2020 Quarter	GDP Jun 2021 Quarter	GDP Sep 2021 Quarter	% change from Jun 2021 quarter (q-o-q)	% change from Sep 2020 quarter (y-o-y)
Value Added (current prices)	161.0	161.0	151.9	-5.7	-5.6
WST (millions)					
Value added (constant 2013 prices)	153.0	147.8	142.2	-3.8	-7.1
WST (millions)					
Contribution to aggregate (y-o-y) real growth rate: <i>percentage points</i>	-4.0	-0.9	-2.3		
Contribution to aggregate nominal GDP: <i>percent</i>	32.4	32.2	30.5		

**Chart 12: Commerce quarterly real value added & % change over the same period of the previous year; Sep 2017 - Sep 2021**

Commerce remains the largest industry in the economy holding a share of 30.5% of total nominal GDP. Its real value added amounted to \$142.2 million in the period under review registering a decline of 7.1% in comparison to September 2020. The unfavorable result reflects the overall decline in wholesaling and retailing by 1.14% and 13.4% respectively. Tourism earnings went on a standstill as a result of continuous global restrictions for the Covid-19 pandemic.

In nominal terms, the industry recorded a total value added of \$151.9 million decreasing by 5.6% compared to the corresponding quarter of 2020. Commerce contributed -2.3 percentage points to aggregate real growth in the September 2021 quarter.

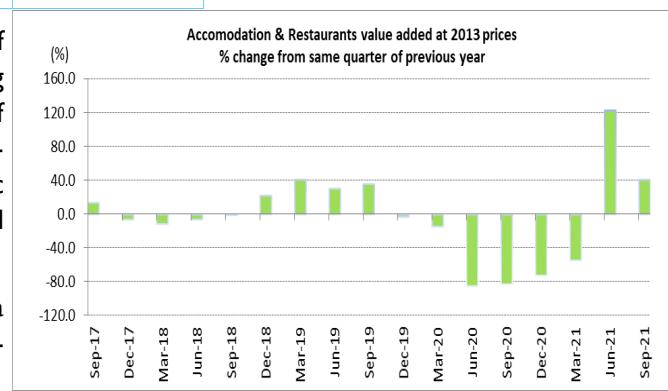


ACCOMMODATION AND RESTAURANTS	GDP Sep 2020 Quarter	GDP Jun 2021 Quarter	GDP Sep 2021 Quarter	% change from Jun 2021 quarter (q-o-q)	% change from Sep 2020 quarter (y-o-y)
Value Added (current prices)	3.3	5.0	5.2	5.2	57.7
WST (millions)					
Value added (constant 2013 prices)	2.7	4.0	3.8	-3.6	40.8
WST (millions)					
Contribution to aggregate (y-o-y) real growth rate: <i>percentage points</i>	-2.6	0.5	0.2		
Contribution to aggregate nominal	0.7	1.0	1.0		

**Chart 13: Accommodation & Restaurants, percentage change in real value added over the same period of the previous year; Sep 2017 - Sep 2021**

Accommodation and Restaurants recorded a real value added of \$3.8 million, increasing by 40.8% compared to the corresponding quarter of the previous year. This makes it the second quarter of positive growth from the industry following six consecutive quarters of negative growth since the onset of the Covid-19 pandemic affecting the economy on a global scale. Restaurants contributed the most with a growth of 29.1%.

In nominal terms, the industry recorded a 57.7% increase on a year-on-year basis, and contributed 1.0 percentage points, increasing by 0.3 percentage points for the period under review.



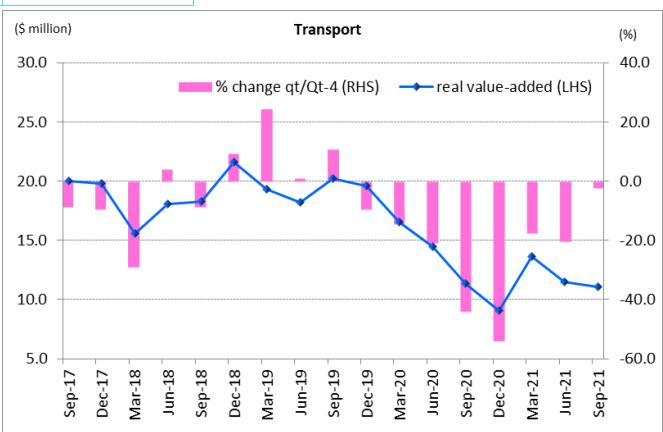
# Individual Industry Quarterly Performance

TRANSPORT	GDP Sep 2020 Quarter	GDP Jun 2021 Quarter	GDP Sep 2021 Quarter	% change from Jun 2021 quarter (q-o-q)	% change from Sep 2020 quarter (y-o-y)
Value Added (current prices)	12.0	12.2	12.0	-1.2	-0.3
WST (millions)					
Value added (constant 2013 prices)	11.3	11.5	11.0	-4.0	-2.4
WST (millions)					
Contribution to aggregate (y-o-y) real growth rate: <i>percentage points</i>	-1.6	-0.6	0.1		
Contribution to aggregate nominal GDP: <i>percent</i>	2.4	2.4	2.4		

**Chart 14: Transport quarterly growth rates with total value added at constant 2013 prices, Sep 2017 - Sep 2021**

Transport value added at constant prices for the Sept 2021 quarter stood at \$11.0 million. It went down by 2.4% when compared to the same quarter of the previous year. Air and Land transport both went down by 20.5% and 9.8% respectively. National lockdown and international border restrictions continue to affect the industry's performance in the period under review.

The industry contributed 0.1 percentage points to overall real growth which is a 1.7 pp increase compared to September 2020 quarter. Transport also went down by 4.0% when compared to June 2021 quarter. Its contribution to total nominal GDP of 2.4 percent is the same compared to the September 2020 quarter.

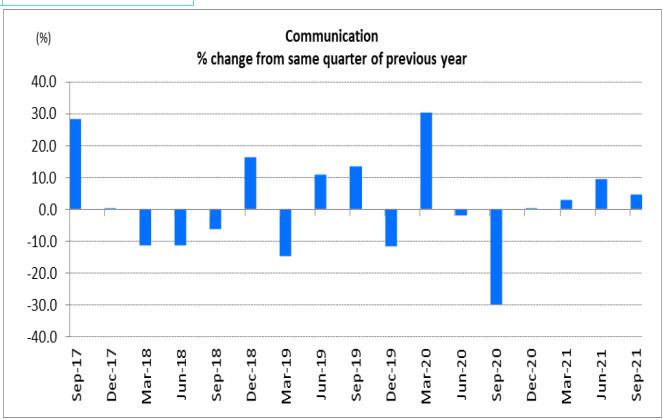


COMMUNICATION	GDP Sep 2020 Quarter	GDP Jun 2021 Quarter	GDP Sep 2021 Quarter	% change from Jun 2021 quarter (q-o-q)	% change from Sep 2020 quarter (y-o-y)
Value Added (current prices)	32.9	37.4	34.5	-7.9	4.6
WST (millions)					
Value added (constant 2013 prices)	30.0	34.8	31.5	-9.6	4.7
WST (millions)					
Contribution to aggregate (y-o-y) real growth rate: <i>percentage points</i>	-2.4	0.7	0.3		
Contribution to aggregate nominal GDP: <i>percent</i>	6.6	7.5	6.9		

**Chart 15: Communication percentage change in real GDP from the same quarter of the previous year, Sep 2017 - Sep 2021**

Communication generated a real value added of \$31.5million in the September 2021 quarter, increasing by 4.7% over the September 2020 quarter. The industry contributed 0.3 percentage points to the overall real growth. Both communication and information increased in the period under review by 4.7% and 4.6% respectively. The industry contributed 0.3 percentage point to overall real growth.

The industry recorded a value added of \$34.5 million in nominal terms increasing by 4.6% on a y-o-y basis. The industry's contribution to total nominal GDP went up by 0.3 percentage points from 6.6 percent in Sept 2020 to 6.9 percent in September 2021.



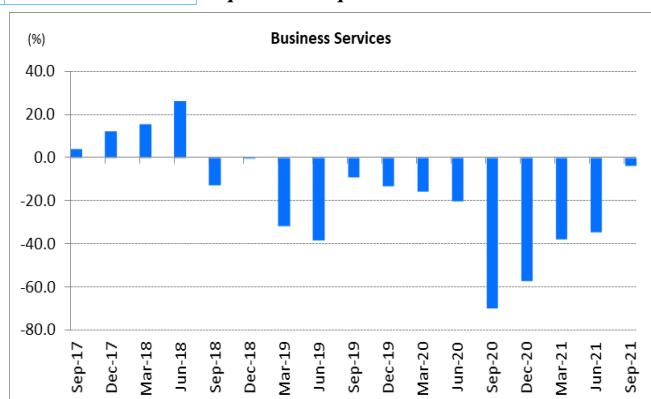
# Individual Industry Quarterly Performance

BUSINESS SERVICES	GDP Sep 2020 Quarter	GDP Jun 2021 Quarter	GDP Sep 2021 Quarter	% change from Jun 2021 quarter (q-o-q)	% change from Sep 2020 quarter (y-o-y)
Value Added (current prices)	5.5	7.6	5.3	-30.1	-4.2
WST (millions)					
Value added (constant 2013 prices)	5.4	7.6	5.2	-30.7	-3.5
WST (millions)					
Contribution to aggregate (y-o-y) real growth rate: <i>percentage points</i>	-2.3	-0.9	0.0		
Contribution to aggregate nominal GDP: <i>percent</i>	1.1	1.5	1.1		

Chart 16: Business Services, % change in value-added at constant 2013 prices from Sep 2017 - Sep 2021

Business services produced a total value added of \$5.2 million at constant 2013 prices in September 2021; a decline of 3.5% was experienced by the industry on a year-on-year basis. This makes it the eleventh consecutive quarter of negative growth by the industry which was mainly driven by the decline in value added by travel related businesses such as travel agencies and tour operators. Its value added also went down by 30.7% when compared to June 2021 quarter.

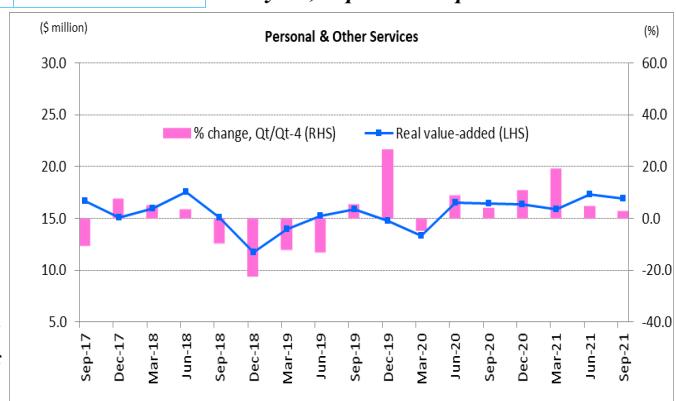
The industry recorded a \$5.3 million value added in nominal terms for this reviewed quarter. Its share to total nominal GDP was 1.1% in the September 2021 quarter.



PERSONAL & OTHER SERVICES	GDP Sep 2020 Quarter	GDP Jun 2021 Quarter	GDP Sep 2021 Quarter	% change from Jun 2021 quarter (q-o-q)	% change from Sep 2020 quarter (y-o-y)
Value Added (current prices)	16.4	17.6	16.6	-5.3	1.1
WST (millions)					
Value added (constant 2013 prices)	16.5	17.4	17.0	-2.4	2.8
WST (millions)					
Contribution to aggregate (y-o-y) real growth rate: <i>percentage points</i>	0.1	0.2	0.1		
Contribution to aggregate nominal GDP: <i>percent</i>	3.3	3.5	3.3		

Chart 17: Personal & Other Services quarterly value added at constant prices & % change over the same period of the previous year; Sep 2017 - Sep 2021

Personal and other services recorded an increase in real terms by 2.8 percent compared to September 2020; this is the sixth quarter of positive growth after a recorded negative performance by the industry in March 2020. It produced a real value added of \$17.0 million, registering a positive contribution of 0.1 percentage-points to overall growth. Activities pertaining to religious organizations, computer maintenance, communication equipment servicing and funeral related activities contributed to the growth experienced by the industry within the period under review. In nominal terms, the industry recorded an increase of 1.1% compared the September 2020 quarter.



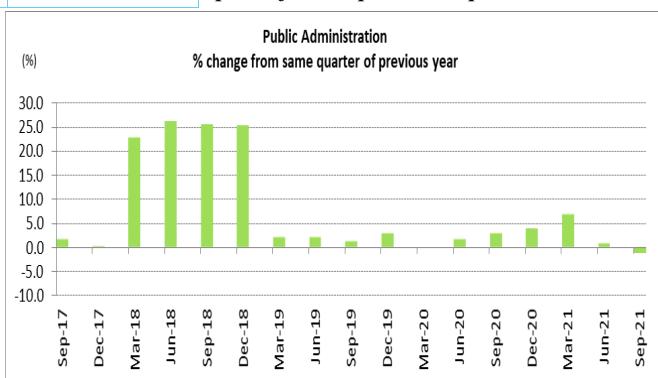
# Individual Industry Quarterly Performance

PUBLIC ADMINISTRATION	GDP Sep 2020 Quarter	GDP Jun 2021 Quarter	GDP Sep 2021 Quarter	% change from Jun 2021 quarter (q-o-q)	% change from Sep 2020 quarter (y-o-y)
Value Added (current prices)	56.0	60.9	58.2	-4.4	3.9
WST (millions)					
Value added (constant 2013 prices)	46.9	46.8	46.4	-0.9	-1.1
WST (millions)					
Contribution to aggregate (y-o-y) real growth rate: <i>percentage points</i>	0.2	0.1	-0.1		
Contribution to aggregate nominal GDP: <i>percent</i>	11.3	12.2	11.7		

**Chart 18: Public Administration, % change in value-added at constant 2013 prices from Sep 2017 - Sep 2021**

Public administration produced a total value added in constant prices of \$46.4 million decreasing by 1.1% on a year-on-year basis. This resulted in a -0.1 percentage point contribution by the industry to the total real growth rate for the period under review; a 0.3 pp decline when compared to the corresponding quarter of the previous year.

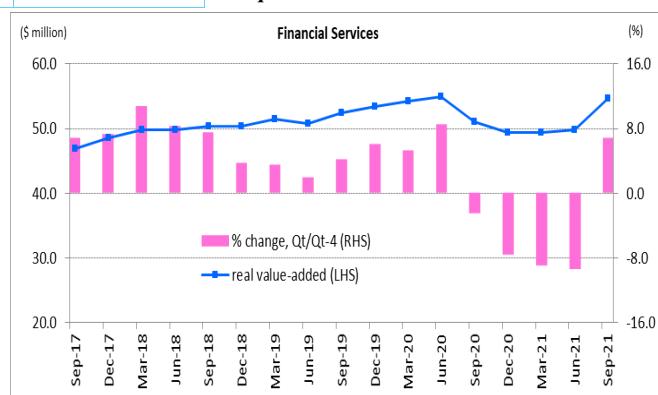
In nominal terms, the industry recorded an increase of 3.9% on a year-on-year basis. Public administration is the second largest industry in the economy with a share of 11.7% in nominal terms, its contribution to total nominal GDP increased by 0.4 percentage-points compared to September 2020 quarter.



FINANCIAL SERVICES	GDP Sep 2020 Quarter	GDP Jun 2021 Quarter	GDP Sep 2021 Quarter	% change from Jun 2021 quarter (q-o-q)	% change from Sep 2020 quarter (y-o-y)
Value Added (current prices)	48.9	45.7	51.1	11.9	4.6
WST (millions)					
Value added (constant 2013 prices)	51.1	49.9	54.6	9.5	6.8
WST (millions)					
Contribution to aggregate (y-o-y) real growth rate: <i>percentage points</i>	-0.2	-1.1	0.8		
Contribution to aggregate nominal GDP: <i>percent</i>	9.8	9.1	10.3		

**Chart 19: Financial Services value added at constant prices & % change over the same period of the previous year; Sep 2017 - Sep 2021**

Financial services real value added increased by 6.8 percent on a year-on-year basis. This makes it the first quarter of positive growth for the industry following four consecutive quarters of negative growth as indicated in Chart 19. Its real value added in September 2021 amounted to \$54.6 million with a 0.8 percentage point contribution to real growth rate. Its performance reflects the increasing demand for financial intermediation such as central banking, insurance and other activities auxiliary to financial intermediation for the period under review. The industry recorded a 4.6% increase in value added in nominal terms of \$51.1 million with a 9.1 percent contribution to total nominal GDP.



## Background Information

### Overview

This publication is the twelfth release for estimates of GDP at constant (2013) prices. In the process of updating the base year from 2009 to 2013 the overall estimation system has been exhaustively reviewed, leading to improved methodologies and the adoption of a range of new data sources and revised benchmarks wherever available. The revised overall estimates have not resulted in significant changes to the picture of the Samoan economy presented by the earlier 2009-based estimates, but it is believed that the revised system is more robust, and will be better able to quickly reflect future disturbances to economic growth. The section below on “General reasons for rebasing estimates at constant prices” sets out the purpose of rebasing estimates, and the nature of the processes involved.

The key features of the overall system review and associated rebase are as follow:

- base year for constant price estimates was updated from 2009 to 2013
- ISIC classification have been upgraded from the ISIC Revision 3.1 to Revision 4 as recommended in the SNA 2008
- an increased reliance on summary data from the VAGST system
- the incorporation of latest benchmarks, including
  - ⇒ Household Income and Expenditure Survey, 2013
  - ⇒ Business Activity Survey, 2013
  - ⇒ Population Census, 2016
  - ⇒ Financial data on the Financial Sector operations
  - ⇒ information from other sources, particularly for Government Finance Statistics, Merchandise trade, Employment and Wage data; SNPF, Commodity prices from CPI, Agriculture volume data, visitor arrivals by purpose, livestock production, and landings of in-shore and off-shore fishing catch.
- more detailed data on industry level have been incorporated hence provide benefits for the detailed analysis, with results only at the aggregated industry level

### General reasons for rebasing estimates

When interpreting movements over time in broadly-based indicators such as GDP, the effects of changing prices make it difficult to see the “real” changes i.e. what would the changes have been if there had been no change in the component prices? If dealing with a single commodity e.g. sales of taro, it is possible to simply look at the quantities sold, and say with some confidence that “real” sales of taro are going up, down, or are flat.

But with an aggregate as complex as GDP, commodities such as taro,

long-line tuna catch, road building, haircuts and financial services are all intermingled, and it is not possible to immediately see the changes in the overall “quantity” of production. In order to aggregate such diverse commodities, it is necessary to express the underlying flows in terms of the prices of a single period (the “base year”). By expressing the detailed flows in monetary terms and at the price of a single period, they can then be aggregated, and the resulting aggregate values of diverse items can then be analysed for the direction and extent of their change “at constant prices”.

This process of valuing the production of detailed commodities at constant prices and then aggregating them is – in principle - directly analogous to the way in which the Consumer Price Index (CPI) is compiled. Whereas the CPI measures **prices** of detailed commodities over time and then weights those prices together by their base-period values to derive an aggregate measure of price, the derivation of constant price estimates measures detailed **quantities** over time and then weights those quantities together by their base-period values to derive an aggregate “quantum” measure.

Just as the CPI is rebased regularly, there is a further analogy between the compilation of the CPI and the necessity to rebase measures at constant prices. As noted in international recommendations:

“....over time the pattern of relative prices in the base period tends to become progressively less relevant to the economic situations of later periods to the point where it becomes unacceptable to continue using them to measure volume changes from one period to the next. It is then necessary to update the weights.”

### **Methodological changes associated with the review of the system for estimating GDP at current and constant prices**

As an integral part of the rebasing to 2013 prices, all benchmarks, assumptions and data sources were evaluated to see if they could be improved. In addition to changes due to the adoption of a more recent base year, the estimates of GDP and its components have been affected by improvements throughout the estimation system.

### **Revised benchmarks**

It is not practicable to undertake all major data collections in every period eg, the work required to conduct and process a national HIES, Business Activity Survey means that conducting these surveys every 5 years as Samoa has been doing is a major achievement. As a result it is often necessary to use **partial indicators** for extrapolating benchmarks, and the quality of the resulting estimates depends on the assumption that the relationship between the indicator and the benchmark remains constant over time.

## Background Information

When benchmarks are then derived for subsequent periods it is often the case that the relationship between indicator and benchmark has changed, and this leads to revisions between the benchmark periods and into the period before the next benchmark revision. As a specific example of how this can impact on the estimates, when the recent rebasing was conducted in 2013 there was insufficient information on the financial services available to the Bureau to actually reflect the financial services contribution to the economy. This leads to this component of GDP remained low until the detailed information was made available from the CBS during the 2013 rebase estimates. The more detailed information at a subsector level in financial service as well as insurance revealed that there had been strong growth in the sector over the years with its level substantially increased compared to the 2009 series.

Fortunately, the major strengthening of the national statistical system during the last decade has led to a breadth of experience in the use of administrative data sources that are available to supplement censuses and surveys, and more effort is put into strengthening cooperation and coordination amongst the data users and data providers. Furthermore, resources are being allocated to permit more regular data collections than was the case a decade or more ago. As a result, 2018 HIES enumeration is completed, Agriculture Census will be conducted in early 2020 with more developments into the integration of businesses administrative data to facilitate timely and less costly collection on the Business Activities. It is anticipated that future rebases and systems reviews will be far less subject to revision due to benchmarks becoming very much out of date.

### Improved national statistical system:

Any system for estimating GDP is basically a framework for bringing together a wider range of economic and social statistics. The quality of the resulting estimates will be directly dependent on (a) the quality of the component systems, and (b) the extent to which the components are integrated eg, common definitions and classifications. In reviewing the latest system for estimating GDP it was evident that the national statistical system is far more robust and better integrated than it was a decade ago despite challenges

A key example of better integration is that businesses paying VAGST and NPF contributions are now classified to the same industry in both systems – as a result the average earnings measures by industry from NPF data can now be confidently related to the estimates of output by industry from VAGST data, and so provide a directly relevant measure of labour costs associated with that industry output. Other activities to improve this integration further is continuing; with the development of an Integrated Business Information System developed and housed in the Bureau, with data sharing amongst Government Ministries and Corporations like Ministry for Revenue, Ministry of Commerce Industry and Labour as well as National Provident Fund.

Ministry of Agriculture and Fisheries have been supportive during this rebase exercise with the electronic transfer of fishing data especially the

inshore and off-shore data, a great example of a statistical system with strong cooperation.

With the general improvements in the quality of the national statistical system (which includes agencies other than SBS) the need to adjust source data for obvious outliers has been significantly reduced. When the first system was established there were many series which regularly showed unrealistic fluctuations: some were monitored manually, others were so consistently unreliable that automatic checks were built in to keep them within set limits. While the latest system still features some moving averages to allow for known timing problems (eg, 7 paydays in one quarter, 6 in the next) the source data now stand on their own merits. Not only is the revised system now drawing on better quality component data, but it will also be able to more quickly reflect turning points and the effect of shocks such as cyclones.

### New classification— ISIC Revision 3.1 to Revision 4

In compliance with international best practice, one of the major developments was the re-classification of business by the nature of business activities using the ISIC Rev.4 from Rev.3.1 previously used. This is a significant activity in assuring that Samoa's data is comparable to other countries economy, as well in its relation to other systems like Balance of Payments and Government Finance Statistics. This has impacted on the value added levels of some industries like Construction and Business Services; with some establishments that were involved in architectural consultancy more on the services being previously classified under construction but are now in the business services—under architectural and engineering consultancy services.

### Methodological changes:

The general methods remain largely unchanged between 2009 and 2013 except for the opportunity to refine and improve the system as well as incorporation of the new benchmark data from the major surveys.

**Agriculture:** The general methods remain largely unchanged between 2009 and 2013 except for the opportunity to refine and improve the factors that were used in the estimation of the marketed commodities. This was related to the change in coverage of the market survey which previously covers the Fugalei market only, and now expanded to cover other markets and stalls around the islands including the main market in Savaii. The single biggest influence on the change in movements

## Background Information

between the two systems was the introduction of the 2013 HIES benchmarks, and this resulted on 2013-based estimates being lower in 2013 compare to the (2009) previous series.

**Fishing:** Fishing like Agriculture methods remain largely unchanged except for the introduction of the HIES 2013 data as well as the use of the in-shore and off-shore survey data from the Fisheries Division of the Ministry of Agriculture and Fisheries in the system.

### Industries which rely on VAGST data:

Benchmarks from the Business Activity Survey 2013 were considered and adjusted accordingly, in light of the coverage in the BAS for some industries and in comparison with VAGST data.

In many ways the VAGST system is a nearly ideal indicator for measuring value added in many industries:

- its scope is “value added”, the same concept as underlies GDP;
- it is a sub-annual system, with timely reporting;
- returns are monitored closely to ensure compliance;
- good working relation with MFR mean that SBS industry coding is being applied;
- its coverage spans the non-agricultural monetary side of the domestic economy.

As such the VAGST system provides regular, reliable aggregate data for the key items: sales, and purchases. If VAGST did not exist it would require a major (to the point of being impracticable) on-going business survey, at huge cost to both SBS and the reporting business community. Inevitably the results from the VAGST system have been adopted as the primary data source for many industries.

The industries which use only VAGST results in estimating the current price values (CPVs) of monetary value added for that industry are:

- OTHM Manufacturing other than food and beverages
- ELEW – but only the water component, and this will change if we can get good data directly from SWA (water is in VAGST, electricity is not)
- TRAD Commerce
- COMM Communication
- BUSS Business Services
- PERS Personal services
- OTHR Other services

Industries which use VAGST as the primary data source for monetary CPVs but supplement these with data from other sources are:

- FOOD Food and beverage manufacturing (+ exports)
- CONS Construction (+ building material imports as additional indicator);
- TSPT Transport (+ estimates for buses and taxis outside VAGST)

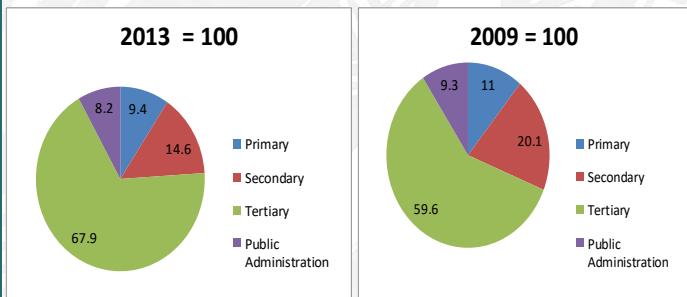
Apart from these VAGST based industries, The Finance Industry main data source is now primarily from the Profit and Loss Statement summary provided by the Central Bank of Samoa. This not only enables the calculation of the FISIM, but also the breakdown of other components of the Finance Sector like Insurance, Central Bank and Other financial institutions.

### Impact of the revised estimates on the economic structure and growth

The combined effect of the rebasing to 2013 prices, revising methodologies and data sources remained unchanged at the aggregated level. However the revised benchmarks as expected led to changes in the value added composition of industries, as well as year on year growth rates. The change saw the Tertiary sector share increased by 8.3 percentage point with Secondary, Primary and the Public Admin sector loosing 5.5, 1.6 and 1.1 percentage points respectively.

Underpinning the change was the Finance sector becoming the second largest industry after Commerce, with Construction moving to sixth and Other Manufacturing to be the smallest in 2018 with 1.8 percent share. The trend is indicative of the changes occurred in the period from 2009 to current with the completion of some major infrastructural projects as well as the effect of the closure of Yazaki in August 2017. Public Administration, Agriculture and Communication sectors were in the 2nd, 3rd and fourth in the ranking .

### **Comparison of GDP shares 2018, by broad sectors in 2013 and 2009 prices,**

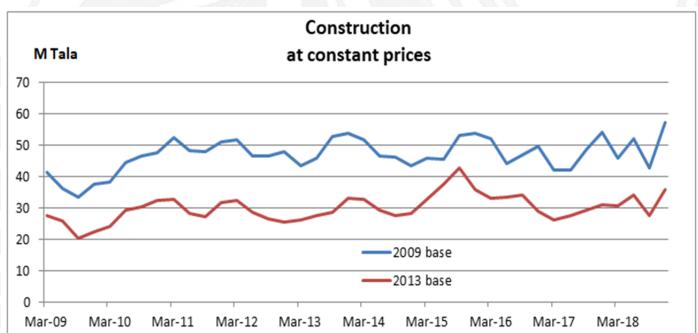
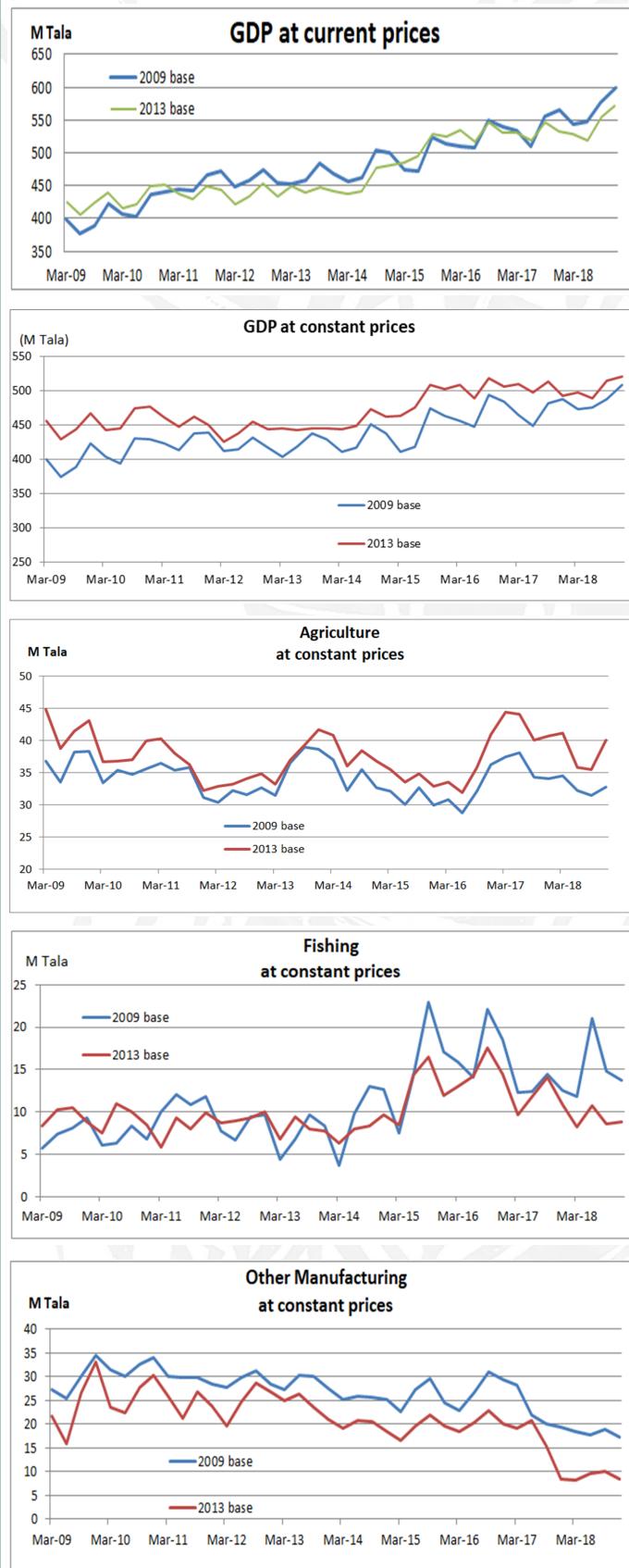


Indicated in the following charts are the industries showing significant change as part of the rebasing exercise:

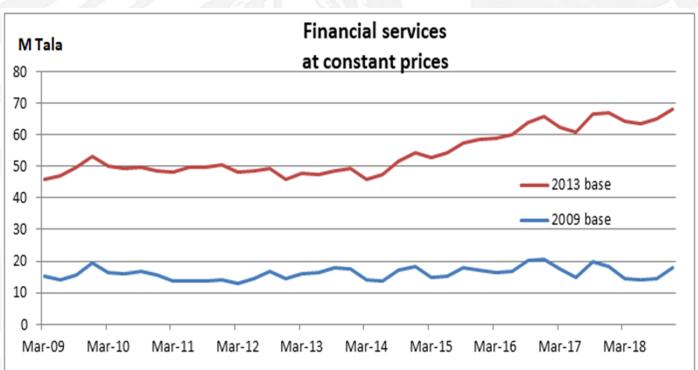
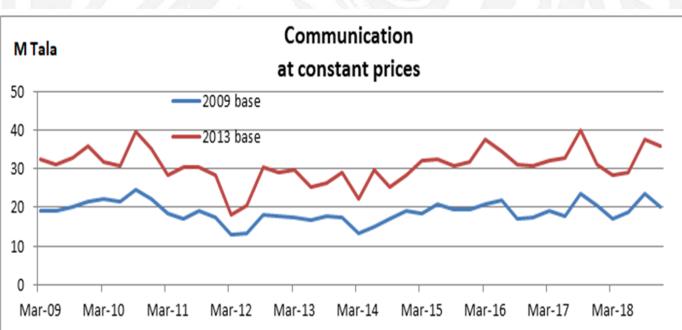
# NATIONAL ACCOUNTS FRAMEWORK REVIEW & GDP 2013 REBASING

## Background Information

Some of the key results for GDP at current and constant 2013 prices compared to 2009 prices;



The gap between the two base periods for the Construction and Other Manufacturing reflects the change in the level of activities in the two periods, with 2013 having a lower end compared to 2009. On the other hand Communication indicated that there have been more activities in the 2013 period compared to 2009.



The gap between the two base periods for the Financial services reflects the change in the level of activities in the two periods, with 2013 having a higher value of activities compared to 2009. This also attributed to improved data sources used for this industry compared to the previous data set.

# NATIONAL ACCOUNTS FRAMEWORK REVIEW & GDP 2013 REBASING

## Background Information

### INTRODUCTION

The compilation of national accounts statistics is a dynamic process, and therefore needs to adapt to reflect a variety of measures and indicators consistent with developments and structural changes in the economy over a period of time. It is therefore expected that revisions and updates are made to the historical series on a quarterly or annual basis as new data sources are brought into the model and as various benchmarks and assumptions are validated and updated.

This quarterly report is the twelfth of the new quarterly series of GDP estimates at constant 2013 prices. This report is an ongoing publication and can also be downloaded from our website [www.sbs.gov.ws](http://www.sbs.gov.ws).

### ABOUT GROSS DOMESTIC PRODUCT

Gross domestic product (GDP) is Samoa's official measure of economic growth. GDP is compiled and published using the **production approach**, this approach measures the total value of goods and services produced in Samoa, after deducting the cost of goods and services used in the production process. This is also known as the value-added approach.

**Broad industry groups:** The GDP tables attached to this report follows the broad groupings based on the International Standard Industry Classification (ISIC) Revision 4. Classification of economic activity is important in the determination of the extent and nature of the information collected and the quality of the data compiled.

- primary industries (agriculture and fishing)
- secondary sector or the goods-producing industries (manufacturing, construction, electricity & water);
- Tertiary sector or service industries (wholesale trade; retail trade and accommodation; transport, postal, and warehousing; information media and telecommunications; finance and insurance services; rental, hiring, and real estate services; professional, scientific, technical, administrative, and support services; public administration and safety; education and training; health care and social assistance; arts, recreation, and other services).

### REVISIONS

The GDP numbers for the recent quarters are subject to revisions in the next publication pending the availability of revised numbers from the sources.



**SBS Vision:**  
“To strengthen Statistical services  
for the development of  
Samoa”

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