Samoa Bureau of Statistics

Gross Domestic Product

June 2020 Quarter

Overview

15th Sep 2020

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 June 2020 quarter: -11.6%*
- *GDP at Constant 2013 Prices (real)* ***- WST $453.3 million***
- *GDP at Current Prices (nominal)* ***- WST $489.9 million***
- *GDP growth year ended June (FY/19/20): -3.5%*
- *GDP at Constant 2013 Prices FY19/20-* ***WST $1,975.5 million***
- *GDP at Current Prices (nominal)* ***- WST $2,161.3***

Inside this issue:

Economic activity, as measured by Gross Domestic Product (GDP), fell 11.6% in the ***June 2020 quarter****. This was the largest quarterly decline in the history of National Account (since quarterly measurement began in 1998). The notable decline this quarter follows a revised growth of –3.8% in the March 2020 quarter and –3.7% in the December 2019 quarter. GDP per capita in June 2020 fell 12.7%. Total GDP at constant prices stood at $453.3 million, making it the lowest quarterly outturn since December 2014. The unprecedented nature of the rapid economic shock caused by the COVID-19 pandemic had a significant effect on economic activity in the June 2020 quarter, through travel bans, reduced trade, global impacts and the lockdown. It has affected every sector of the economy with accommodation and restaurant, transport, postal, warehousing, retailing & wholesaling and manufacturing activities being the hardest hit. Many sectors of the economy operated at levels below normal capacity during the period.*

Services industries, which make up more than two-thirds of the economy, fell 7.7 percent in the June 2020 quarter. Activity in the goods-producing industries declined 30.2 percent with three of the four industries recording decreases in June 2020. Activity in the primary industries also fell 11.6 percent in the June 2020 quarter.

GDP Growth:

Gross Domestic Product for the **June 2020 Quarter** at constant 2013 prices amounted to $453.3 million, decreasing by 11.6% compared to the June 2019 quarter. This follows a revised growth of –3.8% from –4.2% published in March 2020.

Chart 1: Total GDP at constant prices & growth rates, June 2016—June 2020

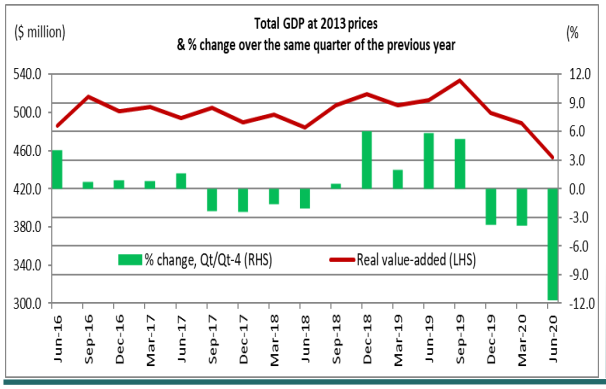


Chart 1 shows GDP at constant prices from June 2016 to June 2020 and the year-on-year (y-o-y) growth rates as measured by the percentage change on the same quarter of the previous year. The economy has not recorded an increase since September 2019 as a result of the measles epidemic, the onset on the COVID-19 pandemic and the corresponding movement restrictions which continued to impact on economic activity. While most industries have been affected by the COVID-19 pandemic, some bear the brunt of the downturn much more than others.

Chart 2: Percentage-point contributions to GDP growth by industry; June 2020 Quarter

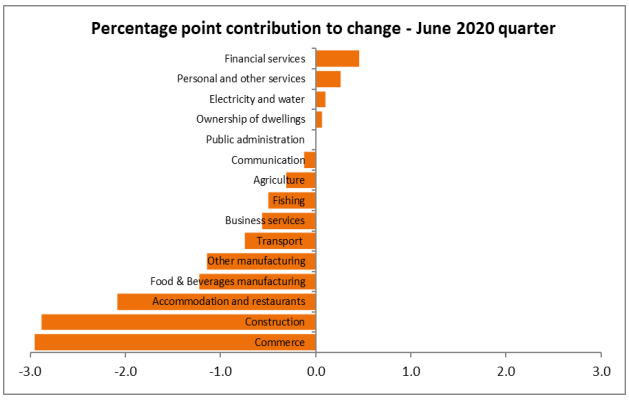


Chart 2 shows the percentage-points (pp) contributions of each industry to overall growth of 11.6% in June 2020. The major contributors to the downturn in June 2020 were Commerce, Construction, Accommodation & Restaurants, Food & Beverage and Other manufacturing with contributions of –2.9 pp, -2.9 pp, -2.1 pp, -1.2 pp and -1.1 pp respectively to overall growth.

Commerce, the biggest industry in the economy has again registered another decline following two consecutive quarters of negative growth. Retailing activities related to food, beverages, construction materials, gaseous products and the buying of vehicles went down in June 2020. Construction was the second biggest contributor to the fall this quarter, down 12.5% compared to June 2019 due to the decrease in residential & non-residential building and civil construction. Accommodation and Restaurants recorded a to-

tal value added of $1.7 million, the lowest ever recorded by the industry in the history of National Account. It declined by 86.0% compared to June 2019.

Food & Beverage and Other manufacturing businesses were also some of the hardest hit due to reduced consumption as most hotels had no visitors and bars were mostly closed during the lockdown as well as the disturbances to shipment of manufactured products. The supply of raw materials and ingredients to the manufacturing sites has been badly affected, which has hampered production. Also, manpower availability in the time of social distancing was also a contributing factor. Likewise Primary industries were also affected due to the demand and early closure of the markets.

On the other hand, industries that increased in June 2020 were Financial services, Personal & other services, Electricity and Water and Ownership of Dwellings with contributions of 0.5 pp, 0.3 pp, 0.1 pp and 0.1 pp respectively to overall growth.

GDP Levels (Nominal):

Gross Domestic Product at current prices or nominal GDP for the **June 2020 quarter** stood at $489.9 million. It decreased by 11.9% compared to the same quarter of the previous year. GDP per capita fell 12.7% compared to June 2019.

Chart 3: Composition of Nominal GDP, June 2020 Quarter

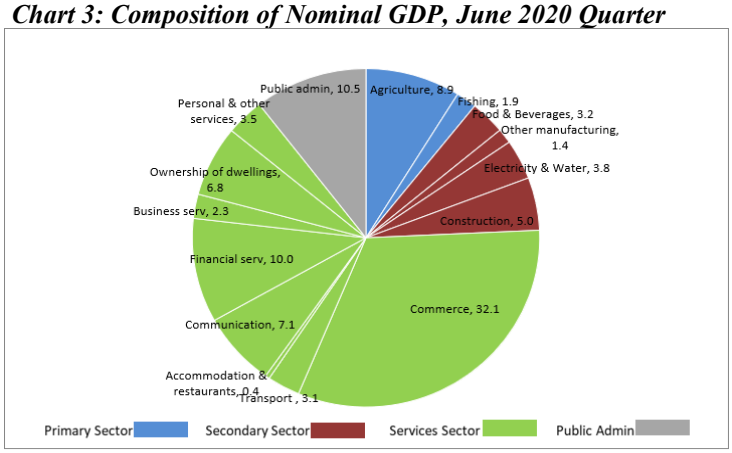


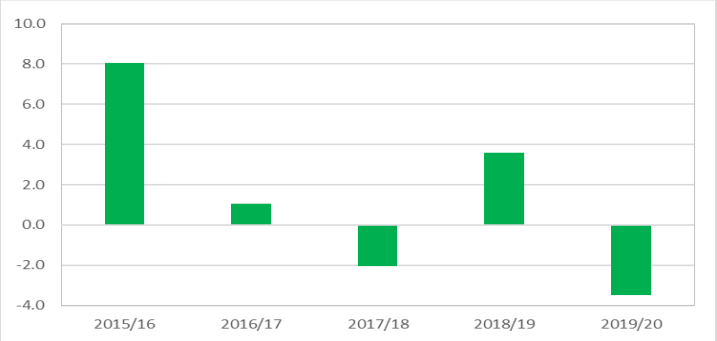
Chart 3 shows the industry composition of GDP at current market prices in the June 2020 quarter. Tertiary sector (services industries) comprising 65.2% of total nominal GDP, decreased by 0.2 pp compared to the same quarter of the previous year. The Secondary sector (goods-producing industries) which is the second largest sector, went down by 2.9 pp on a y-o-y basis. This was due to the decline in the three industries except for Electricity & Water. The Primary sector which accounts for 10.8% of GDP has increased its share by 1.0 pp as a result of the increase in Agriculture industry's share compared to the corresponding quarter of 2019. Public Administration share increased 2.2 pp compared to June 2019.

Twelve Months Review for the year ended June 2020:

GDP for the **year ended June 2020** at current market prices was $2,161.3 million, decreasing by 3.1% compared to the $2,231.2 million recorded in the year ended June 2019. At this level, GDP per capita was $10,716 decreasing by 3.9% over the year ended June 2019.

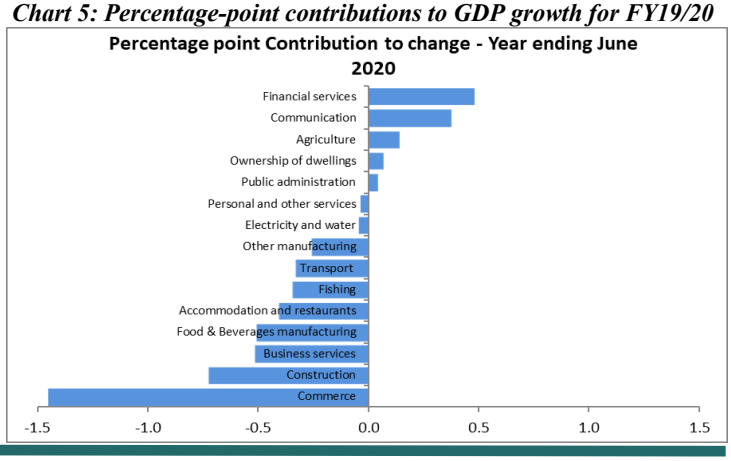
In constant 2013 prices, GDP stood at $1,975.5 million in the year ended June 2020, decreasing by 3.5% in comparison to the $2,046.9 million recorded in the year ended June 2019. This was the lowest GDP recorded for the year ended June since FY2014/15.

Chart 4: Growth rates (FY2015/16—2019/20)



Depicted in Chart 4 are the real growth rates in the last 5 fiscal years ending June. The economy reversed its growth from FY18/19 to record a decrease of 3.5% in FY19/20. This was mainly driven by the downturn in economic activity in Commerce, Construction, Business services, Food & Beverage, Accommodation & Restaurants, Fishing and Transport with contributions of –1.4 pp, -0.7 pp, -0.5 pp, -0.5 pp, -0.4 pp, -0.3 pp and –0.3 pp each to overall growth of 3.5% as shown in Chart 5. The decline in the last three quarters of FY19/20 had a big impact on its annual performance despite September 2019 having the highest quarterly value added since quarterly measurement began in 1998, due to Samoa's hosting of the Pacific Games.

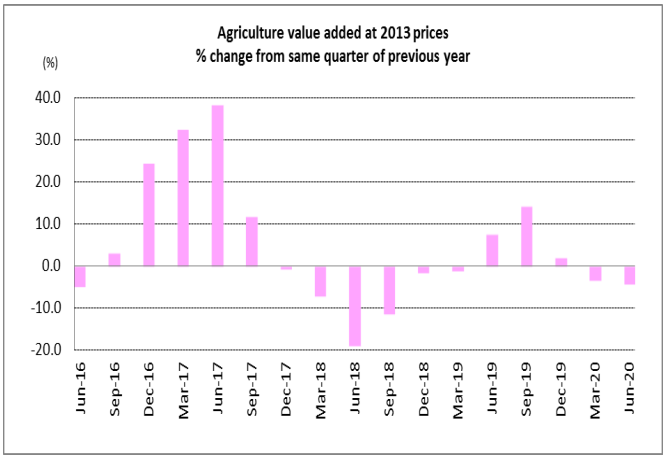
Chart 5: Percentage-point contributions to GDP growth for FY19/20



Individual Industry Quarterly Performance

AGRICULTURE	GDP Jun 2019 Quarter	GDP Mar 2020 Quarter	GDP Jun 2020 Quarter	% change from Mar 2020 quarter (q-o-q)	% change from Jun 2019 quarter (y-o-y)
Value Added (current prices) WST (millions)	42.6	46.4	43.4	-6.5	1.8
Value added (constant 2013 prices) WST (millions)	38.5	39.4	36.9	-6.4	-4.1
Contribution to aggregate (y-o-y) real growth rate: *percentage points*	0.6	-0.3	-0.3		
Industry's share to total nominal GDP: *percent*	7.7	8.5	8.9		

Chart 6: Percentage change in Agriculture real value added; Jun 2016 - Jun 2020

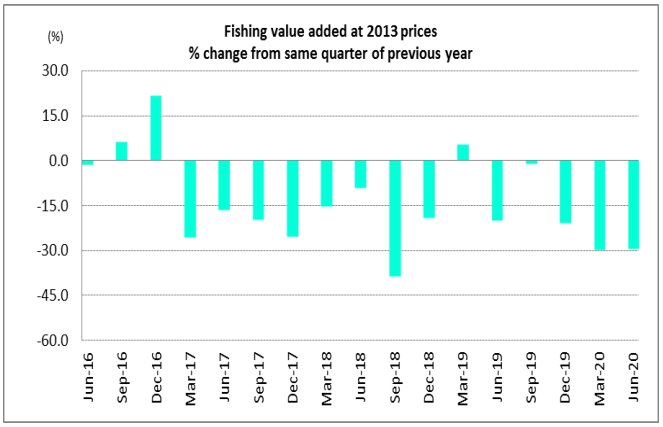


Agriculture's total value added at constant prices for the June 2020 quarter amounted to $36.9 million. It decreased by 4.1% compared to the corresponding quarter of 2019. This result reflects the decline in marketed domestic consumption of crops by 7.9%. Volume of major agricultural produce supplied for marketed sales went down such as ta'amu, yam, breadfruit, coconut, head cabbage, tomatoes, Chinese cabbage and cucumber. Exported agricultural produce also declined by 61.0% compared to the corresponding quarter of 2019.

The industry's share to total nominal GDP increased by 1.2 percentage points to 8.9 percent; its total value added at current prices went up by 1.8% for the period under review.

FISHING	GDP Jun 2019 Quarter	GDP Mar 2020 Quarter	GDP Jun 2020 Quarter	% change from Mar 2020 quarter (q-o-q)	% change from Jun 2019 quarter (y-o-y)
Value Added (current prices) WST (millions)	11.8	8.7	9.4	8.6	-20.1
Value added (constant 2013 prices) WST (millions)	8.6	6.1	6.1	-0.2	-29.5
Contribution to aggregate (y-o-y) real growth rate: *percentage points*	-0.4	-0.5	-0.5		
Industry's share to total nominal GDP: *percent*	2.1	1.6	1.9		

Chart 7: Percentage change in Fishing real value added; Jun 2016 - Jun 2020



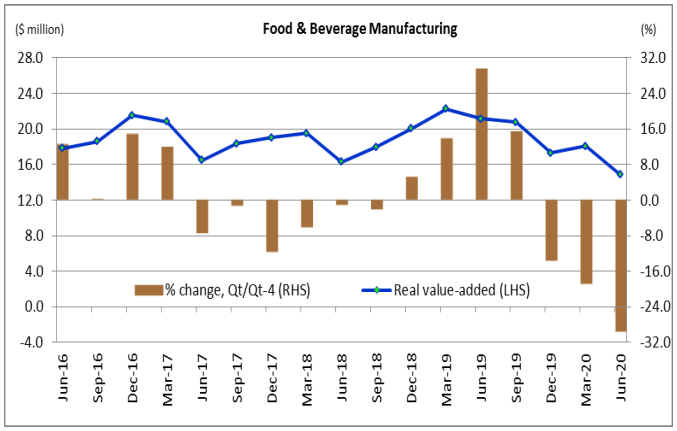
Fishing value added in real terms decreased by 29.5% compared to the corresponding period in 2019. The industry continues to decline since March 2017 with the March 2019 quarter being the exception as indicated in Chart 7.

The unfavorable performance reflects the decline of 34.8% in the volume of fresh fish used for domestic consumption compared to June 2019 quarter. In nominal terms, the industry went down by 20.1% on a year-on-year basis. The industry's share to total nominal GDP also went down from 2.1% in June 2019 to 1.9% in the June 2020 quarter.

Individual Industry Quarterly Performance

FOOD & BEVERAGE MANUFACTURING	GDP Jun 2019 Quarter	GDP Mar 2020 Quarter	GDP Jun 2020 Quarter	% change from Mar 2020 quarter (q-o-q)	% change from Jun 2019 quarter (y-o-y)
Value Added (current prices) WST (millions)	20.1	19.4	15.9	-18.0	-20.8
Value added (constant 2013 prices) WST (millions)	21.1	18.1	14.9	-17.6	-29.6
Contribution to aggregate (y-o-y) real growth rate: *percentage points*	1.0	-0.8	-1.2		
Industry's share to total nominal GDP: *percent*	3.6	3.6	3.2		

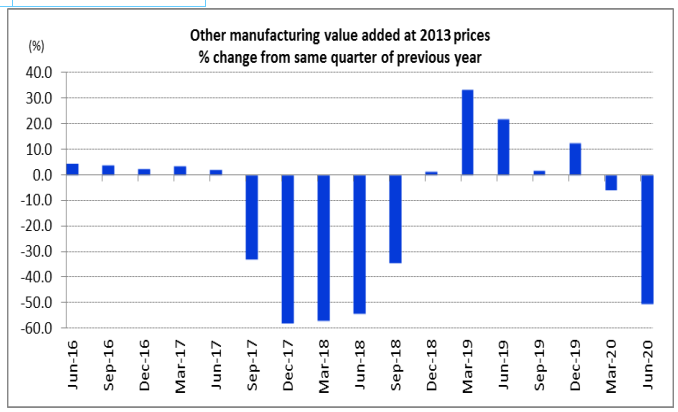
Chart 8: Food & Beverage Manufacturing quarterly value added at constant prices & % change over the same period of the previous year; Jun 2016 - Jun 2020



Food and Beverage industry produced a total value added in real terms of $14.9 million in June 2020 registering a decline of 29.6% in comparison to June 2019. Both exports of food and beverage experienced declines of 78.4% and 62.1% respectively. This is the third consecutive quarter of negative growth following four quarters of positive growth as can be seen in Chart 8. The industry contributed -1.2 percentage points to overall growth within the period. In nominal terms, the industry's value added ($15.9 million) also went down by 20.8%. Its share to total nominal GDP has decreased by 0.4 percentage points from 3.6 percent to 3.2 percent in the period under review.

OTHER MANUFACTURING	GDP Jun 2019 Quarter	GDP Mar 2020 Quarter	GDP Jun 2020 Quarter	% change from Mar 2020 quarter (q-o-q)	% change from Jun 2019 quarter (y-o-y)
Value Added (current prices) WST (millions)	14.0	12.8	6.9	-46.1	-50.7
Value added (constant 2013 prices) WST (millions)	11.6	10.3	5.8	-43.8	-50.2
Contribution to aggregate (y-o-y) real growth rate: *percentage points*	0.4	-0.1	-1.1		
Industry's share to total nominal GDP: *percent*	2.5	2.4	1.4		

Chart 9: Percentage change in Other Manufacturing real value added; Jun 2016 - Jun 2020



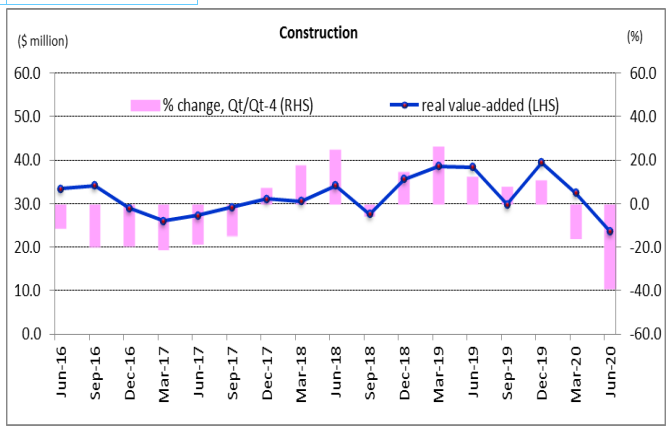
In real terms, Other Manufacturing industry recorded a total value added of $5.8 million in the period under review. It went down by 50.2% compared to the June 2019 quarter. The industry has been faced with its second quarter of negative growth after five consecutive quarters of positive growth from December 2018 quarter.

In nominal terms, the industry recorded a total value added of $6.9 million accounting for 1.4% of total nominal GDP. It declined by 50.7% compared to the corresponding quarter of the previous year.

Individual Industry Quarterly Performance

CONSTRUCTION	GDP Jun 2019 Quarter	GDP Mar 2020 Quarter	GDP Jun 2020 Quarter	% change from Mar 2020 quarter (q-o-q)	% change from Jun 2019 quarter (y-o-y)
Value Added (current prices) WST (millions)	39.8	34.1	24.7	-27.6	-38.0
Value added (constant 2013 prices) WST (millions)	38.4	32.5	23.6	-27.4	-38.5
Contribution to aggregate (y-o-y) real growth rate: *percentage points*	0.9	-1.2	-2.9		
Industry's share to total nominal GDP: *percent*	7.2	6.3	5.0		

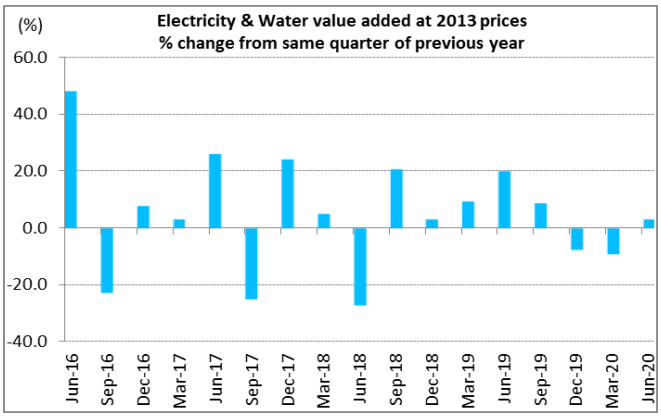
Chart 10: Construction quarterly value added at constant prices & % change over the same period of the previous year; Jun 2016 - Jun 2020



Construction produced a total value added of $23.6 million in constant prices, decreasing by 38.5% when compared to June 2019. This is the second quarter of negative growth following five consecutive quarters of positive growth for the industry. Construction activity contributed -2.9 percentage points to overall growth for the June 2020 quarter. Residential building experienced a decline in June 2020 and most of major infrastructural developments have been put on hold as they were not deemed essential during the lockdown. This reflects the 33.3% decline in imported building materials within the period. This result was also inline with the 93.7% decline in the Acquisition of non-financial assets as indicated in the Government Finance Statistics June 2020 Report.

ELECTRICITY AND WATER	GDP Jun 2019 Quarter	GDP Mar 2020 Quarter	GDP Jun 2020 Quarter	% change from Mar 2020 quarter (q-o-q)	% change from Jun 2019 quarter (y-o-y)
Value Added (current prices) WST (millions)	17.4	16.5	18.7	13.0	7.2
Value added (constant 2013 prices) WST (millions)	16.2	14.7	16.7	13.7	3.2
Contribution to aggregate (y-o-y) real growth rate: *percentage points*	0.6	-0.3	0.1		
Industry's share to total nominal GDP: *percent*	3.1	3.0	3.8		

Chart 11: Percentage change in Electricity & Water real value added; Jun 2016 - Jun 2020



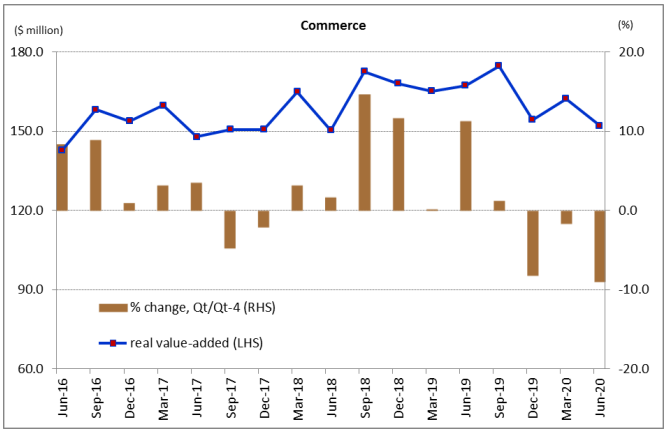
Electricity and Water generated a total value added of $16.7 million at constant prices in the June 2020 quarter, increasing by 3.2% compared to June 2019. The positive performance reflected the increase in water production by 13.9% which more than offset the 5.6% decline in Electricity production in the period. The industry's performance in the quarter under review translated into a positive contribution of 0.1 percentage points to the overall GDP growth rate.

The industry's share to total nominal GDP increased by 0.7 percentage points to 3.8 percent for the June 2020 quarter.

Individual Industry Quarterly Performance

COMMERCE	GDP Jun 2019 Quarter	GDP Mar 2020 Quarter	GDP Jun 2020 Quarter	% change from Mar 2020 quarter (q-o-q)	% change from Jun 2019 quarter (y-o-y)
Value Added (current prices) WST (millions)	185.4	177.7	157.1	-11.6	-15.3
Value added (constant 2013 prices) WST (millions)	167.3	162.3	152.2	-6.2	-9.0
Contribution to aggregate (y-o-y) real growth rate: *percentage points*	3.5	-0.6	-2.9		
Industry's share to total nominal GDP: *percent*	33.3	32.7	32.1		

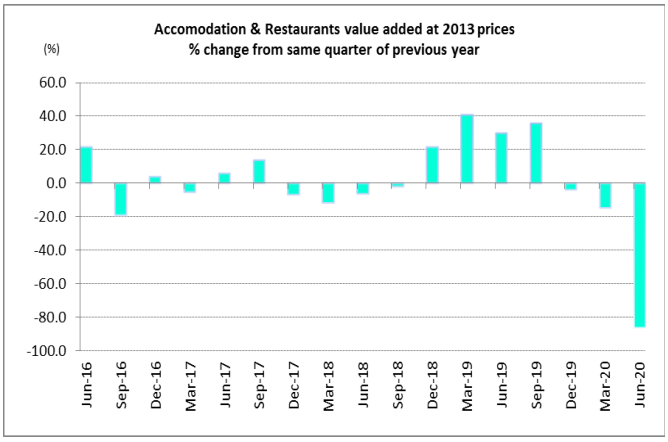
Chart 12: Commerce quarterly real value added & % change over the same period of the previous year; Jun 2016 - Jun 2020



Commerce has now recorded three consecutive quarters of negative growth. The industry remains the leading industry in the economy with a total value added at constant prices of $152.2 million. This translates into a decline of 9.0% compared to the corresponding quarter of 2019. The fall this quarter was caused by the decrease in retailing activities related to food, beverages, petroleum, gaseous products and durable goods. Although remittances was up by 14.7%, it was not significant enough to counter the decline in tourism earnings which went on a standstill during this period due to international border restrictions imposed under the Nations' State of Emergency (SOE) declared by the Government during the June 2020 quarter.

ACCOMMODATION AND RESTAURANTS	GDP Jun 2019 Quarter	GDP Mar 2020 Quarter	GDP Jun 2020 Quarter	% change from Mar 2020 quarter (q-o-q)	% change from Jun 2019 quarter (y-o-y)
Value Added (current prices) WST (millions)	13.7	10.2	2.0	-80.9	-85.8
Value added (constant 2013 prices) WST (millions)	12.4	8.9	1.7	-80.6	-86.0
Contribution to aggregate (y-o-y) real growth rate: *percentage points*	0.6	-0.3	-2.1		
Industry's share to total nominal GDP: *percent*	2.5	1.9	0.4		

Chart 13: Accommodation & Restaurants, percentage change in real value added over the same period of the previous year; Jun 2016 - Jun 2020

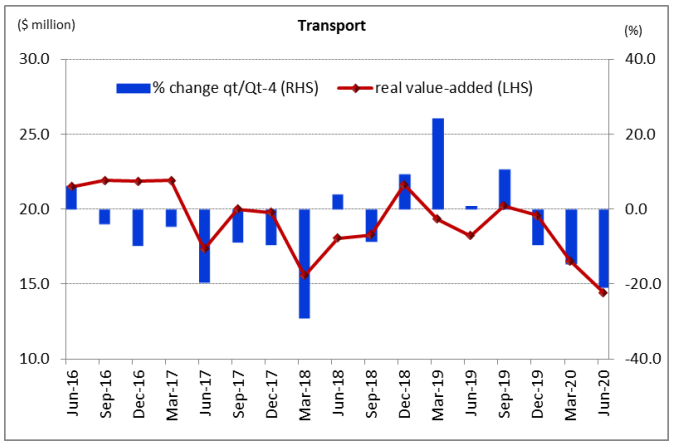


Accommodation & Restaurants was one of the hardest hit industries as a result of restrictions made under the SOE declared as preventative measures to keep the nation Covid-19 free. Its real value added of $1.7 million generated in June 2020 (down by 86.0%), was the lowest ever produced by the industry in the history of National Account. Travel restrictions as part of the COVID-19 precautionary measures has hit Tourism hard leading to the loss of tourism earnings and having impacted on the industry and the economy as a whole. Restaurants declined by 10.7% as less consumers dined out due to social distancing and general caution in public places. Employment June 2020 report also recorded declines of 26.6% and 3.0% for Accommodation and Restaurant respectively.

Individual Industry Quarterly Performance

TRANSPORT	GDP Jun 2019 Quarter	GDP Mar 2020 Quarter	GDP Jun 2020 Quarter	% change from Mar 2020 quarter (q-o-q)	% change from Jun 2019 quarter (y-o-y)
Value Added (current prices) WST (millions)	19.8	17.4	15.0	-14.1	-24.4
Value added (constant 2013 prices) WST (millions)	18.2	16.5	14.4	-12.6	-20.8
Contribution to aggregate (y-o-y) real growth rate: *percentage points*	0.0	-0.6	-0.7		
Industry's share to total nominal GDP: *percent*	3.6	3.2	3.1		

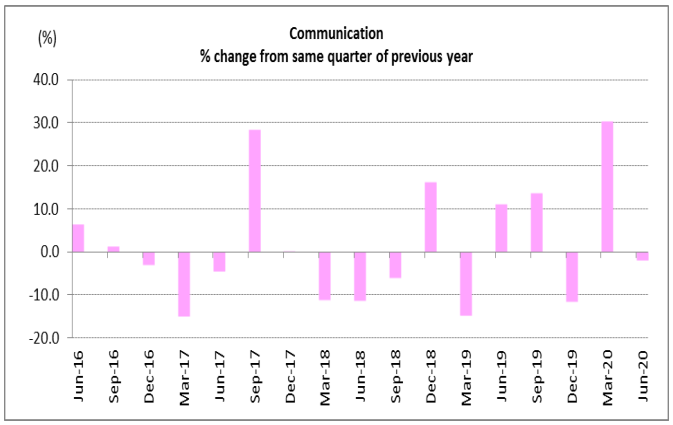
Chart 14: Transport quarterly growth rates with total value added at constant 2013 prices, Jun 2016 - Jun 2020



Transport value added at constant 2013 prices for June 2020 stood at $14.4 million. It registered a decrease in real value-added of 20.8% for the period under review when compared to June 2019. Air and Land transport both declined by 72.0% and 9.6% respectively. Activities related to storage, warehousing and cargo handling also declined in the period. Reduced demand due to lockdown measures put in place and limiting the number of passengers using mass transport mode have affected the sectors performance. The industry contributed -0.7 percentage points to overall growth. Employment in the industry went down by 2.2%. the June 2020 Employment Report.

COMMUNICATION	GDP Jun 2019 Quarter	GDP Mar 2020 Quarter	GDP Jun 2020 Quarter	% change from Mar 2020 quarter (q-o-q)	% change from Jun 2019 quarter (y-o-y)
Value Added (current prices) WST (millions)	35.7	37.2	34.7	-6.8	-2.8
Value added (constant 2013 prices) WST (millions)	32.4	31.6	31.8	0.5	-1.9
Contribution to aggregate (y-o-y) real growth rate: *percentage points*	0.7	1.5	-0.1		
Industry's share to total nominal GDP: *percent*	6.4	6.8	7.1		

Chart 15: Communication percentage change in real GDP from the same quarter of the previous year, Jun 2016 - Jun 2020

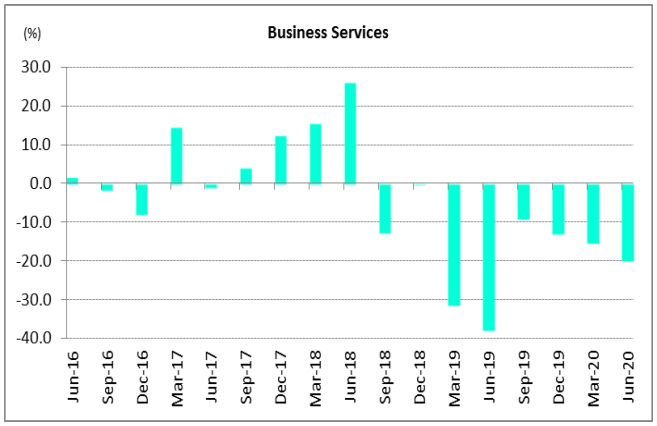


Communication generated a real value added of $31.8 million in the June 2020 quarter, decreasing by 1.9% over the June 2019 quarter. The industry contributed -0.1 percentage points to overall year-on-year growth. The slight decline in the industry's performance was due to the reduction in demand mainly for its products as the country faced strains due to the effect of the Corona virus pandemic on the country's economy. This has caused re-prioritization of funds causing the recorded decline in value added for the industry in the period under review. However, it went up by 0.5% in comparison to March 2020. Communication share to total GDP (in current prices) increased by 0.7 pp to 7.1 percent in the June 2020 quarter.

Individual Industry Quarterly Performance

BUSINESS SERVICES	GDP Jun 2019 Quarter	GDP Mar 2020 Quarter	GDP Jun 2020 Quarter	% change from Mar 2020 quarter (q-o-q)	% change from Jun 2019 quarter (y-o-y)
Value Added (current prices) WST (millions)	13.9	15.7	11.3	-28.0	-18.4
Value added (constant 2013 prices) WST (millions)	14.4	15.6	11.5	-25.8	-19.9
Contribution to aggregate (y-o-y) real growth rate: *percentage points*	-1.8	-0.6	-0.6		
Industry's share to total nominal GDP: *percent*	2.5	2.9	2.3		

Chart 16: Business Services, % change in value-added at constant 2013 prices from Jun 2016 - Jun 2020

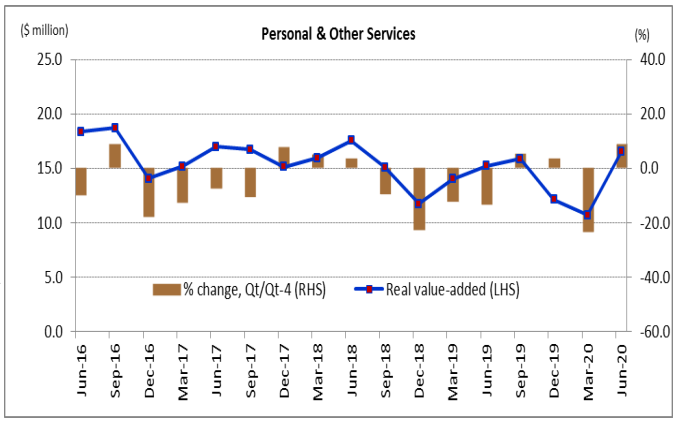


Business services produced a total value added of $11.5 million at constant 2013 prices in the June 2020 quarter; a decline of 19.9% was experienced by the industry on a year-on-year basis. The industry continues on in its eighth consecutive quarter of negative growth which was mainly driven by the decline in valued added experienced in travel related businesses such as travel agencies and tour operated companies.

It's total nominal value added of $11.3 million decreased by 18.4%. The industry's share to total nominal GDP for the period was 2.3 percent, down by 0.2 percentage points when compared to the same quarter of the previous year.

PERSONAL & OTHER SERVICES	GDP Jun 2019 Quarter	GDP Mar 2020 Quarter	GDP Jun 2020 Quarter	% change from Mar 2020 quarter (q-o-q)	% change from Jun 2019 quarter (y-o-y)
Value Added (current prices) WST (millions)	16.0	11.6	17.3	49.1	8.6
Value added (constant 2013 prices) WST (millions)	15.2	10.7	16.6	54.6	8.8
Contribution to aggregate (y-o-y) real growth rate: *percentage points*	-0.5	-0.6	0.3		
Industry's share to total nominal GDP: *percent*	2.9	2.1	3.5		

Chart 17: Personal & Other Services quarterly value added at constant prices & % change over the same period of the previous year; Jun 2016 - Jun 2020



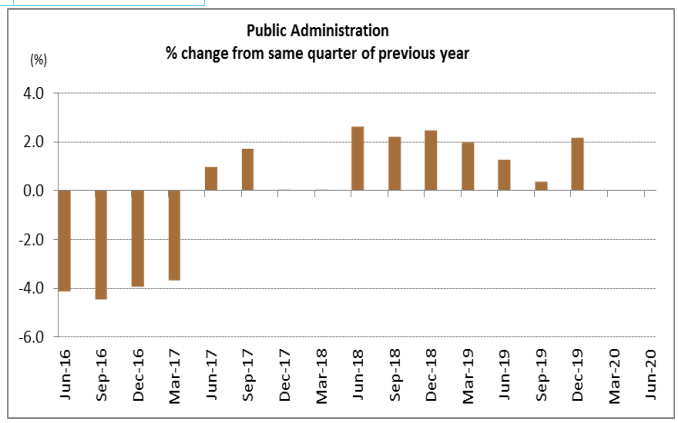
Personal and other services recorded an increase in real terms by 8.8 percent compared to June 2019; the industry has reverted to positive growth after the previous quarter of negative performance. It recorded a real value added of $16.6 million, contributing positively (0.3 pp) to overall growth. Services pertaining to religious activities, 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, its value added went up by 8.6% compared to the June 2019 quarter. Its share to total nominal GDP went up by 0.6 pp to 3.5 percent in June 2020.

Individual Industry Quarterly Performance

PUBLIC ADMINISTRATION	GDP Jun 2019 Quarter	GDP Mar 2020 Quarter	GDP Jun 2020 Quarter	% change from Mar 2020 quarter (q-o-q)	% change from Jun 2019 quarter (y-o-y)
Value Added (current prices) WST (millions)	46.6	48.6	51.6	6.2	10.8
Value added (constant 2013 prices) WST (millions)	36.4	36.1	36.4	0.9	0.0
Contribution to aggregate (y-o-y) real growth rate: *percentage points*	0.1	0.0	0.0		
Industry's share to total nominal GDP: *percent*	8.4	8.9	10.5		

Chart 18: Public Administration, % change in value-added at constant 2013 prices from Jun 2016 - Jun 2020

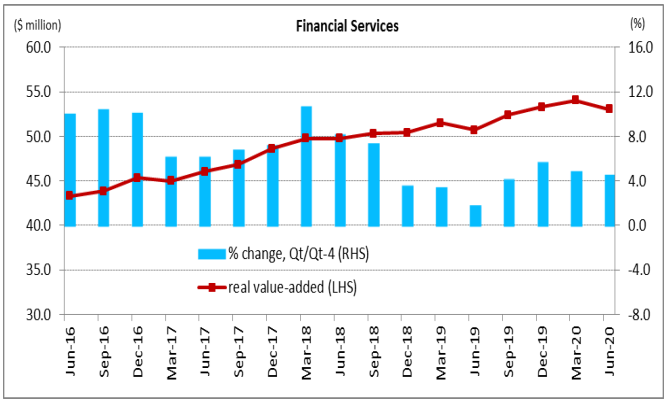
Public administration produced a total value added in constant terms of $36.4 million in the period under review which was the same as the value added recorded in June 2019. The industry recorded a 10.8% increase in nominal terms or at current market prices of $51.6 million, increasing its share by 2.1 percentage points over June 2019. Public Administration is the second largest industry in the economy with a share of 10.5% in nominal terms.



FINANCIAL SERVICES	GDP Jun 2019 Quarter	GDP Mar 2020 Quarter	GDP Jun 2020 Quarter	% change from Mar 2020 quarter (q-o-q)	% change from Jun 2019 quarter (y-o-y)
Value Added (current prices) WST (millions)	46.7	53.2	48.8	-8.4	4.6
Value added (constant 2013 prices) WST (millions)	50.7	54.1	53.1	-1.9	4.6
Contribution to aggregate (y-o-y) real growth rate: *percentage points*	0.2	0.5	0.5		
Industry's share to total nominal GDP: *percent*	8.4	9.8	10.0		

Chart 19: Financial Services value added at constant prices & % change over the same period of the previous year; Jun 2016 - Jun 2020

Financial services real value added increased by 4.6 percent on a year-on-year basis. The industry continues to grow positively since the December 2013 quarter. Its real value added for the quarter under review amounted to $53.1 million; the second highest value added ever recorded by the industry since the series begun. It contributed 0.5 percentage points to overall GDP growth. Its strong performance reflects the increasing demand for financial intermediation such as central banking, financial leasing, insurance and other activities auxiliary to financial intermediation for the period under review. Employment numbers for the industry also went up by 12.4% for the June 2020 quarter.



Overview

This publication is the seventh 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.*

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*

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)*

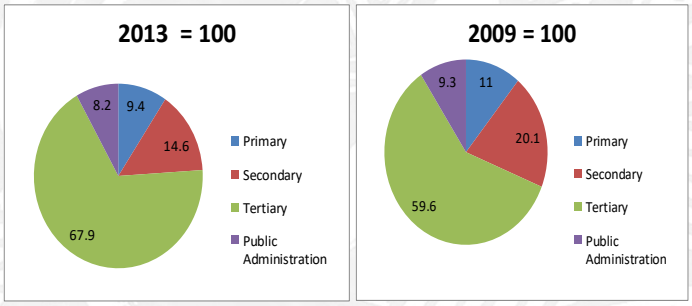
Apart from these VAGST based industries, The Finance Industry main data source is now primarily from the Profit and Loss Statement summary provided by the Central Bank of Samoa. This not only enables the calculation of the FISIM, but also the breakdown of other components of the Finance Sector like Insurance,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

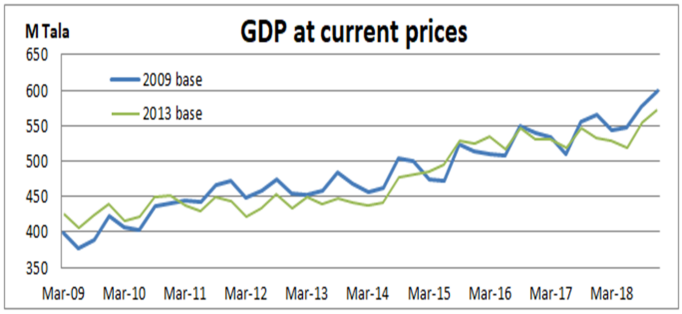
Underpinning the change was the Finance sector becoming the second largest industry after Commerce, with Construction moving to sixth and Other Manufacturing to be the smallest in 2018 with 1.8 percent share. The trend is indicative of the changes occurred in the period from 2009 to current with the 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 .

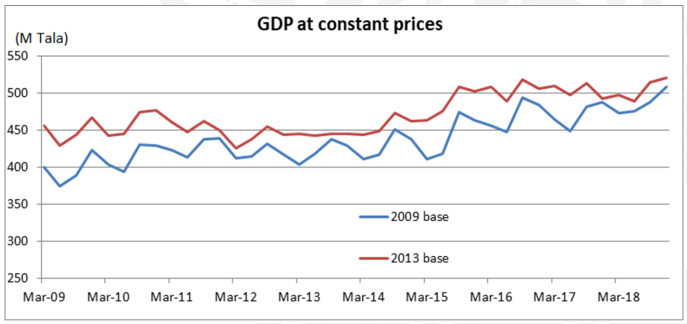
Comparison of GDP shares 2018, by broad sectors in 2013 and 2009 prices,

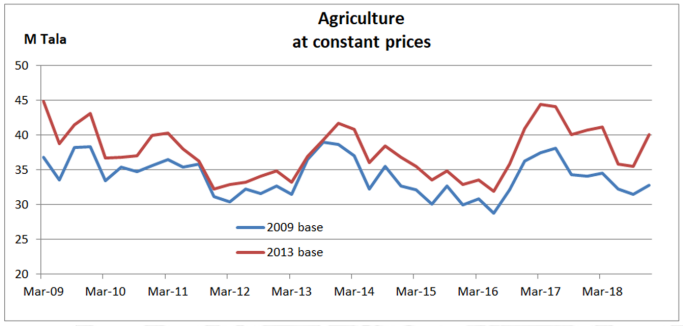


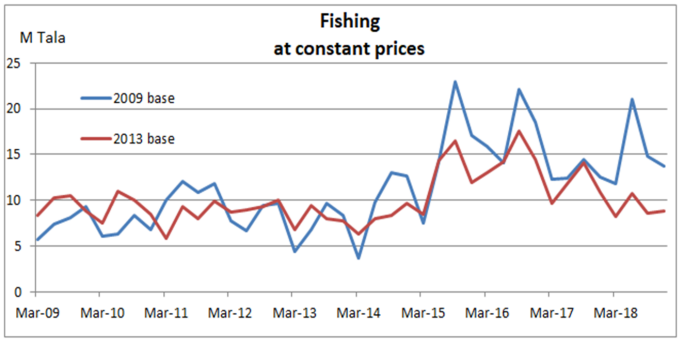
Indicated in the following charts are the industries showing significant change as part of the rebasing exercise:

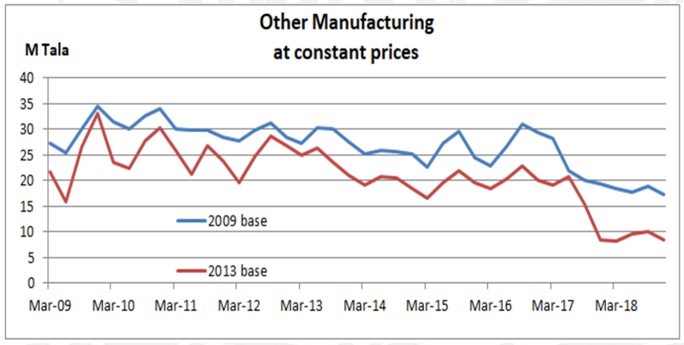
Some of the key results for GDP at current and constant 2013 prices compared to 2009 prices;

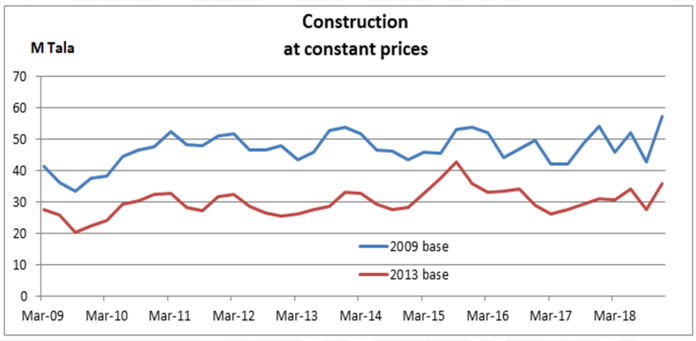




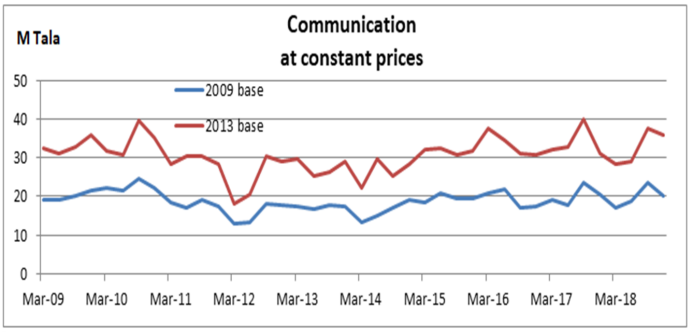


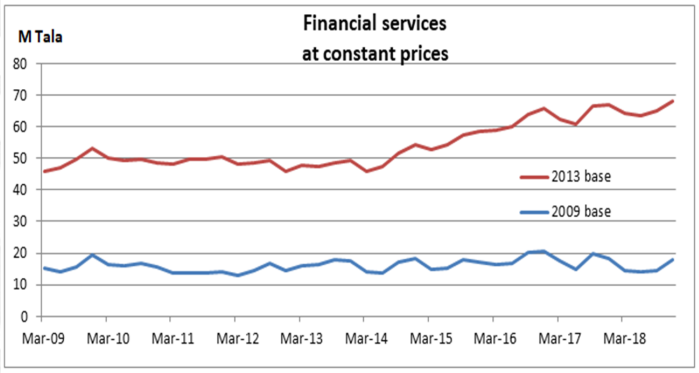






The gap between the two base periods for the Construction and Other Manufacturing reflects the change in the level of activities in the two periods, with 2013 having a lower end compared to 2009. On the other hand Communication indicated that there have been more activities in the 2013 period compared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

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 sixth 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.

ABOUT GROSS DOEMSTIC 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 de-ducting 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

This update incorporates revisions to estimates of value added for Agriculture, Food & Beverage manufacturing, Other manufacturing and Public Administration in the March 2020 quarter due to the availability of the latest available data from data providers.

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

Samoa Bureau of Statistics

SBS Vision:
"To strengthen Statistical services for the development of Samoa"

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