



PAPUA NEW GUINEA NATIONAL ACCOUNTS 2013 to 2019

GROSS DOMESTIC PRODUCT AT CURRENT AND CONSTANT PRICE

EMBARGO: 11:30am, Thursday 04th November, 2021

2019
K83.8
billion

GDP at Current Price

Grew by K4.4 billion or 5.6% increase. The increase represents an increase in both production volumes and prices.

Over the past 10 years Current Price GDP has an increase of 162% or K51.8 billion from 2009 to 2019

2018
K79.4
billion

GDP at Constant Price

Grew by K2.8 billion or 4.5% increase. Constant price GDP only includes increases in production volumes.

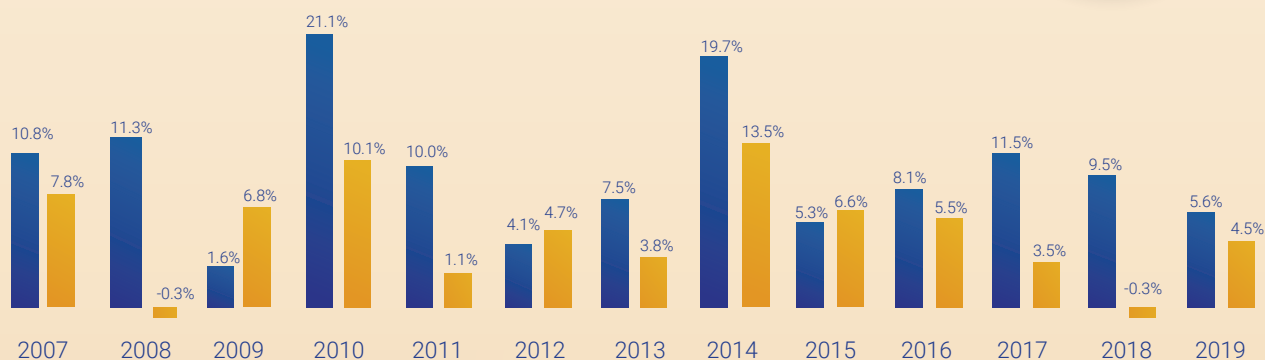
Over the past 10 years Constant Price GDP has an increase of 67% or K26.3 billion from 2009 to 2019

2019
K65.7
billion

2018
K62.9
billion

GDP Growth 2007 - 2019

■ Current Price GDP ■ Constant Price GDP



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FOREWORD

It is my pleasure to release the Papua New Guinea National Accounts publication on Gross Domestic Product (GDP) at Current and Constant prices for the years 2013 to 2019. The release of this National Accounts series is another milestone achievement for the National Statistical Office (NSO) in its endeavour to provide timely and quality statistics to the many users of statistical information.

Production of timely and quality statistics to meet the ever-increasing demand for statistical information is always challenging to Statistical Offices around the world and PNG NSO is no exception. A key challenge faced by PNG NSO currently is the coordination and collection of source data, in particular administrative data collected by other state agencies. The compilation of data from these sources into a coherent set of accounts is also a challenge. As the mandated agency to provide statistical services to the community, the NSO strives to overcome these challenges, thus, this release of the national accounts figures is an indication of the efforts the NSO is putting into improving the production of timely and reliable statistics. However, more work needs to be done by the NSO and the reporting community to further improve the quality of statistics for Papua New Guinea.

In the production of this series of National Accounts figures, there were other stakeholders that assisted NSO and I wish to acknowledge their efforts and contribution including other international organisations for the continuous support to NSO. Thus, our sincere gratitude to the Australian Bureau of Statistics (ABS) for the technical assistance provided through their advisors under the partnership arrangement between ABS and PNG NSO in providing advice, guidance, training and mentoring of NSO staff and assistance in the compilation process.


I acknowledge the contributions of the Department of Treasury, and the Bank of Papua New Guinea, our major stakeholders, in providing data and being part of the GDP discussion team with NSO throughout the whole process.

I also extend our appreciation to the Internal Revenue Commission (IRC) for providing the Goods and Services Tax (GST) and Company Income Tax (CIT) data for 2019; and other government agencies that provided the required data to compile this series of National Accounts.

My gratitude goes to all the business houses in the private sector throughout Papua New Guinea which provided the raw financial and non-financial data needed either through NSO's Survey of Business Activities (SBA) or the Business Liaison Survey (BLS) conducted by the Bank of Papua New Guinea. The provision of these data has enabled NSO to produce this National Accounts series, 2013 to 2019.

I take this opportunity to urge all stakeholders to foster and promote this collaborative effort which will contribute to making NSO's statistical system effective because we do have the legitimacy backed up by the Statistical Services Act (1980) that provides both the safeguards of confidentiality for the providers of raw data and assurance of integrity and accessibility for users.

Finally, with improved data sources, sound statistical methods, new technologies and strengthened statistical systems, these are critical enablers to better decisions that eventually results in better lives for all of us. As the saying goes: Better Data, Better Lives!



JOHN ASEAVUI IGITON
ACTING NATIONAL STATISTICIAN

REVISION ANALYSIS

There is no revision in this publication. GDP estimates from 2006 to 2018 remain unchanged.

OVERVIEW OF PAPUA NEW GUINEA ECONOMY, 2013 to 2019

Gross Domestic Product (GDP), 2013 to 2019

GDP at Current Prices

In 2019 the PNG economy grew by K4.4 billion, reaching a level of K83.8 billion, an increase of 5.6%. Current Price GDP increases include both increases in production volumes and increases in prices.

Key contributing industries were:

- Mining and Quarrying, +7.4%, + K1,633 million
- Agriculture, Forestry and Fishing, +5.6%, +K757 million
- Admin and Support Services, +8.6%, +K507 million

The main offset to this increase was Construction with a fall of 5.5%, -K276 million.

GDP at Constant Price

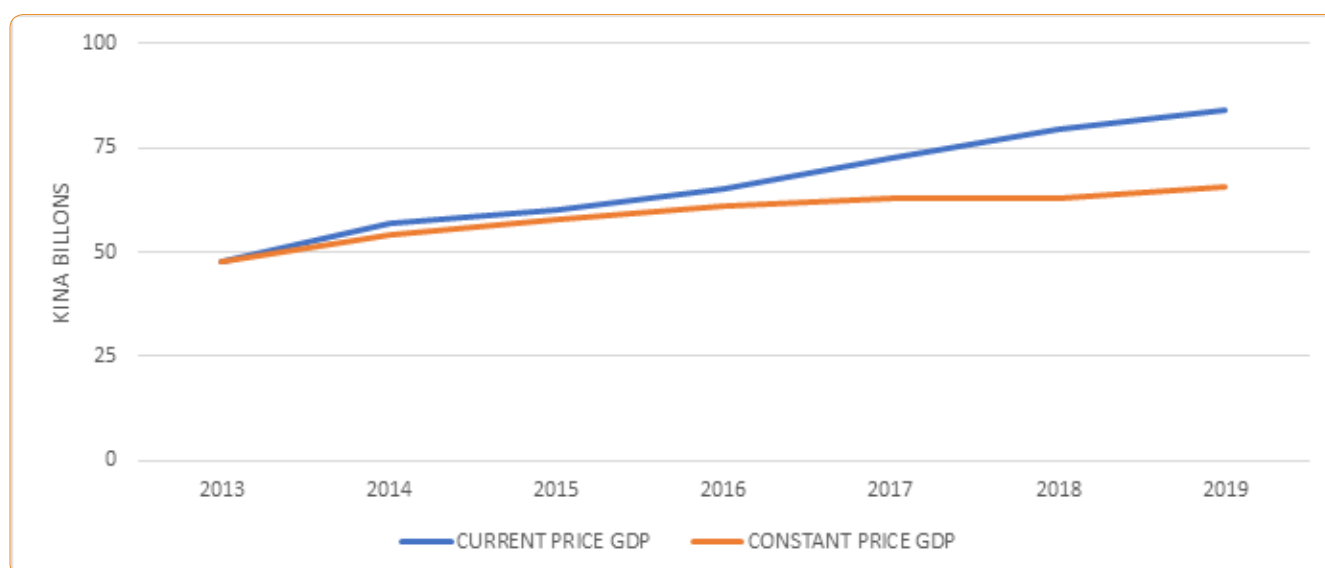
In 2019 the PNG economy grew by K2.8 billion, reaching a level of K65.7 billion, an increase of 4.5%. Constant Price GDP increases include increases in production volumes only.

Key contributing industries were:

- Mining and Quarrying, +11.3%, + K2,114 million
- Agriculture, Forestry and Fishing, +2.3%, +K230 million
- Information & Communication, + 15.9%, +K193 million

The main offset to this increase was Construction with a fall of 8.6%, -K317 million.

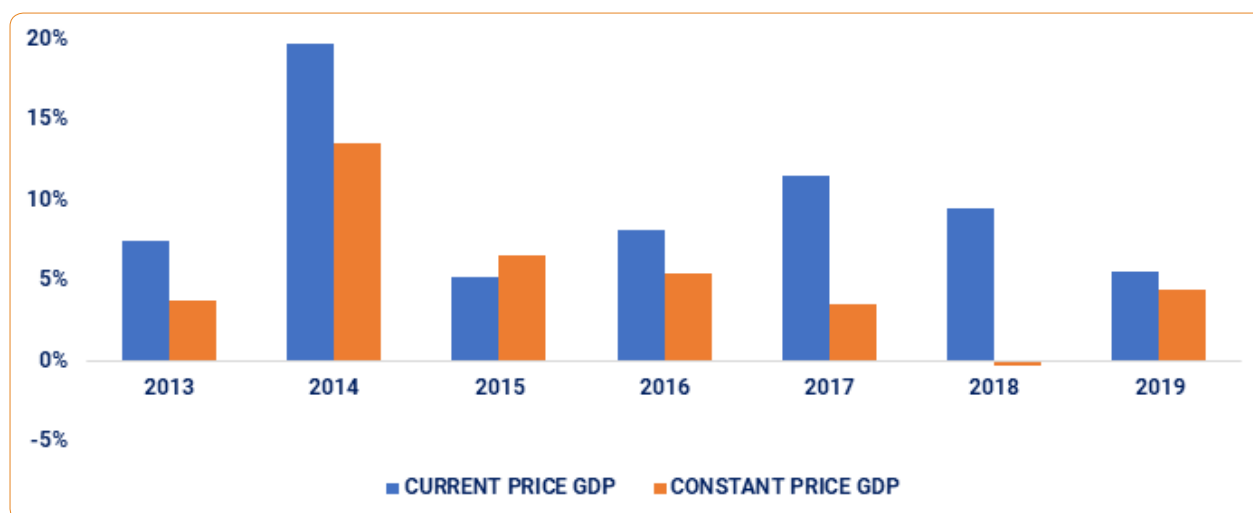
FIGURE 1. GDP LEVELS, 2013 to 2019



GDP levels show a moderate increase in PNG's economy from years 2013 to 2019 (See Figure 1). Current Price GDP increased from K47.7 billion in 2013 to K83.8 billion in 2019, this is an increase of 76%. Constant Price GDP increased from K47.7 billion in 2013 to K65.7 billion in 2019, this is an increase of 38%.

In 2013, the Current and Constant Price GDP figures are the same. It is the base year for the calculation of Constant Price GDP estimates; thus, the Constant Price estimates are all in 2013 prices whereas the Current Price GDP is valued using the prices prevailing in the respective years.

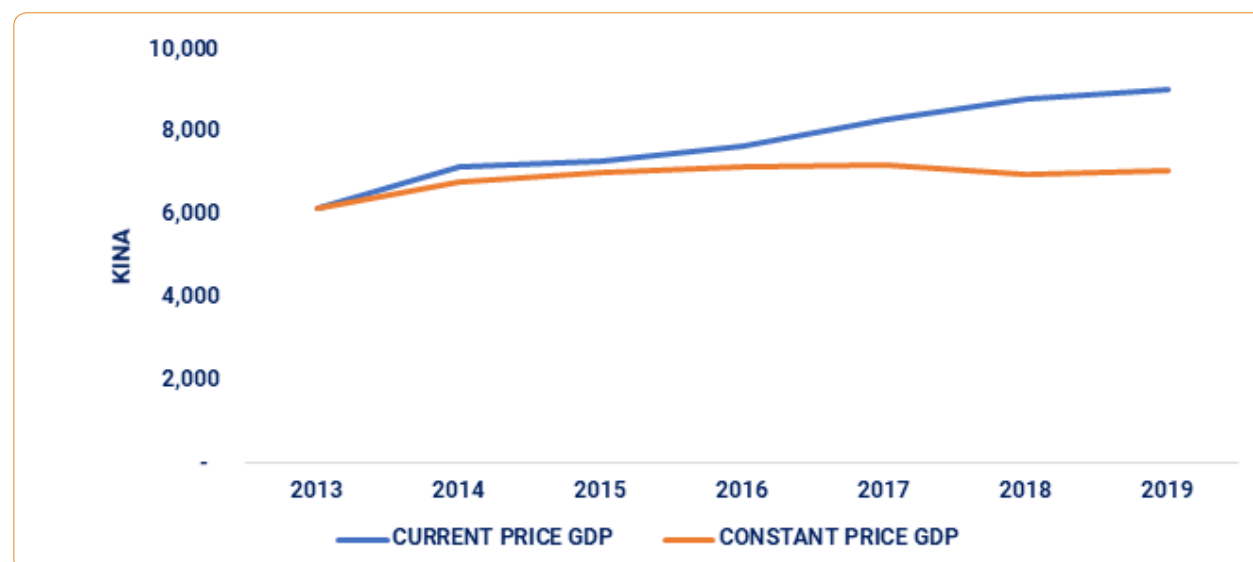
FIGURE 2. GDP GROWTH 2013 to 2019



GDP in Current Price and Constant Price for PNG showed positive growth for all years (2013 to 2019) except in 2018 where the Constant Price saw a small fall of -0.3 % due to the impact of the earth quake on LNG production.

Current Price GDP in 2014 showed a strong increase of 19.7% due to the commencement of LNG production.

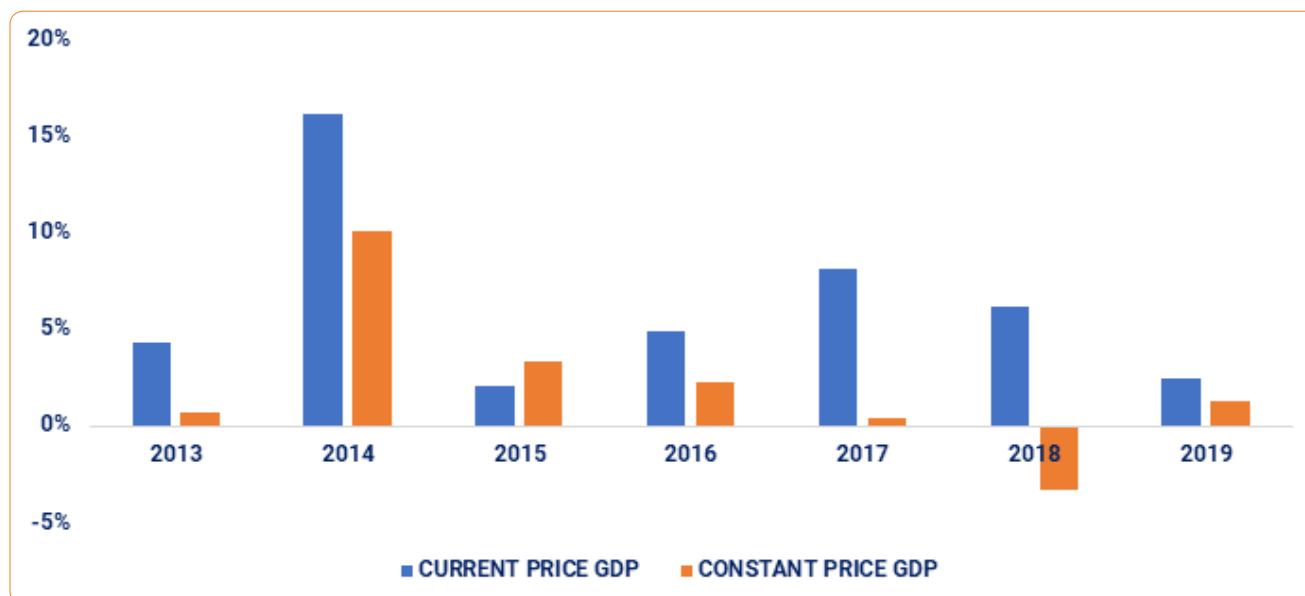
FIGURE 3. GDP PER CAPITA IN LEVELS, KINA, 2013 to 2019



The level of Current Price GDP per capita has increased from K6,169 in 2013 to K9,019 in 2019, an increase of 46.2%.

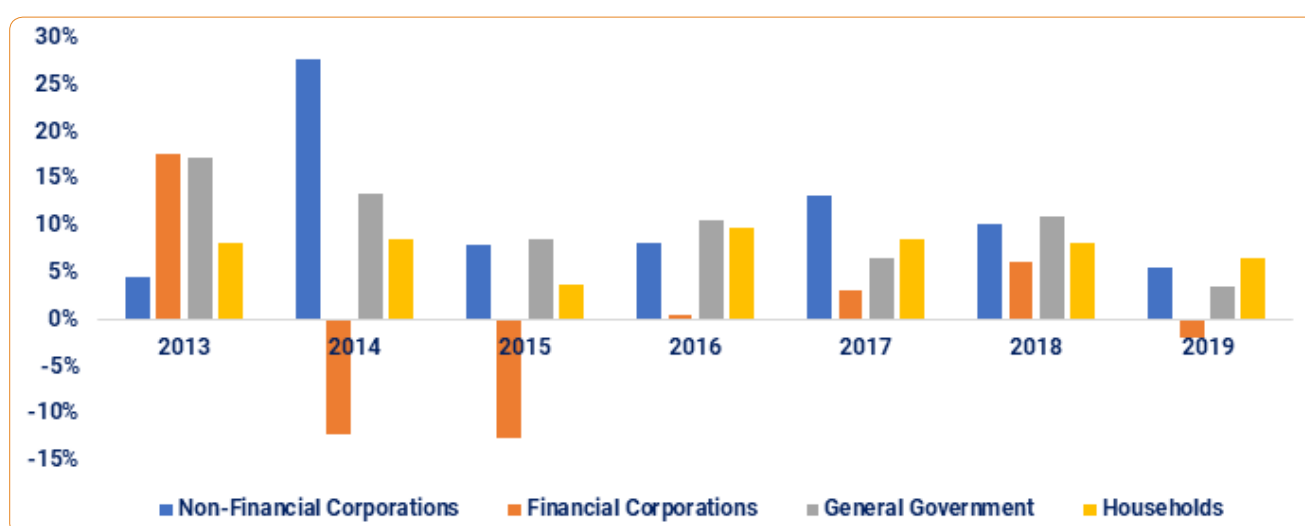
The level of Constant Price GDP per capita has increased from K6,169 in 2013 to K7,069 in 2019, an increase of 14.6%.

FIGURE 4. GDP PER CAPITA, PERCENTAGE (%), 2013 to 2019



Current Price GDP per Capita increased from K8,806 in 2018 to K9,019 in 2019, a growth of 2.4 %. Constant Price GDP per Capita increased from K6,975 in 2018 to K7,069 in 2019, a growth of 1.3 %.

FIGURE 5. GVA GROWTH BY INSTITUTIONAL SECTORS, 2013 to 2019



The graph above details the growth of four institutional sectors: Non-Financial Corporations, General Government, Financial Corporations and Households.

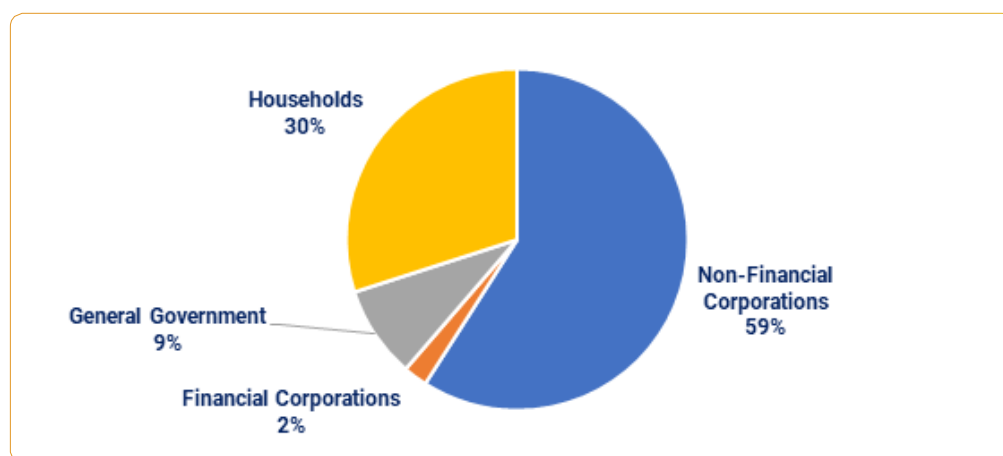
Non-Financial Corporations Sector recorded a growth of 10.1 % in 2018 and 5.6 % in 2019. The Non-Financial Sector highest recorded growth was 27.8 % in 2014 due to the commencement in LNG production.

General Government Sector has shown moderate increases from 2013 to 2019. The strongest increase was 19.8% in 2011.

Financial Corporations Sector showed a decline in 2014 and 2015, due to new policies implemented by the Government to the commercial banks to restrict foreign exchange fees and explicit charges. In 2019, the fall was due to a reduced difference between loans and deposit rates.

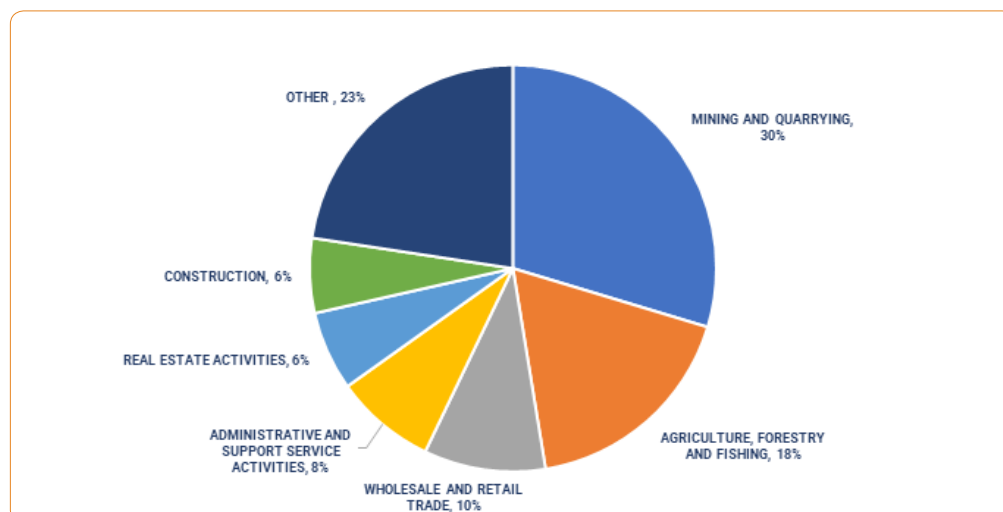
Household Sector has shown moderate increases from 2013 to 2019. However, 2015 reported a low increase of 3.7% due to the impact of the drought.

FIGURE 6. INSTITUTIONAL SECTOR SHARE, 2019 AT CURRENT PRICE



The graph above details the share of four institutional sectors to the total economy in 2019. That is Non-Financial Corporations, General Government, Financial Corporations and Households respectively. Sector share is defined as the amount of economic activity in a particular institutional sector as a percentage of total economic activity. Figure 6 shows that 59% of all economic activity in 2019 was generated by Non-Financial Corporations.

FIGURE 7. INDUSTRY SHARE, CURRENT PRICE, 2019



Industry share is the amount of economic activity in a particular Industry as a percentage¹ of total economic activity. Figure 7 shows that the Mining and Quarrying Industry was the largest industry in 2019, with 30% of the economic activity.

The second and third largest industries in 2019 are Agriculture, Forestry & Fishing with 18% and Wholesale & Retail with 10%.

Other (23%) is the combination of the smallest 14 industries.

The industry statistics in this publication are based on the PNG Standard Industrial Classification (PNSIC), 2014.

FIGURE 8. INDUSTRY SHARE¹ , CURRENT PRICE, 2013

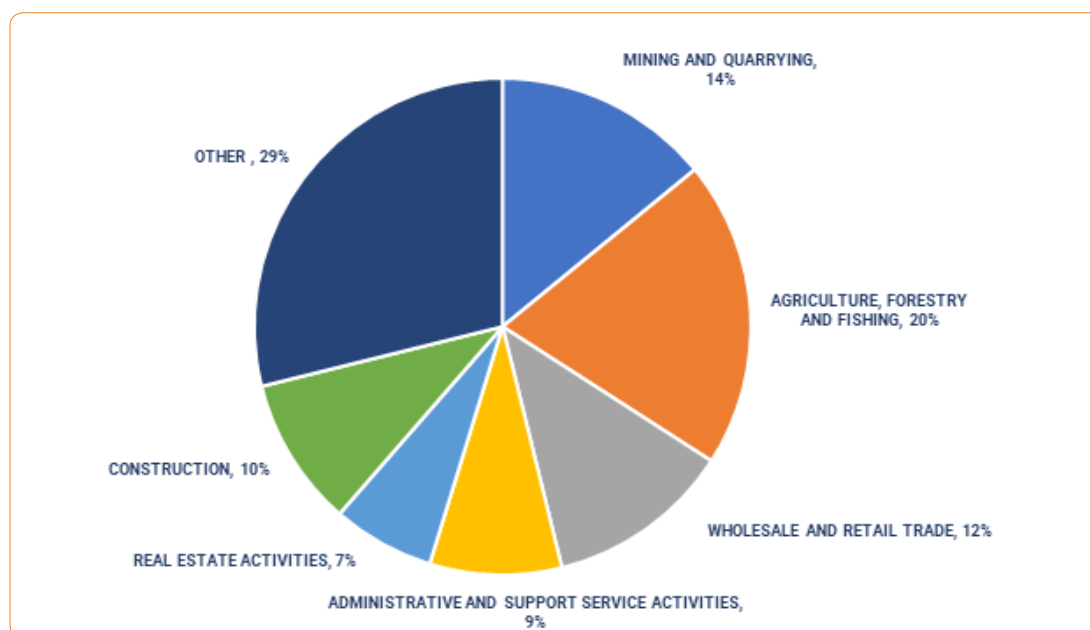


Figure 8 shows that the Agriculture, Fishing and Forestry Industry was the largest industry in 2013, with 20% of the economic activity.

The second and third largest industries in 2013 were Mining and Quarrying with 14% and Wholesale & Retail with 12%.

Other (23%) is the combination of the smallest 14 industries.

COMPARISON OF INDUSTRY SHARES, 2013 and 2019.

In 2013, the largest industry was Agriculture, Forestry and Fishing with a 20% of total economic activity. From 2013 to 2019 the PNG economy experience strong growth in Mining and Quarrying with the commencement of the LNG production. This drove a change in the composition of the PNG economy, with Mining and Quarrying PNG's largest industry since 2014. In 2019, Mining and Quarrying accounted for 30% of total economic activity.

¹ Percentages may not add up to 100 due to rounding.

TABLE 1. KEY AGGREGATES

**TABLE 1A. GDP LEVELS, CURRENT PRICE AND CONSTANT PRICE
(KINA BILLIONS)**

	2013	2014	2015	2016	2017	2018	2019
CURRENT PRICE GDP	47.7	57.1	60.1	65.0	72.5	79.4	83.8
CONSTANT PRICE GDP	47.7	54.2	57.7	60.9	63.1	62.9	65.7

TABLE 1B. GDP GROWTH, CURRENT PRICE AND CONSTANT PRICE, CHANGE (a)

	2013	2014	2015	2016	2017	2018	2019
CURRENT PRICE GDP	7.5%	19.7%	5.3%	8.1%	11.5%	9.5%	5.6%
CONSTANT PRICE GDP	3.8%	13.5%	6.6%	5.5%	3.5%	-0.3%	4.5%

**TABLE 1C. GDP PER CAPITA, CURRENT PRICE AND CONSTANT PRICE
(KINA)**

	2013	2014	2015	2016	2017	2018	2019
CURRENT PRICE GDP (a)	6,169	7,163	7,314	7,672	8,294	8,806	9,019
CONSTANT PRICE GDP	6,169	6,794	7,022	7,183	7,212	6,975	7,069

TABLE 1D. GDP PER CAPITA, CURRENT PRICE AND CONSTANT PRICE, CHANGE (a)

	2013	2014	2015	2016	2017	2018	2019
CURRENT PRICE GDP	4.3%	16.1%	2.1%	4.9%	8.1%	6.2%	2.4%
CONSTANT PRICE GDP	0.7%	10.1%	3.4%	2.3%	0.4%	-3.3%	1.3%

(a) Percentage change on preceding year.

TABLE 2. INDUSTRY OUTPUT, CURRENT PRICE ESTIMATES

(KINA MILLIONS)

		2013	2014	2015	2016	2017	2018	2019
A	AGRICULTURE, FORESTRY AND FISHING	13211	14792	15018	16438	18663	19155	19544
	Crop and animal production	11023	12121	12102	12801	14900	15004	15289
	Forestry and logging	1342	1629	1722	1842	1660	1864	1928
	Fishing and aquaculture	846	1042	1194	1795	2103	2287	2327
B	MINING AND QUARRYING	10515	18640	21206	21784	27232	31010	33361
	Extraction of crude petroleum and natural gas	2447	10282	13850	12382	15325	17805	18871
	Other Mining	8068	8358	7356	9402	11907	13205	14490
C	MANUFACTURING	6070	6317	5771	6391	6988	6765	6963
D	ELECTRICITY,GAS,STEAM AND AIRCONDITIONING SUPPLY	1129	1229	1264	1329	1391	1502	1615
E	WATER SUPPLY, SEWAGE, WASTE MANAGEMENT	325	361	369	384	404	445	463
F	CONSTRUCTION	12338	13476	12590	13687	12868	13316	11935
G	WHOLESALE AND RETAIL TRADE	7521	7964	7905	8536	9049	9604	10064
H	TRANSPORT AND STORAGE	5024	4532	4664	4860	5067	5374	5790
I	ACCOMODATION AND FOOD SERVICE ACTIVITY	1619	1700	1818	1885	2008	2366	2313
J	INFORMATION AND COMMUNICATION	1661	2125	2239	2341	2399	2598	2972
K	FINANCIAL AND INSURANCE ACTIVITIES	3411	3472	3209	3303	3368	3589	3612
	Finance	2315	2209	2034	2025	2140	2282	2219
	Insurance	1095	1263	1174	1277	1228	1307	1393
L	REAL ESTATE ACTIVITIES	4040	4354	4760	5353	5848	6218	6623
	Rent & Other	1802	1927	2107	2435	2677	2799	2965
	Imputed Rent	2238	2427	2653	2918	3172	3419	3658
M	PROFESSIONAL,SCIENTIFIC AND TECHNICAL ACTIVITIES	1388	1350	1170	1224	1225	1161	1346
N	ADMINISTRATIVE AND SUPPORT SERVICE ACTIVITIES	6609	7080	7314	7842	8304	9836	10636
O	PUBLIC ADMINISTRATION AND DEFENCE, COMPULSORY SOCIAL SECURITY	7980	8013	6820	7025	7486	9812	1061
P	EDUCATION	1840	1935	2012	2249	2306	2561	253
Q	HUMAN HEALTH AND SOCIAL WORK ACTIVITIES	2406	3200	3138	2745	2725	2927	1578
R	ARTS,ENTERTAINMENT AND RECREATION	61	60	57	60	52	57	58
S	OTHER SERVICE ACTIVITIES	1608	1534	1401	1449	1471	1546	1664
T	ACTIVITIES OF HOUSEHOLDS AS EMPLOYERS	22	23	26	28	31	33	35
	Output at Basic Prices	88777	102159	102749	108913	118885	129876	141430

TABLE 3. INDUSTRY OUTPUT, CURRENT PRICE ESTIMATES - CHANGE (a)

	2013	2014	2015	2016	2017	2018	2019
A AGRICULTURE, FORESTRY AND FISHING	6.0%	12.0%	1.5%	9.5%	13.5%	2.6%	2.0%
Crop and animal production	-	10.0%	-0.2%	5.8%	16.4%	0.7%	1.9%
Forestry and logging		21.4%	5.7%	6.9%	-9.9%	12.3%	3.5%
Fishing and aquaculture	-	23.1%	14.6%	50.4%	17.2%	8.8%	1.7%
B MINING AND QUARRYING	4.4%	77.3%	13.8%	2.7%	25.0%	13.9%	7.6%
Extraction of crude petroleum and natural gas	9.2%	320%	34.7%	-10.6%	23.8%	16.2%	6.0%
Other Mining	3.1%	3.6%	-12.0%	27.8%	26.6%	10.9%	9.7%
C MANUFACTURING	6.0%	4.1%	-8.7%	10.7%	9.4%	-3.2%	2.9%
D ELECTRICITY,GAS,STEAM AND AIRCONDITIONING SUPPLY	14.8%	8.9%	2.9%	5.1%	4.7%	8.0%	7.5%
E WATER SUPPLY, SEWAGE, WASTE MANAGEMENT	21.3%	11.1%	2.2%	4.2%	5.2%	10.0%	4.0%
F CONSTRUCTION	3.1%	9.2%	-6.6%	8.7%	-6.0%	3.5%	-10.4%
G WHOLESALE AND RETAIL TRADE	6.5%	5.9%	-0.7%	8.0%	6.0%	6.1%	4.8%
H TRANSPORT AND STORAGE	7.6%	-9.8%	2.9%	4.2%	4.3%	6.1%	7.7%
I ACCOMODATION AND FOOD SERVICE ACTIVITY	6.2%	5.0%	6.9%	3.7%	6.5%	17.8%	-2.3%
J INFORMATION AND COMMUNICATION	1.7%	27.9%	5.4%	4.6%	2.5%	8.3%	14.4%
K FINANCIAL AND INSURANCE ACTIVITIES	18.1%	1.8%	-7.6%	2.9%	2.0%	6.6%	0.6%
Finance	-	-4.6%	-7.9%	-0.4%	5.7%	6.6%	-2.8%
Insurance	-	15.3%	-7.0%	8.8%	-3.9%	6.5%	6.5%
L REAL ESTATE ACTIVITIES	11.0%	7.8%	9.3%	12.5%	9.3%	6.3%	6.5%
Rent & Other	-	6.9%	9.4%	15.6%	9.9%	4.6%	5.9%
Imputed Rent	-	8.5%	9.3%	10.0%	8.7%	7.8%	7.0%
M PROFESSIONAL,SCIENTIFIC AND TECHNICAL ACTIVITIES	1.7%	-2.7%	-13.3%	4.6%	0.1%	-5.2%	15.9%
N ADMINISTRATIVE AND SUPPORT SERVICE ACTIVITIES	-0.2%	7.1%	3.3%	7.2%	5.9%	18.5%	8.1%
O PUBLIC ADMINISTRATION AND DEFENCE, COMPULSORY SOCIAL SECURITY	32.2%	0.4%	-14.9%	3.0%	6.6%	31.1%	-89.2%
P EDUCATION	30.1%	5.2%	4.0%	11.7%	2.6%	11.0%	-90.1%
Q HUMAN HEALTH AND SOCIAL WORK ACTIVITIES	27.4%	33.0%	-1.9%	-12.5%	-0.7%	7.4%	-46.1%
R ARTS,ENTERTAINMENT AND RECREATION	-9.5%	-1.9%	-4.4%	5.3%	-13.3%	8.7%	2.4%
S OTHER SERVICE ACTIVITIES	10.7%	-4.6%	-8.7%	3.4%	1.5%	5.1%	7.6%
T ACTIVITIES OF HOUSEHOLDS AS EMPLOYERS	8.3%	8.5%	9.3%	10.0%	8.7%	7.8%	7.0%
Output at Basic Prices	8.6%	15.1%	0.6%	6.0%	9.2%	9.2%	8.9%

(a) Percentage change on preceding year.

TABLE 4. INDUSTRY GROSS VALUE ADDED, CURRENT PRICE ESTIMATES

(KINA MILLIONS)

	2013	2014	2015	2016	2017	2018	2019
A AGRICULTURE, FORESTRY AND FISHING	9191	10108	10498	11620	12800	13478	14234
Crop and animal production	8065	8794	9049	9877	10967	11469	12149
Forestry and logging	586	689	733	799	761	852	888
Fishing and aquaculture	540	625	717	944	1072	1157	1196
B MINING AND QUARRYING	6478	11959	14517	15520	19382	22125	23758
Extraction of crude petroleum and natural gas	1515	6786	9972	9658	11954	13888	14720
Other Mining	4963	5173	4545	5862	7428	8237	9039
C MANUFACTURING	1165	1216	1069	1256	1411	1369	1418
D ELECTRICITY,GAS,STEAM AND AIRCONDITIONING SUPPLY	453	497	514	541	588	638	686
E WATER SUPPLY, SEWAGE, WASTE MANAGEMENT	96	112	113	125	138	152	158
F CONSTRUCTION	4473	4947	4720	5145	4850	5035	4760
G WHOLESALE AND RETAIL TRADE	5543	5887	5817	6346	6845	7369	7750
H TRANSPORT AND STORAGE	1423	1304	1381	1462	1615	1773	2013
I ACCOMODATION AND FOOD SERVICE ACTIVITY	949	1007	1071	1131	1212	1440	1416
J INFORMATION AND COMMUNICATION	774	966	1002	1048	1074	1167	1335
K FINANCIAL AND INSURANCE ACTIVITIES	2340	2083	1855	1881	1951	2076	2055
Finance	1909	1674	1510	1504	1589	1691	1645
Insurance	431	409	346	378	363	385	411
L REAL ESTATE ACTIVITIES	3057	3307	3632	4080	4454	4741	5055
Rent & Other	1155	1244	1377	1600	1758	1836	1945
Imputed Rent	1902	2063	2255	2480	2696	2906	3110
M PROFESSIONAL,SCIENTIFIC AND TECHNICAL ACTIVITIES	863	835	676	696	682	647	793
N ADMINISTRATIVE AND SUPPORT SERVICE ACTIVITIES	3949	4166	4317	4705	5031	5924	6431
O PUBLIC ADMINISTRATION AND DEFENCE, COMPULSORY SOCIAL SECURITY	2334	2737	2986	3193	3358	3801	3929
P EDUCATION	1392	1571	1697	1875	1969	2113	2187
Q HUMAN HEALTH AND SOCIAL WORK ACTIVITIES	974	1052	1132	1375	1436	1516	1573
R ARTS,ENTERTAINMENT AND RECREATION	24	27	26	27	25	28	29
S OTHER SERVICE ACTIVITIES	458	446	415	403	420	447	481
T ACTIVITIES OF HOUSEHOLDS AS EMPLOYERS	19	20	22	24	26	28	30
GVA at Basic Prices	45955	54247	57459	62454	69267	75867	80092
Taxes less subsidies on products	1766	2884	2680	2584	3255	3537	3753
Gross Domestic Product (GDP)	47721	57131	60139	65038	72522	79405	83845

TABLE 5. INDUSTRY GROSS VALUE ADDED, CURRENT PRICE ESTIMATES - CHANGE (a)

	2013	2014	2015	2016	2017	2018	2019
A AGRICULTURE, FORESTRY AND FISHING	7.5%	10.0%	3.9%	10.7%	10.2%	5.3%	5.6%
Crop and animal production	-	9.0%	2.9%	9.2%	11.0%	4.6%	5.9%
Forestry and logging		17.6%	6.4%	8.9%	-4.7%	11.9%	4.3%
Fishing and aquaculture	-	15.7%	14.7%	31.7%	13.5%	8.0%	3.3%
B MINING AND QUARRYING	3.6%	84.6%	21.4%	6.9%	24.9%	14.2%	7.4%
Extraction of crude petroleum and natural gas	8.3%	348%	46.9%	-3.1%	23.8%	16.2%	6.0%
Other Mining	2.2%	4.2%	-12.1%	29.0%	26.7%	10.9%	9.7%
C MANUFACTURING	6.4%	4.4%	-12.1%	17.5%	12.3%	-3.0%	3.6%
D ELECTRICITY,GAS,STEAM AND AIRCONDITIONING SUPPLY	17.4%	9.7%	3.4%	5.3%	8.7%	8.5%	7.5%
E WATER SUPPLY, SEWAGE, WASTE MANAGEMENT	16.3%	16.5%	0.8%	10.7%	10.5%	10.3%	4.0%
F CONSTRUCTION	1.3%	10.6%	-4.6%	9.0%	-5.7%	3.8%	-5.5%
G WHOLESALE AND RETAIL TRADE	8.1%	6.2%	-1.2%	9.1%	7.9%	7.7%	5.2%
H TRANSPORT AND STORAGE	8.4%	-8.4%	5.8%	5.9%	10.4%	9.8%	13.6%
I ACCOMODATION AND FOOD SERVICE ACTIVITY	7.9%	6.2%	6.3%	5.6%	7.1%	18.8%	-1.6%
J INFORMATION AND COMMUNICATION	6.0%	24.8%	3.8%	4.6%	2.5%	8.6%	14.4%
K FINANCIAL AND INSURANCE ACTIVITIES	17.0%	-11.0%	-10.9%	1.4%	3.7%	6.4%	-1.0%
Finance	-	-12.3%	-9.8%	-0.4%	5.7%	6.4%	-2.7%
Insurance	-	-5.3%	-15.4%	9.3%	-4.0%	6.2%	6.5%
L REAL ESTATE ACTIVITIES	11.0%	8.2%	9.8%	12.3%	9.1%	6.5%	6.6%
Rent & Other	-	7.7%	10.7%	16.2%	9.9%	4.4%	6.0%
Imputed Rent	-	8.5%	9.3%	10.0%	8.7%	7.8%	7.0%
M PROFESSIONAL,SCIENTIFIC AND TECHNICAL ACTIVITIES	1.2%	-3.3%	-19.1%	2.9%	-1.9%	-5.2%	22.6%
N ADMINISTRATIVE AND SUPPORT SERVICE ACTIVITIES	1.6%	5.5%	3.6%	9.0%	6.9%	17.8%	8.6%
O PUBLIC ADMINISTRATION AND DEFENCE, COMPULSORY SOCIAL SECURITY	16.5%	17.3%	9.1%	6.9%	5.2%	13.2%	3.4%
P EDUCATION	23.8%	12.9%	8.0%	10.5%	5.0%	7.3%	3.5%
Q HUMAN HEALTH AND SOCIAL WORK ACTIVITIES	12.2%	8.0%	7.6%	21.4%	4.5%	5.6%	3.8%
R ARTS,ENTERTAINMENT AND RECREATION	-24.2%	11.8%	-6.2%	5.0%	-6.2%	9.4%	4.0%
S OTHER SERVICE ACTIVITIES	9.5%	-2.7%	-7.0%	-2.9%	4.3%	6.4%	7.6%
T ACTIVITIES OF HOUSEHOLDS AS EMPLOYERS	8.3%	8.5%	9.3%	10.0%	8.7%	7.8%	7.0%
GVA at Basic Prices	7.4%	18.0%	5.9%	8.7%	10.9%	9.5%	5.6%
Taxes less subsidies on products	12.1%	63.3%	-7.1%	-3.6%	26.0%	8.7%	6.1%
Gross Domestic Product (GDP)	7.5%	19.7%	5.3%	8.1%	11.5%	9.5%	5.6%

(a) Percentage change on preceding year.

TABLE 6. INDUSTRY SHARE OF GROSS VALUE ADDED, CURRENT PRICE (a)

		2013	2014	2015	2016	2017	2018	2019
A	AGRICULTURE, FORESTRY AND FISHING	20.0%	18.6%	18.3%	18.6%	18.5%	17.8%	17.8%
	Crop and animal production	17.5%	16.2%	15.7%	15.8%	15.8%	15.1%	15.2%
	Forestry and logging	1.3%	1.3%	1.3%	1.3%	1.1%	1.1%	1.1%
	Fishing and aquaculture	1.2%	1.2%	1.2%	1.5%	1.5%	1.5%	1.5%
B	MINING AND QUARRYING	14.1%	22.0%	25.3%	24.9%	28.0%	29.2%	29.7%
	Extraction of crude petroleum and natural gas	3.3%	12.5%	17.4%	15.5%	17.3%	18.3%	18.4%
	Other Mining	10.8%	9.5%	7.9%	9.4%	10.7%	10.9%	11.3%
C	MANUFACTURING	2.5%	2.2%	1.9%	2.0%	2.0%	1.8%	1.8%
D	ELECTRICITY,GAS,STEAM AND AIRCONDITIONING SUPPLY	1.0%	0.9%	0.9%	0.9%	0.8%	0.8%	0.9%
E	WATER SUPPLY, SEWAGE, WASTE MANAGEMENT	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
F	CONSTRUCTION	9.7%	9.1%	8.2%	8.2%	7.0%	6.6%	5.9%
G	WHOLESALE AND RETAIL TRADE	12.1%	10.9%	10.1%	10.2%	9.9%	9.7%	9.7%
H	TRANSPORT AND STORAGE	3.1%	2.4%	2.4%	2.3%	2.3%	2.3%	2.5%
I	ACCOMODATION AND FOOD SERVICE ACTIVITY	2.1%	1.9%	1.9%	1.8%	1.7%	1.9%	1.8%
J	INFORMATION AND COMMUNICATION	1.7%	1.8%	1.7%	1.7%	1.6%	1.5%	1.7%
K	FINANCIAL AND INSURANCE ACTIVITIES	5.1%	3.8%	3.2%	3.0%	2.8%	2.7%	2.6%
	Finance	4.2%	3.1%	2.6%	2.4%	2.3%	2.2%	2.1%
	Insurance	0.9%	0.8%	0.6%	0.6%	0.5%	0.5%	0.5%
L	REAL ESTATE ACTIVITIES	6.7%	6.1%	6.3%	6.5%	6.4%	6.2%	6.3%
	Rent & Other	2.5%	2.3%	2.4%	2.6%	2.5%	2.4%	2.4%
	Imputed Rent	4.1%	3.8%	3.9%	4.0%	3.9%	3.8%	3.9%
M	PROFESSIONAL,SCIENTIFIC AND TECHNICAL ACTIVITIES	1.9%	1.5%	1.2%	1.1%	1.0%	0.9%	1.0%
N	ADMINISTRATIVE AND SUPPORT SERVICE ACTIVITIES	8.6%	7.7%	7.5%	7.5%	7.3%	7.8%	8.0%
O	PUBLIC ADMINISTRATION AND DEFENCE, COMPULSORY SOCIAL SECURITY	5.1%	5.0%	5.2%	5.1%	4.8%	5.0%	4.9%
P	EDUCATION	3.0%	2.9%	3.0%	3.0%	2.8%	2.8%	2.7%
Q	HUMAN HEALTH AND SOCIAL WORK ACTIVITIES	2.1%	1.9%	2.0%	2.2%	2.1%	2.0%	2.0%
R	ARTS,ENTERTAINMENT AND RECREATION	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
S	OTHER SERVICE ACTIVITIES	1.0%	0.8%	0.7%	0.6%	0.6%	0.6%	0.6%
T	ACTIVITIES OF HOUSEHOLDS AS EMPLOYERS	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Output at Basic Prices	100%	100%	100%	100%	100%	100%	100%

(a) Percentage of the total

**TABLE 7A. GROSS VALUE ADDED BY INSTITUTIONAL SECTOR,
CURRENT PRICE ESTIMATES**

(KINA MILLIONS)

	2013	2014	2015	2016	2017	2018	2019
Non-Financial Corporations	24059	30739	33165	35895	40644	44752	47280
Financial Corporations	2202	1933	1692	1702	1756	1865	1830
Government	4185	4749	5157	5699	6076	6749	6983
Households	15510	16825	17445	19159	20790	22501	24001
Gross Value Added at Basic Prices	45955	54247	57459	62454	69267	75867	80092

**TABLE 7B. GROSS VALUE ADDED BY INSTITUTIONAL SECTOR,
CURRENT PRICE - CHANGE (a)**

	2013	2014	2015	2016	2017	2018	2019
Non-Financial Corporations	4.5%	27.8%	7.9%	8.2%	13.2%	10.1%	5.6%
Financial Corporations	17.6%	-12.2%	-12.5%	0.6%	3.2%	6.2%	-1.9%
Government	17.3%	13.5%	8.6%	10.5%	6.6%	11.1%	3.5%
Households	8.3%	8.5%	3.7%	9.8%	8.5%	8.2%	6.7%
Gross Value Added at Basic Prices	7.4%	18.0%	5.9%	8.7%	10.9%	9.5%	5.6%

(a) Percentage change on preceding year.

TABLE 8. INDUSTRY GROSS VALUE ADDED, CONSTANT PRICE ESTIMATES

(KINA MILLIONS)

	2013	2014	2015	2016	2017	2018	2019
A AGRICULTURE, FORESTRY AND FISHING	9191	9503	9252	9497	9720	10165	10394
Crop and animal production	8065	8286	7922	8026	8327	8559	8777
Forestry and logging	586	631	690	682	579	693	692
Fishing and aquaculture	540	586	639	788	815	913	925
B MINING AND QUARRYING	6478	11264	16586	19124	20667	18775	20889
Extraction of crude petroleum and natural gas	1515	6055	11249	12860	13390	11340	13057
Other Mining	4963	5209	5337	6264	7277	7436	7832
C MANUFACTURING	1165	1155	1006	1043	1082	1009	1003
D ELECTRICITY,GAS,STEAM AND AIRCONDITIONING SUPPLY	453	473	487	512	536	559	581
E WATER SUPPLY, SEWAGE, WASTE MANAGEMENT	96	86	87	91	95	105	109
F CONSTRUCTION	4473	4644	4103	4182	3739	3704	3387
G WHOLESALE AND RETAIL TRADE	5543	5612	5274	5363	5427	5532	5616
H TRANSPORT AND STORAGE	1423	1233	1312	1344	1360	1407	1458
I ACCOMODATION AND FOOD SERVICE ACTIVITY	949	949	969	972	1014	1119	1104
J INFORMATION AND COMMUNICATION	774	1049	1104	1152	1180	1209	1402
K FINANCIAL AND INSURANCE ACTIVITIES	2340	1980	1664	1581	1556	1583	1510
Finance	1909	1591	1354	1264	1267	1289	1208
Insurance	431	388	310	318	289	294	302
L REAL ESTATE ACTIVITIES	3057	3136	3234	3392	3512	3582	3680
Rent & Other	1155	1175	1212	1308	1362	1366	1395
Imputed Rent	1902	1961	2022	2085	2149	2216	2285
M PROFESSIONAL,SCIENTIFIC AND TECHNICAL ACTIVITIES	863	798	653	640	608	551	615
N ADMINISTRATIVE AND SUPPORT SERVICE ACTIVITIES	3949	4023	3926	3949	3969	4485	4671
O PUBLIC ADMINISTRATION AND DEFENCE, COMPULSORY SOCIAL SECURITY	2334	2604	2703	2749	2800	3079	3095
P EDUCATION	1392	1500	1552	1640	1675	1726	1738
Q HUMAN HEALTH AND SOCIAL WORK ACTIVITIES	974	972	965	1117	1150	1215	1223
R ARTS,ENTERTAINMENT AND RECREATION	24	23	22	22	20	20	20
S OTHER SERVICE ACTIVITIES	458	419	367	357	346	349	362
T ACTIVITIES OF HOUSEHOLDS AS EMPLOYERS	19	19	20	20	21	22	22
GVA at Basic Prices	45955	51443	55284	58747	60477	60199	62882
Taxes less subsidies on products	1766	2741	2465	2172	2595	2698	2832
Gross Domestic Product (GDP)	47721	54185	57749	60919	63072	62896	65714

TABLE 9. INDUSTRY GROSS VALUE ADDED, CONSTANT PRICE ESTIMATES - CHANGE (a)

	2013	2014	2015	2016	2017	2018	2019
A AGRICULTURE, FORESTRY AND FISHING	4.7%	3.4%	-2.6%	2.7%	2.4%	4.6%	2.3%
Crop and animal production	-	2.7%	-4.4%	1.3%	3.7%	2.8%	2.6%
Forestry and logging	-	7.7%	9.4%	-1.2%	-15.1%	19.6%	-0.1%
Fishing and aquaculture	-	8.6%	9.1%	23.3%	3.3%	12.1%	1.3%
B MINING AND QUARRYING	5.1%	73.9%	47.3%	15.3%	8.1%	-9.2%	11.3%
Extraction of crude petroleum and natural gas	3.6%	300%	85.8%	14.3%	4.1%	-15.3%	15.1%
Other Mining	5.5%	4.9%	2.5%	17.4%	16.2%	2.2%	5.3%
C MANUFACTURING	1.7%	-0.9%	-12.9%	3.8%	3.7%	-6.7%	-0.6%
D ELECTRICITY,GAS,STEAM AND AIRCONDITIONING SUPPLY	12.2%	4.5%	2.9%	5.1%	4.6%	4.4%	4.0%
E WATER SUPPLY, SEWAGE, WASTE MANAGEMENT	11.2%	-10.9%	1.8%	4.2%	5.2%	10.0%	4.1%
F CONSTRUCTION	-3.2%	3.8%	-11.7%	1.9%	-10.6%	-0.9%	-8.6%
G WHOLESALE AND RETAIL TRADE	3.0%	1.2%	-6.0%	1.7%	1.2%	1.9%	1.5%
H TRANSPORT AND STORAGE	6.9%	-13.4%	6.4%	2.4%	1.2%	3.5%	3.6%
I ACCOMODATION AND FOOD SERVICE ACTIVITY	2.9%	0.1%	2.1%	0.3%	4.3%	10.4%	-1.3%
J INFORMATION AND COMMUNICATION	1.3%	35.5%	5.2%	4.4%	2.5%	2.5%	15.9%
K FINANCIAL AND INSURANCE ACTIVITIES	11.9%	-15.4%	-16.0%	-5.0%	-1.6%	1.8%	-4.6%
Finance	-	-16.6%	-14.9%	-6.6%	0.2%	1.8%	-6.3%
Insurance	-	-10.0%	-20.2%	2.4%	-8.9%	1.6%	2.6%
L REAL ESTATE ACTIVITIES	5.8%	2.6%	3.1%	4.9%	3.5%	2.0%	2.7%
Rent & Other	-	1.8%	3.2%	7.9%	4.2%	0.3%	2.1%
Imputed Rent	-	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%
M PROFESSIONAL,SCIENTIFIC AND TECHNICAL ACTIVITIES	-3.3%	-7.5%	-18.2%	-2.0%	-5.0%	-9.3%	11.6%
N ADMINISTRATIVE AND SUPPORT SERVICE ACTIVITIES	-3.0%	1.9%	-2.4%	0.6%	0.5%	13.0%	4.1%
O PUBLIC ADMINISTRATION AND DEFENCE, COMPULSORY SOCIAL SECURITY	8.5%	11.6%	3.8%	1.7%	1.9%	10.0%	0.5%
P EDUCATION	15.4%	7.8%	3.5%	5.7%	2.1%	3.1%	0.7%
Q HUMAN HEALTH AND SOCIAL WORK ACTIVITIES	5.4%	-0.2%	-0.8%	15.8%	3.0%	5.6%	0.7%
R ARTS,ENTERTAINMENT AND RECREATION	-27.6%	-4.1%	-6.0%	0.1%	-10.9%	3.7%	0.3%
S OTHER SERVICE ACTIVITIES	4.6%	-8.4%	-12.6%	-2.5%	-3.1%	0.8%	3.6%
T ACTIVITIES OF HOUSEHOLDS AS EMPLOYERS	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%
GVA at Basic Prices	3.7%	11.9%	7.5%	6.3%	2.9%	-0.5%	4.5%
Taxes less subsidies on products	7.1%	55.2%	-10.1%	-11.9%	19.5%	3.9%	5.0%
Gross Domestic Product (GDP)	3.8%	13.5%	6.6%	5.5%	3.5%	-0.3%	4.5%

(a) Percentage change on preceding year.

TABLE 10. GDP IMPLICIT PRICE INDICES BY INDUSTRY

PRICE INDEXES (2013 = 100.0)		2013	2014	2015	2016	2017	2018	2019
A	AGRICULTURE, FORESTRY AND FISHING	100.0	106.4	113.5	122.4	131.7	132.6	136.9
	Crop and animal production	100.0	106.1	114.2	123.1	131.7	134.0	138.4
	Forestry and logging	100.0	109.2	106.2	117.1	131.5	123.0	128.4
	Fishing and aquaculture	100.0	106.6	112.1	119.8	131.6	126.7	129.3
B	MINING AND QUARRYING	100.0	106.2	87.5	81.2	93.8	117.8	113.7
	Extraction of crude petroleum and natural gas	100.0	112.1	88.7	75.1	89.3	122.5	112.7
	Other Mining	100.0	99.3	85.1	93.6	102.1	110.8	115.4
C	MANUFACTURING	100.0	105.3	106.3	120.4	130.4	135.7	141.4
D	ELECTRICITY,GAS,STEAM AND AIRCONDITIONING SUPPLY	100.0	105.0	105.5	105.7	109.8	114.1	117.9
E	WATER SUPPLY, SEWAGE, WASTE MANAGEMENT	100.0	130.7	129.5	137.6	144.5	144.8	144.8
F	CONSTRUCTION	100.0	106.5	115.0	123.0	129.7	135.9	140.5
G	WHOLESALE AND RETAIL TRADE	100.0	104.9	110.3	118.3	126.1	133.2	138.0
H	TRANSPORT AND STORAGE	100.0	105.8	105.2	108.8	118.8	126.0	138.1
I	ACCOMODATION AND FOOD SERVICE ACTIVITY	100.0	106.1	110.4	116.3	119.5	128.6	128.2
J	INFORMATION AND COMMUNICATION	100.0	92.1	90.8	91.0	91.0	96.5	95.2
K	FINANCIAL AND INSURANCE ACTIVITIES	100.0	105.2	111.5	119.0	125.4	131.1	136.1
	Finance	100.0	105.2	111.5	119.0	125.4	131.1	136.1
	Insurance	100.0	105.2	111.5	119.0	125.4	131.1	136.1
L	REAL ESTATE ACTIVITIES	100.0	105.4	112.3	120.3	126.8	132.4	137.4
	Rent & Other	100.0	105.9	113.6	122.4	129.0	134.4	139.5
	Imputed Rent	100.0	105.2	111.5	119.0	125.4	131.1	136.1
M	PROFESSIONAL,SCIENTIFIC AND TECHNICAL ACTIVITIES	100.0	104.6	103.5	108.7	112.3	117.4	128.9
N	ADMINISTRATIVE AND SUPPORT SERVICE ACTIVITIES	100.0	103.6	110.0	119.1	126.7	132.1	137.7
O	PUBLIC ADMINISTRATION AND DEFENCE, COMPULSORY SOCIAL SECURITY	100.0	105.1	110.5	116.2	119.9	123.4	126.9
P	EDUCATION	100.0	104.7	109.4	114.3	117.6	122.4	125.8
Q	HUMAN HEALTH AND SOCIAL WORK ACTIVITIES	100.0	108.2	117.4	123.1	124.8	124.8	128.6
R	ARTS,ENTERTAINMENT AND RECREATION	100.0	116.5	116.2	121.9	128.3	135.5	140.4
S	OTHER SERVICE ACTIVITIES	100.0	106.3	113.1	112.7	121.3	128.0	132.9
T	ACTIVITIES OF HOUSEHOLDS AS EMPLOYERS	100.0	105.2	111.5	119.0	125.4	131.1	136.1
	GVA at Basic Prices	100.0	105.4	103.9	106.3	114.5	126.0	127.4

TABLE 11. GDP IMPLICIT PRICE INDICES BY INDUSTRY - CHANGE (a)

		2013	2014	2015	2016	2017	2018	2019
A	AGRICULTURE, FORESTRY AND FISHING	2.7%	6.4%	6.7%	7.8%	7.6%	0.7%	3.3%
	Crop and animal production	-	6.1%	7.6%	7.7%	7.0%	1.7%	3.3%
	Forestry and logging	-	9.2%	-2.7%	10.3%	12.3%	-6.4%	4.4%
	Fishing and aquaculture	-	6.6%	5.2%	6.9%	9.8%	-3.7%	2.0%
B	MINING AND QUARRYING	-1.4%	6.2%	-17.6%	-7.3%	15.6%	25.7%	-3.5%
	Extraction of crude petroleum and natural gas	4.6%	12.1%	-20.9%	-15.3%	18.9%	37.2%	-8.0%
	Other Mining	-3.1%	-0.7%	-14.3%	9.9%	9.1%	8.5%	4.2%
C	MANUFACTURING	4.6%	5.3%	0.9%	13.3%	8.3%	4.1%	4.2%
D	ELECTRICITY,GAS,STEAM AND AIRCONDITIONING SUPPLY	4.6%	5.0%	0.4%	0.2%	3.9%	3.9%	3.4%
E	WATER SUPPLY, SEWAGE, WASTE MANAGEMENT	4.6%	30.7%	-0.9%	6.3%	5.0%	0.3%	0.0%
F	CONSTRUCTION	4.6%	6.5%	8.0%	7.0%	5.4%	4.8%	3.4%
G	WHOLESALE AND RETAIL TRADE	4.9%	4.9%	5.2%	7.3%	6.6%	5.6%	3.6%
H	TRANSPORT AND STORAGE	1.3%	5.8%	-0.5%	3.4%	9.1%	6.1%	9.6%
I	ACCOMODATION AND FOOD SERVICE ACTIVITY	4.9%	6.1%	4.1%	5.3%	2.7%	7.6%	-0.3%
J	INFORMATION AND COMMUNICATION	4.6%	-7.9%	-1.4%	0.2%	0.0%	6.0%	-1.4%
K	FINANCIAL AND INSURANCE ACTIVITIES	4.6%	5.2%	6.0%	6.7%	5.4%	4.5%	3.8%
	Finance	-	5.2%	6.0%	6.7%	5.4%	4.5%	3.8%
	Insurance	-	5.2%	6.0%	6.7%	5.4%	4.5%	3.8%
L	REAL ESTATE ACTIVITIES	4.9%	5.4%	6.5%	7.1%	5.4%	4.4%	3.8%
	Rent & Other	-	5.9%	7.3%	7.7%	5.5%	4.1%	3.8%
	Imputed Rent	-	5.2%	6.0%	6.7%	5.4%	4.5%	3.8%
M	PROFESSIONAL,SCIENTIFIC AND TECHNICAL ACTIVITIES	4.6%	4.6%	-1.1%	5.0%	3.3%	4.5%	9.8%
N	ADMINISTRATIVE AND SUPPORT SERVICE ACTIVITIES	4.6%	3.6%	6.2%	8.4%	6.4%	4.2%	4.2%
O	PUBLIC ADMINISTRATION AND DEFENCE, COMPULSORY SOCIAL SECURITY	7.5%	5.1%	5.1%	5.1%	3.2%	2.9%	2.8%
P	EDUCATION	7.3%	4.7%	4.4%	4.6%	2.8%	4.1%	2.8%
Q	HUMAN HEALTH AND SOCIAL WORK ACTIVITIES	6.4%	8.2%	8.5%	4.9%	1.4%	-0.1%	3.1%
R	ARTS,ENTERTAINMENT AND RECREATION	4.7%	16.5%	-0.2%	4.9%	5.3%	5.6%	3.6%
S	OTHER SERVICE ACTIVITIES	4.7%	6.3%	6.4%	-0.4%	7.6%	5.5%	3.8%
T	ACTIVITIES OF HOUSEHOLDS AS EMPLOYERS	5.0%	5.2%	6.0%	6.7%	5.4%	4.5%	3.8%
	GVA at Basic Prices	3.5%	5.4%	-1.4%	2.3%	7.7%	10.0%	1.1%

(a) Percentage change on preceding year.

INTRODUCTION

This publication contains National Accounts estimates for the six (6) years from 2013 to 2019. Estimates are provided for Gross Domestic Product (GDP) by industry and institutional sector. For definitions and description of items in the national accounts, see Glossary.

CONCEPTS, SOURCES AND METHODS

PNG national accounts statistics are compiled in accordance with international standards contained in the System of National Accounts of 2008 (SNA08). National estimates are based on the concepts and conventions embodied in the SNA.

GROSS DOMESTIC PRODUCT (GDP)

GDP can be derived by three broad approaches: the income approach (I), the expenditure approach (E) and the production approach (P). A description of each approach is provided in the following paragraphs. While each approach should conceptually deliver the same GDP estimate, the results may differ with some possible differences when compiled independently using different data sources. The estimates presented in this publication have largely been derived by the production approach. The GDP derivation can incorporate the income and expenditure approaches as additional data sources on households and businesses becomes available.

Income approach (I)

GDP using the income approach is derived as the sum of compensation of employees, gross operating surplus, gross mixed income and taxes less subsidies on production and imports.

Expenditure approach (E)

GDP using the expenditure approach is derived as the sum of all final expenditures, changes in inventories and exports of goods and services less imports of goods and services.

Production approach (P)

GDP using the production approach is derived as the sum of gross value added for each industry, at basic prices, plus taxes less subsidies on products. Basic values represent the amounts received by producers, including the value of any subsidies on products, but before any taxes on products.

FINANCIAL INTERMEDIATION SERVICES

In the national accounts, estimates are made for the output of banks and similar institutions who produce services through the provision of deposit and loan services. Often there is no single explicit charge for these services and instead the relevant financial institutions set interest rates such that a service margin can be earned. Thus, interest rates on loans are higher than would otherwise be the case if there were no service element provided and interest rates on deposits are lower than would otherwise be the case.

FOREIGN AID (COMPENSATION OF EMPLOYEES)

The output of foreign aid workers working within PNG domestic aid programs falls within the scope of PNG's Gross Domestic Product. The activity of foreign aid workers is classified within the PNG Standard Industry Classification as 'Activities of extra territorial organisations and bodies. This foreign aid' output has been estimated for 2013 through to 2019 and is included within the 'Public administration and defence' Industry (Industry O).

FORMAL AND INFORMAL ECONOMIC ACTIVITY

Formal activity (usually production) of businesses, employees or households is often regulated by government laws. These activities are observable to NSO, either through administrative data or survey collection activity. Given some data gaps on the size of the economically active businesses population in Papua New Guinea, the formal business sector is effectively defined by businesses remitting with respect to Goods and Services Tax (GST). The business is non-dormant and is generating economic output evidenced by GST debits or GST credits remitted to the Internal Revenue Commission (IRC). In contrast, the economic activity of businesses either not remitting GST (above or below the GST threshold) constitutes informal economic activity. The production of goods, particularly agricultural products consumed by the household, constitutes informal economic activity. The production of goods and services which are sold in local markets is also defined as informal economic activity.

INDUSTRY CLASSIFICATION

The industry statistics in this publication are based on the Papua New Guinea Standard Industrial Classification (PNGSIC), 2014. The classification has been derived from the United Nations (UN) International Standard Industrial Classification (ISIC) Revision 4 of all economic activities modified in order to better reflect the forms of economic activity which exist in PNG. The PNGSIC 2014 replaces PNGSIC 2000 which was developed using ISIC Rev. 3 which was used in the last published national accounts in respect of 2006. The structure of PNGSIC 2014 is more detailed than PNGSIC 2000 and identifies new industries separately. This is especially so in respect of services, where a new section entitled "Information and communication" has been introduced to better reflect current economic phenomena.

INSTITUTIONAL SECTOR

Data has been collected and compiled for the following main institutional units, in preparing the production measure of GDP estimates:

- Non-Financial Corporations
- Financial Corporations
- General Government
- Households

NATIONAL ACCOUNTS

A set of seven accounts defined within the System of National Accounts which measures the economic activity, corresponding financial flows and stock changes within a country during a specified period. One of these accounts is the production account, which measures the level of economic activity within a country during a specified period (usually one year).

OUTPUT OF NON-FINANCIAL CORPORATIONS

Business register information was not available to estimate the level of economic activity during the compilation of these GDP estimates. Therefore, taxation data, complemented with business survey data (the Annual Survey of Business Activities and the quarterly Business Liaison Survey) has been used to define the contribution of formal economic activity for the non-financial corporations' sector. Output for the Non-Financial Corporations Sector has been estimated using GST sales data collected from the Internal Revenue Commission (IRC). The IRC provided non-identifiable GST records to the NSO exclusively for statistical purpose. GST sales data includes sales subject to 10% GST, GST exempt sales and also sales subject to GST, but charged at a zero rate. Imputation has been undertaken for missing or partially incomplete GST records.

OUTPUT OF FINANCIAL CORPORATIONS – LENDING INSTITUTIONS

The output of banks is measured indirectly by calculating their income. Banks obtain income from two principal sources. Firstly, through direct charges made in respect of specified services such as credit card and account keeping fees, and secondly, through financial intermediation whereby they accept deposits from customers with surplus funds and make loans to customers requiring finance. The interest rate paid on deposits is generally lower than the rate charged on loans and the differential between the two rates constitutes an implicit service charge. The 2008 SNA terms this charge FISIM, or financial intermediation charge indirectly measured. The sum of FISIM and direct charges is deemed to constitute the value of the banks output.

The output of PNG Financial sector was estimated using bank deposit and lending data (deposit and loan volumes) obtained from the Bank of Papua New Guinea (BPNG) along with their corresponding borrowing and lending interest rates. Information on direct banking charges was also sourced from the Bank of PNG.

OUTPUT OF FINANCIAL CORPORATIONS – INSURANCE COMPANIES

As with the commercial banks, the output of insurance companies is estimated indirectly. The 2008 SNA defines the output of general insurance services as premiums plus premium supplements less expected claims. Premium supplements constitute earnings on the insurance companies' technical reserves. The other component of output is expected claims. The output of life insurance and superannuation funds is defined as the change in available funds after deducting payments (claims) from premiums and earnings. The output of PNG's Insurance sector was estimated using insurance premiums and claims data supplied by the Bank of PNG and data collected directly via the Business Liaison Survey. GST sales (Insurance premiums) were also used in the output compilation.

OUTPUT OF GENERAL GOVERNMENT

The PNG Treasury budget is the principal source of information for output of the general government sector. General government includes the national, provincial and local government levels. The national government is the principal source of funds for provincial governments and transfers to other levels of government are contained in the budget papers. Government services are provided on a non-market basis and are conventionally valued at cost. The value of output is therefore calculated as compensation of employees plus intermediate consumption. Data for these components of government expenditure are sourced directly from the PNG Budget papers.

OUTPUT OF HOUSEHOLDS

A large proportion of economic activity is undertaken in the household sector. This includes most agricultural production and a significant proportion of retail activity, transport and housing services. Household production includes production for own consumption and production for sale through informal outlets such as local markets and street vendors. Informal outlets are those falling outside the regulatory/ tax system and do not attract GST. The principal source of informal production data is the Household Income and Expenditure Survey (HIES) of 2009. Household production was estimated for the 2009 reference year and extrapolated using Consumer Price Indexes and National Statistics Office population estimates.

Information from the 2009 HIES was used to estimate the informal economic contribution of the following informal activities:

- betelnut production and distribution
- payday lending activity
- retailing by street vendors
- the provision of local transport
- household manufacturing activity
- construction of low-cost housing

GROSS VALUE ADDED (GVA)

GVA is calculated by subtracting intermediate consumption from the estimate of output. HIES data contained estimates of the costs associated with household production. These estimates were used to produce an estimate of intermediate consumption for 2009-10. Household intermediate consumption estimates for 2009-10 were extrapolated across the 2013 to 2019 time series using Consumer Price Indexes (CPI) and population estimates produced by the National Statistical Office.

ABBREVIATIONS

ABS	Australian Bureau of Statistics
BLS	Business Liaison Survey
BPNG	Bank of Papua New Guinea
COICOP	Classification of Individual Consumption According to Purpose
CPI	Consumer Price Index
GDP	Gross Domestic Product
GST	Goods and Services Tax
GVA	Gross Value Added
HIES	Household Income and Expenditure Survey
IMF	International Monetary Fund
IRC	Internal Revenue Commission
ISIC	International Standard Industry Classification
NSO	National Statistics Office
OECD	Organisation for Economic Co-operation and Development
PNGSIC	Papua New Guinea Standard Industrial Classification
SBA	Survey of Business Activity
SNA	System of National Accounts
SNA08	System of National Accounts 2008 version

Administrative Data

Data collected by government agencies in the process of carrying out regulatory functions such as registering businesses or the population; collecting taxes; running health care or education systems; and undertaking law, order, or justice activities.

Annual Income Tax Returns

Annual taxation data collected on business profits by the Internal Revenue Commission (IRC). The data includes components of business income, wages & salaries and details on business expenditure.

Basic Price

The amount receivable by the producer from the purchaser for a unit of a good or service produced as output, minus any tax payable plus any subsidy receivable, on that unit as a consequence of its production or sale; it excludes any transport charges invoiced separately by the producer.

Bank of Papua New Guinea (BPNG)

The Bank of Papua New Guinea (BPNG) is the central bank for the government of Papua New Guinea. The BPNG has prudential responsibility for the PNG banking system and conducts monetary policy on behalf of the central Government. The BPNG undertakes survey activity such as the Business Liaison Survey as part of its operations.

Business Liaison Survey (BLS)

The Business Liaison Survey is a quarterly economic survey run in cooperation with the Bank of Papua New Guinea. The BLS collects business income, expenses including wages and capital expenditure.

Capital Transfers

Transactions in which the ownership of an asset (other than cash and inventories) is transferred from one institutional unit to another, in which cash is transferred to enable the recipient to acquire another asset or in which the funds realised by the disposal of another asset are transferred. Examples include general government capital transfers to private schools for the construction of science blocks or libraries and transfers to charitable organisations for the construction of homes for the aged.

Collective Consumption

Services provided simultaneously to all members of the community or to all members of a particular section of the community, such as all households living in a particular region. Collective services are automatically acquired and consumed by all members of the community, or group of households in question, without any action on their part. Typical examples are public administration and the provision of security, either at a national or local level. Collective services are the 'public goods' of economic theory. By their nature, collective services cannot be sold to individuals on the market, and

they are financed by government units out of taxation or other incomes. The defining characteristics of collective services are as follows: collective services can be delivered simultaneously to every member of the community or of particular sections of the community, such as those in a particular region; the use of such services is usually passive and does not require the explicit agreement or active participation of all the individuals concerned; and the provision of a collective service to one individual does not reduce the amount available to others in the same community or section of the community, i.e. there is no rivalry in acquisition. See also Individual consumption.

Compensation of Employees

The total remuneration, in cash or in kind, payable by an enterprise to an employee in return for work done by the employee during the accounting period. It is further classified into two sub-components: wages and salaries; and employers' social contributions.

Compensation of employees is not payable in respect of unpaid work undertaken voluntarily, including the work done by members of a household within an unincorporated enterprise owned by the same household. Compensation of employees excludes any taxes payable by the employer on the wage and salary bill (e.g. payroll tax).

Consumption of Fixed Capital

The reduction in the value of fixed assets used in production during the accounting period resulting from physical deterioration, normal obsolescence or normal accidental damage. Unforeseen obsolescence, major catastrophes and the depletion of natural resources are not taken into account.

Current Prices

Estimates are valued at the prices of the period to which the observation relates. For example, estimates for 2012 are valued using 2012 prices.

Current Transfers

Transfers, other than those classified as capital transfers, in which one institutional unit provides a good, service or cash to another unit without receiving from the latter anything of economic value in return.

Current transfers to Non-Profit Institutions

Transfers for non-capital purposes to private non-profit institutions serving households such as hospitals, independent schools, and religious and charitable organisations.

Constant Prices

Estimates are expressed in the price of a base year (for this publication the base year is 2013). It removes the impact of price changes in the time series (2013 to 2019) and shows the volume change in GDP.

Economically Significant Prices

Prices which have a significant influence on both the amounts producers are willing to supply and the amounts purchasers wish to buy.

Employers' Social Contributions

Payments by employers which are intended to secure for their employees the entitlement to social benefits should certain events occur, or certain circumstances exist, that may adversely affect their employees' income or welfare – namely work-related accidents and retirement.

