



REPORT OF THE REVISED AND REBASED NATIONAL ACCOUNTS

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I hope you find the information contained in this report useful in giving you a better understanding of Kenya's economy.

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Director General

Abbreviations and Acronyms

COICOP	Classification of Individual Consumption by Purpose
CPI	Consumer Price Index
FISIM	Financial Intermediated Services Indirectly Measured
GDP	Gross Domestic Product
GNDI	Gross National Disposable Income
GNI	Gross National Income
GVA	Gross Value Added
HFCE	Household Final Consumption Expenditure
IC	Intermediate Consumption
ICT	Information and Communication Technology
IFMIS	Integrated Financial Management Information System
IMF	International Monetary Fund
ISIC rev.4	International Standard Industrial Classification, revision 4
ISS	Integrated Survey of Services
IRA	Insurance Regulatory Authority
KIHBS	Kenya Integrated Household Budget Survey
KPHC	Kenya Population and Housing Census
KSh	Kenyan Shilling
MDAs	Ministries, Departments and Agencies
MSMES	Micro Small and Medium Enterprise Survey
NHIF	National Hospital Insurance Fund
NPISH	Non-Profit Institutions Serving Households
NSSF	National Social Security Fund
PPI	Producer Price Index
QNA	Quarterly National Accounts
SACCO	Saving and Credit Cooperative Societies
SNA	System of National Accounts
SUT	Supply and Use Tables
VAT	Value Added Tax
WASCOs	Water and Sewerage Companies

1. Revision and Rebasing of National Accounts

1.1. Background Information and History of Revision and Rebasing

National accounts are a set of macroeconomic statistics which are key in understanding the workings of an economy and crucial for macroeconomic analysis and decision making. They provide information on the economic transactions between different economic agents in an economy and also with the rest of the world and are used for international comparison. Evidently, economies are dynamic in nature: they grow, they shrink, they add new sectors, new products and new technologies, and consumer behavior and tastes change over time.

Revision of national accounts is an international best practice that is used to account for these changes, so as to give a more current and better understanding of the economy. Further, revision and rebasing are done so as to primarily reflect structural changes in the economy, adopt new compilation methods, take advantage of emergence of new or improved data sources. More specifically, national accounts are revised: when new datasets become available e.g. updated benchmark surveys/censuses; to adopt methodological and classification changes to conform to international guidelines/manuals; when there are revisions in source data; to correct for any anomalies/errors that may have been missed or would have otherwise distorted the time series and disorient policy makers, were they introduced when they were discovered.

The first set of Kenya's National accounts were compiled in 1947 in line with the requirement for countries to establish mechanisms of measuring the sizes of their economies after the second world war. The 1st revision was carried out in 1957 and followed the same methodology and data sources established for the 1947 estimates. The 2nd revision was undertaken in 1967 and followed the System of National Accounts of 1953 (1953 SNA). The 3rd and 4th revisions were undertaken in 1976 and 1986, respectively and followed the 1968 SNA. The 5th revision was done in 2005 in accordance the 1993 SNA principles and guidelines. The 6th revision of national accounts was published 2014 and was the first to embrace recommendations of 2008 SNA. The current revision is the seventh and has followed 2008 SNA framework.

Rebasing of national accounts series means replacing the old base year, for constant price estimates, to a new and more recent base year. It is essentially done to ensure that the principal measure of economic growth yields good estimates over the medium term following the base year. It is desirable to periodically rebase, preferably within 5 years but not later than 10 years. In addition, changes on the demand side like consumption patterns, utilization and acquisition of capital goods are all also updated through such a process. Rebasing is used to account for these changes, so as to give a more current snapshot of the economy.

This revision and rebasing of national accounts in Kenya was informed by the need to further the implementation of recommendations of 2008 System of National Accounts (2008 SNA) through achievement of the various milestones prescribed by SNA; change the base year from 2009 to more current base year of 2016; update the production structure of the economy; update the structural changes in relative prices of various products and; update consumption patterns, utilization and acquisition of capital goods.

The revision and rebasing process involved the use of a wide range of information from surveys, targeted studies, censuses and mining of data from administrative records. The process also entailed establishing an integrated system for capturing and processing from various sources. Reconciliation of available information and sensitivity analysis was an integral part of the revision. This facilitated determination of most well thought benchmark estimates through critical evaluation of available data sources before settling on the most ideal ones. After the data were assembled in the compilation system, troubleshooting was conducted using established consistency checks and expert knowledge. All the three sectors namely primary; secondary; and the services were included in the national accounts to ensure comprehensive coverage of economic activities in line with the SNA guidelines. During the compilation process, peer reviewing of the estimates at crucial stages was done mostly by experts from the International Monetary Fund (IMF) and Statistics Sweden who worked closely with the Kenyan national accountants. The final review of the estimates entailed engagement of key users of national accounts statistics in Government, who provided invaluable inputs to the finalization of the estimates. In addition, the IMF provided the final review of the estimates and gave recommendations, which were incorporated.

This report is the culmination of work that started in 2017, and marks the end of an arduous task of putting numerous information from diverse sources together to arrive at the revised and rebased national accounts estimates. The benchmark estimates and the time series indicators established during the revision process will anchor the compilation of national accounts until the next revision. The results of the revised estimates are presented in part 2 of the report in the following order; GDP by production approach; the components of expenditure on GDP/aggregate demand and GDP by income approach. For ease of comparisons of the revised and the previous estimates, the results are presented for the period 2015-2019, but the longer series that links the two most recent base years, 2009 and 2016 and further extends to 2020, are provided as annexes.

2. Results of the Revised and Rebased National Accounts

2.1. Gross Domestic Product (GDP) by Production Approach

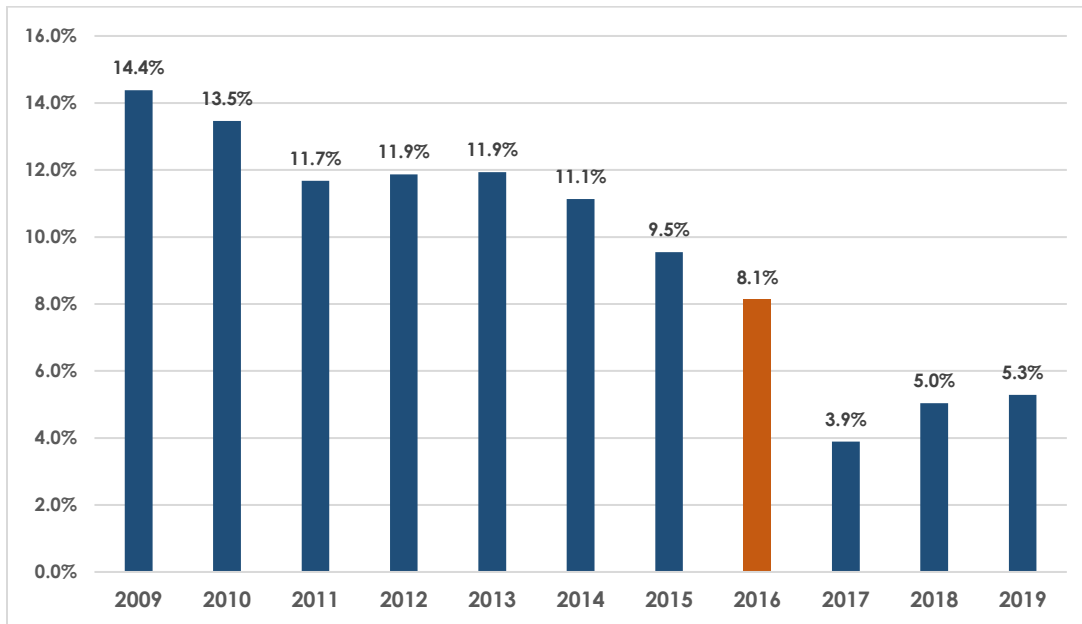
Comparisons between the revised and the previous GDP are provided in Table 2.1 and Figure 1 which shows the percentage change in GDP after the revision. As shown in Table 2.1, during the period 2009-2019, the revised nominal sectoral GVAs were mostly higher than the previous estimates except for Agriculture, Forestry and Fishing which was revised downwards. The most significant upward revisions in magnitudes of nominal gross value added were in Transportation and Storage, Real Estate activities and Public administration. The level of nominal GVA for Information and Communication Technology activities, and Professional Scientific and Technical Activities were estimated at approximately double the levels in the old series. In 2019, total GDP was revised by 5.3 per cent from KSh 9,740.3 billion in the old series to KSh 10,255.7 billion. The base year (2016) level was revised upwards by 8.1 per cent from KSh 7,023.0 billion to KSh 7,594.1 billion as shown in Table 2.1. The most significant upward revision of over 10 per cent was during the period 2009-2014, with the lowest revision reported in 2017 at 3.9 per cent. The major revisions in the earlier years were occasioned by improved coverage of economic activities that were previously not adequately taken into account in the previous compilation. Such improvements include the enhanced coverage of informal sector based on elaborate surveys and studies, and better estimation of the underground economy.

Table 2.1: Gross Domestic Product by Activity (KSh Million), 2015-2019

Industry	Current Prices									
	Revised Estimates					Previous Estimates				
	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
Agriculture, forestry and fishing.....	1,340,350	1,521,434	1,772,490	1,897,475	2,171,071	1,897,347	2,182,198	2,844,263	3,032,085	3,326,299
Growing of crops.....	930,956	1,072,482	1,293,474	1,356,544	1,543,999	1,446,376	1,700,542	2,325,549	2,466,172	2,709,494
Animal production.....	277,771	307,167	314,308	341,275	354,702	293,603	321,402	342,238	361,320	389,038
Support activities to agriculture.....	17,174	16,627	19,403	22,643	24,985	37,371	33,520	38,999	46,024	53,310
Forestry & logging.....	83,842	94,562	102,617	125,979	189,816	79,697	91,825	100,869	114,989	125,643
Fishing & aquaculture.....	30,608	30,595	42,687	51,034	57,569	40,300	34,909	36,608	43,580	48,815
Mining and quarrying.....	87,755	81,280	71,675	68,909	72,745	54,584	59,149	61,225	67,648	67,330
Manufacturing.....	686,723	707,880	741,376	785,369	807,814	588,896	654,456	659,141	690,592	734,609
Manufacture of food, beverages and tobacco.....	365,056	390,145	424,039	452,182	466,178	230,909	261,361	271,773	284,681	289,282
Other manufacturing and repair and installation.....	321,667	317,736	317,337	333,186	341,636	357,987	393,095	387,367	405,912	445,327
Electricity supply.....	123,733	142,630	156,737	157,521	161,317	89,358	131,617	141,255	154,339	163,643
Water supply; sewerage, waste management.....	54,684	58,206	59,271	59,648	60,366	46,814	50,500	56,046	60,595	65,377
Construction.....	347,831	389,251	455,833	545,654	614,725	307,563	360,803	453,332	485,583	541,760
Wholesale and retail trade; repairs.....	583,462	628,416	713,561	762,968	841,264	473,395	506,657	601,680	669,179	740,411
Transportation and storage.....	718,135	773,852	862,956	1,056,264	1,202,882	510,488	565,829	601,203	723,205	830,582
Land transport.....	572,233	599,415	691,544	858,653	981,767	379,320	409,406	423,348	495,966	570,302
Air transport including support services.....	64,224	83,571	73,479	85,203	97,223	18,896	26,247	25,007	39,047	38,371
All other transport including postal and courier activities.....	81,677	90,866	97,933	112,407	123,892	112,272	130,176	152,848	188,191	221,909
Accommodation and food service activities.....	60,418	70,250	85,252	100,019	119,462	49,356	51,645	56,497	66,827	71,811
Information and communication.....	183,015	206,755	223,497	240,120	258,813	91,200	104,765	109,110	115,103	116,355
Telecommunications.....	118,056	134,032	147,279	157,667	173,043	52,410	62,467	66,663	69,893	68,847
Publishing, broadcasting, other IT and information activities.....	64,958	72,723	76,218	82,452	85,770	38,790	42,298	42,447	45,210	47,508
Financial and insurance activities.....	491,876	588,924	634,089	622,625	653,933	423,956	496,334	552,373	563,069	582,926
Financial activities.....	384,603	474,853	509,667	480,309	496,177	326,609	386,057	438,597	446,883	463,579
Insurance activities.....	107,274	114,070	124,423	142,315	157,755	97,347	110,277	113,776	116,186	119,347
Real estate.....	619,728	705,877	792,515	881,622	946,860	474,318	532,668	575,069	625,859	675,302
Professional, scientific and technical activities.....	136,197	146,624	154,320	163,959	176,085	55,812	60,609	64,821	71,116	77,869
Administrative and support service activities.....	72,843	77,825	83,429	97,502	108,884	63,849	68,082	71,376	79,360	85,048
Public administration and defence.....	383,147	410,099	442,962	493,180	549,217	267,645	276,410	280,217	299,320	352,859
Education.....	314,363	338,011	365,477	399,515	430,699	308,128	309,513	326,553	385,263	413,611
Pre-primary and Primary education.....	146,253	155,976	184,303	208,393	214,121	137,521	137,031	163,415	196,562	204,073
General secondary education.....	85,495	93,654	98,828	109,878	119,397	107,462	98,028	84,242	103,640	123,480
Higher and other education.....	82,616	88,380	82,346	81,245	97,180	63,145	74,454	78,896	85,061	86,058
Human health and social work activities.....	136,224	156,846	175,811	188,778	199,393	108,023	119,775	125,454	133,994	149,483
Arts, entertainment and recreation.....	15,259	18,281	22,440	24,541	27,184	8,045	8,868	9,652	10,827	11,735
Other service activities.....	98,264	109,694	122,146	135,539	144,865	39,486	43,188	47,828	54,475	62,126
Activities of households as employers.....	51,332	55,130	59,870	65,710	68,917	30,625	32,370	34,666	37,837	39,743
Financial Intermediation Services Indirectly Measured	-216,100	-260,609	-241,384	-215,414	-226,631	-163,306	-199,410	-188,206	-181,156	-197,429
All economic activities	6,289,237	6,926,656	7,754,323	8,531,502	9,389,865	5,725,580	6,416,026	7,483,554	8,145,121	8,911,453
Taxes on products.....	595,080	667,408	729,074	808,805	865,790	558,605	606,937	682,288	746,990	828,907
GDP at market prices	6,884,317	7,594,064	8,483,396	9,340,307	10,255,654	6,284,185	7,022,963	8,165,842	8,892,111	9,740,360

* Provisional

Figure 2.1: Change (%) from the Previous GDP (Current Prices), 2009-2019



2.2. Contribution to Gross Domestic Product (GDP)

There was a significant re-orientation of the structure of the economy as shown in Table 2.2. The most notable change was in the contribution of agricultural activities to total GDP that shed 12.5 percentage points from a 5-year average of 32.9 per cent in the old series to 20.4 per cent in the new series. In contrast, the contribution of transportation activities in the new series was found to be higher by 2.8 points to 10.8 per cent. Real estate activities were also estimated to contribute more (9.3%) in the revised series compared to 7.2 per cent previously. The five-year average contribution of public administration and information and communication were estimated higher by 1.6 points and 1.3 points, respectively. Wholesale and Retail trade was estimated higher in the revised series at 8.3 per cent compared to 7.4 per cent in the old series. Other sectors that showed improved contribution include Construction (0.2 points), Other Services (0.8 points) Professional and Technical Activities (1.0 points) and Accommodation and Food Service Activities that improved by approximately 0.3 percentage points apiece. The contribution of Human Health Activities improved from 1.6 to 2.0 per cent in the revised series as a result of expanded coverage of activities by Non-Profit Institutions Serving Households (NPISH).

Table 2.2: Contribution to GDP (%), 2015-2019

Industry	Revised Estimates					5-Year Average	Previous Estimates					5-Year Average
	2015	2016	2017	2018*	2019*		2015	2016	2017	2018	2019	
Agriculture, forestry and fishing.....	19.5	20.0	20.9	20.3	21.2	20.4	30.2	31.1	34.8	34.1	34.1	32.9
Growing of crops.....	13.5	14.1	15.2	14.5	15.1	14.5	23.0	24.2	28.5	27.7	27.8	26.3
Animal production.....	4.0	4.0	3.7	3.7	3.5	3.8	4.7	4.6	4.2	4.1	4.0	4.3
Support activities to agriculture.....	0.2	0.2	0.2	0.2	0.2	0.2	0.6	0.5	0.5	0.5	0.5	0.5
Forestry & logging.....	1.2	1.2	1.2	1.3	1.9	1.4	1.3	1.3	1.2	1.3	1.3	1.3
Fishing & aquaculture.....	0.4	0.4	0.5	0.5	0.6	0.5	0.6	0.5	0.4	0.5	0.5	0.5
Mining and quarrying.....	1.3	1.1	0.8	0.7	0.7	0.9	0.9	0.8	0.7	0.8	0.7	0.8
Manufacturing.....	10.0	9.3	8.7	8.4	7.9	8.9	9.4	9.3	8.1	7.8	7.5	8.4
Manufacture of food, beverages and tobacco.....	5.3	5.1	5.0	4.8	4.5	5.0	3.7	3.7	3.3	3.2	3.0	3.4
Other manufacturing and repair and installation.....	4.7	4.2	3.7	3.6	3.3	3.9	5.7	5.6	4.7	4.6	4.6	5.0
Electricity supply.....	1.8	1.9	1.8	1.7	1.6	1.8	1.4	1.9	1.7	1.7	1.7	1.7
Water supply; sewerage, waste management.....	0.8	0.8	0.7	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Construction.....	5.1	5.1	5.4	5.8	6.0	5.5	4.9	5.1	5.6	5.5	5.6	5.3
Wholesale and retail trade; repairs.....	8.5	8.3	8.4	8.2	8.2	8.3	7.5	7.2	7.4	7.5	7.6	7.4
Transportation and storage.....	10.4	10.2	10.2	11.3	11.7	10.8	8.1	8.1	7.4	8.1	8.5	8.0
Land transport.....	8.3	7.9	8.2	9.2	9.6	8.6	6.0	5.8	5.2	5.6	5.9	5.7
Air transport including support services.....	0.9	1.1	0.9	0.9	0.9	1.0	0.3	0.4	0.3	0.4	0.4	0.4
All other transport including postal and courier activities.....	1.2	1.2	1.2	1.2	1.2	1.2	1.8	1.9	1.9	2.1	2.3	2.0
Accommodation and food service activities.....	0.9	0.9	1.0	1.1	1.2	1.0	0.8	0.7	0.7	0.8	0.7	0.7
Information and communication.....	2.7	2.7	2.6	2.6	2.5	2.6	1.5	1.5	1.3	1.3	1.2	1.4
Telecommunications.....	1.7	1.8	1.7	1.7	1.7	1.7	0.8	0.9	0.8	0.8	0.7	0.8
Publishing, broadcasting, other IT and information activities.....	0.9	1.0	0.9	0.9	0.8	0.9	0.6	0.6	0.5	0.5	0.5	0.5
Financial and insurance activities.....	7.1	7.8	7.5	6.7	6.4	7.1	6.7	7.1	6.8	6.3	6.0	6.6
Financial activities.....	5.6	6.3	6.0	5.1	4.8	5.6	5.2	5.5	5.4	5.0	4.8	5.2
Insurance activities.....	1.6	1.5	1.5	1.5	1.5	1.5	1.5	1.6	1.4	1.3	1.2	1.4
Real estate.....	9.0	9.3	9.3	9.4	9.2	9.3	7.5	7.6	7.0	7.0	6.9	7.2
Professional, scientific and technical activities.....	2.0	1.9	1.8	1.8	1.7	1.8	0.9	0.9	0.8	0.8	0.8	0.8
Administrative and support service activities.....	1.1	1.0	1.0	1.0	1.1	1.0	1.0	1.0	0.9	0.9	0.9	0.9
Public administration and defence.....	5.6	5.4	5.2	5.3	5.4	5.4	4.3	3.9	3.4	3.4	3.6	3.7
Education.....	4.6	4.5	4.3	4.3	4.2	4.4	4.9	4.4	4.0	4.3	4.2	4.4
Pre-primary and Primary education.....	2.1	2.1	2.2	2.2	2.1	2.1	2.2	2.0	2.0	2.2	2.1	2.1
General secondary education.....	1.2	1.2	1.2	1.2	1.2	1.2	1.7	1.4	1.0	1.2	1.3	1.3
Higher and other education.....	1.2	1.2	1.0	0.9	0.9	1.0	1.0	1.1	1.0	1.0	0.9	1.0
Human health and social work activities.....	2.0	2.1	2.1	2.0	1.9	2.0	1.7	1.7	1.5	1.5	1.5	1.6
Arts, entertainment and recreation.....	0.2	0.2	0.3	0.3	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.1
Other service activities.....	1.4	1.4	1.4	1.5	1.4	1.4	0.6	0.6	0.6	0.6	0.6	0.6
Activities of households as employers;.....	0.7	0.7	0.7	0.7	0.7	0.7	0.5	0.5	0.4	0.4	0.4	0.4
Financial Intermediation Services Indirectly Measured	-3.1	-3.4	-2.8	-2.3	-2.2	-2.8	-2.6	-2.8	-2.3	-2.0	-2.0	-2.4
All economic activities	91.4	91.2	91.4	91.3	91.6	91.4	91.1	91.4	91.6	91.6	91.5	91.4
Taxes on products.....	8.6	8.8	8.6	8.7	8.4	8.6	8.9	8.6	8.4	8.4	8.5	8.6
GDP at market prices	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

* Provisional

The results showed a significant upward shift in the level of the revised real GDP after the change in base year from 2009 to 2016 as shown in Table 2.3. The level of real GDP for the base year (2016) was revised upwards from KSh 4,301 billion to KSh 7,594 billion. Similarly, the real GDP was revised notably from KSh 5,049 billion to KSh 8,742 billion in 2019. The significant upward revisions were mainly occasioned by the change in the reference prices from 2009 to 2016 as well as expanded coverage of economic activities. Table 2.4 shows that the revised growth rates were relatively lower than in the previous estimates, largely on account of an expanded base, change of benchmark data, data sources as well as revision of time series indicators.

Figure 2.2: GDP Growth Rates (%), 2010-2019

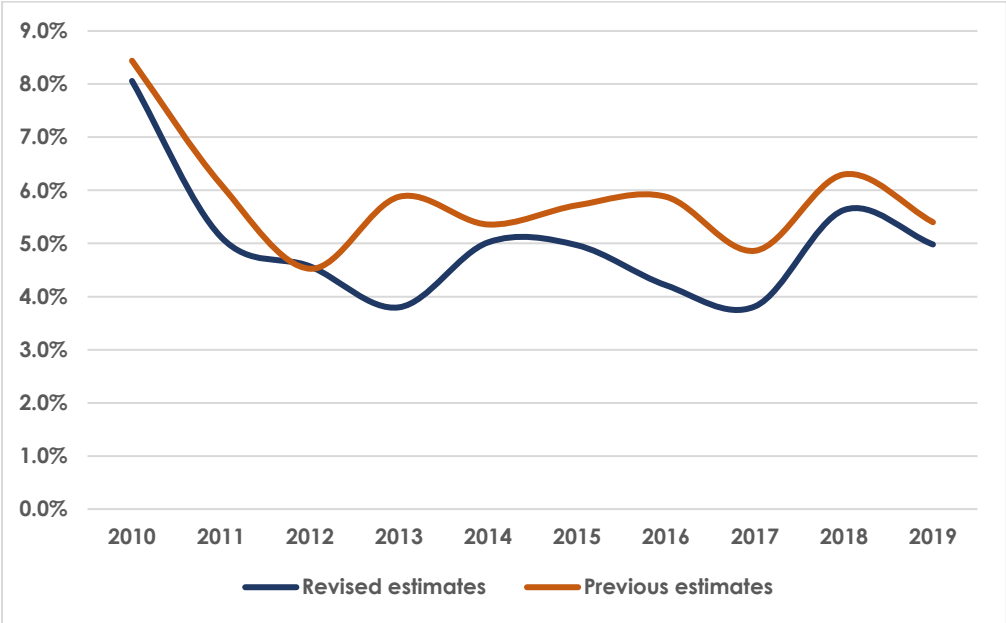


Figure 3 shows a comparison among the three deflators namely; GDP deflator, inflation based on Consumer Price Index (CPI) and the implicit price deflator for private consumption. Except in 2011 and 2015, the trend for the three deflators were comparable during the period, 2009-2019.

Figure 2.3: GDP Deflator, Consumer Price Index (CPI) and Implicit Price Deflator for Private Consumption, (% Change)

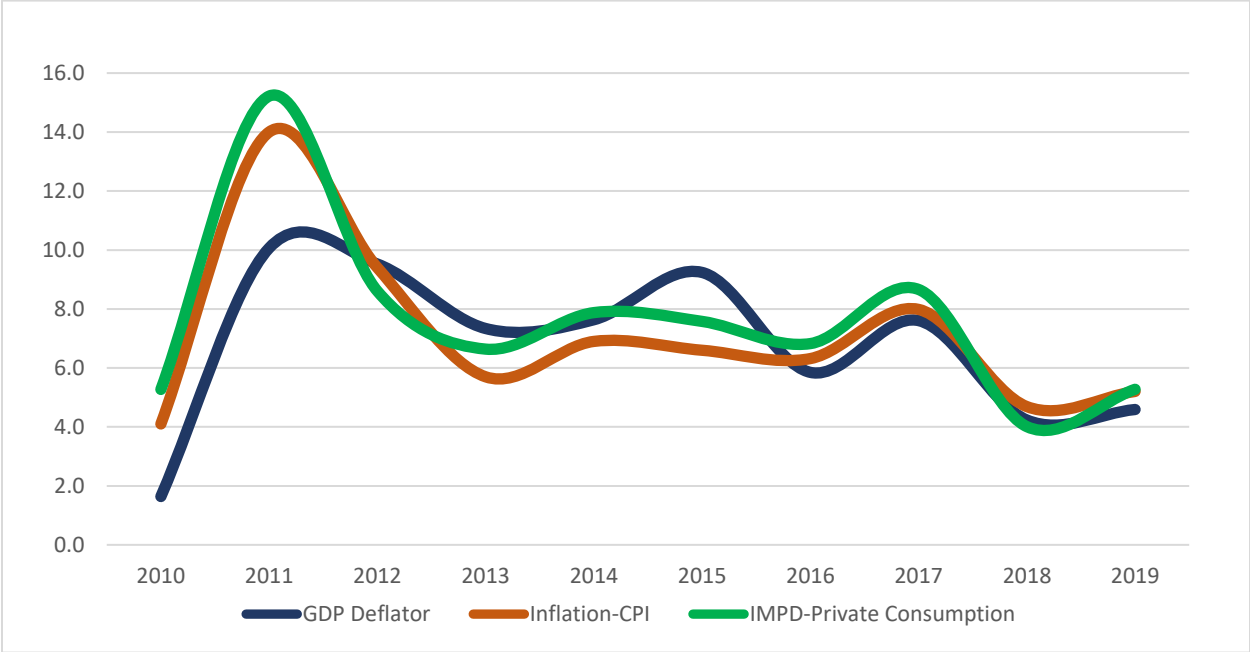


Table 2.3: Gross Domestic Product by Activity, 2015-2019

Industry	Constant Prices									
	Revised Estimates, 2016=100					Previous Estimates, 2009=100				
	2015	2016	2017	2018*	2019*	2015	2016	2017	2018	2019
Agriculture, forestry and fishing.....	1,500,584	1,521,433	1,501,817	1,587,784	1,629,733	900,421	942,577	957,418	1,014,421	1,050,758
Growing of crops.....	1,072,744	1,072,482	1,061,320	1,129,072	1,164,824	638,720	681,274	694,644	744,692	773,094
Animal production.....	287,515	307,167	286,095	299,210	304,550	173,546	177,733	177,995	182,279	188,189
Support activities to agriculture.....	17,926	16,627	18,753	21,269	23,139	24,641	20,007	19,458	19,747	19,813
Forestry & logging.....	88,450	94,562	97,686	96,678	93,941	43,377	46,916	48,958	49,974	51,613
Fishing & aquaculture.....	33,949	30,595	37,963	41,554	43,280	20,137	16,647	16,364	17,730	18,049
Mining and quarrying.....	89,426	81,280	83,907	79,986	83,386	41,809	45,774	47,813	49,111	50,325
Manufacturing.....	694,698	707,880	712,807	738,305	756,711	428,153	441,321	444,468	463,714	478,391
Manufacture of food, beverages and tobacco.....	381,658	390,145	395,912	417,709	428,625	162,637	168,899	170,763	184,937	191,190
Other manufacturing and repair and installation.....	313,040	317,736	316,895	320,597	328,086	265,516	272,422	273,706	278,777	287,200
Electricity supply.....	137,050	142,630	150,627	156,679	159,283	68,499	75,039	81,705	90,279	97,368
Water supply; sewerage, waste management.....	56,623	58,206	56,323	57,743	58,840	31,654	33,492	34,379	35,066	36,738
Construction.....	367,844	389,251	413,717	438,962	463,626	211,314	232,246	251,807	269,084	286,232
Wholesale and retail trade; repairs.....	614,193	628,416	655,259	694,215	730,684	311,746	323,433	342,056	365,645	389,900
Transportation and storage.....	714,658	773,852	801,274	849,165	902,904	274,755	292,629	313,749	340,372	366,814
Land transport.....	560,399	599,415	636,887	670,319	712,966	183,734	192,138	196,349	204,641	214,258
Air transport including support services.....	68,099	83,571	70,189	74,769	77,498	21,275	20,973	22,099	23,175	23,236
All other transport including postal and courier activities.....	86,159	90,866	94,197	104,078	112,440	69,746	79,519	95,302	112,556	129,320
Accommodation and food service activities.....	65,719	70,250	76,883	88,863	101,584	43,086	48,803	55,776	65,034	71,745
Information and communication.....	187,646	206,755	223,445	241,178	259,279	149,969	164,798	182,984	203,713	221,552
Telecommunications.....	118,447	134,032	150,030	163,634	178,567	118,965	132,541	149,785	169,853	186,715
Publishing, broadcasting, other IT and information activities.....	69,199	72,723	73,415	77,544	80,712	31,004	32,257	33,199	33,860	34,837
Financial and insurance activities.....	568,450	588,924	612,981	629,731	673,042	251,442	268,821	275,932	290,504	309,536
Financial activities.....	457,726	474,853	493,036	497,023	527,734	216,554	232,135	236,862	248,166	262,422
Insurance activities.....	110,724	114,070	119,945	132,708	145,307	34,888	36,686	39,070	42,338	47,115
Real estate.....	642,901	705,877	753,420	802,728	856,588	333,537	362,724	384,955	400,795	422,195
Professional, scientific and technical activities.....	142,222	146,624	152,058	160,325	171,469	42,188	44,358	46,382	48,855	51,840
Administrative and support service activities.....	75,244	77,825	79,064	86,819	92,731	50,113	52,060	53,627	57,060	59,253
Public administration and defence.....	386,981	410,099	426,049	459,667	505,329	157,834	166,667	174,482	186,216	201,208
Education.....	333,144	338,011	365,689	389,114	407,579	281,542	296,340	311,722	329,717	347,642
Pre-primary and Primary education.....	154,635	155,976	177,217	193,608	198,557	113,891	117,305	121,199	127,012	131,152
General secondary education.....	90,614	93,654	96,613	102,370	110,533	117,011	122,123	131,402	140,089	152,411
Higher and other education.....	87,895	88,380	91,859	93,136	98,490	50,640	56,912	59,122	62,616	64,080
Human health and social work activities.....	143,273	156,846	166,956	176,043	187,037	72,745	76,206	79,476	82,937	87,786
Arts, entertainment and recreation.....	15,906	18,281	21,292	22,089	23,979	5,269	5,551	5,938	6,337	6,837
Other service activities.....	104,331	109,694	114,000	118,593	124,449	27,551	29,212	31,255	33,347	35,545
Activities of households as employers;.....	54,316	55,130	55,957	56,797	57,649	19,007	19,273	19,581	19,895	20,213
Financial Intermediation Services Indirectly Measured.....	-260,075	-260,609	-245,063	-254,198	-278,418	-109,826	-110,331	-105,547	-106,456	-112,954
All economic activities	6,635,135	6,926,656	7,178,460	7,580,588	7,967,464	3,592,808	3,810,994	3,989,963	4,245,646	4,478,926
Taxes on products.....	651,890	667,408	705,356	747,016	774,949	469,093	489,705	517,414	546,528	570,383
GDP at market prices	7,287,024	7,594,064	7,883,816	8,327,604	8,742,413	4,061,901	4,300,699	4,507,377	4,792,174	5,049,309

* Provisional

Table 2.4: Growth Rates (%), 2015-2019

Industry	Revised Estimates, 2016=100					Previous Estimates, 2009=100				
	2015	2016	2017	2018*	2019*	2015	2016	2017	2018	2019
Agriculture, forestry and fishing.....	4.4	1.4	-1.3	5.7	2.6	5.3	4.7	1.6	6.0	3.6
Growing of crops.....	3.6	0.0	-1.0	6.4	3.2	7.2	6.7	2.0	7.2	3.8
Animal production.....	15.0	6.8	-6.9	4.6	1.8	2.2	2.4	0.1	2.4	3.2
Support activities to agriculture.....	12.3	-7.2	12.8	13.4	8.8	1.9	-18.8	-2.7	1.5	0.3
Forestry & logging.....	-1.9	6.9	3.3	-1.0	-2.8	1.0	8.2	4.4	2.1	3.3
Fishing & aquaculture.....	-26.0	-9.9	24.1	9.5	4.2	-8.6	-17.3	-1.7	8.4	1.8
Mining and quarrying.....	-15.8	-9.1	3.2	-4.7	4.3	12.3	9.5	4.5	2.7	2.5
Manufacturing.....	5.9	1.9	0.7	3.6	2.5	3.6	3.1	0.7	4.3	3.2
Manufacture of food, beverages and tobacco.....	6.5	2.2	1.5	5.5	2.6	6.0	3.9	1.1	8.3	3.4
Other manufacturing and repair and installation.....	5.1	1.5	-0.3	1.2	2.3	2.2	2.6	0.5	1.9	3.0
Electricity supply.....	2.3	4.1	5.6	4.0	1.7	11.5	9.5	8.9	10.5	7.9
Water supply; sewerage, waste management.....	2.1	2.8	-3.2	2.5	1.9	2.7	5.8	2.6	2.0	4.8
Construction.....	7.8	5.8	6.3	6.1	5.6	13.8	9.9	8.4	6.9	6.4
Wholesale and retail trade; repairs.....	4.3	2.3	4.3	5.9	5.3	5.9	3.7	5.8	6.9	6.6
Transportation and storage.....	6.1	8.3	3.5	6.0	6.3	8.0	6.5	7.2	8.5	7.8
Land transport.....	7.7	7.0	6.3	5.2	6.4	6.3	4.6	2.2	4.2	4.7
Air transport including support services.....	-4.9	22.7	-16.0	6.5	3.7	-1.1	-1.4	5.4	4.9	0.3
All other transport including postal and courier activities.....	5.5	5.5	3.7	10.5	8.0	16.4	14.0	19.8	18.1	14.9
Accommodation and food service activities.....	5.4	6.9	9.4	15.6	14.3	-1.3	13.3	14.3	16.6	10.3
Information and communication.....	11.3	10.2	8.1	7.9	7.5	7.4	9.9	11.0	11.3	8.8
Telecommunications.....	14.1	13.2	11.9	9.1	9.1	8.6	11.4	13.0	13.4	9.9
Publishing, broadcasting, other IT and information activities.....	6.7	5.1	1.0	5.6	4.1	3.0	4.0	2.9	2.0	2.9
Financial and insurance activities.....	11.8	3.6	4.1	2.7	6.9	9.4	6.9	2.6	5.3	6.6
Financial activities.....	15.8	3.7	3.8	0.8	6.2	10.1	7.2	2.0	4.8	5.7
Insurance activities.....	-2.4	3.0	5.2	10.6	9.5	5.1	5.2	6.5	8.4	11.3
Real estate.....	5.5	9.8	6.7	6.5	6.7	7.2	8.8	6.1	4.1	5.3
Professional, scientific and technical activities.....	3.6	3.1	3.7	5.4	7.0	3.6	5.1	4.6	5.3	6.1
Administrative and support service activities.....	1.0	3.4	1.6	9.8	6.8	1.5	3.9	3.0	6.4	3.8
Public administration and defence.....	12.5	6.0	3.9	7.9	9.9	5.5	5.6	4.7	6.7	8.1
Education.....	1.3	1.5	8.2	6.4	4.7	4.9	5.3	5.2	5.8	5.4
Pre-primary and Primary education.....	0.1	0.9	13.6	9.2	2.6	1.7	3.0	3.3	4.8	3.3
General secondary education.....	4.0	3.4	3.2	6.0	8.0	8.4	4.4	7.6	6.6	8.8
Higher and other education.....	0.6	0.6	3.9	1.4	5.7	4.6	12.4	3.9	5.9	2.3
Human health and social work activities.....	4.9	9.5	6.4	5.4	6.2	5.8	4.8	4.3	4.4	5.8
Arts, entertainment and recreation.....	3.8	14.9	16.5	3.7	8.6	1.5	5.4	7.0	6.7	7.9
Other service activities.....	3.4	5.1	3.9	4.0	4.9	6.0	6.0	7.0	6.7	6.6
Activities of households as employers.....	1.5	1.5	1.5	1.5	1.5	1.5	1.4	1.6	1.6	1.6
Financial Intermediation Services Indirectly Measured (FISIM).....	12.4	0.2	-6.0	3.7	9.5	13.5	0.5	-4.3	0.9	6.1
All economic activities	5.3	4.4	3.6	5.6	5.1	6.1	6.1	4.7	6.4	5.5
Taxes on products.....	1.8	2.4	5.7	5.9	3.7	2.8	4.4	5.7	5.6	4.4
GDP at market prices	5.0	4.2	3.8	5.6	5.0	5.7	5.9	4.8	6.3	5.4

* Provisional

2.3. Gross Domestic Product by Expenditure Approach

All components of expenditure on GDP have largely been compiled independently. An elaborate product flow approach was used to compile the expenditure components for all the products which were then aggregated to derive the totals on the expenditure side. The compilation is based on the general identity model;

$$Y = C_g + C_p + I + (X - M)$$

Where;

C_p = Private consumption expenditure;

C_g = Government consumption expenditure;

I = Investment (sum of gross fixed capital formation and changes in inventories)

X = Export;

M = Imports.

Detailed procedure on the derivation of each of the components of expenditure on GDP are provided in the sources and methods document.

Table 2.5 shows the final household consumption by broad categories of Classification of Individual Consumption by Purpose (COICOP). The most significant change was the downward revision of the consumption of food and non-alcoholic beverages owing to the substantial downward revision of household consumption of some agricultural products. Notable upward revisions were in consumption of Transportation services, Housing, water and fuels, and services not elsewhere classified such as telecommunication services and financial services which was in congruence with significantly higher levels of production of these services. Consumption of education services was estimated lower than the previous estimates partly due to subsidization of education by the government.

Table 2.5: Household Final Consumption by Broad Categories of COICOP, KSh Billion

	Revised Estimates					Previous Estimates				
	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
Food and non-alcoholic beverages	1,995	2,229	2,650	2,763	3,084	2,585	2,922	3,778	4,082	4,444
Alcoholic beverages and tobacco	243	270	274	301	320	191	238	240	274	309
Clothing and footwear	103	129	141	161	169	140	148	202	236	277
Housing, water and fuels	745	814	905	1,024	1,149	596	632	699	772	820
Transport	644	719	821	959	1,067	401	415	439	492	548
Education	232	254	260	283	314	262	299	323	367	396
Goods not included elsewhere	327	338	358	394	416	317	307	336	372	410
Services not included elsewhere	975	1,113	1,269	1,401	1,514	581	685	769	846	934
Direct purchases in Kenya	-160	-162	-182	-187	-194	-167	-164	-183	-189	-196

Details on total aggregate demand at current prices and the contribution of the various components of GDP to overall GDP for the period 2015-2019 are presented in Table 2.6. The results showed notable changes in some of the components but the most significant one was the downward revision of the value of private final consumption expenditure from KSh 7,945.7 billion to KSh 7,839.4 billion in 2019 mainly owing to significant downward revision of household consumption of key agricultural food crops. Over the five-year period, the level of government final consumption was estimated higher than the previous estimates, accounting for about 13.0 per cent of the aggregate demand. The revised estimates of the final consumption expenditure by Non-Profit Institutions Serving Households (NPISH) and the gross capital formation were significantly higher than the previous estimates mainly as a result of enhanced coverage of economic activities. The contribution of the various components to total GDP remained largely unchanged in terms of ranking, but final private consumption lost part of its share to the other components.

Table 2.6: Components of Expenditure on GDP, 2015-2019

Expenditure category	Current Prices (KSh Million)									
	Revised Estimates					Previous Estimates				
	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
Government final consumption expenditure	876,145	957,594	1,046,434	1,153,406	1,261,505	885,293	908,699	1,053,747	1,164,464	1,271,397
Private final consumption expenditure	5,104,892	5,704,205	6,495,722	7,099,419	7,839,415	4,907,347	5,483,791	6,603,963	7,253,189	7,945,663
Final consumption expenditure by NPISH	93,921	98,216	113,943	102,229	107,460	47,726	52,412	62,148	71,693	89,742
Gross fixed capital formation	1,520,817	1,472,621	1,687,833	1,783,811	1,920,885	1,358,366	1,238,164	1,492,884	1,535,716	1,631,871
Changes in inventories	851	-3,288	65,133	25,965	38,930	-9,406	43,910	61,415	59,999	63,117
Gross domestic expenditure	7,596,626	8,229,347	9,409,065	10,164,830	11,168,194	7,189,326	7,726,975	9,274,159	10,085,061	11,001,789
Exports of goods and services	1,041,510	1,006,194	1,080,501	1,171,459	1,169,967	1,041,510	1,006,194	1,080,501	1,171,459	1,171,940
Imports of goods and services	1,734,755	1,641,478	1,973,102	2,042,985	2,081,481	1,734,755	1,641,478	1,973,102	2,042,985	2,081,480
Discrepancy ¹	-19,063	0	-33,068	47,002	-1,027	-211,896	-68,728	-215,716	-321,424	-351,889
Gross domestic product at market prices	6,884,318	7,594,064	8,483,396	9,340,307	10,255,654	6,284,185	7,022,963	8,165,842	8,892,111	9,740,360

¹Difference between GDP production approach and GDP expenditure approach

Expenditure category	Percentage Contribution to GDP									
	Revised Estimates					Previous Estimates				
	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
Government final consumption expenditure	12.7	12.6	12.3	12.3	12.3	14.1	12.9	12.9	13.1	13.1
Private final consumption expenditure	74.2	75.1	76.6	76.0	76.4	78.1	78.1	80.9	81.6	81.6
Final consumption expenditure by NPISH	1.4	1.3	1.3	1.1	1.0	0.8	0.7	0.8	0.8	0.9
Gross fixed capital formation	22.1	19.4	19.9	19.1	18.7	21.6	17.6	18.3	17.3	16.8
Changes in inventories	0.0	0.0	0.8	0.3	0.4	-0.1	0.6	0.8	0.7	0.6
Gross domestic expenditure	110.3	108.4	110.9	108.8	108.9	114.4	110.0	113.6	113.4	113.0
Exports of goods and services	15.1	13.2	12.7	12.5	11.4	16.6	14.3	13.2	13.2	12.0
Imports of goods and services	25.2	21.6	23.3	21.9	20.3	27.6	23.4	24.2	23.0	21.4
Discrepancy ¹	-0.3	0.0	-0.4	0.5	0.0	-3.4	-1.0	-2.6	-3.6	-3.6
Gross domestic product at market prices	100.0	100.0	100.0	100.0	100.0	100	100	100	100	100

¹Discrepancy expressed as a percentage of GDP

Table 2.7 presents a comparison between estimates of components of expenditure on GDP at constant prices and their respective growth rates for the period 2015-2019. Growth rates for government and private final consumption were comparable for most of the years. However, the growths in gross fixed capital formation were significantly different from those in the previous ones.

Table 2.7: Components of Expenditure on GDP, 2015-2019

Expenditure category	Constant Prices (KSh Million)									
	Revised Estimates					Previous Estimates				
	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
Government final consumption expenditure	909,472	957,594	1,017,294	1,088,333	1,164,135	604,354.0	638,182.7	663,152.8	700,443.6	734,790.8
Private final consumption expenditure	5,453,345	5,704,205	5,977,927	6,281,580	6,588,723	3,099,387.2	3,246,947.4	3,488,797.0	3,716,585.4	3,902,888.2
Final consumption expenditure by NPISH	99,005	98,216	109,419	93,682	97,098	34,328.3	35,277.7	36,519.2	37,666.9	39,531.7
Gross fixed capital formation	1,530,261	1,472,621	1,590,555	1,584,335	1,644,959	882,676.9	801,203.5	867,847.0	879,105.9	900,252.2
Changes in inventories	-1,298	-3,288	54,910	22,633	35,704	-48,543.9	-4,168.4	18,987.7	11,415.6	12,122.9
Gross domestic expenditure	7,990,786	8,229,347	8,750,105	9,070,564	9,530,619	4,572,202.5	4,717,442.9	5,075,303.8	5,345,217.3	5,589,585.6
Exports of goods and services	1,076,940	1,006,194	995,954	1,063,401	1,029,823	800,053.0	782,459.1	734,124.2	762,597.0	760,934.7
Imports of goods and services	1,772,842	1,641,478	1,845,375	1,871,835	1,905,652	1,264,204.0	1,221,080.7	1,326,031.2	1,358,934.0	1,331,441.1
Discrepancy ¹	-7,860	1	-16,868	65,474	87,623	-46,150.1	21,877.3	23,980.3	43,293.2	30,230.3
Gross domestic product at market prices	7,287,024	7,594,064	7,883,816	8,327,604	8,742,413	4,061,901.5	4,300,698.6	4,507,377.1	4,792,173.5	5,049,309.5

¹ Difference between GDP production approach and GDP expenditure approach

Expenditure category	Growth (%)									
	Revised Estimates					Previous Estimates				
	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
Government final consumption expenditure	13.6	5.3	6.2	7.0	7.0	11.5	5.6	3.9	5.6	4.9
Private final consumption expenditure	6.1	4.6	4.8	5.1	4.9	5.2	4.8	7.4	6.5	5.0
Final consumption expenditure by NPISH	-9.8	-0.8	11.4	-14.4	3.6	2.5	2.8	3.5	3.1	5.0
Gross fixed capital formation	0.1	-3.8	8.0	-0.4	3.8	6.6	-9.2	8.3	1.3	2.4
Gross domestic expenditure	4.6	3.0	6.3	3.7	5.1	5.9	3.2	7.6	5.3	4.6
Exports of goods and services	-2.2	-6.6	-1.0	6.8	-3.2	-8.4	-2.2	-6.2	3.9	-0.2
Imports of goods and services	-4.6	-7.4	12.4	1.4	1.8	-9.3	-3.4	8.6	2.5	-2.0
Gross domestic product at market prices	5.0	4.2	3.8	5.6	5.0	-0.3	5.9	4.8	6.3	5.4

¹ Discrepancy expressed as a percentage of GDP

2.4. Gross National Income and Gross National Disposable Income

Comparisons between the Gross National Income (GNI) and Gross National Disposable Income (GNDI) are presented in Table 2.7. The revised level of GNI was estimated higher at KSh 10,091.5 million in 2019 compared to KSh 9,544.0 million in the previous compilation though the revisions in the more recent years were not as significant as the earlier years. Similarly, the revised GNDI was relatively higher than the levels in the old series. The GDP per capita was estimated slightly higher in the revised series across all years and stood at KSh 215,455 in 2019. Similarly, the results showed that the Gross National Income per capita was KSh 212,007 compared to KSh 200,655 in the previous estimates.

Table 2.8: Gross National Income and Gross National Disposable Income

	KSh Million									
	Revised Estimates					Previous Estimates				
	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
CURRENT PRICES, KSh Billion										
Compensation of employees	1,853,415	2,131,816	2,396,166	2,694,738	2,975,566	1,881,911	2,014,137	2,360,425	2,586,544	2,830,810
Consumption of fixed capital	870,288	940,837	1,095,186	1,246,988	1,365,851	815,724	861,022	1,186,697	1,318,020	1,491,596
Net operating surplus	3,561,734	3,849,753	4,258,020	4,584,776	5,043,447	3,027,945	3,540,867	3,936,432	4,240,557	4,589,047
Taxes on products	598,880	671,658	734,024	813,805	870,790	558,605	606,937	682,288	746,990	828,907
Gross domestic product at market prices	6,884,318	7,594,064	8,483,396	9,340,307	10,255,654	6,284,185	7,022,963	8,165,842	8,892,111	9,740,360
Primary incomes										
Receivable from the rest of the world	7,859	10,099	14,563	20,135	22,273	7,859	10,099	14,563	20,135	22,273
Payable to rest of the world	-87,643	-112,651	-170,568	-161,135	-186,410	-87,643	-112,651	-170,568	-166,944	-218,609
Gross national income at market prices	6,804,533	7,491,511	8,327,391	9,199,307	10,091,517	6,204,401	6,920,411	8,009,837	8,745,302	9,544,024
Current transfers										
Receivable from the rest of the world	345,218	333,477	466,248	511,848	544,457	345,218	333,039	465,763	511,848	544,457
Payable to rest of the world	-6,217	-5,192	-5,787	-4,850	-5,574	-6,217	-5,192	-5,787	-4,850	-5,574
Gross national disposable income	7,143,534	7,819,797	8,787,851	9,706,304	10,630,400	6,543,401	7,248,258	8,469,813	9,252,300	10,082,907
Per capita, KSh										
Gross domestic product at market prices	159,049	171,472	187,271	201,300	215,455	145,184	158,577	180,206	191,789	204,783
Gross national income at market prices	157,206	169,156	183,828	198,261	212,007	143,341	156,261	176,763	188,622	200,655
Constant prices										
GDP at market prices, KSh Billion	7,287,024	7,594,064	7,883,816	8,327,604	8,742,413	4,061,901	4,300,699	4,506,927	4,796,617	5,053,442
Per capita	168,353	171,472	174,036	179,474	183,664	93,842	97,109	99,460	103,455	106,244
- Annual percentage change	4.2	1.9	1.5	3.1	2.3	4.9	3.5	2.4	4.0	2.7

Table 2.9: Gross National Disposable Income and Savings

	KSh Million									
	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
Gross national disposable income	7,143,534	7,819,797	8,787,851	9,706,304	10,630,400	6,543,401	7,248,258	8,469,813	9,252,300	10,082,907
Consumption of fixed capital	870,288	940,837	1,095,186	1,246,988	1,365,851	815,724	861,022	1,186,697	1,318,020	1,491,596
Net national disposable income	6,273,245	6,878,960	7,692,665	8,459,316	9,264,549	5,727,677	6,387,236	7,283,115	7,934,280	8,591,311
Final consumption expenditure	6,074,958	6,760,015	7,656,099	8,355,054	9,208,380	5,840,366	6,444,901	7,719,859	8,489,346	9,306,802
Saving, net	198,287	118,945	36,566	104,262	56,169	(112,688)	(57,665)	(436,744)	(555,066)	(715,491)
Financing of capital formation										
Saving, net	198,287	118,945	36,566	104,262	56,169	(112,688)	(57,665)	(436,744)	(555,066)	(715,491)
Capital transfers from abroad, net	25,718	20,878	19,046	26,593	21,146	25,718	20,878	19,046	26,593	21,146
Total	224,005	139,823	55,612	130,855	77,315	(86,970)	(36,787)	(417,698)	(528,473)	(694,345)
Gross fixed capital formation	1,520,817	1,472,621	1,687,833	1,783,811	1,920,885	1,358,366	1,238,164	1,492,884	1,535,716	1,631,871
Consumption of fixed capital	(870,288)	(940,837)	(1,095,186)	(1,246,988)	(1,365,851)	(815,724)	(861,022)	(1,186,697)	(1,318,020)	(1,491,596)
Changes in inventories	851	(3,288)	65,133	25,965	38,930	(9,406)	43,910	61,415	59,999	63,117
Net lending (+) / Net borrowing(-)	(427,374)	(388,673)	(602,167)	(431,933)	(516,649)	(620,207)	(457,839)	(785,300)	(806,168)	(897,737)

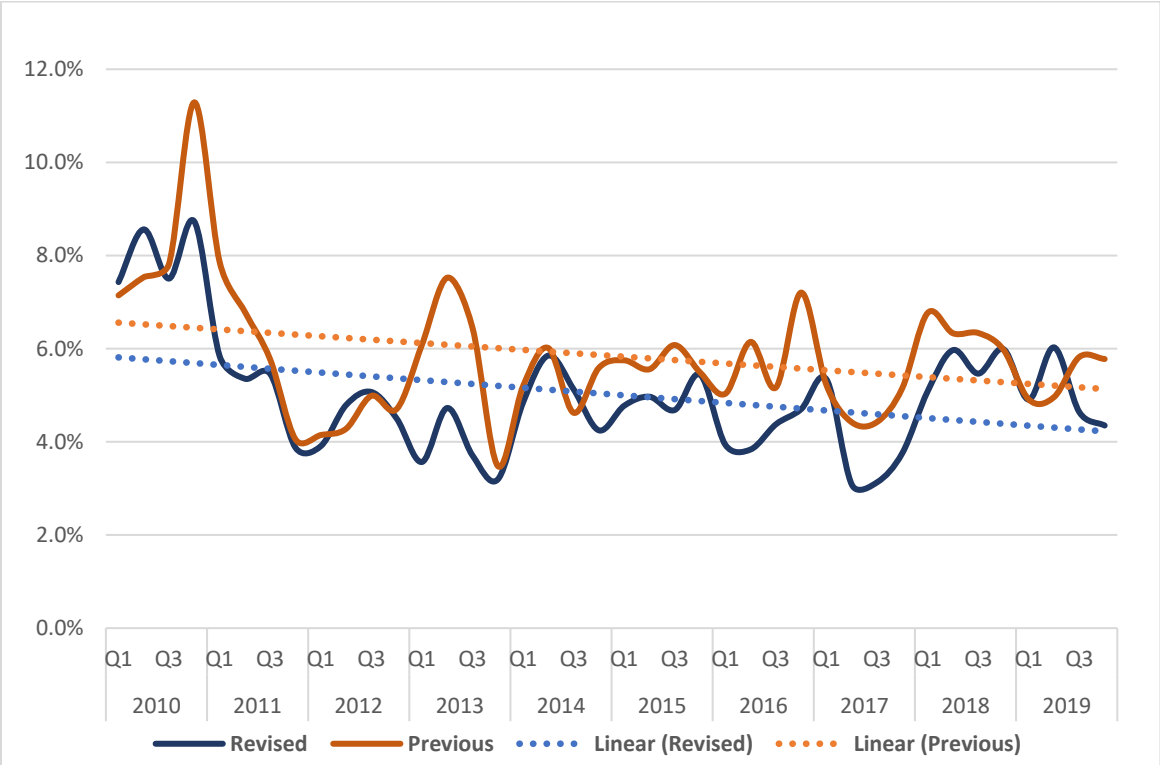
2.5. Quarterly National Accounts

Quarterly national accounts (QNA) are meant to provide policy makers with high frequency indicators that can guide policy formulation, awaiting compilation of the comprehensive annual national accounts. These accounts are mainly based on readily available high frequency indicators that can be processed quickly and have the estimates published in the shortest time possible. The QNA estimates are then aligned to the annual national accounts estimates through a process called benchmarking. The quarterly national accounts have been revised in line with revision of the annual estimates. The indicators used in the revised estimates, ranging from source data,

deflators and volume extrapolators were greatly enhanced compared to the previous estimates.

Figure 2.4 shows that there is no significant deviation in the trajectory between the previous and the revised quarterly estimates. The lower rates of growth of the revised quarterly GDP were mainly on account significantly higher levels of quarterly real GDP. Detailed data on quarterly GDP for the period 2009-2020 are provided as annexes to this report.

Figure 2.4: Quarterly GDP Growth, 2010-2019



3. Analysis of the Results by Activity/Sectors

3.1. Agriculture Forestry and Fishing

This activity includes exploitation of plant and animal natural resources, comprising the activities of growing of crops, rearing of animals, harvesting of timber and other plants, animals or animal products from a farm or their natural habitats such as fishing activities. Similar to the previous estimates, estimates of market output for crop are derived using the demand side approach, i.e., the sum of intermediate demand (input into industry, seeds and the produce that goes to restaurants), household acquisitions, inventories, and exports less taxes on products, trade margins and imports. Output for household acquisitions and own final use were estimated from the Kenya Integrated Household Budget Survey (KIHBS). The choice of the demand side approach (sum of uses) as the

ideal approach for estimating crop production was deemed more suitable when confronted with the supply side approach, which could potentially underestimate output for own final use. In addition, the demand side approach provides a better reconciliation of domestic production and, exports and imports, especially when the volume and price changes seem to deviate from the supply and demand rule. For most crops, the base year volume (benchmark) is extrapolated variously from crop to crop but largely relies on production quantities reported by the Ministry of Agriculture. In some instances, volume extrapolation for intermediate demand for certain crops is done using output of manufacturing that use those crops. *More details on estimation are provided in the Sources and Methods publication (The Gray Book).*

Results of the revision showed that the Gross Value Added for activities in this sector was lower for all the years under consideration but more pronounced for the period 2015-2019. The downward revision was mainly in output for growing of crops which was attributed to significant misrepresentation in the indices previously used to derive nominal output of crops (reflation). Indices of some key crops rose as high as 6 times relative to the base year (2009), farm gate prices that have since been compiled grew by about 1.8 times over the same period. Consequently, output for crop production in the previous compilation were significantly overestimated. The overestimation was also manifest in Household Final Consumption Expenditure (HFCE), since purchases of food represent a significant proportion of household expenditure. Though, the exaggeration of crop output was noted earlier on, and due to the significance of the revisions, the correction was postponed until such a time when a comprehensive revision of national accounts would be undertaken. This was purposively done to avoid disorienting users by introducing a significant break in the time series and with the knowledge that upon revision, the levels of gross value added in the sectors would be revised significantly.

Figure 5 and Figure 6 show comparisons between the revised estimates and the previous estimates in terms of levels and volume changes, respectively. The most significant downward revisions were during the period 2014-2019, which was also reflected in the movement of price indices (that were used to reflate from constant to current prices) as shown in Figure 7. Growths during period 2010-2019 showed some semblance especially in terms of direction but some significant deviations were observed in 2014, 2016 and 2017. The differences in the growths were attributed to revision and/or change of source data coupled with notable changes in data used to derive the non- benchmark years for the case of 2014 and 2017. In addition, the revision exercise revealed that the effect of the drought experienced in 2017, more so for livestock production had been underestimated as evidenced by livestock population obtained from the 2019 Kenya Population and Housing Census.

Figure 3.1: Gross Value Added (KSh Billion) for Growing of Crops, 2009-2019

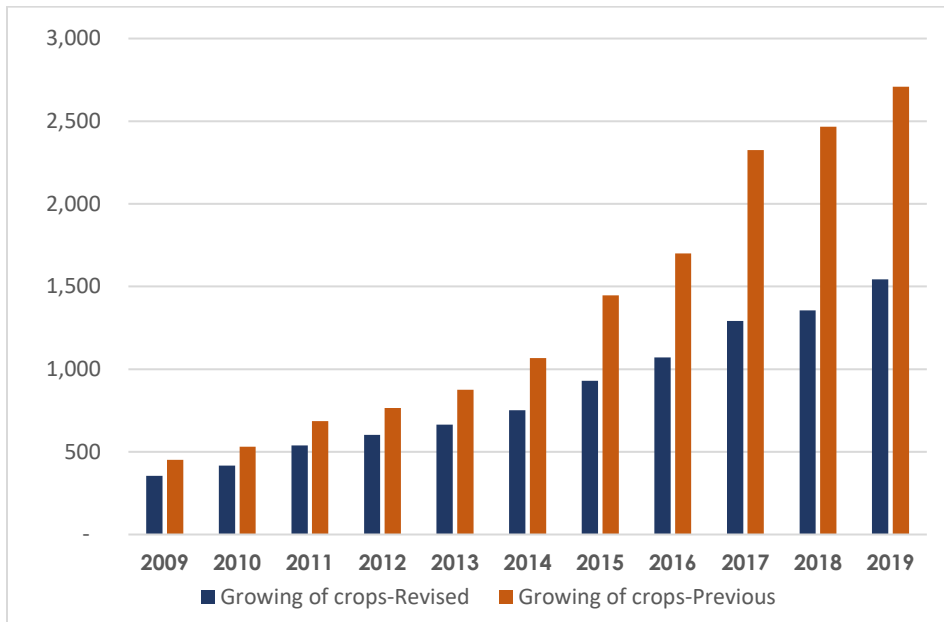


Figure 3.2: Real Gross Value Added for Growing of Crops, (% Change), 2010-2019

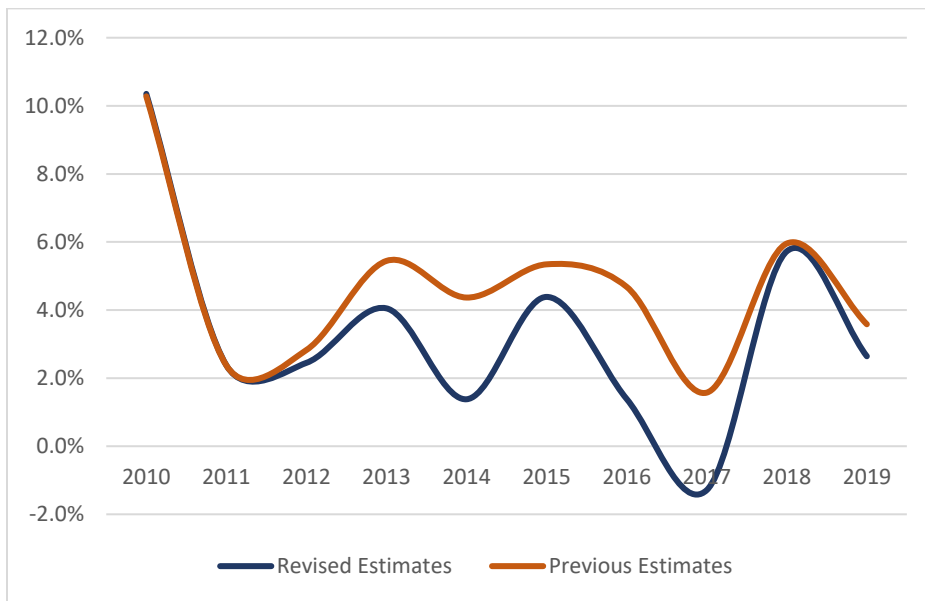
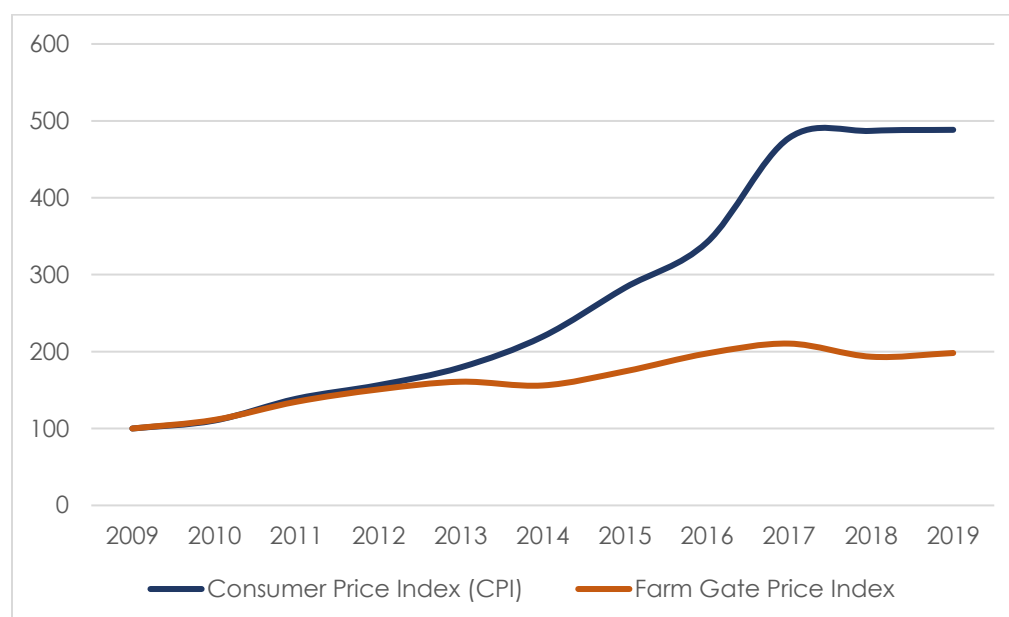


Figure 3.3: Comparison changes in Price Indices (%), (2009=100)



The downward revision was also partly explained by estimated lower levels of household acquisitions of some key agricultural items owing to the revision of the annual population growth rate from 2.8 to 2.2 per cent after the implementation of the 2019 Population and Housing Census (2019 KPHC). In addition, the lower level of agriculture GVA was as a result of significant downward revision of livestock population as reported in the 2019 KPHC. The revisions were occasioned by changes in production data in some years that had not been incorporated in the previous compilation.

3.2. Mining and Quarrying

This activity entails extraction of minerals occurring naturally as solids (coal and ores), liquids (petroleum) or gases (natural gas). In addition, expenditure associated with mineral exploration and evaluation is included in the computation of output for this activity. In Kenya, the most common minerals include soda ash, titanium, gold, and gemstones while quarrying includes extraction of stone and sand majorly used in construction as well as limestone and iron ore used for industrial purposes.

The gross value added in nominal terms was estimated higher in the revised series for the period under consideration relative to the previous estimates. The results of the revision revealed that, expenditure on mineral exploration and evaluation especially on petroleum accounted for the bulk of the sector's value addition and majorly explained the sector's performance over the period reviewed in the revision. Data on mineral exploration was obtained from the financial statements of the main oil exploration companies which was departure from the approach adopted in the previous estimates. The bulk of the capital outlays in exploration was in 2013, 2014 and 2015 which in turn

resulted in significantly higher GVA compared to the previous estimates, which were compiled using a different data source that was not adequately reflective of the sector activity. The difference in the level of nominal GVA for the two series was comparatively lower in more recent years. The sector's growth was erratic as it majorly depended on money spent to explore for fossil fuels. The differences in volume changes were also as a result of adoption of Producer Price Index for deflation in the revised estimates compared to a construction index based on materials/inputs such as sand, ballast that were used in the previous compilation.

3.3. Manufacturing

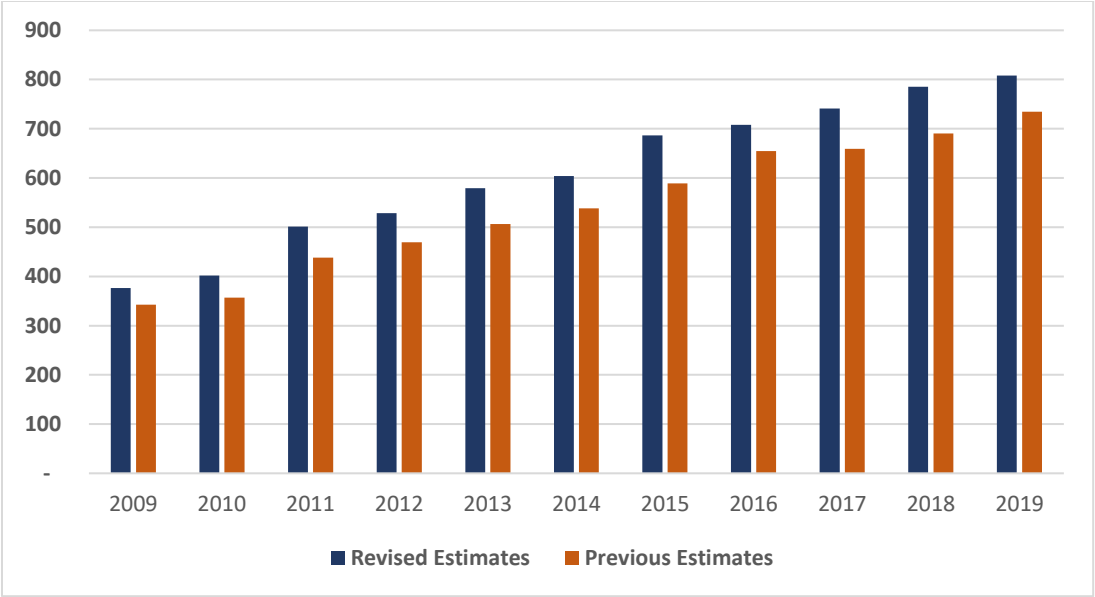
Manufacturing is defined as the physical or chemical transformation of materials, substances, or components into new products, including substantial alteration, renovation or reconstruction of goods.

Benchmark estimate for non-financial corporations are based on Census of Industrial Production (CIP) supplemented by Income Tax data while those of household enterprises are derived from Micro Small and Medium Enterprises (MSME). Output for various activities were estimated differently depending on characteristics of their products. Extrapolation by manufacturing quantum index to derive output at constant prices for homogeneous products in 20 industries and reflating using appropriate producer price index. For heterogeneous products, benchmark estimates were extrapolated using values derived from turnover and Monthly Survey of Industrial Production (MSIP) such as assembly of motor vehicles. Output at constant prices is calculated by deflating using appropriate producer price index.

The ratios of intermediate consumption to output were derived from CIP and MSME for non-financial corporations and household enterprises, respectively. For most industries, intermediate consumption at constant prices is extrapolated using output at constant prices and reflating using composite intermediate consumption (IC) deflator based on the Supply and Use Tables.

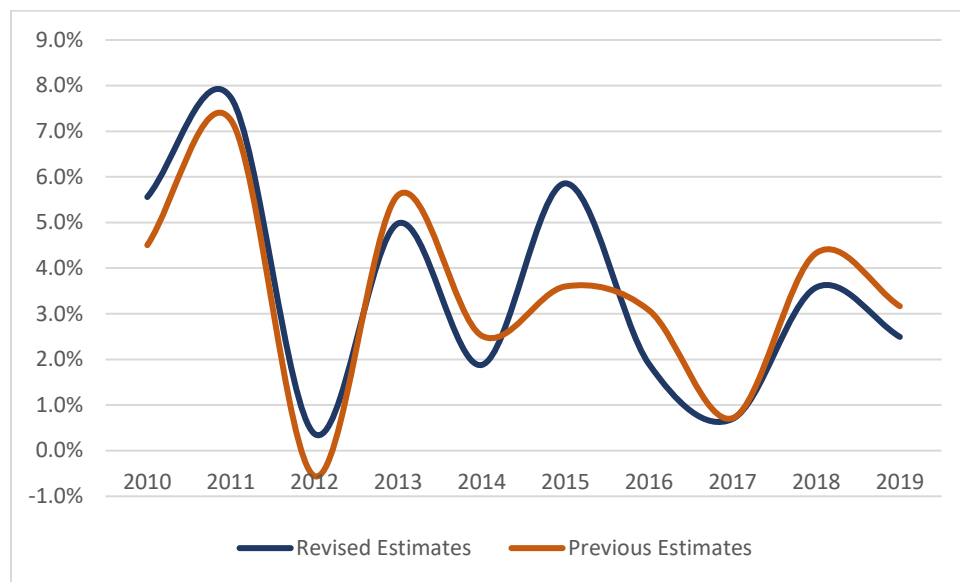
Overall, the level of the nominal revised GVA is higher than the previous estimates mainly due to enhanced coverage of manufacturing activities and introduction of new data sources such as the census of industrial production and administrative data sources. Estimation of informal manufacturing was notably improved by data and insights from the household budget survey and Micro Small and Medium Enterprises (MSME) survey. In addition, the revised estimates were higher on account of significant downward revision of input/output ratios for a number of activities that were found to have been overstated in the previous compilation, thereby reducing value addition. The magnitude of change averaged at 1.2 per cent across all the years in consideration with the base year estimates revised upwards by 0.8 per cent.

Figure 3.4: Manufacturing Gross Value Added (KSh Billion), 2009-2019



As shown in Figure 3.4, growth rates were comparable during the 10-year period except for 2015, where a notable deviation was evident, otherwise the direction of growth remained unchanged as in the previous estimates. The significant upward revision of the growth for 2015 was as a result of the methodological change that departed from the use of quantum indices for some products to factor in heterogeneity of products that resulted in substantially higher growths in that year. For example, during the year, the revised growth rates for manufacture of transport equipment and textiles based on the new methodology almost tripled in 2015 compared to the previous estimates. Over the period, the lowest growth was recorded in 2017 at 0.7 per cent, which was similar to the growth reported in the previous estimation.

Figure 3.5: Manufacturing, Growth rates (2010-2019)



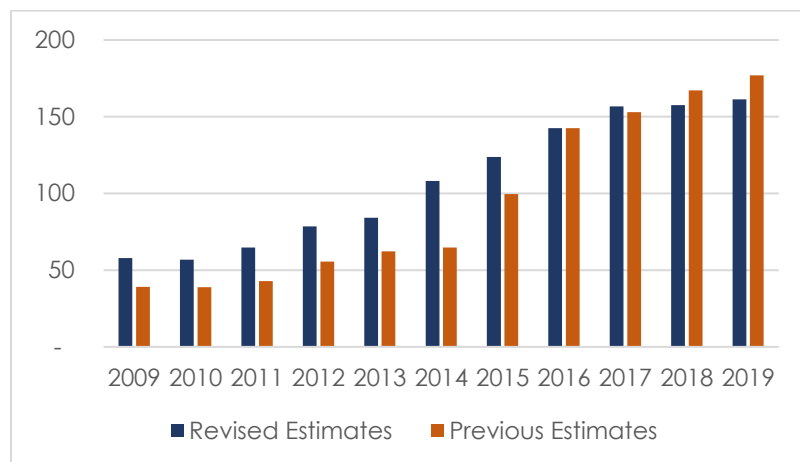
3.4. Electricity Supply

This activity includes the operation of electric and gas utilities, which generate, control and distribute electric power or gas and, the provision of steam and air-conditioning supply. In Kenya, the entities involved in this activity are the Kenya Electricity Generating Company (Kengen), Kenya Power and Lighting Company, Kenya Electricity Transmission Company (KETRACO), Independent Power Producers (IPPs), sugar factories and mini-hydro that are community-based self-help projects that supply power in their localities.

The revision adopted a more disaggregated approach in line with international best practices of recognizing distinct economic activities in electricity supply. As an improvement to the compilation, the new estimates were prepared for generation, distribution, and transmission of electricity and production of steam. The data sources for compilation of GVA for electricity supply remained largely unchanged but the data were significantly enhanced in certain instances especially the input structures. The deflation was also changed from CPI electricity in the previous estimates to PPI electricity in the revised estimates. One of the key changes in the revised estimates was the exclusion of fuel recovery costs levied by the electricity distributor from the output of electricity supply.

The revised estimates showed that Electricity Supply GVA for pre-benchmark years were on average 0.6 per cent higher than the previous estimates. Estimates for the benchmark year (2016) almost stagnated while that revised GVA for 2017 was slightly higher than the previous estimates. The GVA in the revised series were slightly lower (About 0.1%) in 2018 and 2019.

Figure 3.6: Electricity Supply, Gross Value Added (KSh Billion), 2009-2019

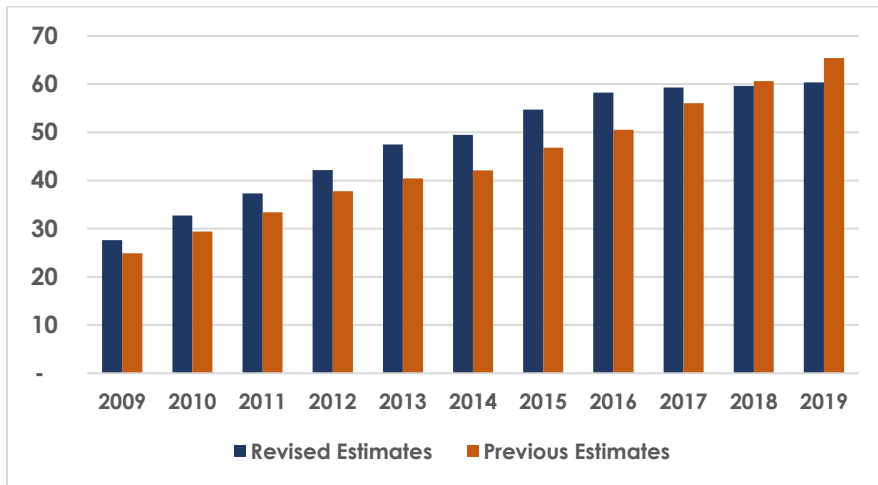


As a consequence of the significant shift in methodology and use of a different deflator, the growth rates for the revised estimates did not mirror those in the previous estimates in most years. The deviation was on account of departure from relying heavily on fuel as a key intermediate consumption (IC) item, that led to faster growth of GVA, every time diesel generated electricity reduced significantly which may not necessarily translate to accelerated production. This was corrected in the revision through adoption of a more robust methodology of deriving inputs into electricity supply activities.

3.5. Water Supply; Sewerage, Waste Management and Remediation Activities

These refer to activities related to the management (including collection, treatment and disposal) of various forms of waste, such as solid or non-solid industrial or household waste, as well as contaminated sites. These activities are mainly carried out by Water and Sewerage Companies (WASCOs) in urban areas which are subsidiaries of the County Governments. In addition, estimates are compiled for informal activities carried out by households and unincorporated enterprises using data obtained from household budget surveys and enterprise surveys with a strong bias towards the informal sector. Data from the 2019 KPHC was also used to supplement and enhance the other sources. For instance, estimation of the output of solid waste management benefited from the census data. Benchmark estimate is extrapolated using solid waste collection in tonnes and reflat by producer price index. The ratio of intermediate consumption over output was based on CIP and MSME for non-financial corporations and household enterprises.

Figure 3.7: Water Supply & Sewerage Management, Gross Value Added (KSh Billion), 2009-2019

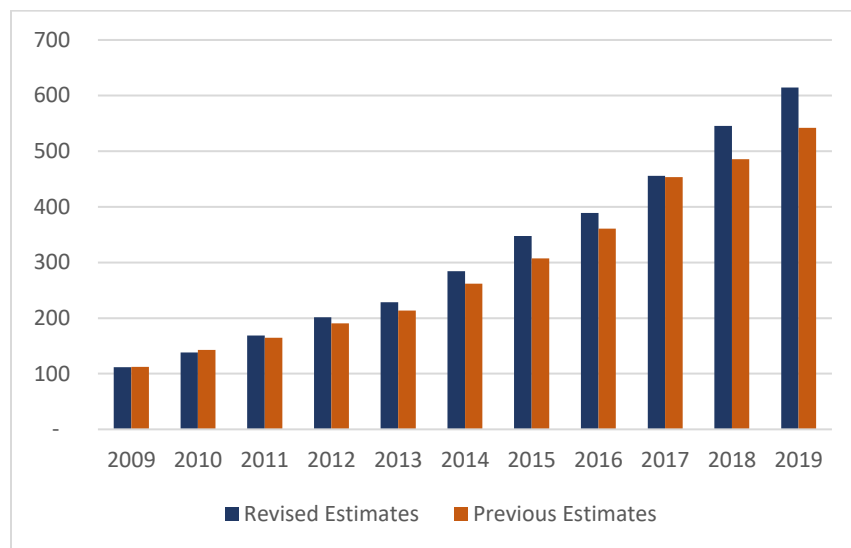


The revised nominal estimates were marginally higher than the levels in the previous estimates except for 2018 and 2019 where the revised estimates were slightly lower.

3.6. Construction

The construction sector includes general construction and specialized construction activities for buildings and civil engineering works. It entails new work, repair, additions and alterations, prefabricated buildings or structures on the site. The revised estimates were relatively higher than the previous estimates with the magnitude of change more evident in 2018 and 2019 at about 0.7 per cent. The base year nominal GVA was estimated at a revised level of KSh 389.3 billion compared to KSh 360.8 billion in the previous estimates, representing an upward change of 0.4 per cent. The upward revision was mainly attributable to new benchmark data coupled with enhanced compilation methodology based on consumption of construction materials.

Figure 3.8: Construction, Gross Value Added (KSh Billion), 2009-2019



The new benchmark based on the value of work done in 2017 was derived from the construction module of the Census of Industrial Production, which was a significant improvement from the derivation of the benchmark for the previous estimates. Previously, the Building Cost Index, base year (1972=100) was used for deflation while a new Construction Input Price Index base year (2019=100) was used to derive the revised estimates. In contrast with previous estimation of construction activities, output of specialized construction activities such as plumbing, electrical works was estimated separately in the revised estimates. To take into consideration the heterogeneity in some input materials, the revised estimates departed from the use of quantities of materials to monetary values in the estimation. Further, new data for estimation of output for traditional dwellings was sourced from the 2019 population and housing census.

Inevitably, due to the significant re-orientation of the estimation process and change of price deflator, the revised sector's growth rates were comparatively different from the previous estimates growths during the period 2010-2019.

3.7. Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycle

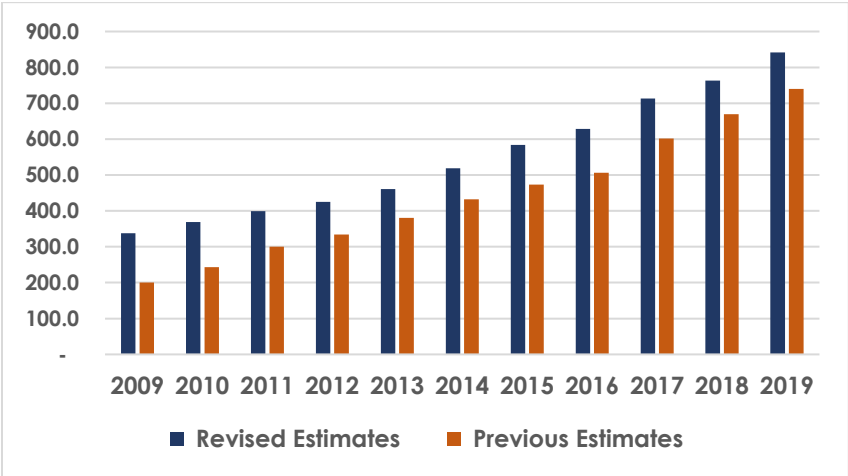
This includes wholesale and retail sale (i.e., sale without transformation) of any type of goods and the rendering of services incidental to the sale of these goods. Wholesaling and retailing are the final steps in the distribution of goods. This industry includes businesses such as supermarkets, small retail shops, street vendors, hardware shops, motor bazaars, garages etc. This activity also includes sale and repair of motor vehicles and motor cycles. Such activities include motor dealers, car bazaars, spare part sellers, car wash etc.

Estimation of output for wholesale and retail trade activities is based on margins/markups that businesses make from engaging in trade activities. As a prerequisite for the revision, a study of margins was conducted in 2018 to update margin rates that were used in the previous compilation to make them reflective of more recent trends. The study was conducted in all major towns with particular emphasis on achieving significant variation in the data, though no scientific sampling of the outlets was done. The rates applied to the estimates were derived using the median of the collected margin rates by product to avoid the outlier effect associated with the simple average. The revised estimates were therefore based on the updated margins that focused on merchandise that are traded both in wholesale and retail.

Output derived from the trade margins is cross checked with sales turnover from administrative records to verify the robustness of the estimates. The survey results indicated that the retail and wholesale margins tended to be higher for most products than originally estimated with a few exceptions. To derive the volume estimates, the relevant consumer price indices were used to deflate output at current prices.

The revised estimates were higher during the entire period, averaging at 2.2 per cent during the period. This was mainly attributable to better benchmark data from administrative sources coupled with improved coverage of unincorporated household enterprises.

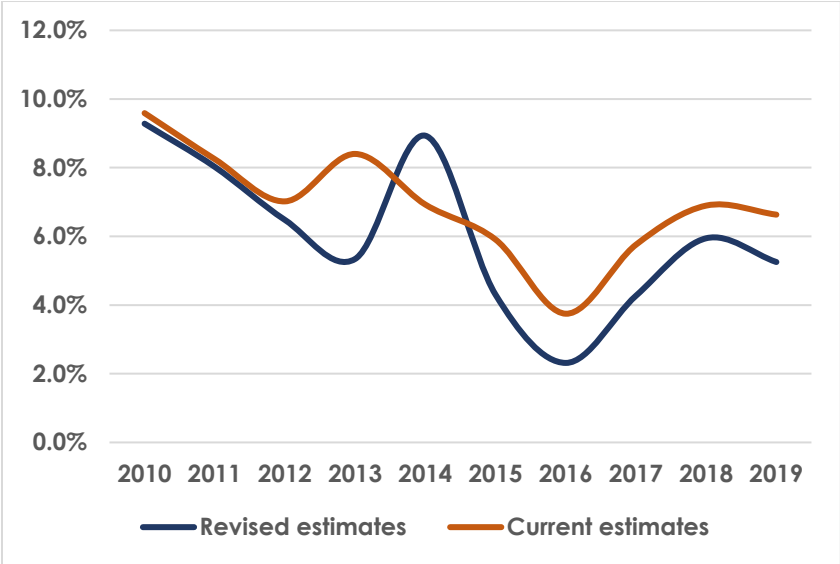
Figure 3.9: Wholesale and Retail Trade, Gross Value Added (KSh Billion), 2009-2019



As shown in Figure 3.9, the growth trajectory for distributive trade activities over the period remained more or less the same, except in 2013 and 2014 where the direction was different. This was occasioned by significant downward revision of margins for tea and

refined petroleum products in 2013, while the deviation in 2014 was mainly due to revision of the source data.

Figure 3.10: Wholesale and Retail Trade, Growth Rates (%), 2010-2019

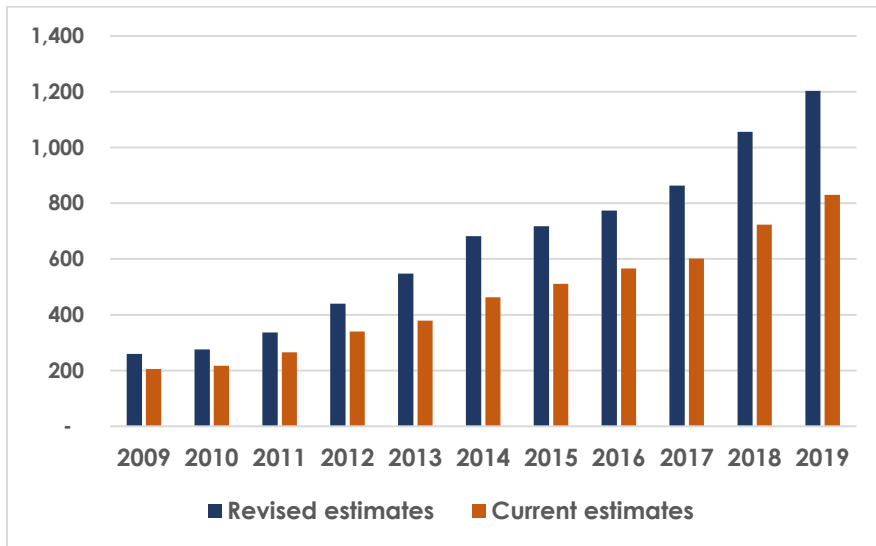


3.8. Transportation and Storage Activities

These activities entail provision of passenger and freight transport by rail, pipeline, road, water or air and associated activities such as terminal and parking facilities, cargo handling, storage. Examples of transportation activities in Kenya include *matatus*, *boda boda*, trucks, pick-ups and lorries involved in transportation of goods, taxis including those using digital platforms, activities of ports, warehousing etc. The revision benefitted from an informal transportation study that sought information on fares charged; number of trips made; average number of passengers ferried; daily revenue generated; number of days worked in a week; a breakdown of daily expenses; revenue generated from transporting freight etc.

The results showed that transportation activities were grossly underestimated across the entire period under review especially in the more recent years. The sector’s GVA in the revised estimates almost tripled between 2012 and 2019, implying a faster growth compared to the previous estimates.

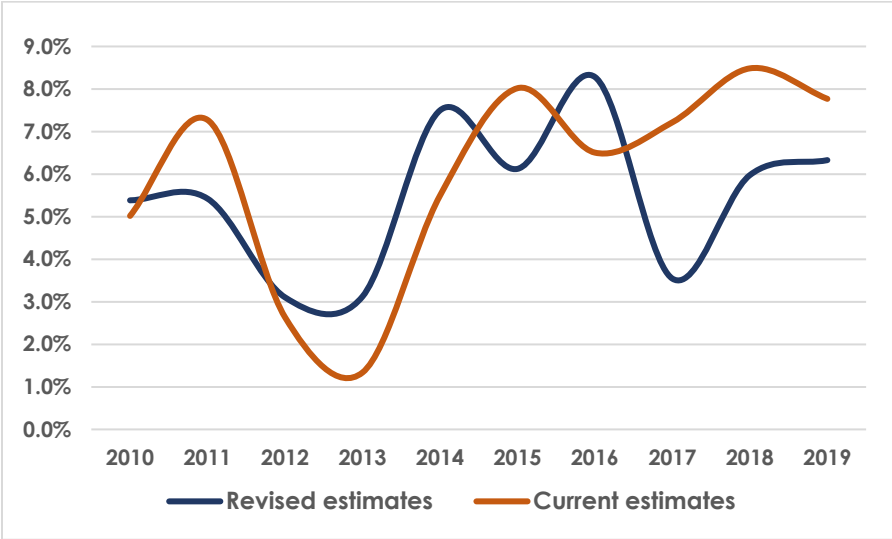
Figure 3.11: Transportation and Storage, Gross Value Added (KSh Billion), 2009-2019



The upward revision of estimates ranged from 1.9 per cent in 2009 to 4.1 per cent in 2014. The upward revision for the period 2015-2019 averaged at 3.0 per cent. The considerable change was informed by enhanced coverage of the sector activities such as *boda boda*, matatus and other informal transportation activities such as transportation of construction materials, transportation done using pick-ups etc.

The base year (2016) level of GVA was estimated at KSh 773.9 billion compared to KSh 565.8 billion in the previous estimates. Deviations in the growth trajectory were significant in most years mainly due to enhanced coverage coupled with an improvement in the derivation of nominal output, from using a single CPI index based on fares to reflate volume estimates to the use of a weighted index based on transportation input price indices, (repairs and maintenance, light diesel, lubricants, spare parts) for passenger and freight transportation.

Figure 3.12: Transportation and Storage, Growth Rates (%), 2010-2019

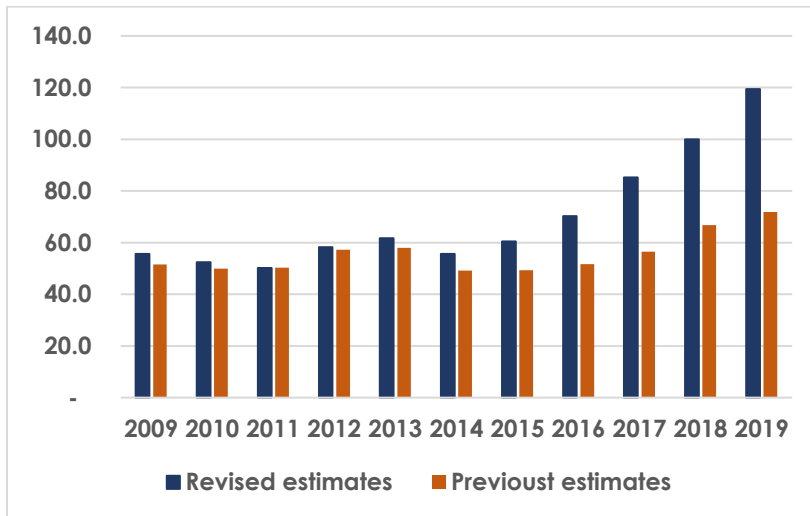


3.9. Accommodation and Food Serving Activities

These includes provision of short-term accommodation for visitors and other travelers and provision of meals and drinks for immediate consumption. This industry covers conventional hotels and motels, small and medium lodging facilities, high-end and small restaurants, and boarding facilities in learning institutions. In the revised estimates, accommodation services and food serving activities (restaurants) are treated as distinct activities and separate accounts compared to one account that was the case in the previous estimates. The main data sources for the revision were the monthly survey of hotel statistics, tax administration records, integrated survey of services, Kenya integrated household budget survey, MSME and an informal study on rooming services that helped enhance the scope of coverage of informal services.

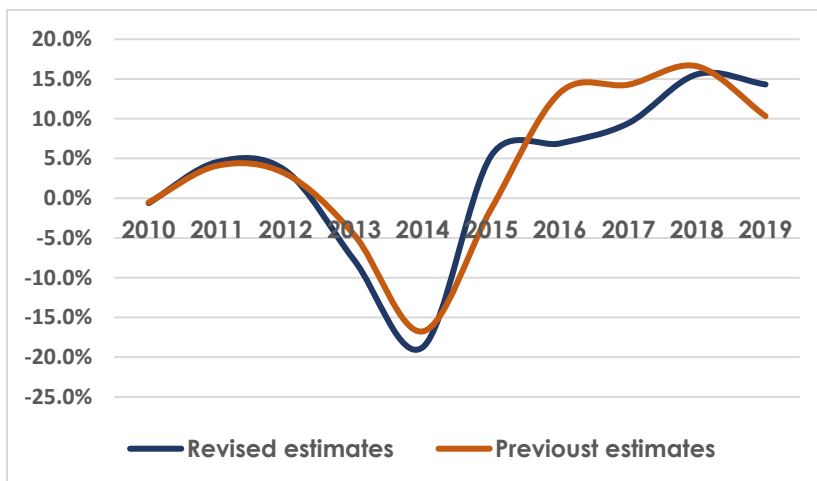
Output for accommodation activities were estimated for both corporations and households and includes other services offered as secondary output such as food and beverage serving services, conference services and rental of premises. Estimates of output for food and beverage serving activities were compiled for corporations as well as for households (unincorporated household enterprises/informal). Nominal output of accommodation and food serving activities are derived by reflating output at constant prices using CPI accommodation and CPI catering services, respectively.

Figure 3.13: Accommodation and Food Serving Activities, Gross Value Added (KSh Billion), 2009-2019



As shown in Figure 3.13, the revised nominal GVA was consistently higher than the previous estimates for the period 2015-2019 but the magnitude of change was comparatively higher in the more recent years. The sector's revised level of GVA was estimated significantly higher at KSh 119.5 billion in 2019 up from KSh 71.8 billion in the previous estimates. The significant revision was attributed to expanded coverage of the sector activities through better coverage of informal rooming activities as well improved quality of benchmark data used in the compilation. The growth rates for the two series were comparable for the better part of the period under review albeit with some modest deviations in some years, except in 2016 and 2017 where the growths were revised downwards notably.

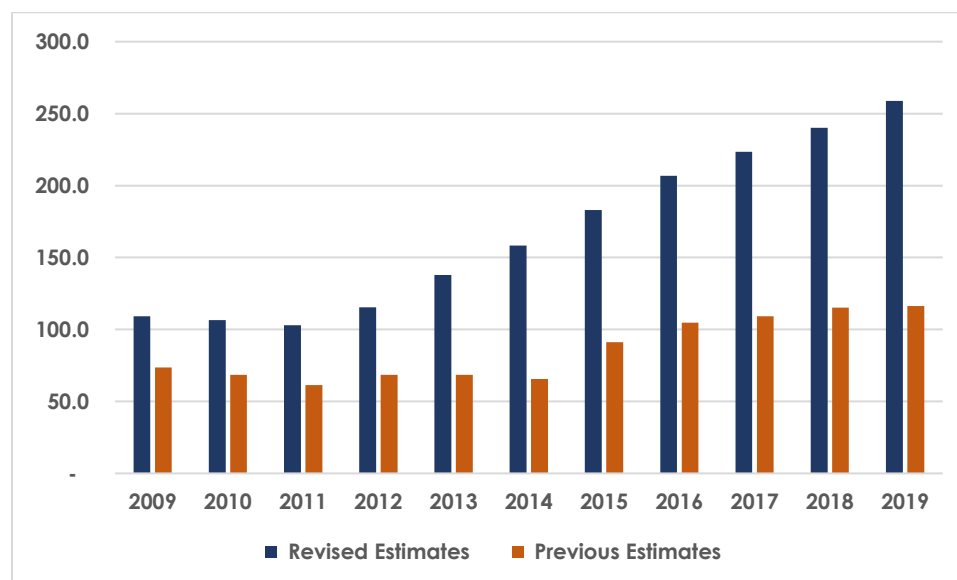
Figure 3.14: Accommodation and Food Serving Activities Growth, Rates (%), 2010-2019



3.10. Information and Communication

In Kenya, this industry includes activities of telecommunication companies, radio and TV broadcasting, publishing activities, internet service providers among other information technology related activities. Output of mobile money was compiled as a secondary output of telecommunication activity as per the recommendation of SNA. The benchmark data used to estimate output for telecommunication activity was determined after assessing revenue reported by Communications Authority of Kenya (CA), turnover from tax administration records and the integrated survey of services. Benchmark output and input/output ratios for other ICT activities such as broadcasting, publishing and other information technology service activities were derived from tax administrative records and the 2018 Integrated Survey of Services. Deflation was done using the relevant CPI items such as CPI communication, mobile phone airtime, internet cost for telecommunication activities. For the other activities such as publishing and broadcasting, prices of books, cinema entry fees were used to remove the price effect.

Figure 3.15: ICT, Gross Value Added, KSh Billion, 2015-2019



Compilation of the revised estimates for this activity was characterized by a significant shift to better data sources that revealed that the sector had been previously underestimated by a sizeable margin. The results showed that the revised nominal GVA for the period 2013-2019 was about two times the levels reported in the previous estimates. The sector's upward review mostly prominent in the more recent years, was also informed by availability of data on innovative products especially in telecommunication activities that were introduced during the review period, but could not be integrated immediately in the compilation. The sector's GVA was estimated at KSh 258.8 billion in 2019 compared to KSh 116.4 billion in the old series. The sector's growth rate in the revised series were significantly different from the earlier estimates in most of

the years and generally decelerated during the period 2013-2019. The changes were partly on account of the landmark changes instituted in the compilation processes including data sources and improved scope of the sector activities.

Figure 3.16 shows that the sector's GVA compares well with total revenue from telecommunication and internet service providers and therefore indicates that these activities drive the ICT sector. Though the general trajectory of growth was comparable, there were significant deviations in the volume changes mainly on account of notable changes in benchmark data and methodological approaches.

Figure 3.16: Comparison Between Revenue and GVA for ICT Activities, 2015-2019

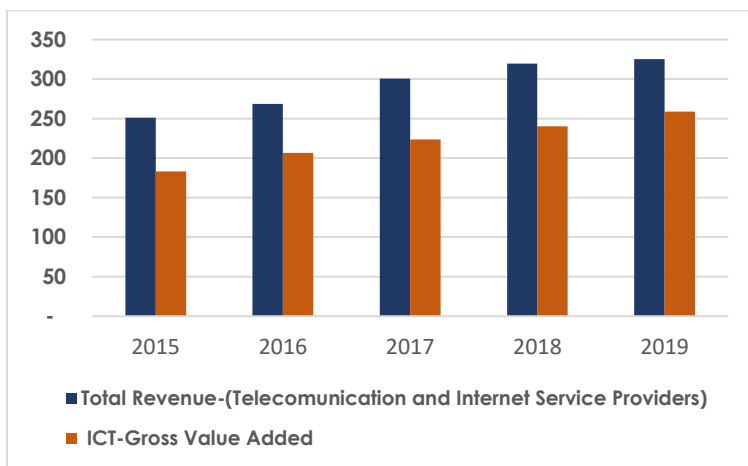
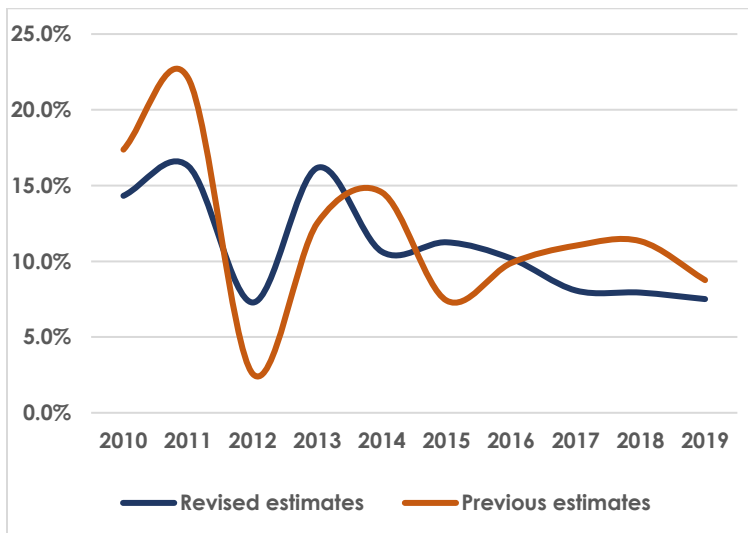


Figure 3.17: ICT Growth Rates (%), 2010-2019



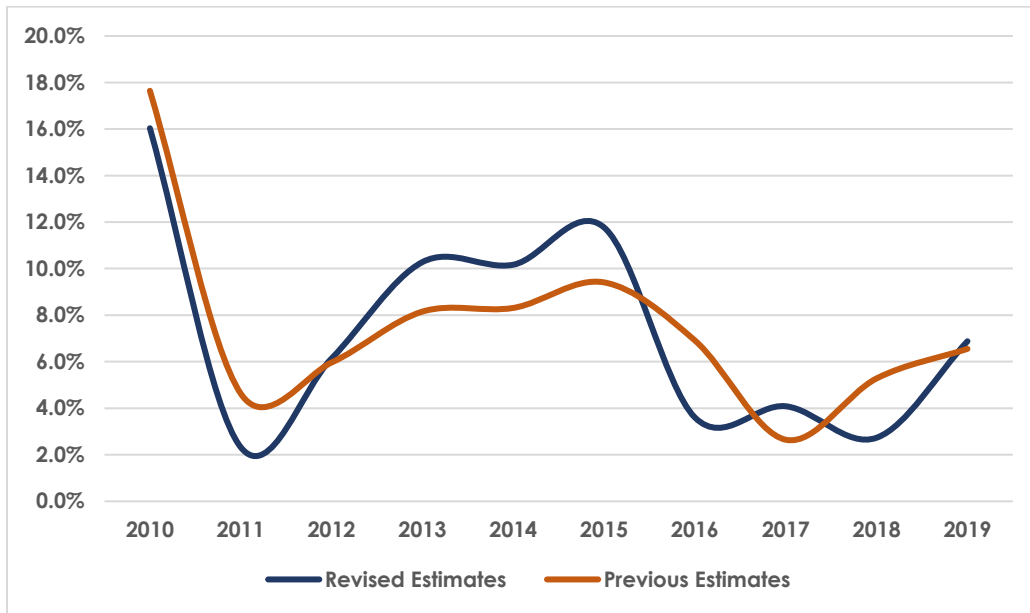
3.11. Financial and Insurance Activities

This sector includes financial service activities, insurance, reinsurance and pension funding activities and support activities to financial services, activities of holding companies and activities of trusts, funds and similar financial entities. Estimation of the nominal and constant output for Financial Intermediated Services Indirectly Measured (FISIM) including explicit services charges was improved in the revised estimates. Previously, the value of FISIM was derived by applying the midpoint between the effective interest rate on loans and deposits to all interest earning assets and liabilities, even though some assets such as debt securities are service free. The revised estimates follow the same procedure except that government securities are excluded in the computation of FISIM as recommended by 2008 SNA. Total FISIM output is then allocated to Households and Government based on a break-down of the stocks of loans and deposits. Due to limitation of data, FISIM consumed by corporations (intermediate consumption) is not allocated to each activity rather the total FISIM is subtracted from the sum of GVA to derive total GVA at basic prices.

Estimation of central banking was done using the sum of costs approach, i.e. compensation of employees, intermediate consumption and consumption of fixed capital using information obtained from annual financial statements of the Central Bank of Kenya. Output and input structures for insurance activities were estimated using data on premiums and claims, and expenditures were obtained from reports published by the Insurance Regulatory Authority (IRA). Estimation of output of insurance brokers was based on commissions paid by insurance companies while the benchmark output for investment banks was obtained from tax administration records. Data on intermediate consumption for these activities was majorly sourced from the integrated survey of services.

During the period, the sector also benefitted from entry of a wide range of borrowing platforms such as mobile banking and digital lending that facilitate easy access to financial services. The revision of the sector's activities also included the integration of data from Savings and Credit Cooperative Societies (SACCOs) - that operate from back office - in the compilation. As a result, the base year GVA for financial and insurance activities was estimated at KSh 588.9 billion compared to KSh 496.3 billion in the previous estimates. The revised sector's GVA was estimated at KSh 653.9 billion in 2019 compared to KSh 582.9 in the previous estimates, representing an upward revision of 12.2 per cent.

Figure 3.18: Financial and Insurance Activities, Growth Rates (%), 2010-2019



As shown Figure 3.18, the growth over the period showed relative resemblance in direction, except 2017 and 2018. The significant downward revision in 2016 was attributed to the effect of the exclusion of credit to government in the computation of FISIM, which rose sharply in 2016 and 2018 as shown in Figure 3.19. The improved source data on premiums, claims and investment income also partly explained the departure in the magnitude and direction of growth in 2016 and 2018, respectively, as shown in Figure 3.20.

Figure 3.19: Growth Rates of Credit (%), 2013-2019

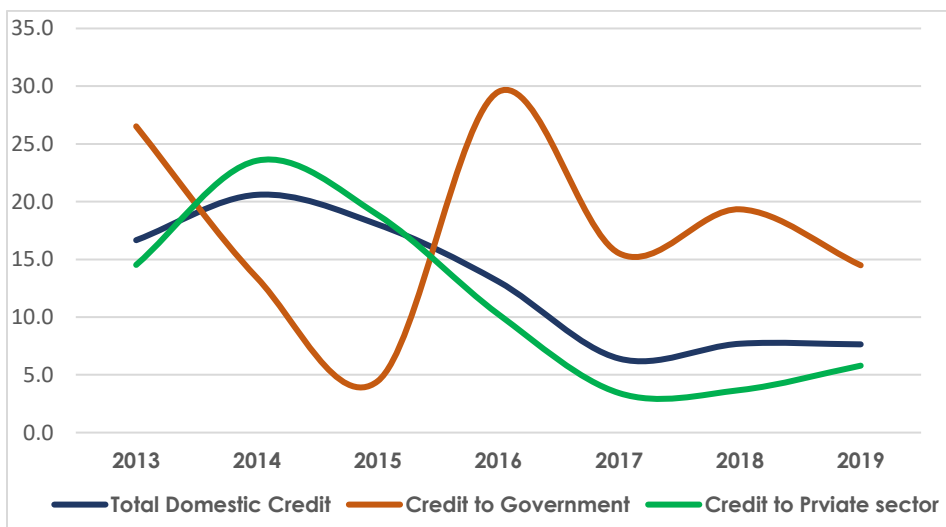
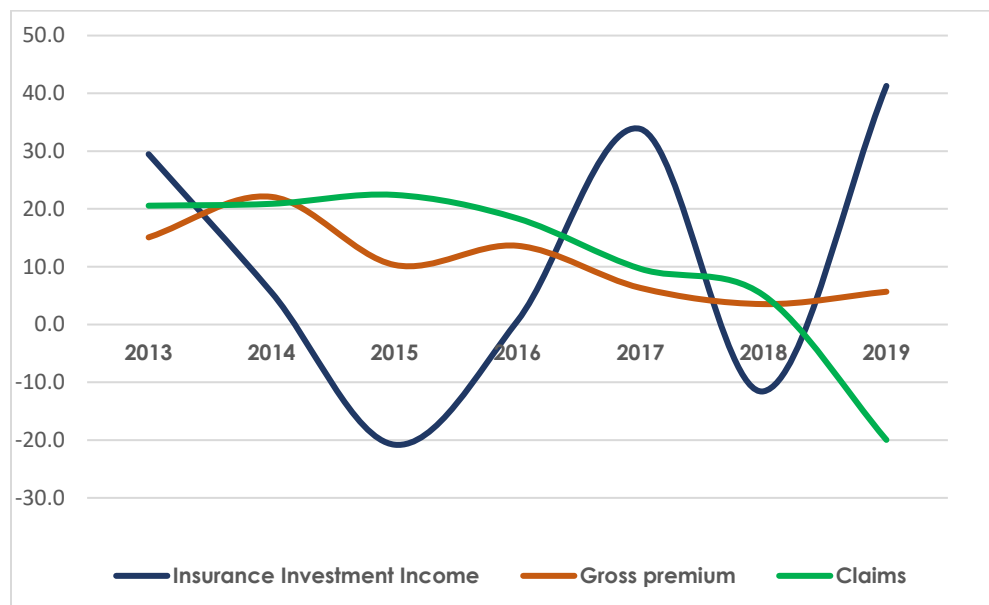


Figure 3.20: Growth Rates of Insurance Activity Indicators (%), 2013-2019



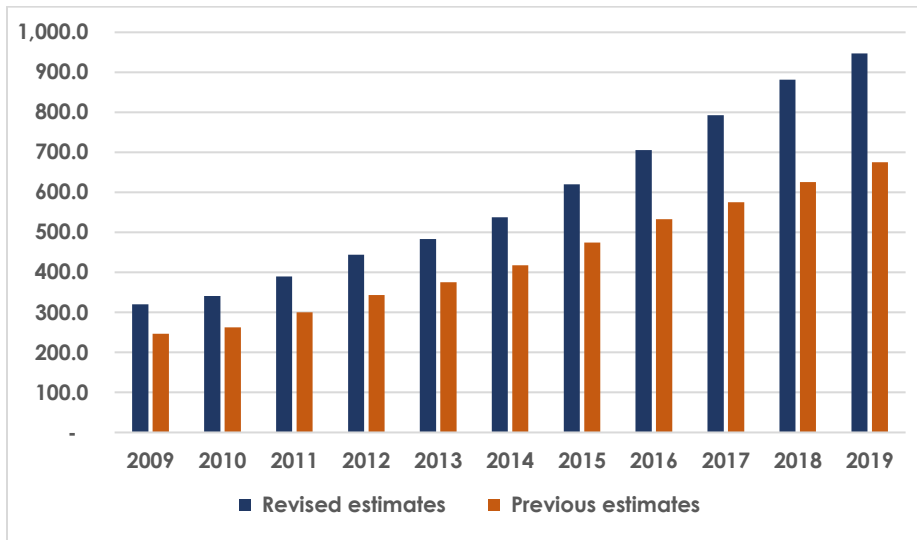
3.12. Real Estate Activities

Real estate activities encompass a range of services related to the provision of property, i.e. buying, selling and renting of commercial and residential properties or land. Also included are the activities of agents intermediating in buying, selling, letting or managing real estate. Compilation was done for two products of real estate activities, i.e. dwelling services and other real estate service activities.

Output comprises marketed and output for own use, for rented dwellings and owner-occupied dwellings, respectively. The stocks of dwelling units by ownership type and tenure data were derived from the 2019 population and housing census while the actual and imputed rents by different categories of dwellings were obtained from the KIHBS 2015/16. Benchmark output of each category of dwelling was derived as the product of stock of dwellings and the average rents (actual and imputed). Volume extrapolation of the benchmark estimate was done using the intercensal growth rate between 2009-2019 and then reflatd using CPI rentals to obtain the output at current price estimates

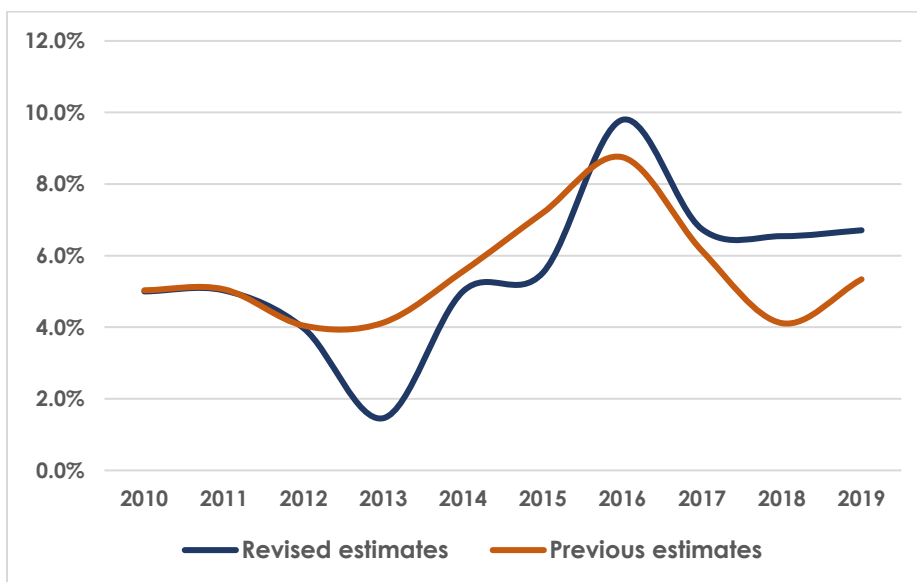
Benchmark output estimates for Real Estate Service activities was derived based from Supply and Use Tables (SUT); total intermediate consumption of real estate rentals. Secondary output of real estate services from other industries was estimated. Output for real estate industry was then computed as the difference between the SUT estimate and the secondary output of other industries. Output for the real estate industry at current price is extrapolated using administrative tax records data. The input/output ratio for the base year was derived from the administrative tax data.

Figure 3.21: Real Estate Activities, Gross Value Added (KSh Billion), 2009-2019



The revised estimates are significantly higher than previous estimates mainly as a result of revision of source data, especially data emanating from the 2019 KPHC and other administrative sources. Specifically, the source data was enhanced by availability of more credible administrative data for formal enterprises engaged in real estate activities. The sector's nominal GVA was estimated at KSh 946.9 billion in 2019 up from KSh 675.3 billion reported in the previous estimates. Noteworthy, the level of upward revision increased as the years progressed towards the more recent years, an indication of improvement in the value of property over time. The revised estimates showed that sector's growth rates were reasonably comparable in most years.

Figure 3.22: Real Estate Activities, Growth Rates (%), 2010-2019

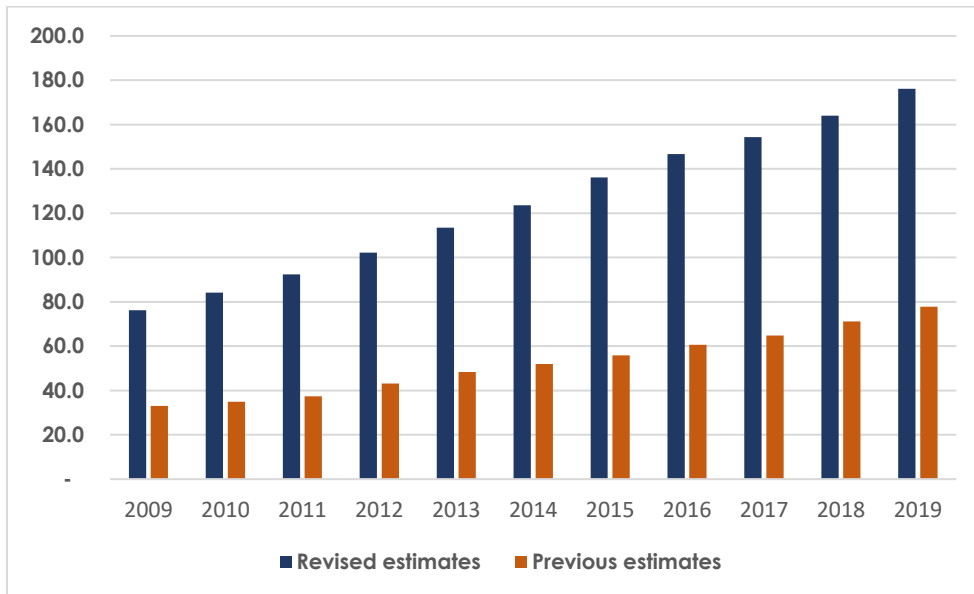


3.13. Professional, Scientific and Technical Activities

These are specialized professional, scientific and technical activities. These activities require a high degree of training, and make specialized knowledge and skills available to users. Examples include activities of lawyers, accountants, engineers, architects, advertising, management consultancy, veterinarians etc. Market output was estimated for corporations and households while non-market output for national government; county government; and parastatals (state corporations). The benchmark was based on tax administrative records while the non-benchmark years were derived by retropolation/extrapolation using tax data. CPI services was used for deflating the current price estimates to arrive at the constant price estimates. In the previous estimates, the benchmark was based on the integrated survey of services. Market output for households/unincorporated enterprises was derived from the MSME 2016 and retroplated/extrapolated using the movement of output for corporations. The CPI, services was used as the deflator.

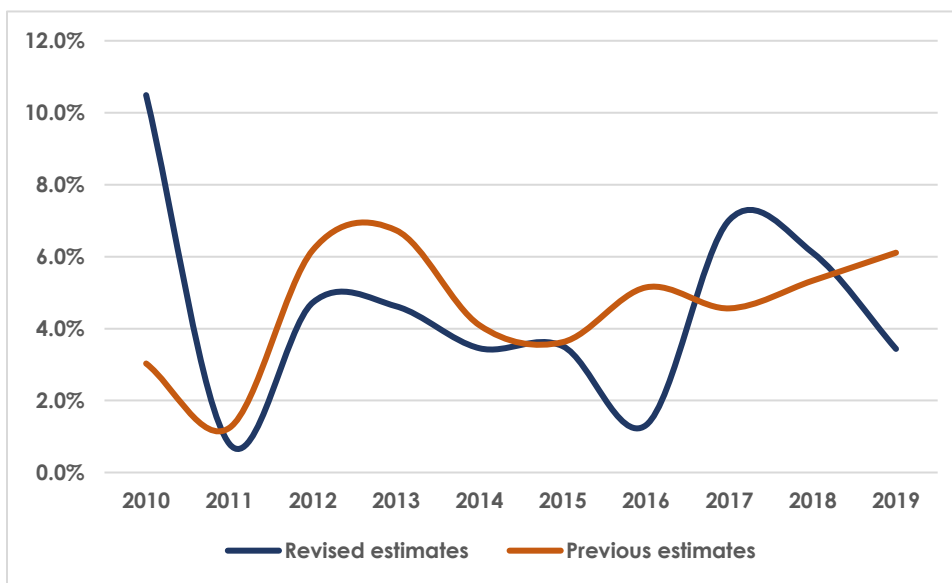
Non-market output for government was derived as the sum of costs; intermediate consumption, compensation of employees and consumption of fixed capital. Constant price values calculated by deflation with composite IC deflator for intermediate consumption and a government wage index for compensation of employees. There were significant changes in the volume in most years, except 2011 and 2015 mainly due to the radical shift in the source data from solely relying on the survey of services to adoption of benchmarks from administrative records that were more robust and better reflected professional, scientific and technical activities in the economy.

Figure 3.23: Professional, Scientific and Technical Activities, Gross Value Added, (KSh Billion) 2009-2019



The revised estimates were considerably different from the previous estimates, with GVA found to be more than two-fold during the entire period under consideration. The sector's GVA was estimated at KSh 176.1 billion in 2019 compared to the previous estimate of KSh 77.9 billion.

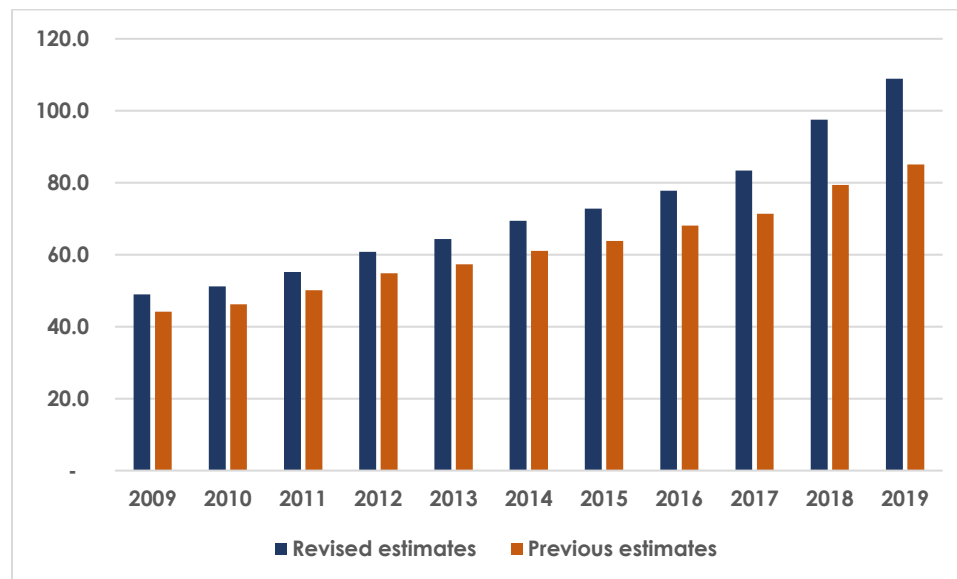
Figure 3.24: Professional, Scientific and Technical Activities Growth Rates (%), 2010-2019



3.14. Administrative and Support Service Activities

These include a variety of activities that support general business operations with no primary purpose of transferring specialized knowledge. Examples of such activities include renting and leasing activities; tours and travel agents; private security and investigation services; other administrative and support service activities. With exception of security and investigation activities, base year benchmarks for output and intermediate consumption for corporations were largely obtained from tax administrative records. On the other hand, the base year benchmarks of output and intermediate consumption for households were derived from MSME 2016 and extrapolated/retropolated with that of corporations, at current prices. Output is deflated with CPI while the intermediate consumption is deflated using a composite IC deflator. For security and investigation activities, output at constant prices (for both corporations and households) are retropolated/extrapolated with volume index derived from employment numbers since this activity is heavily labour intensive. Output at current prices was computed by reflatting with CPI, services. Intermediate consumption benchmarks (for both corporations and households) are then moved with the respective outputs. Intermediate consumption at current prices were derived by reflatting with composite IC deflator.

Figure 3.25: Administrative and Support Service Activities, Gross Value Added, (KSh Billion) 2009-2019



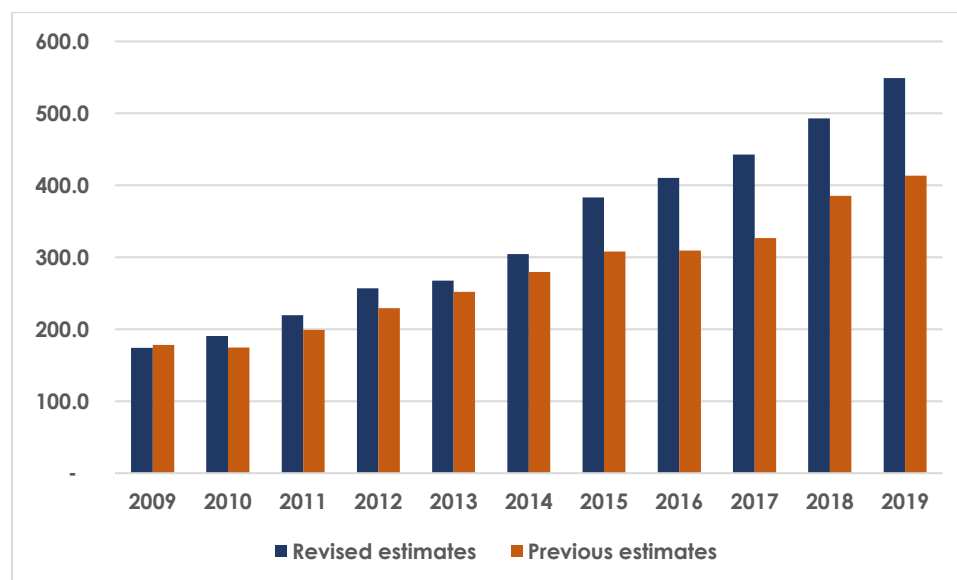
The results show revisions were more significant in the more recent years, but generally the GVA was higher in the revised estimates during the period 2009-2019 compared to the levels in the previous estimates. The Benchmark level of GVA was revised upward from KSh 68.1 billion to KSh 77.8 billion. The sector's GVA was estimated KSh 108.9 billion in 2019 compared to KSh 85.0 billion in the previous estimates. The growths for the two series were comparable in most years except 2017 and 2019 where deviations were evident.

3.15. Public Administration and Defence; Compulsory Social Security

Activities of a governmental nature, normally carried out by the public administration are captured here including the enactment and judicial interpretation of laws, legislative activities, taxation, national defence, public order and safety, immigration services, foreign affairs and the administration of government programmes, and compulsory social security activities.

Total output for government is therefore valued as the sum of production costs; that is cost of intermediate goods/services, compensation of employees, other taxes on production, and consumption of fixed capital. Constant price values were calculated by deflation with the IC deflator for intermediate consumption and a government wage index of compensation of employees. Consumption of fixed capital is calculated at constant prices by applying the perpetual inventory method and then reflatd by the implicit deflators for Gross Fixed Capital Formation (GFCF). Data for national and county governments are derived from the Integrated Financial Management Information System (IFMIS). Parastatals' estimates are based on financial statements of institutions categorized under public administration (ISIC O8400). Estimates for social security funds are based on financial statements of National Social Security Fund (NSSF) and National Health Insurance Fund (NHIF).

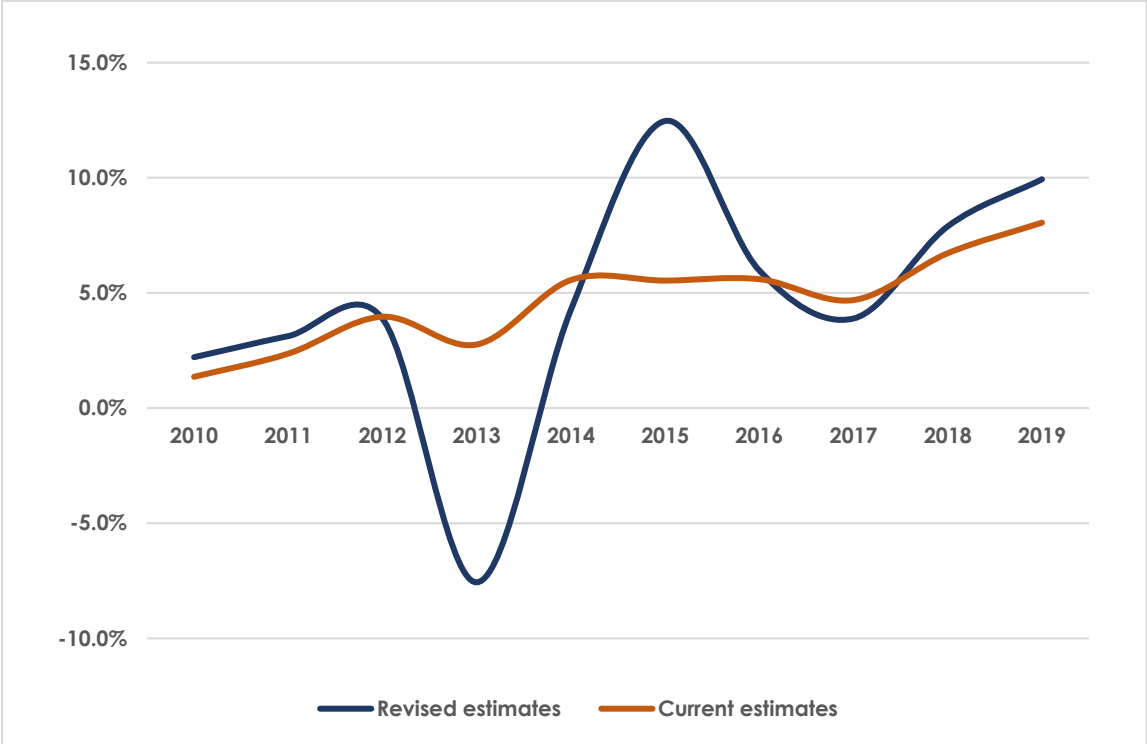
Figure 3.26: Public Administration and Defence; Compulsory Social Security, Gross Value Added, 2009-2019



The revised gross value added was higher than the previous estimates across the entire period under consideration. The upward revision was more prominent during the period 2015-2019 and was attributed to better coverage of public corporations coupled with enhanced compilation of activities carried out by the devolved units. The volume

changes were comparable for most years except 2013 and 2015, where the revised source data differed significantly from what was used to compile the previous estimates. The notable deviation in growth in 2013 was observed in the revised source data that pointed to challenges to quick absorption of devolved funds at the county level, at the early stages of implementation of devolution as the formation of county governments took place as per the Constitution of Kenya, 2010. The upward revision in 2015 was on account of improved data for public corporations that showed that the growth had been underestimated.

Figure 3.27: Public Administration and Defence; Compulsory Social Security, Growth Rates (%), 2010-2019



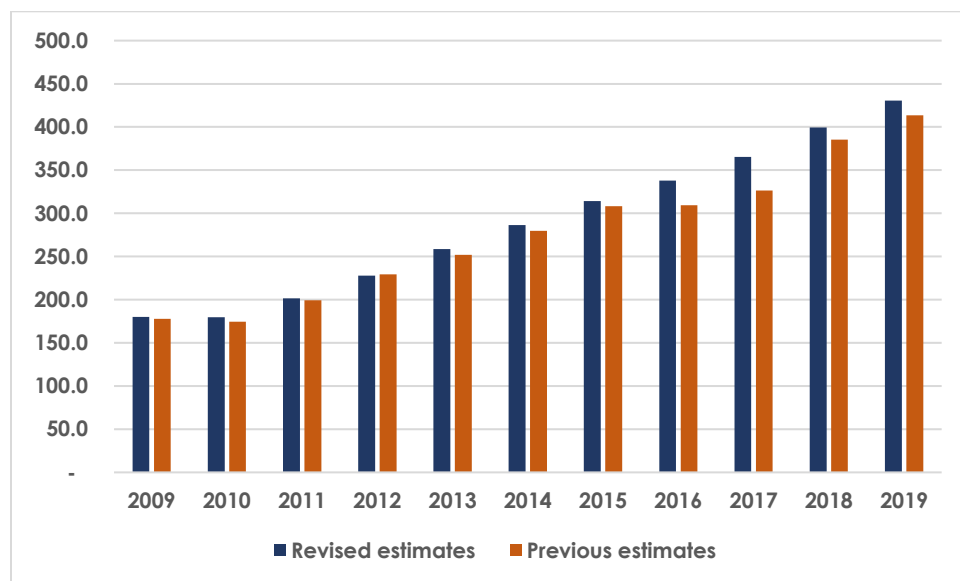
3.16. Education

Education service activities include education in public and private institutions including adult education literacy programmes, military schools and academies, special needs schools, prison schools at their respective levels. Education services were developed for private corporations, households and government. Production account and generation of income accounts were prepared for pre-primary and primary education; general secondary education; technical and vocational secondary education; higher education and other education not elsewhere classified. Output of education in public schools and institutions for the respective years was estimated using the sum of cost approach, i.e. intermediate consumption, compensation of employees, consumption of fixed capital. In the previous estimates, the benchmarks were derived from the national

education accounts and the non-benchmark years calculated by replotating/extrapolating using school enrolment. Compilation of the revised estimates therefore sought to improve on the methodological approach as recommended by the system of national accounts.

Market Output (output for private institutions) is computed for teaching and accommodation activities. Benchmark estimates for output was derived from the integrated survey of services (ISS) and replotated/extrapolated using private enrolment. Output (at constant price) was reflat to current price estimates using CPI, private tuition and CPI, primary boarding fees. Benchmark for intermediate consumption was derived from ISS, replotated/extrapolated using output. Composite IC deflator was used to reflate constant price.

Figure 3.28: Education, Gross Value Added, (KSh Billion) 2009-2019



Revisions for education service activities was minimal for the period 2009-2015, notable in 2016 and 2017 and slightly higher in 2018 and 2019. The benchmark level was revised upwards by 0.4 per cent to stand at KSh 338.0 billion. The sector's nominal GVA was estimated at KSh 430.7 billion in 2019 compared to KSh 413.6 billion reported in the previous estimates. The revised growth rates deviated notably for the period 2013-2016 but were relatively comparable in the other years, which was mostly attributable to significant change in the compilation methodology.

3.17. Human health and Social Work Activities

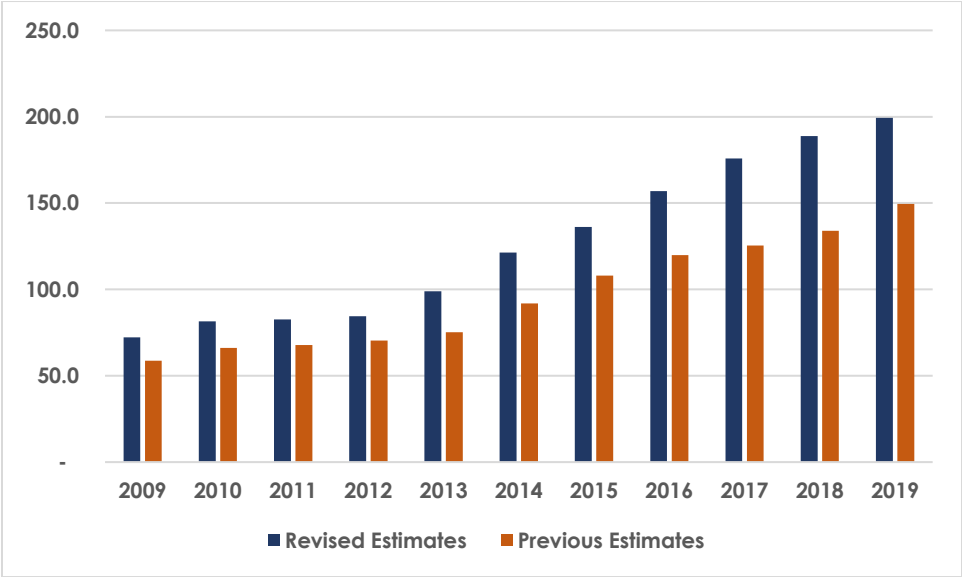
These include health care provided by trained medical professionals in hospitals and other facilities, activities of health-related residential care activities and social work activities outside healthcare. Health services is provided by government, Non-Profit Institution Serving Households (NPISH) and market producers. Output for public health

services was estimated using the sum of costs like other non-market output. Output at constant prices was derived by deflating compensation of employees using government salary index while intermediate consumption is deflated using composite IC deflator.

With respect to estimation of output for non-profit institutions serving households (NPISH), the revision benefitted from administrative data from the Non-Governmental Organisations Board (NGO) and a survey of non-profit institutions (NPIs) conducted in 2019. Similar to the general government, output was estimated using the sum of costs approach. Input structures were based on the survey of NPIs.

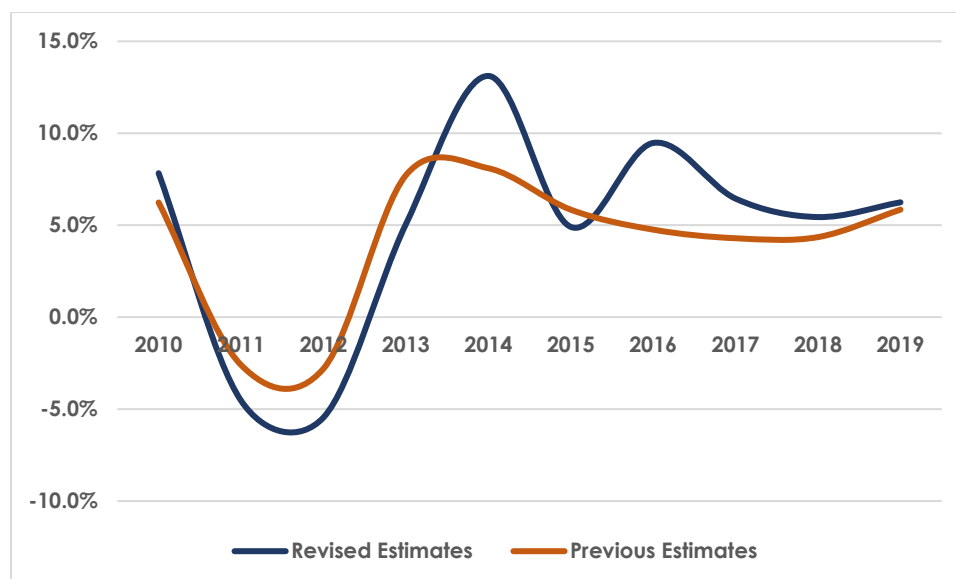
For market producers, benchmark estimate was based on tax administrative data. Output at current prices is extrapolated using claims paid to market producers by insurance companies and National Health Insurance Fund (NHIF). Output at constant prices is derived by deflating output at current prices using CPI, health services. The ratio of intermediate consumption over output was based on ISS. Computation of output for social work activities followed a generally similar approach as the NPISH.

Figure 3.29: Human health and Social Work Activities, Gross Value Added (KSh Billion) 2009-2019



Overall, the revised GVA in nominal terms was estimated substantially higher in the period under consideration compared to the previous estimates. This was mainly attributed to improved coverage of Non-Profit Institutions Serving Households (NPISHs), and enhanced data from the IFMIS for National and County Governments. The revised growth rates were fairly comparable to the previous estimates as shown in Figure 3.30. The notable differences in the volume changes in 2014 and 2016 were attributed to enhancement of the estimation methodology and new source data.

Figure 3.30: Human health and Social Work Activities, Growth Rates (%), 2010-2019

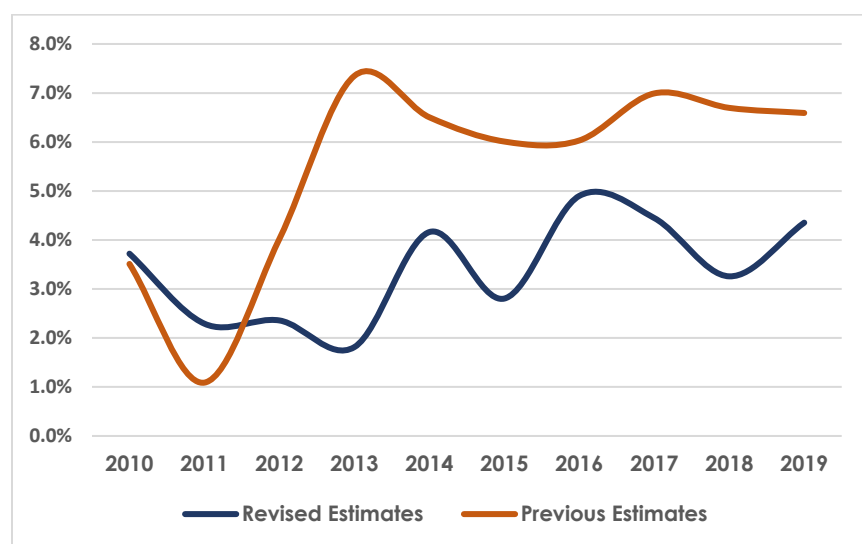


3.18. Other Service Activities

This is a residual category that include activities of membership organizations, the repair of computers and personal and household goods, activities of households as employers and a variety of personal service activities not covered elsewhere. Also included here are activities related to arts, entertainment and recreation such as live performances, operation of museum sites, gambling, sports and recreation activities. Estimation of GVA for these activities was improved considerably in scope, source data and in some cases the methodological approach. In terms expanding the scope, the coverage of the non-observed economy was greatly improved through inclusion of activities that were not adequately covered previously. Such activities include some that are deemed illegal but fall within the production boundary as prescribed by SNA. Depending on the activity, the benchmarks were drawn from the ISS, MSME and KIHBS 2015/16 and extrapolated using a variety of indicators such employment earnings. Deflation was done using the relevant CPI items.

The gross value added in nominal terms was estimated significantly higher in the revised series for the whole period under consideration relative to the previous estimates owing to changes that were included in the revision. The benchmark level more than doubled from KSh 84.4 billion in the previous estimates to KSh 183.1 billion in the revised estimates. Similarly, in 2019, the estimates were revised upwards more than two-fold. Over the period 2012-2019, the growth rates differed substantially mainly as a consequence the massive change in levels.

Figure 3.31: Other Service Activities, Growth Rates (%), 2010-2019

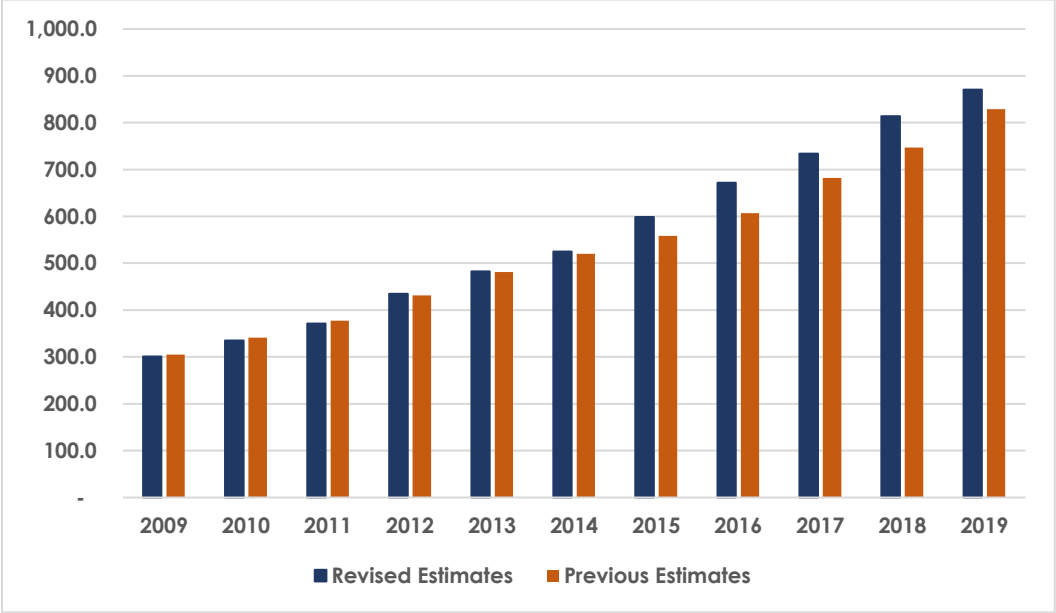


3.19. Taxes on products

Taxes on products are taxes payable per unit of goods or services being produced. They include Value Added Tax (VAT), excise duty on airtime, taxes on beverages and tobacco, and taxes on petroleum products. Imports and excise duties on imports are derived from government administrative records which are recorded at the same time as imports. Thus, the treatment of duties is consistent with accrual accounting as per the recommendation of SNA. Excise duties on domestically produced goods and taxes on petroleum products are based on government finance statistics which are recorded on cash basis. Taxes recorded on a cash basis are used as an approximation for accrual basis in the compilation. Taxes are extrapolated using output at current and constant prices for the respective product. Estimating VAT at current prices is obtained by multiplying quantity estimates of consumption by the VAT rate of respective products. VAT at constant prices is calculated using VAT rate of the base year.

The revision of the levels of taxes and products was minimal for the period 2009-2014 but some modest upward revisions were found from 2015 to 2019 as shown in Figure 3.32

Figure 3.32: Taxes on Products, KSh Billion 2009-2019



4. Annexes-Revised and Rebased Estimates 2009-2020

Annex 1: Gross Domestic Product by Activity at Current Prices (Nominal)

Industry	Current Prices, KSh Billion											
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Agriculture, forestry and fishing	532.5	632.0	786.5	897.6	988.8	1,101.6	1,340.3	1,521.4	1,772.5	1,897.5	2,171.1	2,478.3
Growing of crops	355.3	417.6	540.0	602.6	664.2	752.2	931.0	1,072.5	1,293.5	1,356.5	1,544.0	1,782.2
Animal production	121.7	149.1	167.3	195.1	211.0	219.7	277.8	307.2	314.3	341.3	354.7	383.0
Support activities to agriculture	8.6	10.1	13.0	15.9	14.7	14.2	17.2	16.6	19.4	22.6	25.0	25.6
Forestry & logging	33.3	39.1	47.0	59.5	68.6	79.5	83.8	94.6	102.6	126.0	189.8	224.7
Fishing & aquaculture	13.6	16.1	19.2	24.5	30.2	35.9	30.6	30.6	42.7	51.0	57.6	62.8
Mining and quarrying	28.8	39.3	45.9	67.8	74.0	96.4	87.8	81.3	71.7	68.9	72.7	77.5
Manufacturing	376.5	401.5	501.5	528.4	579.4	604.3	686.7	707.9	741.4	785.4	807.8	818.4
Manufacture of food, beverages and tobacco	160.2	181.8	230.2	254.2	292.9	310.2	365.1	390.1	424.0	452.2	466.2	471.1
Other manufacturing and repair and installation	216.3	219.7	271.3	274.2	286.6	294.1	321.7	317.7	317.3	333.2	341.6	347.3
Electricity supply	57.8	56.8	64.8	78.6	84.1	108.1	123.7	142.6	156.7	157.5	161.3	160.5
Water supply; sewerage, waste management	27.6	32.7	37.3	42.1	47.4	49.5	54.7	58.2	59.3	59.6	60.4	60.8
Construction	111.6	138.0	168.9	201.3	228.5	284.6	347.8	389.3	455.8	545.7	614.7	751.4
Wholesale and retail trade; repairs	337.7	369.2	398.9	424.9	460.9	518.9	583.5	628.4	713.6	763.0	841.3	868.9
Transport and storage	259.7	276.1	336.9	439.5	548.0	682.5	718.1	773.9	863.0	1,056.3	1,202.9	1,164.7
Land transport	196.0	211.2	272.0	365.0	441.8	554.7	572.2	599.4	691.5	858.7	981.8	996.1
Air transport including support services	22.2	22.3	21.5	22.1	48.1	58.7	64.2	83.6	73.5	85.2	97.2	49.5
All other transport including postal and courier activities	41.5	42.6	43.5	52.4	58.0	69.1	81.7	90.9	97.9	112.4	123.9	119.0
Accommodation and food service activities	55.6	52.4	50.2	58.3	61.7	55.6	60.4	70.2	85.3	100.0	119.5	78.1
Information and communication	109.2	106.6	102.9	115.5	137.8	158.4	183.0	206.8	223.5	240.1	258.8	272.7
Telecommunications	72.4	66.3	59.0	66.6	85.1	101.3	118.1	134.0	147.3	157.7	173.0	189.7
Publishing, broadcasting, other IT and information activities	36.8	40.3	43.9	48.9	52.7	57.1	65.0	72.7	76.2	82.5	85.8	83.0
Financial and insurance activities	190.1	222.1	262.3	317.9	352.7	413.4	491.9	588.9	634.1	622.6	653.9	696.8
Financial activities	141.0	175.9	198.1	227.5	256.4	308.3	384.6	474.9	509.7	480.3	496.2	518.0
Insurance activities	49.1	46.2	64.1	90.3	96.3	105.1	107.3	114.1	124.4	142.3	157.8	178.8
Real estate	320.1	341.0	389.9	444.5	483.7	538.0	619.7	705.9	792.5	881.6	946.9	996.1
Professional, scientific and technical activities	76.3	84.2	92.4	102.1	113.5	123.6	136.2	146.6	154.3	164.0	176.1	156.1
Administrative and support service activities	49.0	51.2	55.2	60.8	64.3	69.5	72.8	77.8	83.4	97.5	108.9	92.8
Public administration and defence	174.1	190.5	219.6	256.8	267.5	304.3	383.1	410.1	443.0	493.2	549.2	592.1
Education	180.0	179.6	201.4	227.9	258.6	286.4	314.4	338.0	365.5	399.5	430.7	406.9
Pre-primary and Primary education	88.1	81.9	94.7	108.2	123.6	135.3	146.3	156.0	184.3	208.4	214.1	206.8
General sec education	43.7	43.5	50.7	60.4	69.2	75.9	85.5	93.7	98.8	109.9	119.4	107.9
Higher and other education	48.2	54.2	56.0	59.3	65.8	75.2	82.6	88.4	82.3	81.2	97.2	92.3
Human health and social work activities	72.3	81.5	82.6	84.5	98.9	121.4	136.2	156.8	175.8	188.8	199.4	216.9
Arts, entertainment and recreation	7.7	9.2	10.6	11.5	11.0	13.9	15.3	18.3	22.4	24.5	27.2	21.2
Other service activities	54.1	57.4	61.8	70.2	78.7	87.5	98.3	109.7	122.1	135.5	144.9	124.3
Activities of households as employers;	27.7	29.6	33.5	38.4	41.1	46.1	51.3	55.1	59.9	65.7	68.9	72.1
FISIM	-71.0	-85.9	-108.4	-133.3	-148.9	-181.0	-216.1	-260.6	-241.4	-215.4	-226.6	-214.1
All industries at basic basic prices	2,977.2	3,264.9	3,794.9	4,335.5	4,831.9	5,483.0	6,289.2	6,926.7	7,754.3	8,531.5	9,389.9	9,892.2
Taxes on products	298.4	332.7	367.6	431.7	479.4	520.9	595.1	667.4	729.1	808.8	865.8	860.8
GDP at market prices	3,275.6	3,597.6	4,162.5	4,767.2	5,311.3	6,003.8	6,884.3	7,594.1	8,483.4	9,340.3	10,255.7	10,753.0

Annex 2: Contribution to Gross Domestic Product (GDP), (%)

Industry	Percentage Contribution to GDP											
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Agriculture, forestry and fishing	16.3	17.6	18.9	18.8	18.6	18.3	19.5	20.0	20.9	20.3	21.2	23.0
Growing of crops	10.8	11.6	13.0	12.6	12.5	12.5	13.5	14.1	15.2	14.5	15.1	16.6
Animal production	3.7	4.1	4.0	4.1	4.0	3.7	4.0	4.0	3.7	3.7	3.5	3.6
Support activities to agriculture	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Forestry & logging	1.0	1.1	1.1	1.2	1.3	1.3	1.2	1.2	1.2	1.3	1.9	2.1
Fishing & aquaculture	0.4	0.4	0.5	0.5	0.6	0.6	0.4	0.4	0.5	0.5	0.6	0.6
Mining and quarrying	0.9	1.1	1.1	1.4	1.4	1.6	1.3	1.1	0.8	0.7	0.7	0.7
Manufacturing	11.5	11.2	12.0	11.1	10.9	10.1	10.0	9.3	8.7	8.4	7.9	7.6
Manufacture of food, beverages and tobacco	4.9	5.1	5.5	5.3	5.5	5.2	5.3	5.1	5.0	4.8	4.5	4.4
Other manufacturing and repair and installation	6.6	6.1	6.5	5.8	5.4	4.9	4.7	4.2	3.7	3.6	3.3	3.2
Electricity supply	1.8	1.6	1.6	1.6	1.6	1.8	1.8	1.9	1.8	1.7	1.6	1.5
Water supply; sewerage, waste management	0.8	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.7	0.6	0.6	0.6
Construction	3.4	3.8	4.1	4.2	4.3	4.7	5.1	5.1	5.4	5.8	6.0	7.0
Wholesale and retail trade; repairs	10.3	10.3	9.6	8.9	8.7	8.6	8.5	8.3	8.4	8.2	8.2	8.1
Transport and storage	7.9	7.7	8.1	9.2	10.3	11.4	10.4	10.2	10.2	11.3	11.7	10.8
Land transport	6.0	5.9	6.5	7.7	8.3	9.2	8.3	7.9	8.2	9.2	9.6	9.3
Air transport including support services	0.7	0.6	0.5	0.5	0.9	1.0	0.9	1.1	0.9	0.9	0.9	0.5
All other transport including postal and courier activities	1.3	1.2	1.0	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.1
Hotels and restaurants	1.7	1.5	1.2	1.2	1.2	0.9	0.9	0.9	1.0	1.1	1.2	0.7
Information and communication	3.3	3.0	2.5	2.4	2.6	2.6	2.7	2.7	2.6	2.6	2.5	2.5
Telecommunications	2.2	1.8	1.4	1.4	1.6	1.7	1.7	1.8	1.7	1.7	1.7	1.8
Publishing, broadcasting, other IT and information communication	1.1	1.1	1.1	1.0	1.0	1.0	0.9	1.0	0.9	0.9	0.8	0.8
Financial and insurance activities	5.8	6.2	6.3	6.7	6.6	6.9	7.1	7.8	7.5	6.7	6.4	6.5
Financial activities	4.3	4.9	4.8	4.8	4.8	5.1	5.6	6.3	6.0	5.1	4.8	4.8
Insurance activities	1.5	1.3	1.5	1.9	1.8	1.8	1.6	1.5	1.5	1.5	1.5	1.7
Real estate	9.8	9.5	9.4	9.3	9.1	9.0	9.0	9.3	9.3	9.4	9.2	9.3
Professional, scientific and technical activities	2.3	2.3	2.2	2.1	2.1	2.1	2.0	1.9	1.8	1.8	1.7	1.5
Administrative and support service activities	1.5	1.4	1.3	1.3	1.2	1.2	1.1	1.0	1.0	1.0	1.1	0.9
Public administration and defence	5.3	5.3	5.3	5.4	5.0	5.1	5.6	5.4	5.2	5.3	5.4	5.5
Education	5.5	5.0	4.8	4.8	4.9	4.8	4.6	4.5	4.3	4.3	4.2	3.8
Primary education	2.7	2.3	2.3	2.3	2.3	2.3	2.1	2.1	2.2	2.2	2.1	1.9
General sec education	1.3	1.2	1.2	1.3	1.3	1.3	1.2	1.2	1.2	1.2	1.2	1.0
Higher and other education	1.5	1.5	1.3	1.2	1.2	1.3	1.2	1.2	1.0	0.9	0.9	0.9
Human health and social work activities	2.2	2.3	2.0	1.8	1.9	2.0	2.0	2.1	2.1	2.0	1.9	2.0
Arts, entertainment and recreation	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2
Other service activities	1.7	1.6	1.5	1.5	1.5	1.5	1.4	1.4	1.4	1.5	1.4	1.2
Activities of households as employers;	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7
FISIM	-2.2	-2.4	-2.6	-2.8	-2.8	-3.0	-3.1	-3.4	-2.8	-2.3	-2.2	-2.0
All industries at basic prices	90.9	90.8	91.2	90.9	91.0	91.3	91.4	91.2	91.4	91.3	91.6	92.0
Taxes on products	9.1	9.2	8.8	9.1	9.0	8.7	8.6	8.8	8.6	8.7	8.4	8.0
GDP at market prices	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Annex 3: Gross Domestic Product by Activity at Constant Prices (Real GDP)

Industry	Constant prices, KSh Billion											
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Agriculture, forestry and fishing	1,177.5	1,299.3	1,330.2	1,362.8	1,418.0	1,437.5	1,500.6	1,521.4	1,501.8	1,587.8	1,629.7	1,707.6
Growing of crops	814.5	911.9	931.4	951.8	1,007.9	1,035.6	1,072.7	1,072.5	1,061.3	1,129.1	1,164.8	1,234.3
Animal production	241.4	258.9	260.1	264.6	262.6	249.9	287.5	307.2	286.1	299.2	304.6	315.4
Support activities to agriculture	15.2	16.9	19.7	21.7	18.0	16.0	17.9	16.6	18.8	21.3	23.1	23.3
Forestry & logging	72.3	74.7	78.4	82.1	84.7	90.1	88.4	94.6	97.7	96.7	93.9	91.2
Fishing & aquaculture	34.1	37.0	40.6	42.6	44.8	45.9	33.9	30.6	38.0	41.6	43.3	43.4
Mining and quarrying	41.7	52.4	59.2	71.7	83.0	106.1	89.4	81.3	83.9	80.0	83.4	89.0
Manufacturing	537.6	567.4	611.3	613.6	644.2	656.3	694.7	707.9	712.8	738.3	756.7	756.1
Manufacture of food, beverages and tobacco	271.3	290.6	308.1	325.5	347.3	358.4	381.7	390.1	395.9	417.7	428.6	424.2
Other manufacturing and repair and installation	266.3	276.9	303.3	288.1	296.8	297.8	313.0	317.7	316.9	320.6	328.1	332.0
Electricity supply	95.6	100.7	109.6	116.3	123.4	134.0	137.1	142.6	150.6	156.7	159.3	158.4
Water supply; sewerage, waste management	48.1	53.3	55.2	55.1	55.3	55.5	56.6	58.2	56.3	57.7	58.8	60.0
Construction	203.3	235.2	257.3	295.7	311.9	341.2	367.8	389.3	413.7	439.0	463.6	518.5
Wholesale and retail trade; repairs	408.2	446.1	481.9	513.2	540.6	588.9	614.2	628.4	655.3	694.2	730.7	727.8
Transport and storage	530.3	558.9	589.2	607.5	626.5	673.4	714.7	773.9	801.3	849.2	902.9	832.5
Land transport	399.2	426.6	443.4	454.9	487.0	520.2	560.4	599.4	636.9	670.3	713.0	692.1
Air transport including support services	66.6	68.1	76.6	79.1	64.0	71.6	68.1	83.6	70.2	74.8	77.5	36.6
All other transport including postal and courier activities	64.5	64.2	69.1	73.4	75.5	81.6	86.2	90.9	94.2	104.1	112.4	103.8
Accommodation and food service activities	77.4	76.9	80.5	83.2	76.8	62.4	65.7	70.2	76.9	88.9	101.6	53.1
Information and communication	92.0	105.2	122.3	131.2	152.5	168.7	187.6	206.8	223.4	241.2	259.3	271.8
Telecommunications	33.9	40.9	52.8	64.3	86.0	103.8	118.4	134.0	150.0	163.6	178.6	197.2
Publishing, broadcasting, other IT and information activities	58.2	64.3	69.5	66.9	66.5	64.9	69.2	72.7	73.4	77.5	80.7	74.6
Financial and insurance activities	332.2	385.4	394.4	418.6	461.7	508.6	568.5	588.9	613.0	629.7	673.0	710.6
Financial activities	244.0	302.1	298.5	313.7	353.5	395.1	457.7	474.9	493.0	497.0	527.7	550.0
Insurance activities	88.2	83.4	95.9	105.0	108.2	113.5	110.7	114.1	119.9	132.7	145.3	160.6
Real estate	498.8	523.7	550.0	571.9	580.2	609.3	642.9	705.9	753.4	802.7	856.6	891.6
Professional, scientific and technical activities	110.5	119.1	124.2	127.3	134.4	137.2	142.2	146.6	152.1	160.3	171.5	148.2
Administrative and support service activities	66.8	68.8	70.6	72.3	73.1	74.5	75.2	77.8	79.1	86.8	92.7	76.4
Public administration and defence	326.1	333.3	343.7	357.0	330.0	344.1	387.0	410.1	426.0	459.7	505.3	532.3
Education	252.5	278.7	295.2	320.8	326.6	329.0	333.1	338.0	365.7	389.1	407.6	363.6
Pre-primary and Primary education	118.2	128.2	136.1	151.7	153.9	154.5	154.6	156.0	177.2	193.6	198.6	180.0
General sec education	59.8	67.7	74.3	85.0	86.4	87.1	90.6	93.7	96.6	102.4	110.5	92.3
Higher and other education	74.5	82.8	84.8	84.1	86.2	87.3	87.9	88.4	91.9	93.1	98.5	91.3
Human health and social work activities	118.1	127.3	121.5	114.9	120.7	136.6	143.3	156.8	167.0	176.0	187.0	199.6
Arts, entertainment and recreation	12.3	14.1	14.8	14.5	13.0	15.3	15.9	18.3	21.3	22.1	24.0	18.2
Other service activities	85.5	88.4	90.4	93.6	97.3	100.9	104.3	109.7	114.0	118.6	124.4	100.2
Activities of households as employers;	49.7	50.4	51.2	51.9	52.7	53.5	54.3	55.1	56.0	56.8	57.6	58.5
FSIM	-131.0	-151.8	-165.6	-182.3	-205.7	-231.4	-260.1	-260.6	-245.1	-254.2	-278.4	-273.0
All industries at basic basic prices	4,933.2	5,332.9	5,587.3	5,810.9	6,016.0	6,301.5	6,635.1	6,926.7	7,178.5	7,580.6	7,967.5	8,001.3
Taxes on products	428.2	460.6	502.9	557.5	594.4	640.6	651.9	667.4	705.4	747.0	774.9	713.5
GDP at market prices	5,361.5	5,793.5	6,090.2	6,368.4	6,610.3	6,942.2	7,287.0	7,594.1	7,883.8	8,327.6	8,742.4	8,714.8

Annex 4: Real GDP Growth Rate by Activity (%), 2010-2020

Industry	Percentage Changes (growth)											
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
Agriculture, forestry and fishing	10.4	2.4	2.4	4.1	1.4	4.4	1.4	-1.3	5.7	2.6	4.8	
Growing of crops	12.0	2.1	2.2	5.9	2.7	3.6	0.0	-1.0	6.4	3.2	6.0	
Animal production	7.2	0.5	1.7	-0.7	-4.8	15.0	6.8	-6.9	4.6	1.8	3.6	
Support activities to agriculture	11.3	16.3	10.5	-17.3	-11.2	12.3	-7.2	12.8	13.4	8.8	0.9	
Forestry & logging	3.4	5.0	4.7	3.1	6.4	-1.9	6.9	3.3	-1.0	-2.8	-2.9	
Fishing & aquaculture	8.4	9.9	4.7	5.2	2.5	-26.0	-9.9	24.1	9.5	4.2	0.2	
Mining and quarrying	25.6	13.1	21.0	15.8	27.8	-15.8	-9.1	3.2	-4.7	4.3	6.7	
Manufacturing	5.6	7.7	0.4	5.0	1.9	5.9	1.9	0.7	3.6	2.5	-0.1	
Manufacture of food, beverages and tobacco	7.1	6.0	5.7	6.7	3.2	6.5	2.2	1.5	5.5	2.6	-1.0	
Other manufacturing and repair and installation	4.0	9.5	-5.0	3.1	0.3	5.1	1.5	-0.3	1.2	2.3	1.2	
Electricity supply	5.3	8.9	6.1	6.1	8.6	2.3	4.1	5.6	4.0	1.7	-0.5	
Water supply; sewerage, waste management	10.7	3.6	-0.2	0.3	0.4	2.1	2.8	-3.2	2.5	1.9	2.0	
Construction	15.7	9.4	14.9	5.5	9.4	7.8	5.8	6.3	6.1	5.6	11.8	
Wholesale and retail trade; repairs	9.3	8.0	6.5	5.3	8.9	4.3	2.3	4.3	5.9	5.3	-0.4	
Transport and storage	5.4	5.4	3.1	3.1	7.5	6.1	8.3	3.5	6.0	6.3	-7.8	
Land transport	6.9	3.9	2.6	7.0	6.8	7.7	7.0	6.3	5.2	6.4	-2.9	
Air transport including support services	2.3	12.6	3.2	-19.1	11.9	-4.9	22.7	-16.0	6.5	3.7	-52.7	
All other transport including postal and courier activities	-0.5	7.7	6.2	2.8	8.2	5.5	5.5	3.7	10.5	8.0	-7.7	
Accommodation and food service activities	-0.6	4.6	3.5	-7.8	-18.7	5.4	6.9	9.4	15.6	14.3	-47.7	
Information and communication	14.3	16.3	7.3	16.2	10.6	11.3	10.2	8.1	7.9	7.5	4.8	
Telecommunications	20.8	29.2	21.7	33.7	20.7	14.1	13.2	11.9	9.1	9.1	10.5	
Publishing, broadcasting, other IT and information activities	10.6	8.1	-3.7	-0.7	-2.4	6.7	5.1	1.0	5.6	4.1	-7.6	
Financial and insurance activities	16.0	2.3	6.1	10.3	10.2	11.8	3.6	4.1	2.7	6.9	5.6	
Financial activities	23.8	-1.2	5.1	12.7	11.8	15.8	3.7	3.8	0.8	6.2	4.2	
Insurance activities	-5.4	15.0	9.5	3.0	4.9	-2.4	3.0	5.2	10.6	9.5	10.5	
Real estate	5.0	5.0	4.0	1.5	5.0	5.5	9.8	6.7	6.5	6.7	4.1	
Professional, scientific and technical activities	7.8	4.3	2.5	5.5	2.1	3.6	3.1	3.7	5.4	7.0	-13.5	
Administrative and support service activities	2.9	2.6	2.3	1.1	2.0	1.0	3.4	1.6	9.8	6.8	-17.7	
Public administration and defence	2.2	3.1	3.9	-7.6	4.3	12.5	6.0	3.9	7.9	9.9	5.3	
Education	10.4	5.9	8.7	1.8	0.7	1.3	1.5	8.2	6.4	4.7	-10.8	
Pre-primary and Primary education	8.4	6.1	11.5	1.5	0.4	0.1	0.9	13.6	9.2	2.6	-9.3	
General sec education	13.2	9.7	14.5	1.7	0.8	4.0	3.4	3.2	6.0	8.0	-16.5	
Higher and other education	11.1	2.4	-0.8	2.6	1.3	0.6	0.6	3.9	1.4	5.7	-7.3	
Human health and social work activities	7.8	-4.5	-5.5	5.1	13.1	4.9	9.5	6.4	5.4	6.2	6.7	
Arts, entertainment and recreation	14.8	5.1	-2.0	-10.4	17.6	3.8	14.9	16.5	3.7	8.6	-24.3	
Other service activities	3.4	2.3	3.6	3.9	3.8	3.4	5.1	3.9	4.0	4.9	-19.5	
Activities of households as employers;	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	
FISIM	15.9	9.1	10.1	12.8	12.5	12.4	0.2	-6.0	3.7	9.5	-2.0	
All industries at basic basic prices	8.1	4.8	4.0	3.5	4.7	5.3	4.4	3.6	5.6	5.1	0.4	
Taxes on products	7.5	9.2	10.9	6.6	7.8	1.8	2.4	5.7	5.9	3.7	-7.9	
GDP at market prices	8.1	5.1	4.6	3.8	5.0	5.0	4.2	3.8	5.6	5.0	-0.3	

Annex 5: Sources of GDP Growth (%), 2010-2020

Industry	Sources of Growth (%)											
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
Agriculture, forestry and fishing	28.2	10.4	11.7	22.8	5.9	18.3	6.8	-6.8	19.4	10.1	-281.7	
Growing of crops	22.5	6.6	7.3	23.2	8.3	10.8	-0.1	-3.9	15.3	8.6	-251.2	
Animal production	4.0	0.4	1.6	-0.8	-3.8	10.9	6.4	-7.3	3.0	1.3	-39.3	
Support activities to agriculture	0.4	0.9	0.7	-1.6	-0.6	0.6	-0.4	0.7	0.6	0.5	-0.7	
Forestry & logging	0.6	1.3	1.3	1.1	1.6	-0.5	2.0	1.1	-0.2	-0.7	9.8	
Fishing & aquaculture	0.7	1.2	0.7	0.9	0.3	-3.5	-1.1	2.5	0.8	0.4	-0.4	
Mining and quarrying	2.5	2.3	4.5	4.7	7.0	-4.8	-2.7	0.9	-0.9	0.8	-20.2	
Manufacturing	6.9	14.8	0.8	12.6	3.6	11.1	4.3	1.7	5.7	4.4	2.0	
Manufacture of food, beverages and tobacco	4.5	5.9	6.3	9.0	3.3	6.7	2.8	2.0	4.9	2.6	16.1	
Other manufacturing and repair and installation	2.5	8.9	-5.5	3.6	0.3	4.4	1.5	-0.3	0.8	1.8	-14.1	
Electricity supply	1.2	3.0	2.4	2.9	3.2	0.9	1.8	2.8	1.4	0.6	3.0	
Water supply; sewerage, waste management	1.2	0.6	0.0	0.1	0.1	0.3	0.5	-0.6	0.3	0.3	-4.2	
Construction	7.4	7.5	13.8	6.7	8.9	7.7	7.0	8.4	5.7	5.9	-199	
Wholesale and retail trade; repairs	8.8	12.1	11.2	11.3	14.6	7.3	4.6	9.3	8.8	8.8	10.3	
Transport and storage	6.6	10.2	6.6	7.8	14.2	12.0	19.3	9.5	10.8	13.0	254.6	
Land transport	6.3	5.7	4.1	13.3	10.0	11.7	12.7	12.9	7.5	10.3	75.3	
Air transport including support services	0.3	2.9	0.9	-6.3	2.3	-1.0	5.0	-4.6	1.0	0.7	147.9	
All other transport including postal and courier activities	-0.1	1.7	1.6	0.8	1.9	1.3	1.5	1.1	2.2	2.0	31.4	
Accommodation and food service activities	-0.1	1.2	1.0	-2.7	-4.3	1.0	1.5	2.3	2.7	3.1	175.4	
Information and communication	3.1	5.8	3.2	8.8	4.9	5.5	6.2	5.8	4.0	4.4	-45.3	
Telecommunications	1.6	4.0	4.1	9.0	5.4	4.3	5.1	5.5	3.1	3.6	-67.5	
Publishing, broadcasting, other IT and information activities	1.4	1.7	-0.9	-0.2	-0.5	1.3	1.1	0.2	0.9	0.8	22.2	
Financial and insurance activities	12.3	3.0	8.7	17.8	14.1	17.4	6.7	8.3	3.8	10.4	-135.9	
Financial activities	13.4	-1.2	5.4	16.5	12.5	18.2	5.6	6.3	0.9	7.4	-80.6	
Insurance activities	-1.1	4.2	3.3	1.3	1.6	-0.8	1.1	2.0	2.9	3.0	-55.2	
Real estate	5.8	8.9	7.8	3.5	8.8	9.8	20.5	16.4	11.1	13.0	-126.6	
Professional, scientific and technical activities	2.0	1.7	1.1	2.9	0.9	1.5	1.4	1.9	1.9	2.7	84.0	
Administrative and support service activities	0.5	0.6	0.6	0.3	0.4	0.2	0.8	0.4	1.7	1.4	59.2	
Public administration and defence	1.7	3.5	4.8	-11.2	4.2	12.4	7.5	5.5	7.6	11.0	-97.7	
Education	6.1	5.5	9.2	2.4	0.7	1.2	1.6	9.6	5.3	4.5	159.0	
Pre-primary and Primary education	2.3	2.7	5.6	0.9	0.2	0.0	0.4	7.3	3.7	1.2	67.0	
General sec education	1.8	2.2	3.9	0.6	0.2	1.0	1.0	1.0	1.3	2.0	65.9	
Higher and other education	1.9	0.7	-0.3	0.9	0.3	0.2	0.2	1.2	0.3	1.3	26.2	
Human health and social work activities	2.1	-1.9	-2.4	2.4	4.8	1.9	4.4	3.5	2.0	2.7	-45.6	
Arts, entertainment and recreation	0.4	0.2	-0.1	-0.6	0.7	0.2	0.8	1.0	0.2	0.5	21.1	
Other service activities	0.7	0.7	1.2	1.5	1.1	1.0	1.7	1.5	1.0	1.4	87.7	
Activities of households as employers;	0.2	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	0.2	-3.1	
FISIM	-4.8	-4.6	-6.0	-9.7	-7.8	-8.3	-0.2	5.4	-2.1	-5.8	-19.8	
All industries at basic prices	92.5	85.7	80.4	84.8	86.1	96.7	94.9	86.9	90.6	93.3	-122.3	
Taxes on products	7.5	14.3	19.6	15.2	13.9	3.3	5.1	13.1	9.4	6.7	222.3	
GDP at market prices	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

Annex 6: Annual Production Accounts, 2009-2020

Industry	Current Price KSh Billion											
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Agriculture, forestry and fishing												
Output at basic prices	683	797	983	1,105	1,233	1,357	1,649	1,861	2,161	2,300	2,619	2,991
Intermediate consumption	150	165	196	207	244	256	308	340	389	402	448	512
Value added, gross	532	632	786	898	989	1,102	1,340	1,521	1,772	1,897	2,171	2,478
Compensation of employees	53	63	81	91	97	103	119	130	153	164	184	207
Operating surplus/mixed income, gross	479	570	706	807	892	998	1,221	1,392	1,619	1,734	1,987	2,272
Mining and quarrying												
Output at basic prices	52	71	86	118	138	192	158	140	141	136	141	152
Intermediate consumption	23	32	40	50	64	95	71	58	69	68	69	74
Value added, gross	29	39	46	68	74	96	88	81	72	69	73	78
Compensation of employees	5	5	5	5	7	14	13	2	14	15	17	16
Operating surplus/mixed income, gross	24	35	41	63	67	82	75	79	57	53	56	62
Manufacturing												
Output at basic prices	1,080	1,219	1,535	1,560	1,674	1,751	1,929	2,004	2,110	2,217	2,309	2,374
Intermediate consumption	703	818	1,033	1,032	1,095	1,146	1,242	1,296	1,368	1,431	1,501	1,556
Value added, gross	376	402	501	528	579	604	687	708	741	785	808	818
Compensation of employees	91	94	101	109	126	142	160	172	190	206	218	216
Operating surplus/mixed income, gross	286	307	401	419	453	462	527	536	551	579	589	603
Electricity, gas and water supply												
Output at basic prices	108	117	136	157	171	200	222	250	267	271	276	276
Intermediate consumption	22	28	34	36	39	42	43	49	51	53	55	55
Value added, gross	85	89	102	121	131	158	178	201	216	217	222	221
Compensation of employees	19	24	27	24	28	30	31	34	39	42	44	45
Operating surplus/mixed income, gross	67	65	75	97	104	128	147	166	177	175	177	176
Construction												
Output at basic prices	326	400	470	558	624	764	882	957	1,074	1,229	1,367	1,626
Intermediate consumption	215	262	301	356	396	479	534	568	618	683	752	875
Value added, gross	112	138	169	201	229	285	348	389	456	546	615	751
Compensation of employees	38	46	56	64	73	88	107	250	294	353	398	467
Operating surplus/mixed income, gross	74	92	113	137	156	196	241	140	161	193	217	284
Wholesale and retail trade												
Output at basic prices	663	725	783	834	903	1,021	1,128	1,210	1,343	1,465	1,605	1,647
Intermediate consumption	325	356	384	409	443	502	544	582	629	702	763	778
Value added, gross	338	369	399	425	461	519	583	628	714	763	841	869
Compensation of employees	115	119	130	136	148	167	184	195	220	276	307	258
Operating surplus/mixed income, gross	222	250	269	288	313	352	400	433	494	487	535	611
Transport and storage												
Output at basic prices	655	717	873	966	1,092	1,251	1,340	1,466	1,625	1,881	2,082	1,973
Intermediate consumption	395	441	536	526	544	569	622	692	762	825	879	809
Value added, gross	260	276	337	439	548	682	718	774	863	1,056	1,203	1,165
Compensation of employees	81	85	96	103	118	139	156	169	191	212	260	256
Operating surplus/mixed income, gross	179	191	241	336	430	543	562	605	672	844	943	909
Accommodation and Food Service Activities												
Output at basic prices	146	149	164	180	176	154	172	195	229	278	347	172
Intermediate consumption	90	97	114	122	115	98	112	125	144	178	227	94
Value added, gross	56	52	50	58	62	56	60	70	85	100	119	78
Compensation of employees	22	23	24	24	28	29	32	34	36	40	43	29
Operating surplus/mixed income, gross	34	30	27	34	34	26	28	37	49	60	76	49
Information and communication												
Output at basic prices	212	226	249	272	311	345	390	432	462	494	523	536
Intermediate consumption	103	120	146	157	173	186	207	225	239	254	264	263
Value added, gross	109	107	103	116	138	158	183	207	223	240	259	273
Compensation of employees	36	38	40	43	51	59	65	75	84	95	102	97
Operating surplus/mixed income, gross	74	68	63	73	86	99	118	132	140	145	157	175
Financial and insurance activities												
Output at basic prices	292	338	388	461	511	597	701	803	866	864	910	940
Intermediate consumption	101	116	126	143	158	183	209	214	232	242	257	243
Value added, gross	190	222	262	318	353	413	492	589	634	623	654	697
Compensation of employees	62	72	78	87	100	109	116	124	135	136	148	154
Operating surplus/mixed income, gross	128	150	184	230	253	304	376	465	499	486	506	543
Real Estate Activities												
Output at basic prices	352	375	429	487	528	589	677	775	865	963	1,036	1,092
Intermediate consumption	31	34	39	42	45	51	58	69	72	81	89	96
Value added, gross	320	341	390	445	484	538	620	706	793	882	947	996
Compensation of employees	28	30	35	40	44	49	56	64	71	79	85	90
Operating surplus/mixed income, gross	292	311	355	404	440	489	564	642	721	802	861	906

Annex 7: Annual Production Accounts 2009-2020, Cont'd

	Current Prices KSh Billion											
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Professional, scientific and technical activities												
Output at basic prices	112	125	137	151	166	180	198	212	227	244	263	232
Intermediate consumption	36	41	45	49	53	57	62	65	73	80	87	76
Value added, gross	76	84	92	102	114	124	136	147	154	164	176	156
Compensation of employees	16	17	19	21	27	29	35	38	42	44	49	45
Operating surplus/mixed income, gross	60	67	74	81	86	94	101	108	113	120	127	111
Administrative and support service activities												
Output at basic prices	70	73	80	87	93	100	106	113	121	140	156	133
Intermediate consumption	21	22	25	27	29	31	33	35	37	42	47	40
Value added, gross	49	51	55	61	64	69	73	78	83	98	109	93
Compensation of employees	19	20	21	24	31	34	38	41	47	53	59	50
Operating surplus/mixed income, gross	30	31	34	37	34	35	35	36	36	45	49	42
Public administration and defence												
Output at basic prices	277	307	352	401	416	475	592	642	705	777	854	910
Intermediate consumption	103	117	133	144	148	170	209	232	262	283	305	318
Value added, gross	174	191	220	257	268	304	383	410	443	493	549	592
Compensation of employees	145	156	175	200	201	225	294	316	334	367	404	429
Operating surplus/mixed income, gross	29	35	45	57	67	79	89	94	109	126	146	163
Education												
Output at basic prices	253	264	298	340	385	428	472	511	551	604	648	578
Intermediate consumption	73	84	97	112	126	142	158	173	185	204	218	171
Value added, gross	180	180	201	228	259	286	314	338	365	400	431	407
Compensation of employees	144	143	160	179	206	230	258	279	315	359	383	373
Operating surplus/mixed income, gross	36	37	41	49	52	56	57	59	51	41	47	34
Health and social work												
Output at basic prices	110	120	131	149	180	205	230	258	286	300	320	349
Intermediate consumption	38	39	49	65	81	83	94	102	110	111	121	132
Value added, gross	72	81	83	84	99	121	136	157	176	189	199	217
Compensation of employees	64	71	70	69	82	97	104	115	126	138	151	168
Operating surplus/mixed income, gross	8	11	13	15	17	24	32	42	50	50	49	49
Other service activities												
Output at basic prices	112	122	134	151	163	185	204	228	254	278	297	266
Intermediate consumption	23	25	28	31	33	37	40	45	49	52	56	48
Value added, gross	89	96	106	120	131	148	165	183	204	226	241	218
Compensation of employees	46	50	55	61	66	75	85	93	103	114	123	123
Operating surplus/mixed income, gross	43	46	51	59	64	72	80	90	101	112	118	94
Less: Financial services indirectly measured												
Intermediate consumption	71	86	108	133	149	181	216	261	241	215	227	214
Value added, gross	-71	-86	-108	-133	-149	-181	-216	-261	-241	-215	-227	-214
All industries at basic prices												
Output at basic prices	5,503	6,145	7,229	7,977	8,765	9,792	11,050	12,057	13,286	14,440	15,754	16,245
Intermediate consumption	2,525	2,880	3,434	3,642	3,934	4,309	4,761	5,130	5,532	5,909	6,365	6,353
Gross value added at basic prices	2,977	3,265	3,795	4,335	4,832	5,483	6,289	6,927	7,754	8,532	9,390	9,892
Other taxes on production	112	121	118	122	136	145	175	212	225	246	260	278
Less: Subsidies												
Compensation of employees	983	1,055	1,171	1,282	1,433	1,622	1,853	2,132	2,396	2,695	2,976	3,021
Gross operating surplus/mixed income	1,882	2,089	2,506	2,931	3,263	3,716	4,261	4,583	5,133	5,590	6,154	6,593
Taxes on products, less: Subsidies on products	298	333	368	432	479	521	595	667	729	809	866	861
GDP at market prices	3,276	3,598	4,163	4,767	5,311	6,004	6,884	7,594	8,483	9,340	10,256	10,753

Annex 8: Components of Expenditure on GDP at Current Prices, 2009-2020

Expenditure category	Current Prices - KSh Billion											
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Government final consumption expenditure	444	466	528	585	629	705	876	958	1,046	1,153	1,262	1,370
Private final consumption expenditure	2,315	2,557	3,094	3,506	3,973	4,471	5,105	5,704	6,496	7,099	7,839	8,004
Final consumption expenditure by NPISH	59	63	70	79	90	96	94	98	114	102	107	116
Gross fixed capital formation	599	750	862	1,029	1,104	1,434	1,521	1,473	1,688	1,784	1,921	2,080
Changes in inventories	24	15	49	29	86	64	1	(3)	65	26	39	35
Gross domestic expenditure	3,439	3,851	4,603	5,228	5,882	6,770	7,597	8,229	9,409	10,165	11,168	11,604
Exports of goods and services	615	724	897	947	945	989	1,042	1,006	1,081	1,171	1,170	1,041
Imports of goods and services	890	1,089	1,534	1,514	1,576	1,783	1,735	1,641	1,973	2,043	2,081	1,901
Discrepancy ¹	111	111	197	106	60	28	(19)	(0)	(33)	47	(1)	9
Gross domestic product at market prices	3,276	3,598	4,163	4,767	5,311	6,004	6,884	7,594	8,483	9,340	10,256	10,753

¹ Difference between GDP production approach and GDP expenditure approach

Expenditure category	Percentage contribution to GDP											
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Government final consumption expenditure	13.5	13.0	12.7	12.3	11.8	11.7	12.7	12.6	12.3	12.3	12.3	12.7
Private final consumption expenditure	70.7	71.1	74.3	73.5	74.8	74.5	74.2	75.1	76.6	76.0	76.4	74.4
Final consumption expenditure by NPISH	1.8	1.8	1.7	1.7	1.7	1.6	1.4	1.3	1.3	1.1	1.0	1.1
Gross fixed capital formation	18.3	20.9	20.7	21.6	20.8	23.9	22.1	19.4	19.9	19.1	18.7	19.3
Changes in inventories	0.7	0.4	1.2	0.6	1.6	1.1	0.0	0.0	0.8	0.3	0.4	0.3
Gross domestic expenditure	105.0	107.0	110.6	109.7	110.7	112.8	110.3	108.4	110.9	108.8	108.9	107.9
Exports of goods and services	18.8	20.1	21.6	19.9	17.8	16.5	15.1	13.2	12.7	12.5	11.4	9.7
Imports of goods and services	27.2	30.3	36.9	31.8	29.7	29.7	25.2	21.6	23.3	21.9	20.3	17.7
Discrepancy ¹	3.4	3.1	4.7	2.2	1.1	0.5	-0.3	0.0	-0.4	0.5	0.0	0.1
Gross domestic product at market prices	100	100	100	100	100	100	100	100	100	100	100	100

Annex 9: Components of Expenditure on GDP at Constant Prices, 2009-2020

Expenditure category	Constant prices - KSh Billion											
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Government final consumption expenditure	642	678	696	790	771	800	909	958	1,017	1,088	1,164	1,214
Private final consumption expenditure	4,031	4,230	4,442	4,635	4,926	5,138	5,453	5,704	5,978	6,282	6,589	6,407
Final consumption expenditure by NPISH	94	100	102	107	110	110	99	98	109	94	97	101
Gross fixed capital formation	927	1,083	1,105	1,245	1,275	1,528	1,530	1,473	1,591	1,584	1,645	1,701
Changes in inventories	24	12	25	33	86	66	(1)	(3)	55	23	36	35
Gross domestic expenditure	5,718	6,104	6,371	6,809	7,167	7,642	7,991	8,229	8,750	9,071	9,531	9,459
Exports of goods and services	857	980	1,062	1,086	1,081	1,101	1,077	1,006	996	1,063	1,030	945
Imports of goods and services	1,298	1,432	1,629	1,636	1,669	1,859	1,773	1,641	1,845	1,872	1,906	1,744
Discrepancy ¹	84	142	286	108	32	57	(8)	0	(17)	65	88	54
Gross domestic product at market prices	5,361	5,794	6,090	6,368	6,610	6,942	7,287	7,594	7,884	8,328	8,742	8,715

¹ Difference between GDP production approach and GDP expenditure approach

Expenditure category	Percentage Changes											
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
Government final consumption expenditure	5.6	2.7	13.4	-2.4	3.8	13.6	5.3	6.2	7.0	7.0	4.3	
Private final consumption expenditure	4.9	5.0	4.3	6.3	4.3	6.1	4.6	4.8	5.1	4.9	-2.8	
Final consumption expenditure by NPISH	6.3	2.0	4.8	2.9	-0.2	-9.8	-0.8	11.4	-14.4	3.6	4.3	
Gross fixed capital formation	16.8	2.0	12.7	2.4	19.9	0.1	-3.8	8.0	-0.4	3.8	3.4	
Gross domestic expenditure	6.7	4.4	6.9	5.2	6.6	4.6	3.0	6.3	3.7	5.1	-0.8	
Exports of goods and services	14.3	8.4	2.3	-0.5	1.9	-2.2	-6.6	-1.0	6.8	-3.2	-8.2	
Imports of goods and services	10.3	13.8	0.4	2.1	11.3	-4.6	-7.4	12.4	1.4	1.8	-8.5	
Discrepancy ¹	2.4	4.7	1.7	0.5	0.8	-0.1	0.0	-0.2	0.8	1.0	0.6	
Gross domestic product at market prices	8.1	5.1	4.6	3.8	5.0	5.0	4.2	3.8	5.6	5.0	-0.3	

Annex 10: Gross National Income and Gross National Disposable Income

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Current Prices, KSh Billion												
Compensation of employees	983	1,055	1,171	1,282	1,433	1,622	1,853	2,132	2,396	2,695	2,976	3,021
Consumption of fixed capital	378	416	482	543	629	756	870	941	1,095	1,247	1,366	1,496
Net operating surplus	1,613	1,792	2,138	2,508	2,767	3,102	3,562	3,850	4,258	4,585	5,043	5,370
Taxes on products	301	335	371	435	483	525	599	672	734	814	871	866
Gross domestic product at market prices	3,276	3,598	4,163	4,767	5,311	6,004	6,884	7,594	8,483	9,340	10,256	10,753
Primary incomes												
Receivable from the rest of the world	5	6	9	7	6	5	8	10	15	20	22	15
Payable to rest of the world	(33)	(50)	(56)	(51)	(58)	(83)	(88)	(113)	(171)	(161)	(186)	(195)
Gross national income at market prices	3,249	3,555	4,115	4,723	5,259	5,926	6,805	7,492	8,327	9,199	10,092	10,573
Current transfers												
Receivable from the rest of the world	181	188	241	241	269	328	345	333	466	512	544	535
Payable to rest of the world	(3)	(3)	(4)	(3)	(4)	(18)	(6)	(5)	(6)	(5)	(6)	(8)
Gross national disposable income	3,426	3,739	4,352	4,960	5,524	6,236	7,144	7,820	8,788	9,706	10,630	11,100
Per capita, KSh												
Gross domestic product at market prices	85,276	93,508	105,260	117,269	127,088	139,750	159,049	171,472	187,271	201,300	215,455	220,891
Gross national income at market prices	84,571	92,389	104,061	116,175	125,845	137,945	157,206	169,156	183,828	198,261	212,007	217,200
Constant prices												
GDP at market prices, KSh Billion	5,361	5,794	6,090	6,368	6,610	6,942	7,287	7,594	7,884	8,328	8,742	8,715
Per capita, KSh	139,577	150,583	154,007	156,659	158,170	161,591	168,353	171,472	174,036	179,474	183,664	179,022
Annual percentage change		7.9	2.3	1.7	1.0	2.2	4.2	1.9	1.5	3.1	2.3	-2.5
National Disposable Income and Saving												
Gross national disposable income	3,426	3,739	4,352	4,960	5,524	6,236	7,144	7,820	8,788	9,706	10,630	11,100
Consumption of fixed capital	378	416	482	543	629	756	870	941	1,095	1,247	1,366	1,496
Net national disposable income	3,048	3,323	3,870	4,418	4,895	5,481	6,273	6,879	7,693	8,459	9,265	9,604
Final consumption expenditure	2,817	3,086	3,692	4,170	4,691	5,272	6,075	6,760	7,656	8,355	9,208	9,489
Final consumption expenditure by government	444	466	528	585	629	705	876	958	1,046	1,153	1,262	1,370
Final consumption expenditure by households	2,315	2,557	3,094	3,506	3,973	4,471	5,105	5,704	6,496	7,099	7,839	8,004
Final consumption expenditure by NPISH	59	63	70	79	90	96	94	98	114	102	107	116
Saving, net	232	237	179	247	204	209	198	119	37	104	56	115
Financing of capital formation												
Saving, net	232	237	179	247	204	209	198	119	37	104	56	115
Capital transfers from abroad, net	20	19	21	20	14	24	26	21	19	27	21	14
Total	252	256	200	267	218	233	224	140	56	131	77	129
Gross fixed capital formation	599	750	862	1,029	1,104	1,434	1,521	1,473	1,688	1,784	1,921	2,080
Consumption of fixed capital	(378)	(416)	(482)	(543)	(629)	(756)	(870)	(941)	(1,095)	(1,247)	(1,366)	(1,496)
Changes in inventories	24	15	49	29	86	64	1	(3)	65	26	39	35
Net lending (+) / Net borrowing(-)	8	(93)	(229)	(248)	(344)	(510)	(427)	(389)	(602)	(432)	(517)	(490)

Annex 11: Quarterly Gross Domestic Product at Current Prices, 2009-2020

Year	Quarter	Agriculture	Mining and quarrying	Manufacturing	Electricity and water supply	Construction	Wholesale and retail trade	Accommodation & food serving	Transport and storage	Information and communication	Financial & insurance
2009		532,455	28,773	376,468	85,470	111,569	337,728	55,612	259,695	109,212	190,124
2010		632,023	39,280	401,509	89,475	137,984	369,174	52,432	276,076	106,588	222,062
2011		786,495	45,949	501,490	102,112	168,920	398,873	50,167	336,915	102,896	262,278
2012		897,649	67,837	528,364	120,721	201,313	424,929	58,274	439,468	115,502	317,874
2013		988,785	73,972	579,413	131,499	228,530	460,900	61,748	547,998	137,840	352,699
2014		1,101,574	96,415	604,288	157,586	284,603	518,915	55,632	682,490	158,432	413,383
2015		1,340,350	87,755	686,723	178,416	347,832	583,462	60,418	718,135	183,015	491,876
2016		1,521,434	81,280	707,880	200,835	389,251	628,416	70,250	773,852	206,755	588,924
2017		1,772,490	71,675	741,376	216,008	455,833	713,561	85,252	862,956	223,497	634,089
2018		1,897,475	68,909	785,369	217,169	545,654	762,968	100,019	1,056,264	240,120	622,625
2019		2,171,071	72,745	807,814	221,683	614,725	841,264	119,462	1,202,882	258,813	653,933
2020		2,478,303	77,547	818,353	221,231	751,404	868,926	78,052	1,164,661	272,702	696,788
2009	1	126,082	5,855	80,594	19,264	29,829	82,441	14,893	63,179	26,773	45,122
	2	162,628	7,205	86,788	20,053	26,293	80,081	13,612	61,698	25,373	46,151
	3	113,373	7,293	97,762	23,265	26,927	82,639	14,022	71,005	30,963	47,996
	4	130,372	8,420	111,324	22,888	28,519	92,567	13,084	63,814	26,103	50,854
2010	1	147,869	7,847	98,787	26,587	34,248	96,542	13,591	66,314	28,778	51,602
	2	188,446	9,895	93,257	22,945	36,222	84,244	12,821	64,678	27,041	53,746
	3	138,244	10,853	98,224	20,748	35,019	89,353	12,767	74,020	27,804	56,437
	4	157,464	10,686	111,242	19,195	32,495	99,035	13,253	71,064	22,965	60,277
2011	1	182,358	10,505	107,616	21,582	34,089	105,774	13,582	78,599	24,733	56,512
	2	240,958	10,357	113,282	24,870	36,364	90,759	11,560	77,923	24,148	61,806
	3	163,666	12,166	127,222	26,403	41,943	96,343	12,164	91,619	27,620	68,832
	4	199,512	12,921	153,370	29,256	56,523	105,996	12,861	88,774	26,395	75,127
2012	1	220,873	14,885	116,466	27,571	34,215	110,478	13,558	103,276	27,112	73,578
	2	279,933	17,945	118,400	29,101	46,685	100,383	13,214	103,388	27,332	77,381
	3	180,577	18,597	136,732	31,412	57,376	104,721	15,333	118,697	31,606	81,066
	4	216,265	16,411	156,766	32,637	63,037	109,346	16,169	114,106	29,451	85,848
2013	1	234,560	17,143	138,984	31,132	55,840	114,208	16,910	123,196	34,773	82,277
	2	298,481	17,316	136,895	30,960	57,569	110,138	15,341	128,173	32,988	84,700
	3	215,046	19,099	143,305	33,226	56,139	115,437	15,086	152,947	35,829	88,832
	4	240,697	20,413	160,229	36,181	58,982	121,117	14,411	143,682	34,250	96,888
2014	1	274,339	20,953	143,727	36,309	63,207	128,857	14,824	158,638	38,375	94,522
	2	321,080	23,353	144,506	38,313	70,821	124,085	13,879	165,557	36,533	99,258
	3	245,066	25,690	150,320	42,588	73,588	131,494	13,450	187,682	41,595	105,510
	4	261,090	26,420	165,734	40,377	76,986	134,479	13,480	170,612	41,929	114,093
2015	1	326,033	23,355	159,066	40,900	80,905	148,602	15,171	177,612	43,025	111,792
	2	403,750	21,545	164,398	42,714	87,690	140,580	14,574	172,632	41,722	117,843
	3	304,559	22,241	179,155	47,478	89,303	144,523	15,168	191,122	49,555	123,708
	4	306,008	20,614	184,104	47,324	89,933	149,756	15,504	176,769	48,713	138,533
2016	1	387,655	20,804	170,337	49,025	96,425	155,396	17,351	186,956	48,475	133,353
	2	425,628	20,495	173,294	49,534	93,574	148,757	16,869	187,526	46,922	137,760
	3	356,134	20,712	176,914	50,636	98,208	155,347	17,729	208,081	55,217	152,003
	4	352,017	19,270	187,336	51,640	101,044	168,916	18,301	191,289	56,141	165,807
2017	1	455,717	18,853	185,976	52,926	105,861	170,280	19,803	203,224	53,646	148,549
	2	525,600	17,227	178,513	53,536	110,531	170,796	19,925	207,655	51,430	155,550
	3	414,509	17,059	178,723	54,655	116,065	185,667	21,568	227,799	58,806	161,469
	4	376,665	18,536	198,164	54,891	123,376	186,817	23,957	224,278	59,614	168,522
2018	1	490,237	18,903	199,902	53,780	128,305	189,364	24,266	249,125	56,499	147,452
	2	553,221	17,210	189,065	55,318	130,708	186,473	23,254	260,081	55,110	149,766
	3	447,489	15,751	189,071	53,864	141,169	194,297	24,069	274,585	62,650	154,836
	4	406,528	17,045	207,331	54,207	145,472	192,834	28,431	272,473	65,861	170,571
2019	1	532,858	18,783	205,725	54,743	148,239	202,786	28,722	293,615	62,519	151,042
	2	599,090	18,536	198,675	56,187	150,400	203,388	25,837	311,430	59,168	156,898
	3	532,697	16,621	195,004	57,358	160,679	214,736	27,690	307,070	67,648	166,608
	4	506,426	18,805	208,410	53,395	155,408	220,354	37,213	290,767	69,479	179,386
2020	1	672,901	19,922	270,896	54,532	180,353	212,228	34,128	294,385	65,698	166,335
	2	681,847	20,232	180,015	52,061	183,125	209,264	16,322	265,105	60,407	164,118
	3	568,927	17,294	171,393	56,318	191,651	206,193	13,084	299,735	70,299	173,053
	4	554,628	20,100	196,050	58,320	196,275	241,241	14,518	305,437	76,298	193,282

Annex 12: Quarterly Gross Domestic Product at Current Prices, 2009-2020 Cont'd

Year	Quarter	Public administration	Professional, admin and support services	Real estate	Education	Health	Other services	FISIM	All indust. at basic prices	Taxes on products	GDP at market prices	GDP, seasonally adjusted
2009		174,075	125,243	320,103	180,003	72,277	89,375	-70,956	2,977,225	298,418	3,275,642	
2010		190,541	135,432	340,989	179,625	81,452	96,215	-85,916	3,264,942	332,688	3,597,630	
2011		219,605	147,608	389,939	201,435	82,635	105,935	-108,379	3,794,872	367,642	4,162,514	
2012		256,819	162,924	444,534	227,929	84,478	120,197	-133,340	4,335,471	431,721	4,767,191	
2013		267,542	177,856	483,662	258,614	98,948	130,820	-148,895	4,831,931	479,390	5,311,322	
2014		304,271	193,023	538,042	286,420	121,358	147,509	-180,962	5,482,978	520,857	6,003,835	
2015		383,147	209,040	619,728	314,363	136,224	164,854	-216,100	6,289,237	595,080	6,884,317	
2016		410,099	224,449	705,877	338,011	156,846	183,105	-260,609	6,926,656	667,408	7,594,064	
2017		442,962	237,750	792,515	365,477	175,811	204,455	-241,384	7,754,323	729,078	8,483,396	
2018		493,180	261,461	881,622	399,515	188,778	225,790	-215,414	8,531,502	808,805	9,340,307	
2019		549,217	284,969	946,860	430,699	199,393	240,966	-226,631	9,389,864	865,790	10,255,654	
2020		592,075	248,880	996,051	406,911	216,853	217,569	-214,117	9,892,187	860,805	10,752,992	
2009	1	42,497	29,841	79,313	45,233	16,460	22,029	-16,973	712,431	69,929	782,360	780,588
2009	2	41,466	30,281	79,598	44,515	15,818	21,844	-17,463	745,942	73,258	819,201	804,390
2009	3	42,082	32,173	80,168	45,755	17,506	22,610	-18,074	737,465	74,053	811,519	832,509
2009	4	48,029	32,948	81,024	44,500	22,493	22,893	-18,445	781,386	81,177	862,563	857,774
2010	1	45,488	32,140	82,164	45,052	17,125	23,457	-20,444	797,144	79,188	876,332	876,170
2010	2	45,445	32,945	83,853	44,009	17,920	23,436	-20,642	820,262	79,557	899,819	882,384
2010	3	46,572	34,682	86,092	45,182	19,699	24,563	-21,873	798,386	82,822	881,208	903,884
2010	4	53,037	35,666	88,879	45,382	26,708	24,759	-22,956	849,150	91,121	940,271	934,942
2011	1	51,735	33,371	92,216	50,154	17,806	25,330	-24,107	881,855	89,137	970,991	973,506
2011	2	52,398	36,201	95,658	49,959	19,752	25,535	-25,563	945,968	90,094	1,036,062	1,012,609
2011	3	54,178	38,775	99,206	50,996	20,873	27,151	-28,193	930,967	92,220	1,023,186	1,048,478
2011	4	61,293	39,261	102,859	50,327	24,205	27,918	-30,516	1,036,083	96,191	1,132,274	1,127,777
2012	1	59,420	37,878	106,618	55,448	19,251	28,774	-31,608	1,017,793	99,013	1,116,806	1,122,899
2012	2	62,999	40,441	109,928	56,121	19,744	29,286	-32,292	1,099,989	104,825	1,204,815	1,174,427
2012	3	61,968	42,571	112,788	57,762	21,382	30,759	-34,127	1,069,221	109,178	1,178,399	1,205,332
2012	4	72,433	42,035	115,200	58,598	24,100	31,378	-35,313	1,148,468	118,704	1,267,172	1,265,878
2013	1	62,596	41,511	117,163	62,396	21,896	31,310	-34,845	1,151,050	110,710	1,261,761	1,269,624
2013	2	68,547	44,612	119,449	63,755	23,705	31,846	-35,586	1,228,889	113,313	1,342,203	1,306,410
2013	3	63,828	45,252	122,059	65,859	24,591	33,064	-37,862	1,191,736	126,511	1,318,246	1,344,499
2013	4	72,571	46,482	124,992	66,605	28,755	34,601	-40,601	1,260,256	128,856	1,389,112	1,394,541
2014	1	71,627	44,451	128,248	69,419	26,429	35,128	-41,872	1,307,180	120,541	1,427,721	1,433,533
2014	2	77,293	48,424	132,056	70,895	29,085	35,986	-43,470	1,387,654	126,029	1,513,683	1,472,659
2014	3	71,195	49,881	136,414	72,605	30,301	37,110	-46,813	1,367,676	135,439	1,503,115	1,528,189
2014	4	84,156	50,267	141,324	73,500	35,543	39,286	-48,807	1,420,467	138,849	1,559,316	1,575,967
2015	1	90,804	48,354	146,784	77,191	30,024	39,472	-49,070	1,510,021	130,988	1,641,008	1,641,369
2015	2	99,124	52,305	152,227	77,861	32,785	40,272	-51,644	1,610,378	148,124	1,758,502	1,710,079
2015	3	92,452	53,921	157,654	79,406	34,177	42,182	-54,858	1,571,747	154,038	1,725,785	1,750,529
2015	4	100,767	54,461	163,063	79,905	39,239	42,928	-60,529	1,597,092	161,930	1,759,022	1,789,363
2016	1	99,134	52,501	168,454	84,416	34,712	44,066	-59,816	1,689,245	146,826	1,836,072	1,830,691
2016	2	107,453	56,193	173,817	84,571	37,853	44,687	-63,372	1,741,562	163,043	1,904,605	1,853,742
2016	3	99,628	58,801	179,151	84,807	39,679	46,894	-67,238	1,732,703	171,946	1,904,649	1,929,512
2016	4	103,884	56,953	184,455	84,215	44,603	47,458	-70,182	1,763,145	185,593	1,948,738	1,988,208
2017	1	104,066	55,293	189,730	92,438	38,731	49,803	-59,713	1,885,181	180,698	2,065,879	2,052,907
2017	2	115,038	59,639	195,199	91,507	42,266	49,789	-60,827	1,983,374	178,421	2,161,795	2,099,777
2017	3	110,165	61,857	200,864	91,202	45,055	52,167	-60,495	1,937,135	177,276	2,114,410	2,142,585
2017	4	113,693	60,960	206,723	90,331	49,758	52,695	-60,348	1,948,633	192,679	2,141,312	2,193,962
2018	1	114,705	60,357	212,776	101,526	42,764	54,548	-53,058	2,091,452	193,772	2,285,224	2,262,969
2018	2	127,754	65,292	218,249	101,490	46,240	54,978	-51,893	2,182,317	199,057	2,381,373	2,312,200
2018	3	123,897	66,800	223,142	100,019	47,842	57,589	-53,278	2,123,790	200,526	2,324,316	2,362,381
2018	4	126,824	69,013	227,454	96,481	51,931	58,675	-57,185	2,133,943	215,450	2,349,393	2,406,893
2019	1	126,898	66,790	231,185	96,031	45,192	59,750	-54,075	2,270,803	198,616	2,469,419	2,446,192
2019	2	143,119	72,126	234,890	97,763	48,810	59,736	-53,193	2,382,860	219,611	2,602,471	2,529,935
2019	3	138,044	71,447	238,567	110,271	50,364	61,301	-56,059	2,360,046	214,687	2,574,732	2,617,708
2019	4	141,155	74,606	242,218	126,635	55,027	60,178	-63,303	2,376,156	232,875	2,609,032	2,667,558
2020	1	134,825	63,195	245,842	114,823	47,611	61,139	-51,349	2,587,461	237,110	2,824,572	2,786,526
2020	2	150,733	58,513	248,560	84,809	56,056	49,383	-50,820	2,429,729	182,777	2,612,506	2,544,022
2020	3	150,335	58,338	250,372	94,820	55,345	56,388	-51,990	2,381,556	204,763	2,586,319	2,638,622
2020	4	156,182	68,835	251,278	112,459	57,841	50,658	-59,959	2,493,441	236,155	2,729,596	2,789,243

Annex 13: Quarterly Gross Domestic Product at Constant Prices, 2009-2020

Year	Quarter	Agriculture	Mining and quarrying	Manufacturing	Electricity and water supply	Construction	Wholesale and retail trade	Accommodation & food serving	Transport and storage	Information and communication	Financial & insurance
2009		1,177,461	41,715	537,567	143,730	203,266	408,241	77,431	530,336	92,014	332,172
2010		1,299,331	52,377	567,444	153,970	235,174	446,134	76,948	558,889	105,195	385,434
2011		1,330,199	59,249	611,342	164,826	257,334	481,932	80,454	589,200	122,330	394,398
2012		1,362,784	71,694	613,592	171,425	295,668	513,155	83,240	607,488	131,237	418,611
2013		1,417,977	83,048	644,156	178,696	311,854	540,578	76,751	626,458	152,457	461,651
2014		1,437,538	106,146	656,257	189,481	341,233	588,862	62,367	673,425	168,661	508,591
2015		1,500,584	89,426	694,698	193,673	367,844	614,193	65,719	714,658	187,646	568,450
2016		1,521,433	81,280	707,880	200,835	389,251	628,416	70,250	773,852	206,755	588,924
2017		1,501,817	83,907	712,807	206,950	413,717	655,259	76,883	801,274	223,445	612,981
2018		1,587,784	79,986	738,305	214,422	438,962	694,215	88,863	849,165	241,178	629,731
2019		1,629,733	83,386	756,711	218,123	463,626	730,684	101,584	902,904	259,279	673,041
2020		1,707,611	88,984	756,149	218,429	518,532	727,833	53,114	832,527	271,804	710,594
2009	1	312,740	9,316	126,473	35,149	50,218	103,406	20,371	132,508	21,210	79,702
	2	319,490	10,046	127,715	35,483	49,505	95,374	18,874	122,379	22,277	80,588
	3	277,360	10,562	134,156	36,352	50,663	98,663	19,619	147,406	24,364	83,672
	4	267,871	11,791	149,223	36,745	52,881	110,798	18,567	128,043	24,164	88,210
2010	1	342,859	11,546	133,161	37,304	55,817	116,005	19,291	141,183	24,262	90,401
	2	363,316	13,013	131,723	36,847	58,277	102,240	18,348	130,342	25,190	94,289
	3	296,407	13,704	142,909	39,997	59,713	107,890	18,874	151,348	27,530	98,184
	4	296,749	14,115	159,650	39,821	61,367	119,998	20,435	136,017	28,213	102,560
2011	1	354,088	13,542	143,083	39,860	62,236	127,236	21,210	146,284	28,384	92,917
	2	372,240	14,244	142,563	40,616	63,278	110,250	19,440	136,308	29,049	95,801
	3	306,915	16,081	151,178	41,667	64,051	116,631	19,636	163,668	32,509	101,311
	4	296,954	15,382	174,517	42,683	67,769	127,815	20,168	142,941	32,388	104,370
2012	1	362,562	16,771	143,013	42,510	70,217	132,902	20,714	150,769	30,439	98,961
	2	381,192	18,656	142,790	41,659	72,089	120,280	19,459	141,373	31,321	101,102
	3	313,600	18,847	156,097	43,385	74,728	125,777	21,248	168,617	35,509	106,375
	4	305,430	17,420	171,692	43,871	78,634	134,197	21,819	146,728	33,967	112,173
2013	1	379,249	18,173	149,352	42,807	75,607	138,234	21,740	151,554	38,051	108,252
	2	401,405	19,808	153,803	43,452	77,371	129,020	19,476	148,747	36,534	111,589
	3	324,363	20,989	165,251	45,675	78,220	134,472	18,508	171,805	39,479	116,682
	4	312,960	24,077	175,750	46,761	80,657	138,852	17,028	154,351	38,392	125,127
2014	1	387,290	23,475	155,591	46,240	83,918	147,827	16,959	160,696	41,422	119,356
	2	407,986	26,199	158,531	46,800	87,300	140,671	15,726	162,447	39,172	122,516
	3	328,915	28,120	165,488	48,070	84,666	149,499	14,983	185,539	43,872	128,336
	4	313,347	28,352	176,648	48,371	85,349	150,865	14,699	164,743	44,195	138,383
2015	1	400,377	23,872	166,202	47,225	87,396	157,163	16,728	169,651	44,656	134,626
	2	425,080	23,047	169,156	48,019	93,818	145,421	16,409	171,626	42,889	138,185
	3	342,599	22,132	177,090	49,450	93,018	154,107	16,271	194,514	50,312	142,231
	4	332,528	20,375	182,249	48,979	93,612	157,502	16,311	178,867	49,789	153,408
2016	1	406,483	20,142	172,429	49,292	92,735	156,496	17,954	184,426	48,997	138,006
	2	431,899	20,292	174,758	49,371	96,938	146,618	17,260	185,155	46,896	139,147
	3	347,086	20,238	177,120	50,657	98,725	157,954	17,475	211,018	54,992	150,373
	4	335,966	20,608	183,574	51,515	100,853	167,348	17,560	193,253	55,870	161,396
2017	1	406,302	20,945	178,428	50,407	101,673	162,341	18,784	198,495	53,257	142,407
	2	422,846	21,254	175,185	51,496	101,694	153,316	18,350	195,367	50,790	147,129
	3	345,059	20,530	174,647	52,237	104,346	166,363	19,043	207,907	59,051	156,365
	4	327,609	21,179	184,547	52,810	106,004	173,238	20,706	199,505	60,347	167,079
2018	1	423,098	21,870	187,632	52,487	108,357	170,690	21,935	206,945	57,093	146,213
	2	445,341	20,268	180,342	53,065	108,842	163,064	21,264	208,400	54,870	148,476
	3	366,861	18,196	179,287	54,353	112,286	176,077	21,126	218,992	63,589	157,455
	4	352,484	19,653	191,045	54,517	109,477	184,383	24,537	214,827	65,627	177,587
2019	1	443,601	21,604	192,249	54,079	113,365	178,606	25,356	221,111	62,528	155,082
	2	459,624	21,680	187,763	53,867	114,855	173,497	23,748	226,704	59,008	160,416
	3	369,305	19,191	183,885	55,171	119,094	185,378	23,633	229,169	68,114	172,134
	4	357,204	20,912	192,814	55,005	116,312	193,203	28,847	225,920	69,630	185,409
2020	1	462,637	22,984	196,398	54,878	125,847	187,285	23,305	225,901	66,004	166,752
	2	482,068	22,626	178,982	51,343	124,370	166,207	10,265	188,629	60,535	167,484
	3	384,826	20,539	180,704	55,299	133,732	176,199	8,653	205,923	70,320	177,294
	4	378,079	22,835	200,065	56,910	134,584	198,142	10,891	212,075	74,945	199,065

Annex 14: Quarterly Gross Domestic Product at Constant Prices, 2009-2020 Cont'd

Year	Quarter	Public administration	Professional, admin and support services	Real estate	Education	Health	Other services	FISIM	All indust. at basic prices	Taxes on products	GDP at market prices	GDP, seasonally adjusted
2009		326,058	177,356	498,768	252,550	118,082	147,429	-130,960	4,933,217	428,246	5,361,462	
2010		333,263	187,938	523,710	278,711	127,326	152,914	-151,812	5,332,946	460,568	5,793,514	
2011		343,676	194,811	550,043	295,171	121,544	156,417	-165,597	5,587,330	502,876	6,090,206	
2012		357,007	199,575	571,882	320,827	114,916	160,104	-182,298	5,810,907	557,541	6,368,448	
2013		329,994	207,436	580,230	326,614	120,731	163,008	-205,688	6,015,951	594,361	6,610,312	
2014		344,086	211,727	609,275	328,975	136,568	169,792	-231,442	6,301,542	640,615	6,942,157	
2015		386,981	217,466	642,901	333,144	143,273	174,553	-260,075	6,635,134	651,890	7,287,024	
2016		410,099	224,449	705,877	338,011	156,846	183,105	-260,609	6,926,656	667,408	7,594,064	
2017		426,049	231,122	753,420	365,689	166,956	191,249	-245,063	7,178,460	705,356	7,883,816	
2018		459,667	247,144	802,728	389,114	176,043	197,479	-254,198	7,580,588	747,016	8,327,604	
2019		505,329	264,200	856,588	407,579	187,037	206,076	-278,418	7,967,464	774,949	8,742,413	
2020		532,340	224,611	891,574	363,618	199,637	176,873	-272,958	8,001,274	713,498	8,714,771	
2009	1	80,555	42,708	123,500	61,140	27,978	36,440	-32,176	1,231,237	104,315	1,335,552	1,314,844
	2	78,239	42,936	123,977	61,237	27,219	36,246	-32,291	1,219,293	105,799	1,325,092	1,326,084
	3	78,677	45,502	124,931	64,941	28,851	37,299	-33,104	1,229,915	105,333	1,335,249	1,348,808
	4	88,587	46,209	126,361	65,232	34,034	37,444	-33,389	1,252,772	112,798	1,365,569	1,371,285
2010	1	82,429	44,537	128,269	68,262	29,505	37,749	-36,606	1,325,976	108,676	1,434,652	1,414,539
	2	80,655	45,635	130,095	68,477	29,622	37,585	-36,685	1,328,969	109,334	1,438,303	1,438,482
	3	80,706	48,210	131,841	71,057	30,943	38,849	-38,594	1,319,568	116,000	1,435,568	1,449,582
	4	89,473	49,556	133,505	70,914	37,256	38,730	-39,927	1,358,432	126,559	1,484,991	1,490,081
2011	1	84,717	45,391	135,088	73,138	27,272	38,675	-40,259	1,392,863	125,808	1,518,671	1,501,464
	2	83,309	48,282	136,690	72,802	29,235	38,342	-39,956	1,392,494	123,210	1,515,704	1,512,220
	3	83,668	50,868	138,312	74,779	29,715	39,710	-42,166	1,388,533	125,150	1,513,683	1,527,277
	4	91,982	50,271	139,953	74,451	35,322	39,691	-43,215	1,413,441	128,708	1,542,149	1,548,587
2012	1	86,703	47,239	141,613	79,525	26,671	39,670	-43,518	1,446,760	131,480	1,578,240	1,565,450
	2	89,201	49,515	142,820	79,322	27,491	39,367	-43,338	1,454,299	133,930	1,588,229	1,579,088
	3	84,996	51,993	143,574	80,946	28,340	40,465	-46,762	1,447,736	142,122	1,589,858	1,603,190
	4	96,107	50,828	143,874	81,035	32,413	40,602	-48,679	1,462,113	150,008	1,612,121	1,620,971
2013	1	80,260	49,238	143,722	80,771	27,385	39,999	-48,400	1,495,994	138,478	1,634,472	1,626,387
	2	85,411	52,397	144,195	80,953	29,273	40,099	-49,485	1,524,050	139,321	1,663,371	1,646,446
	3	77,675	52,542	145,294	82,408	29,307	40,914	-52,521	1,491,063	157,673	1,648,735	1,661,933
	4	86,648	53,260	147,019	82,482	34,766	41,996	-55,282	1,504,844	158,890	1,663,734	1,677,156
2014	1	84,254	49,699	149,371	81,638	30,451	41,773	-55,180	1,564,780	149,057	1,713,837	1,707,778
	2	88,998	53,272	151,490	81,671	33,012	41,908	-55,573	1,602,126	159,074	1,761,200	1,736,082
	3	79,735	54,348	153,379	82,807	33,866	42,310	-58,879	1,565,055	167,520	1,732,574	1,748,492
	4	91,098	54,408	155,035	82,859	39,239	43,800	-61,810	1,569,581	164,965	1,734,546	1,751,490
2015	1	94,418	51,429	156,461	82,840	31,969	43,000	-62,360	1,645,652	150,379	1,796,031	1,789,015
	2	100,300	54,585	158,737	82,872	34,876	42,967	-63,463	1,684,525	164,536	1,849,061	1,819,036
	3	92,153	55,726	161,863	83,731	35,699	44,224	-65,586	1,649,535	165,125	1,814,660	1,832,748
	4	100,110	55,726	165,840	83,701	40,729	44,362	-68,666	1,655,424	171,849	1,827,273	1,848,329
2016	1	99,311	53,197	170,667	84,198	35,315	44,997	-63,480	1,711,164	153,890	1,865,055	1,856,064
	2	107,929	56,392	174,919	84,175	38,305	45,037	-63,832	1,751,260	167,679	1,918,939	1,889,426
	3	99,755	58,549	178,595	84,793	39,605	46,616	-65,582	1,727,970	167,311	1,895,281	1,915,765
	4	103,104	56,311	181,696	84,844	43,621	46,456	-67,715	1,736,261	178,527	1,914,788	1,935,051
2017	1	101,827	53,782	184,222	90,637	37,945	47,870	-57,292	1,792,031	173,066	1,965,097	1,950,539
	2	111,183	57,462	186,886	90,879	40,951	46,989	-58,777	1,812,998	168,367	1,981,364	1,949,847
	3	105,339	60,230	189,687	91,803	42,416	48,417	-62,429	1,781,012	175,131	1,956,143	1,979,196
	4	107,700	59,648	192,625	92,370	45,645	47,974	-66,566	1,792,419	188,792	1,981,211	2,005,791
2018	1	107,773	57,885	195,701	97,794	40,005	48,578	-60,428	1,883,626	183,188	2,066,814	2,046,555
	2	119,262	61,509	198,924	96,541	43,643	48,166	-59,982	1,911,996	188,858	2,100,854	2,067,576
	3	115,123	62,920	202,293	97,260	44,520	50,019	-63,847	1,876,512	182,848	2,059,359	2,092,268
	4	117,509	64,829	205,810	97,519	47,874	50,716	-69,941	1,908,454	192,123	2,100,577	2,120,998
2019	1	117,462	62,095	209,474	101,543	42,292	51,597	-66,498	1,985,545	180,397	2,165,942	2,146,393
	2	132,113	66,799	212,809	99,806	46,284	51,350	-64,436	2,025,888	198,796	2,224,683	2,192,991
	3	126,855	66,074	215,815	102,677	47,528	52,346	-68,734	1,967,635	190,696	2,158,331	2,194,339
	4	128,898	69,232	218,491	103,553	50,933	50,783	-78,750	1,988,396	205,060	2,193,456	2,206,743
2020	1	122,116	62,281	220,839	103,390	45,440	50,816	-64,577	2,072,296	189,607	2,261,903	2,235,934
	2	135,694	48,438	222,600	77,422	50,842	40,019	-64,771	1,962,753	157,381	2,120,133	2,094,238
	3	134,786	53,054	223,774	84,766	50,007	45,600	-67,132	1,938,344	174,539	2,112,883	2,153,901
	4	139,744	60,838	224,361	98,040	53,349	40,437	-76,479	2,027,881	191,970	2,219,852	2,229,078

Annex 15: Quarterly Gross Domestic Product Growth Rates (%), 2010-2020

Year	Quarter	Agriculture	Mining and quarrying	Manufacturing	Electricity and water supply	Construction	Wholesale and retail trade	Accommodation & food serving	Transport and storage	Information and communication	Financial & insurance
2010		10.4	25.6	5.6	7.1	15.7	9.3	-0.6	5.4	14.3	16.0
2011		2.4	13.1	7.7	7.1	9.4	8.0	4.6	5.4	16.3	2.3
2012		2.4	21.0	0.4	4.0	14.9	6.5	3.5	3.1	7.3	6.1
2013		4.1	15.8	5.0	4.2	5.5	5.3	-7.8	3.1	16.2	10.3
2014		1.4	27.8	1.9	6.0	9.4	8.9	-18.7	7.5	10.6	10.2
2015		4.4	-15.8	5.9	2.2	7.8	4.3	5.4	6.1	11.3	11.8
2016		1.4	-9.1	1.9	3.7	5.8	2.3	6.9	8.3	10.2	3.6
2017		-1.3	3.2	0.7	3.0	6.3	4.3	9.4	3.5	8.1	4.1
2018		5.7	-4.7	3.6	3.6	6.1	5.9	15.6	6.0	7.9	2.7
2019		2.6	4.3	2.5	1.7	5.6	5.3	14.3	6.3	7.5	6.9
2020		4.8	6.7	-0.1	0.1	11.8	-0.4	-47.7	-7.8	4.8	5.6
2010	1	9.6	23.9	5.3	6.1	11.2	12.2	-5.3	6.5	14.4	13.4
	2	13.7	29.5	3.1	3.8	17.7	7.2	-2.8	6.5	13.1	17.0
	3	6.9	29.7	6.5	10.0	17.9	9.4	-3.8	2.7	13.0	17.3
	4	10.8	19.7	7.0	8.4	16.0	8.3	10.1	6.2	16.8	16.3
2011	1	3.3	17.3	7.5	6.9	11.5	9.7	9.9	3.6	17.0	2.8
	2	2.5	9.5	8.2	10.2	8.6	7.8	6.0	4.6	15.3	1.6
	3	3.5	17.3	5.8	4.2	7.3	8.1	4.0	8.1	18.1	3.2
	4	0.1	9.0	9.3	7.2	10.4	6.5	-1.3	5.1	14.8	1.8
2012	1	2.4	23.8	0.0	6.6	12.8	4.5	-2.3	3.1	7.2	6.5
	2	2.4	31.0	0.2	2.6	13.9	9.1	0.1	3.7	7.8	5.5
	3	2.2	17.2	3.3	4.1	16.7	7.8	8.2	3.0	9.2	5.0
	4	2.9	13.2	-1.6	2.8	16.0	5.0	8.2	2.6	4.9	7.5
2013	1	4.6	8.4	4.4	0.7	7.7	4.0	5.0	0.5	25.0	9.4
	2	5.3	6.2	7.7	4.3	7.3	7.3	0.1	5.2	16.6	10.4
	3	3.4	11.4	5.9	5.3	4.7	6.9	-12.9	1.9	11.2	9.7
	4	2.5	38.2	2.4	6.6	2.6	3.5	-22.0	5.2	13.0	11.5
2014	1	2.1	29.2	4.2	8.0	11.0	6.9	-22.0	6.0	8.9	10.3
	2	1.6	32.3	3.1	7.7	12.8	9.0	-19.3	9.2	7.2	9.8
	3	1.4	34.0	0.1	5.2	8.2	11.2	-19.0	8.0	11.1	10.0
	4	0.1	17.8	0.5	3.4	5.8	8.7	-13.7	6.7	15.1	10.6
2015	1	3.4	1.7	6.8	2.1	4.1	6.3	-1.4	5.6	7.8	12.8
	2	4.2	-12.0	6.7	2.6	7.5	3.4	4.3	5.7	9.5	12.8
	3	4.2	-21.3	7.0	2.9	9.9	3.1	8.6	4.8	14.7	10.8
	4	6.1	-28.1	3.2	1.3	9.7	4.4	11.0	8.6	12.7	10.9
2016	1	1.5	-15.6	3.7	4.4	6.1	-0.4	7.3	8.7	9.7	2.5
	2	1.6	-12.0	3.3	2.8	3.3	0.8	5.2	7.9	9.3	0.7
	3	1.3	-8.6	0.0	2.4	6.1	2.5	7.4	8.5	9.3	5.7
	4	1.0	1.1	0.7	5.2	7.7	6.3	7.7	8.0	12.2	5.2
2017	1	0.0	4.0	3.5	2.3	9.6	3.7	4.6	7.6	8.7	3.2
	2	-2.1	4.7	0.2	4.3	4.9	4.6	6.3	5.5	8.3	5.7
	3	-0.6	1.4	-1.4	3.1	5.7	5.3	9.0	-1.5	7.4	4.0
	4	-2.5	2.8	0.5	2.5	5.1	3.5	17.9	3.2	8.0	3.5
2018	1	4.1	4.4	5.2	4.1	6.6	5.1	16.8	4.3	7.2	2.7
	2	5.3	-4.6	2.9	3.0	7.0	6.4	15.9	6.7	8.0	0.9
	3	6.3	-11.4	2.7	4.1	7.6	5.8	10.9	5.3	7.7	0.7
	4	7.6	-7.2	3.5	3.2	3.3	6.4	18.5	7.7	8.7	6.3
2019	1	4.8	-1.2	2.5	3.0	4.6	4.6	15.6	6.8	9.5	6.1
	2	3.2	7.0	4.1	1.5	5.5	6.4	11.7	8.8	7.5	8.0
	3	0.7	5.5	2.6	1.5	6.1	5.3	11.9	4.6	7.1	9.3
	4	1.3	6.4	0.9	0.9	6.2	4.8	17.6	5.2	6.1	4.4
2020	1	4.3	6.4	2.2	1.5	11.0	4.9	-8.1	2.2	5.6	7.5
	2	4.9	4.4	-4.7	-4.7	8.3	-4.2	-56.8	-16.8	2.6	4.4
	3	4.2	7.0	-1.7	0.2	12.3	-5.0	-63.4	-10.1	3.2	3.0
	4	5.8	9.2	3.8	3.5	15.7	2.6	-62.2	-6.1	7.6	7.4

Annex 16: Quarterly Gross Domestic Product Growth Rates (%), 2010-2020 Cont'd

Year	Quarter	Public administration	Professional, admin and support services	Real estate	Education	Health	Other services	FISIM	All indust. at basic prices	Taxes on products	GDP at market prices	GDP, seasonally adjusted
2010		2.2	6.0	5.0	10.4	7.8	3.7	15.9	8.1	7.5	8.1	
2011		3.1	3.7	5.0	5.9	-4.5	2.3	9.1	4.8	9.2	5.1	
2012		3.9	2.4	4.0	8.7	-5.5	2.4	10.1	4.0	10.9	4.6	
2013		-7.6	3.9	1.5	1.8	5.1	1.8	12.8	3.5	6.6	3.8	
2014		4.3	2.1	5.0	0.7	13.1	4.2	12.5	4.7	7.8	5.0	
2015		12.5	2.7	5.5	1.3	4.9	2.8	12.4	5.3	1.8	5.0	
2016		6.0	3.2	9.8	1.5	9.5	4.9	0.2	4.4	2.4	4.2	
2017		3.9	3.0	6.7	8.2	6.4	4.4	-6.0	3.6	5.7	3.8	
2018		7.9	6.9	6.5	6.4	5.4	3.3	3.7	5.6	5.9	5.6	
2019		9.9	6.9	6.7	4.7	6.2	4.4	9.5	5.1	3.7	5.0	
2020		5.3	-15.0	4.1	-10.8	6.7	-14.2	-2.0	0.4	-7.9	-0.3	
2010	1	2.3	4.3	3.9	11.6	5.5	3.6	13.8	7.7	4.2	7.4	7.6
2010	2	3.1	6.3	4.9	11.8	8.8	3.7	13.6	9.0	3.3	8.5	8.5
2010	3	2.6	6.0	5.5	9.4	7.3	4.2	16.6	7.3	10.1	7.5	7.5
2010	4	1.0	7.2	5.7	8.7	9.5	3.4	19.6	8.4	12.2	8.7	8.7
2011	1	2.8	1.9	5.3	7.1	-7.6	2.5	10.0	5.0	15.8	5.9	6.1
2011	2	3.3	5.8	5.1	6.3	-1.3	2.0	8.9	4.8	12.7	5.4	5.1
2011	3	3.7	5.5	4.9	5.2	-4.0	2.2	9.3	5.2	7.9	5.4	5.4
2011	4	2.8	1.4	4.8	5.0	-5.2	2.5	8.2	4.0	1.7	3.8	3.9
2012	1	2.3	4.1	4.8	8.7	-2.2	2.6	8.1	3.9	4.5	3.9	4.3
2012	2	7.1	2.6	4.5	9.0	-6.0	2.7	8.5	4.4	8.7	4.8	4.4
2012	3	1.6	2.2	3.8	8.2	-4.6	1.9	10.9	4.3	13.6	5.0	5.0
2012	4	4.5	1.1	2.8	8.8	-8.2	2.3	12.6	3.4	16.5	4.5	4.7
2013	1	-7.4	4.2	1.5	1.6	2.7	0.8	11.2	3.4	5.3	3.6	3.9
2013	2	-4.2	5.8	1.0	2.1	6.5	1.9	14.2	4.8	4.0	4.7	4.3
2013	3	-8.6	1.1	1.2	1.8	3.4	1.1	12.3	3.0	10.9	3.7	3.7
2013	4	-9.8	4.8	2.2	1.8	7.3	3.4	13.6	2.9	5.9	3.2	3.5
2014	1	5.0	0.9	3.9	1.1	11.2	4.4	14.0	4.6	7.6	4.9	5.0
2014	2	4.2	1.7	5.1	0.9	12.8	4.5	12.3	5.1	14.2	5.9	5.4
2014	3	2.7	3.4	5.6	0.5	15.6	3.4	12.1	5.0	6.2	5.1	5.2
2014	4	5.1	2.2	5.5	0.5	12.9	4.3	11.8	4.3	3.8	4.3	4.4
2015	1	12.1	3.5	4.7	1.5	5.0	2.9	13.0	5.2	0.9	4.8	4.8
2015	2	12.7	2.5	4.8	1.5	5.6	2.5	14.2	5.1	3.4	5.0	4.8
2015	3	15.6	2.5	5.5	1.1	5.4	4.5	11.4	5.4	-1.4	4.7	4.8
2015	4	9.9	2.4	7.0	1.0	3.8	1.3	11.1	5.5	4.2	5.3	5.5
2016	1	5.2	3.4	9.1	1.6	10.5	4.6	1.8	4.0	2.3	3.8	3.7
2016	2	7.6	3.3	10.2	1.6	9.8	4.8	0.6	4.0	1.9	3.8	3.9
2016	3	8.2	5.1	10.3	1.3	10.9	5.4	0.0	4.8	1.3	4.4	4.5
2016	4	3.0	1.1	9.6	1.4	7.1	4.7	-1.4	4.9	3.9	4.8	4.7
2017	1	2.5	1.1	7.9	7.6	7.4	6.4	-9.7	4.7	12.5	5.4	5.1
2017	2	3.0	1.9	6.8	8.0	6.9	4.3	-7.9	3.5	0.4	3.3	3.2
2017	3	5.6	2.9	6.2	8.3	7.1	3.9	-4.8	3.1	4.7	3.2	3.3
2017	4	4.5	5.9	6.0	8.9	4.6	3.3	-1.7	3.2	5.7	3.5	3.7
2018	1	5.8	7.6	6.2	7.9	5.4	1.5	5.5	5.1	5.8	5.2	4.9
2018	2	7.3	7.0	6.4	6.2	6.6	2.5	2.1	5.5	12.2	6.0	6.0
2018	3	9.3	4.5	6.6	5.9	5.0	3.3	2.3	5.4	4.4	5.3	5.7
2018	4	9.1	8.7	6.8	5.6	4.9	5.7	5.1	6.5	1.8	6.0	5.7
2019	1	9.0	7.3	7.0	3.8	5.7	6.2	10.0	5.4	-1.5	4.8	4.9
2019	2	10.8	8.6	7.0	3.4	6.1	6.6	7.4	6.0	5.3	5.9	6.1
2019	3	10.2	5.0	6.7	5.6	6.8	4.7	7.7	4.9	4.3	4.8	4.9
2019	4	9.7	6.8	6.2	6.2	6.4	0.1	12.6	4.2	6.7	4.4	4.0
2020	1	4.0	0.3	5.4	1.8	7.4	-1.5	-2.9	4.4	5.1	4.4	4.2
2020	2	2.7	-27.5	4.6	-22.4	9.8	-22.1	0.5	-3.1	-20.8	-4.7	-4.5
2020	3	6.3	-19.7	3.7	-17.4	5.2	-12.9	-2.3	-1.5	-8.5	-2.1	-1.8
2020	4	8.4	-12.1	2.7	-5.3	4.7	-20.4	-2.9	2.0	-6.4	1.2	1.0