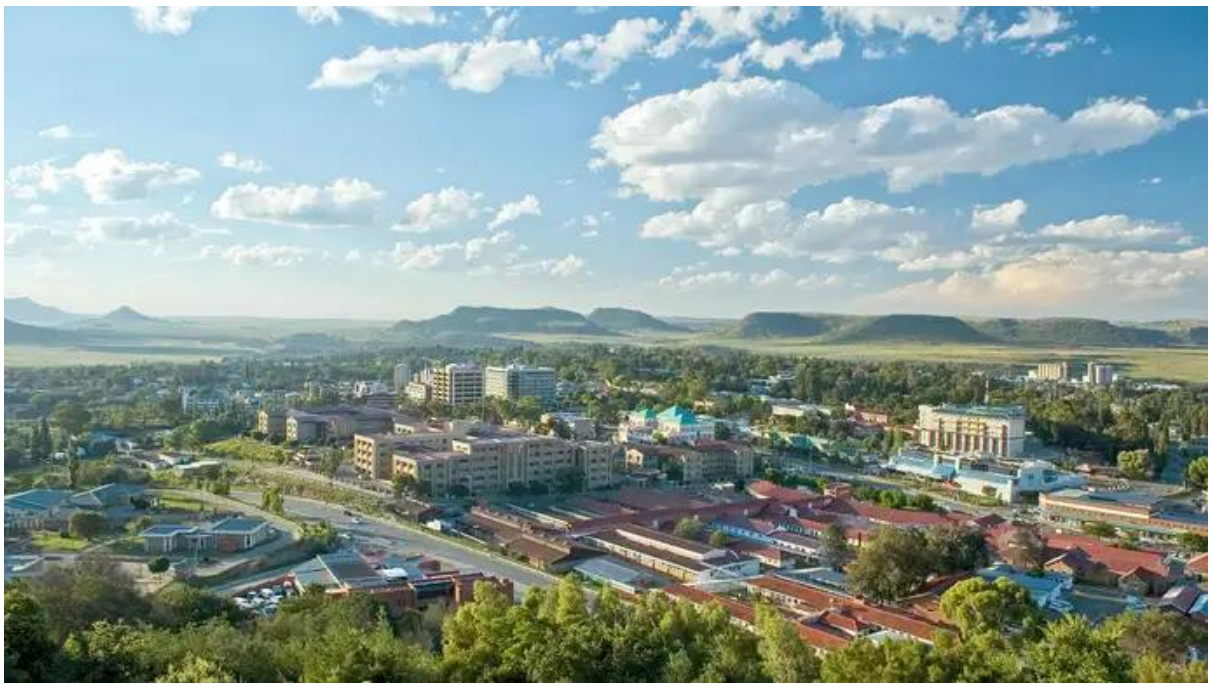
CONSTRUCTION OF MASERU CITY GROSS DOMESTIC PRODUCT



Final Report

Mamello Nchake

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FOREWORD

Lesotho Bureau of Statistics (BOS) collaborated with the United Nations Economic Commission for Africa (UNECA) to estimate the Gross Domestic Product (GDP) for Maseru city, in order to assess its share in the total economy. This exercise is part of UNECA's ongoing initiative to support city-level disaggregation of statistics in Africa.

Cities GDP is a vital well-being economic indicator, and its estimation is envisaged to help global leaders to understand the forces contributing to the global economy. The city of Maseru is among the cities in Africa for which the pilot programme is being undertaken.

This report contributes to objective of UNECA to prepare a regional guide on City GDP measurement based on the experiences of these pilot cities. This exercise also marks an important milestone in the area of economic statistics, since measurement of the size of city economies is an important component of development planning. Estimates produced in this report are vital for various government stakeholders such as city administration, ministry of development planning and ministry of finance, to formulate and monitor economic policy and for effective allocation of resources.

The analysis in this report is based on the data that are already available within the framework of the national accounts, merging and joining the datasets that already exist in the economy. The report also draws from the analytical review of measuring City GDP globally and as part of the broader exercise to strengthen urban data and statistics.

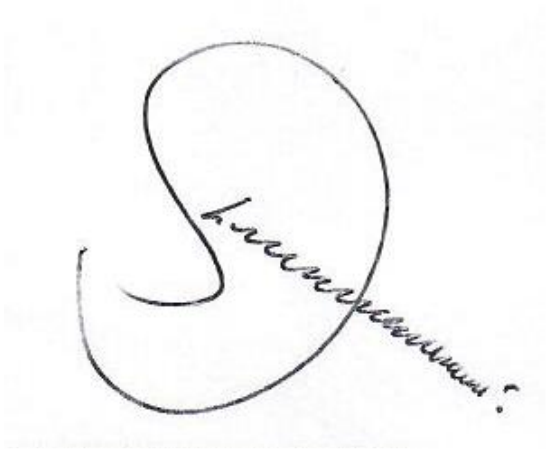
You will recall that BOS has been compiling annual GDP since the early 1960s with the aim of providing information that is useful in economic analysis and formulation of macroeconomic policy. The recent development for BOS is a compilation of quarterly GDP, which also aims to provide a comprehensive and consistent set of high frequency statistics that allows economists and other analysts to undertake detailed assessments of the recent performance of the economy. The annual and quarterly GDP, however, do not provide detailed local-level data for cities, even though cities are at the apex of the sustainable development agenda.

We may well be aware that the global development dialogue has become increasingly focused on the importance of cities in boosting economic growth. Evidence shows that we are living in an urban world where half of the world's population already lives in cities, generating more than eighty percent of global GDP. It has been cited that cities are key drivers of structural transformation and industrialisation to create productive jobs. This is because a large share of population, private and public institutions as well as infrastructure are found in cities. The contents of this report confirm that Maseru City is not an exception to the notion that contribution of cities to national income is greater than their share of national population.

I therefore urge policy makers, development partners, researchers, Civil Society Organisations and the public at large to make use of this evidence-based analysis and enhance reporting of the SDGs, inform policy-making and come up with interventions that will address challenges that come with increasing city population in Lesotho.

The Bureau of Statistics wishes to express its sincere gratitude to UNECA for their immeasurable support in providing technical assistance for the successful execution of this exercise. BOS appreciates the dedication of all participants in the project activities, all having assisted in different ways, from the BOS staff, data providers, line ministries and stakeholders. A special

word of appreciation to all the stakeholders who devoted their time and participated in validation of the results of this report by providing insights and recommendations.



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Mr. Selete Molete

Maseru City Council Town Clerk

BASIC PROJECT INFORMATION

Project title	Construction of City Gross Domestic Product (GDP) measurement and urban data piloting in Maseru City
Category	Economic and Social Affairs
Department/Office	Urbanization and Development Section
Organisational Unit	Gender, Poverty and Social Policy Division, UN Economic Commission for Africa
Supervisor	Chief, Urbanization and Development Section
Service Provider	Team of consultants: Mamello Nchake and Jan Redeby
Project starting date	January 2022
Project end date	August 2022

LIST OF ACRONYMS

AGOA	African Growth Opportunity Act
APS	Annual Agricultural Production Survey
BOS	Bureau of Statistics
CHAL	Christian Health Association of Lesotho
CPI	Consumer Price Index
EC	Economic Census
GDP	Gross Domestic Product
GFCF	Gross Fixed Capital Formation
GVA	Gross value added
HBS	Household Budget Survey
LEC	Lesotho Electricity Company
LFS	Labour Force Survey
LHDA	Lesotho Highlands Development Authority
LRA	Lesotho Revenue Authority
MCC	Maseru City Council
NADABAS	National Accounts Database System
OECD	Organisation for Economic Co-operation and Development
PPI	Producer Price Index
PHC	Population and Housing Census
SNA	System of National Accounts
UN	United Nations
UNECA	United Nations Economic Commission for Africa
UNDP	United Nations Development Programme
VAT	Value Added Tax
WASCO	Water And Sewerage Company

EXECUTIVE SUMMARY

The importance of cities globally and in Africa cannot be over-emphasised. In recent times, it has become increasingly important to obtain urban GDP estimates which are compiled regularly. Such estimates are critical for evidence-based decision making. Globally, various institutions and researchers have attempted to measure city GDP. This exercise to measure city GDP in Africa has been initiated by United Nations Economic Commission for Africa to prepare a regional report on city GDP measurement based on the experiences of selected African cities. The data used in this exercise are assessed by the respective National Statistical Offices (NSOs) to ensure that they are fully compliant with the code of practice for national and sub-national statistics. The city of Maseru is among the cities in Africa for which the pilot programme is being undertaken.

The demarcation for the estimates is based on the boundaries of Maseru City Council, which is the local administration authority of Maseru City. The city is demarcated into 10 constituencies. Its geographical boundary covers an area of 143.37 square kilometres with a population of over 300 000, which was approximately 16 percent of the total population in 2016 and projected at 18 percent in 2020.

Lesotho's Bureau of Statistics compiles GDP by the production and expenditure approaches. The production approach measures GDP as the sum of the gross value added (GVA) of all economic activities *plus* taxes on products. The estimates of city GDP are also compiled using the production approach. Twenty economic activities are specified, although the estimation level is somewhat more detailed. **The top-down approach is applied, where various indicators are used to estimate Maseru's share of the national totals**. Data sources include: VAT-data (data on sales reported to Lesotho Revenue Authority); the 2017/18 Household Budget Survey; and the 2019 Labour Force Survey

City GDP has been compiled for the years 2016-2020. The results show that Maseru's GDP is about 50 percent of the national total, while the growth rate has been slightly better in Maseru.

The City's share of Lesotho's population was about 17 percent in 2019, while its share of GDP was about 50 percent of the national GDP estimates, **suggesting a huge discrepancy in GDP per capita between Maseru and the rest of the country**.

Overall, Lesotho's economic performance has been declining in the past five years, where GDP has been shrinking from 2016 to 2020, which is also the case with Maseru GDP. However, there was a slight increase in 2017 and 2018 but again a large contraction in 2020 due to COVID-19 related restrictions and low external demand.

At an aggregate level, the GDP estimates are grouped into primary, secondary and tertiary sectors as is with the national estimates. **The tertiary sector, which is mainly services, is the main contributor to both Maseru and national GDP**, while the primary sector, consisting of agriculture, mining, and quarrying, is the least contributor, particularly in Maseru's share of GDP.

National and Maseru GDP estimates are also grouped into 18 industries **where manufacturing was the largest contributor of Lesotho's economy**, accounting for 27.8 percent Maseru GDP and 15.9 percent of national GDP in 2020. The services sector, particularly wholesale and retail trade, financial and insurance, and public administration and defence, also had a significant contribution to Maseru GDP and national estimates. Other industries recorded negative

growth rates between 2019 and 2020, also reflecting the **adverse effects of COVID-19 restrictions and significant drop in global demand experienced in 2020**.

The second part of the report presents detailed descriptions of the results and methodology in 21 sub-sections for the 20 industries.

The ranking of Maseru's share of GVA by economic activity show that **manufacturing, administrative and professional services, and account for more than 70 percent**. However, the share of mining and agriculture is at the minimum of about five percent.

Under manufacturing of food products and beverages, processing and preserving of meat contributed 75 percent of Maseru City GDP, beverages and bakery products contributed 95 percent of GVA of the city and grain mills products contributed more than 75 percent of the city GVA. **In the manufacturing of textiles, clothing and footwear, large enterprises contributed the largest share of Maseru's GVA** while household enterprises contributed only less than one percent. Moreover, in leather and footwear sector, same as clothing and footwear largest corporations contributed large portion of the city GVA while the household enterprises account about one percent.

Maseru GVA for **electricity supply** from LEC is divided into domestic and all other customers based on sales data while excluding the supply provided by LHDA as it is not based in Maseru. For **water supply** and sewerage, the GVA share for Maseru was computed as 22 percent. **Construction** is problematic to estimate due to lack of appropriate data sources**.** Only employment data are available.

In **wholesale and retail trade**, household enterprises contribute about five percent to the GVA of Trade in and repair of motor vehicles and about eight percent of All other wholesale and retail trade.

The Maseru GVA estimates for **accommodation and food service activities** are estimated based on VAT-sales for the formal sector, which is relatively higher than that of the informal sector. Interestingly, Maseru's share of the informal sector in food service activities increased substantially in 2020 mainly due to COVID-19 related restrictions.

In the **education sector**, Maseru's share of GVA is largest for public schools while parastatals mainly include tertiary institutions. The GVA share for private education is however based on guess estimates due to lack of data.

The health sector estimates are based on government hospitals and clinics, non-profit institutions and private health facilities. Many hospitals and health centres in Lesotho are operated by the Christian Health Association of Lesotho but financed by government. However, none are in Maseru. **The Maseru share of GVA is dominated by Tšepong Hospital which makes up more than 90 percent of private health care**.

On **taxes and products**, Maseru's share of VAT is based on VAT-sales in wholesale and retail trade, and hotels and restaurants while 50 percent of import duties is allocated to Maseru, roughly the same as Maseru's share of GDP. The location of the brewery in Maseru means that 100 percent of excise duties are allocated to Maseru, whereas the share of fuel taxes is based on VAT-sales in fuel trade and that of export taxes is based on diamond royalties.

In general, the estimates of city GDP for Maseru are based on existing data sources. There are a few exceptions, where data have been requested from a few institutions often with difficulties to get responses.

PART 1

1. BACKGROUND AND COVERAGE

1.1 Background of the project

The importance of cities globally and in Africa cannot be over-emphasised. Cities are key drivers of structural transformation and industrialisation to boost economic growth, create productive jobs, particularly in tradable sectors. A large share of population, private and public institutions as well as infrastructure is in cities. Therefore, cities connect workers to firms and firms to markets.

The relative affluence and standard of living of people in different cities are often measured in terms of per-capita income. However, in recent times, it has become increasingly important to obtain urban GDP estimates which are published on an annual basis. These estimates are critical for evidence-based decision making. Measuring city GDP enables for better city-level socio-economic and infrastructural planning. This in turn facilitates for private investment and competitiveness among various cities within and across national borders. Investment primarily flows based on expected return. Hence, city GDP is a key ingredient for private sector decision making.

Globally, national statistical agencies, supra-national organisations, researchers, and academicians have attempted to measure sub-regional or city GDP. However, several challenges to measuring city GDP have prevented robust evidence-based policy and investment decisions at sub-national and local levels. Common constraints include data challenges such as lack of quality disaggregated economic and spatial data which present challenges for effective policy design, implementation, monitoring and evaluation at a local level. Methodological limitations provide additional constraints to robust analysis that is comparable across cities and countries. Measuring city GPD using different techniques, for example, makes spatial planning and benchmarking difficult for economics and planners.

This exercise draws from the analytical review of measuring city GDP globally and as part of the broader exercise to strengthen urban data and statistics. The exercise was initiated by United Nations Economic Commission for Africa (UNECA) to prepare a regional report on city GDP measurement based on the experiences of selected African cities. The city of Maseru is among the cities in Africa for which the pilot programme is being undertaken.

The overall objective of the project is to estimate city GDP for Maseru City. The specific objectives are as follows:

- Assess the availability of data for city GDP estimation in coordination with Lesotho Bureau of Statistics (BOS) and other related local and national institutions.
- Identify data sources for Maseru City GDP estimation in coordination with BOS.
- Define the most appropriate methodology for city GDP estimation in Maseru based on available data (no new data is expected to be collected).
- Collect and compile the raw data sets required for the city GDP estimation.
- Organize an expert group meeting to validate the work.

1.2 Scope and coverage of the study

The scope of the study is to estimate GDP for the city of Maseru using internationally accepted methodology, also in line with the national GDP produced by Bureau of Statistics (BOS). The city GDP estimates will be disaggregated by economic activities (industries) as per the classification used by BOS in the national accounts, which is based on ISIC, rev.4.

Administratively, Lesotho is divided into 10 districts. Each district has one or more Gazetted urban centres. Maseru City is the capital city of Lesotho and is located within the Maseru District, along the western border with the Republic of South Africa (RSA). It is the largest urban area and the only city in the country. It is on the left side of the Caledon (Mohokare) River bordering the Free State Province in South Africa. Maseru City has experienced increasing urbanisation since 1976. The city was originally established as a police camp on the eastern of the Caledon River after the 1869 Treaty of Aliwal North between the British and the Boer Republic of the Orange Free State (Crush, ed., 2016). Significant shifts in the face of the city came with independence in 1966, including expanded government facilities, the in-migration of rural families with little prospect of deriving incomes from agriculture, and the expansion of socio-economic opportunities. Consequently, by 1986, 60 percent of Lesotho's urban population lived in Maseru, which dropped to 44 percent due to growth in the neighbouring urban centres (BOS Population Statistics). However, in the 1990s the city became more pronounced resulting from the significant expansion of textile and garments manufacturing sector. In 2006, almost half (50 percent) of the urban population lived in Maseru City. The United Nations Statistics show that urbanization in Lesotho is projected to increase from 39 percent by 2025 to 58 percent by 2050.

The rest of Part 1 of the report is structured in the following manner. Section 2 discusses the demarcation of Maseru City, i.e. the area for which GDP is to be measured. This is based on the definition of a city as discussed in Section 2.2. Section 3 of the report deals with the methodology used, to estimate Maseru GDP. This includes national accounts definitions and the estimates of GDP compiled by BOS. Problems of and approaches to compiling regional estimates of GDP are also discussed. Finally, the section provides an overview of sources and methods. Section 4 presents and discusses the results obtained.

Part 2 of the report presents detailed results, industry by industry, and provides conclusions and recommendations in a final section.

2. DEMARCATION OF MASERU CITY

2.1 Important definitions

There are several definitions of a city in the literature. But all these definitions have a common understanding that a city is relatively large in terms of population size and density. A city is distinguished from other human settlements by its relatively great size, but also by its functions (the role it plays within a larger political context) and its special symbolic status which may be conferred by a central authority.

A city can either be a part of its own commuting zone or a polycentric commuting zone covering multiple cities (Dijkstra & Poelman, 2012). In the view of the OECD, administration derived delineations often do not capture the dynamics of urbanisation and the economic and social importance of a city. According to the working definition of a city, if 15 percent of employed persons living in one city work in another city, these cities are treated as a single

city. The recently endorsed degree of urbanisation method, by the UN Statistical Commission, to define cities, towns, and semi-dense areas facilitates international comparisons (Dijkstra et al., 2020). In its classification of local units, a city is one or more local units that consist of at least 50 percent of their population in an urban centre.

The UN (2012) defined different types of cities. These are:

- Definition of "city proper" mainly based on administrative boundaries, often excluding suburban areas.
- Two or more separately administered neighbouring cities may form a single urbanised entity.
- The administrative boundaries of some cities may include agricultural land.
- Detailed level – urban agglomeration: "population contained within the contours of contiguous territory inhabited at urban levels of residential density".
- Extensive level - metropolitan region: "includes both the urban agglomeration and additional surrounding areas of lower settlement density that are also under the direct influence of the city".

The UN (2014) prefers using the last description as a functional definition for a city. In the World Urbanisation Prospects report for 2014, this is what it said:

"In compiling information on city population size, the Population Division has endeavoured to use data or estimates based on the concept of urban agglomeration. When those data are not consistently available, population data that refer to the city as defined by its administrative boundaries were used. However, when the administrative boundaries of cities remain fixed for long periods of time, they are likely to misrepresent the actual growth of a city with respect to both its territory and its population. For several cities, the data available refer to two concepts: the city proper as defined by administrative boundaries and its metropolitan area. In those instances, the data referring to the metropolitan area were usually preferred because they approximate better the territory associated with the urban agglomeration. p. 5, para. 1".

This ties in with the definition of the OECD. Africa should therefore adapt this definition for the sake of comparability.

2.2 Maseru City as defined for the study

Maseru City (also known as Maseru City Council) is the area of study for this assignment. It is regarded as an administrative, industrial, and commercial hub of Lesotho. Until 1980, the urban boundary was no more than 3 km from the city centre. Nonetheless, due to the expansion of urban boundaries to enclose unplanned peri-urban areas effectively extended the urban area from 23 km2 to 143 km2 (Romaya and Brown, 1999). The average household density in Maseru City is 41 households per hectare.

The spatial distribution of economic activities within the city ranges from high-income housing, particularly in Maseru Central constituency, to low and informal settlements. The residential segments of the city are largely occupied by professional and administrative categories of civil servants, wealthy citizens, and expatriates. The West part of the city (CBD West) is the most upmarket part of the city, where multi-storey office complexes and contemporary departmental stores, hotels and malls are located. On the other extreme is the high density and less formal settlements towards the east part of the city. The main taxi and bus terminal, with informal and municipal markets, is located towards this east part of the city. Within this location is a combination of formal and informal enterprises that provide

services mostly to low-income population. Most of the informal activities in the city centre consist of street vendors selling food (e.g. fruits and vegetables) and non-food (e.g. clothing and household items) items.

Table 2.1 Population distribution by community council for Maseru City

Constituency/Community Council	Male	Female	Total
Khubetsoana	14 134	16 554	30 688
Mabote	10 092	11 593	21 685
Motimposo	12 461	13 818	26 279
Stadium Area	11 749	13 398	25 147
Maseru Central	7 484	8 289	15 773
Thetsane	23 755	27 428	51 183
Qoaling	16 748	18 500	35 248
Lithoteng	17 217	19 554	36 771
Lithabaneng	18 927	21 416	40 343
Abia	14 078	15 878	29 956
Total	**146 645**	**166 428**	**313 073**

Source: Bureau of Statistics, Population and Housing Census (2016)

The Maseru City Council (MCC) is the local administration authority of Maseru City, which is also responsible for the city boundaries. The city is demarcated into 10 constituencies which are also community councils (Khubetsoana, Mabote, Thetsane, Lithabaneng, Lithoteng, Maseru Central, Motimposo, Abia, Qoaling and Stadium Area). At a more disaggregated unit level, Maseru City is divided into 77 villages. Its geographical boundary covers an area of 143.37 square kilometres with a total population of over 300 000, which is approximately 16 percent of the total population (see Table 2.1).

The 2016 Population and Housing Census (LHC) provides detailed data, for example by constituency. Population projections are not done by constituency but are computed at an aggregated level and provide projections by district and by urban/rural (see Table 2.2).

Table 2.2 Distribution of population projections for Maseru City, 2016-2012

	2016	2017	2018	2019	2020	2021
Urban	685 938	714 562	742 348	770 551	799 076	827 827
Rural	1 321 263	1 309 161	1 294 569	1 279 873	1 264 896	1 249 484
Total	**2 007 201**	**2 023 723**	**2 036 917**	**2 050 424**	**2 063 972**	**2 077 311**
Annual changes, percent						
Urban		4.2	3.9	3.8	3.7	3.6
Rural		-0.9	-1.1	-1.1	-1.2	-1.2
Total		0.8	0.7	0.7	0.7	0.6
Maseru City	313 073	326 137	338 819	351 691	364 710	377 832
Percent of total	15.6	16.1	16.6	17.2	17.7	18.2

Source: Bureau of Statistics, Population Projections (2021)

The urban population is projected to increase by 20.7 percent from 2016 to 2021, while the total population is projected to increase by 3.5 percent and the rural population to decrease by 5.4 percent from 2016 to 2021. Assume that Maseru increases at the same rate as the urban population. The city's population can then be estimated at 377,832 in 2021 or about 18 percent of the total (2,077,311) compared to 16 percent in 2016.

Further, MCC demarcates Maseru City into 13 Wards (MCC Wards), defined within the 10 constituencies explained above such that each constituency consist of at least one ward. These are defined as follows: MCC01 is Khubetsoana; MCC02 is Mabote; MCC03 is Motimposo; MCC04 and MCC05 are covered under Stadium Area; Maseru Central is MCC06; Thetsane constituency is MCC07; MCC08 is Qoaling; MCC09 is Lithoteng; Lithabaneng constituency is a combination of MCC10, MCC12 and MCC13; while Abia constituency is MCC13. Figure 2.1 illustrates the constituencies included in Maseru City.

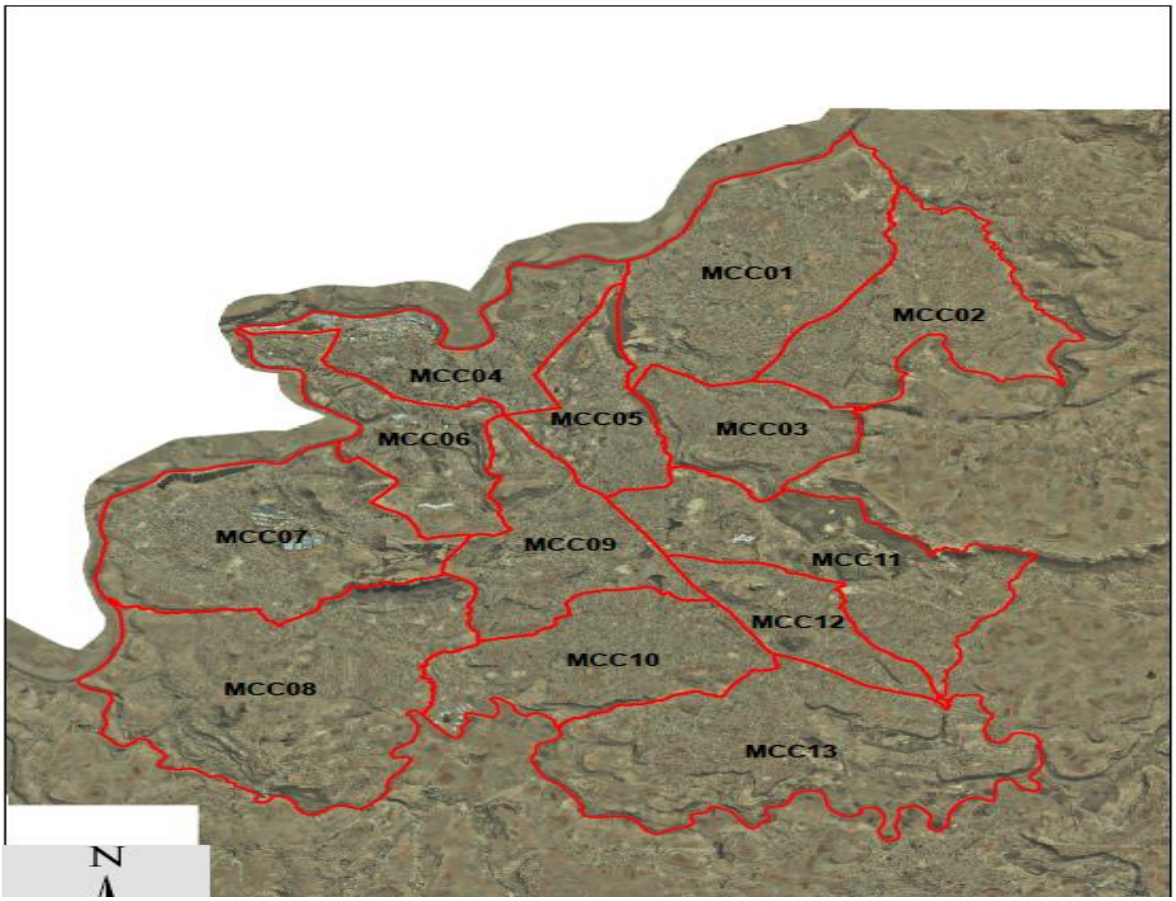

Figure 1.2.1: Distribution of constituencies and wards within Maseru City
Source: Maseru City Council

At the national level, most of the population resides in rural parts of the country: 58 percent of the population live in rural areas while 34 percent live in urban areas and 8 percent live in peri-urban areas. However, volatile agricultural income and productivity has resulted in significant rural-urban migration in recent years, with urbanization estimated to be growing at the rate of six percnet per annum, estimated to be higher than the average growth rate for the region.

Table 2.2: Population distribution by district, settlement, and agro-ecological zones

	Male	Female	Total
District			
Botha-Bothe	57 702	60 540	118 242
Leribe	164 819	172 702	337 521
Berea	128 593	134 023	262 616
Maseru	249 859	269 327	519 186
Mafeteng	89 022	89 200	178 222
Mohale's Hoek	81 299	84 291	165 590
Quthing	56 866	58 603	115 469

	Male	Female	Total
Qacha's Nek	36 525	38 041	74 566
Mokhotlong	49 907	50 535	100 442
Thaba-Tseka	67 541	67 806	135 347
Total	982 133	1 025 068	2 007 201
Settlement			
Urban	323 106	362 832	685 938
Peri-Urban	73 769	77 494	151 263
Rural	585 258	584 742	1 170 000
Total	982 133	1 025 068	2 007 201
Agro-ecological zone			
Lowlands	601 663	642 375	1 244 038
Foothills	98 451	96 874	195 325
Mountains	196 211	196 250	392 461
Senqu river valley	85 808	89 569	175 377
Total	**982 133**	**1 025 068**	**2 007 201**

Source: Bureau of Statistics, 2016 Population and Housing Census (2016)

Within the national boundary, Maseru District is indicated by a light orange colour in the left panel in Figure 2.2, while Maseru City is indicated by a dark orange colour in the right panel of Figure 2.2.

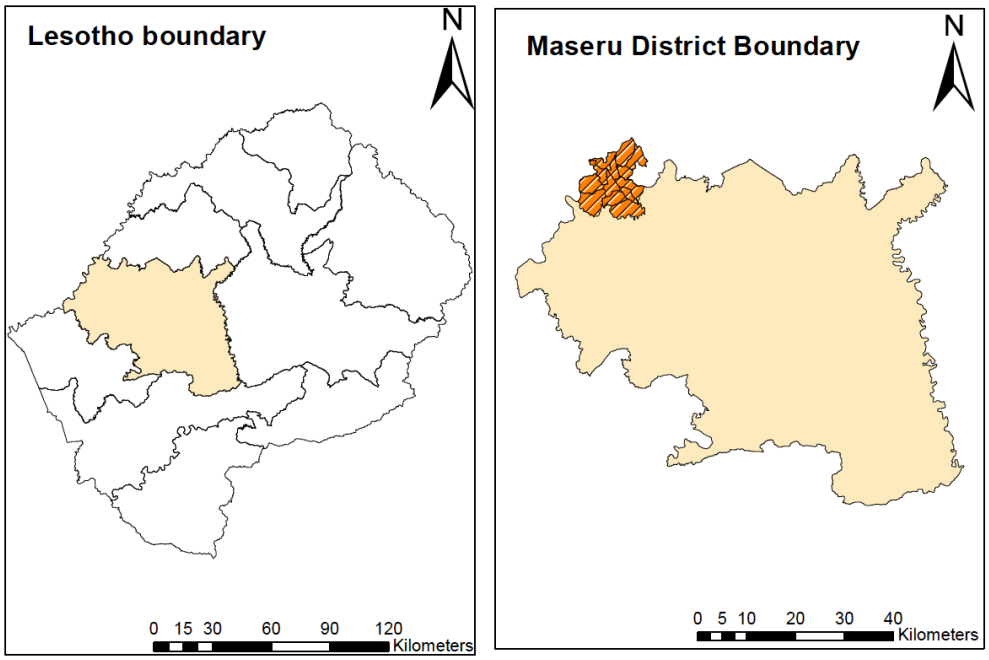

Figure 2.2: Maseru City demarcation within the national boundaries.
Source: Maseru City Council

3. METHODOLOGY

3.1 Definitions and approaches to measure GDP

Gross domestic product (GDP) can be defined as the total value of goods and services (counted without duplication) that are produced in the economy during an accounting period, normally a year or a quarter. GDP generate net incomes to the economy, that are available for domestic

final uses or for exports. This definition provides three approaches for compiling GDP: the production approach, the income approach, and the expenditure approach.

The production approach measures GDP as the sum of the gross value added (GVA) of all economic activities *plus* taxes on products *minus* subsidies on products[1]. GVA is calculated in production accounts compiled by economic activity as Output (the value of goods and services produced) *minus* Intermediate consumption (the value of goods and services used in the production process). "Gross" indicates that the decline in the value of fixed assets during a given production period due to normal wear and tear is included. In other words, consumption of fixed capital is included although it is a cost of production.

The expenditure approach measures GDP as the sum of final uses *minus* imports of goods and services. Final uses include final consumption expenditure by government, households, and non-profit institutions serving households; gross fixed capital formation; changes in inventtories; and exports of goods and services.

The income approach measures GDP as the sum of primary incomes generated in the production process: compensation of employees *plus* operating surplus (profits) *plus* taxes on production and imports *minus* subsidies on production and imports. Actually, few countries manage to *compile* GDP by the income approach, i.e. adding up independent estimates of the income components. However, the income components are tabulated with operating surplus derived as a residual.

Estimates of GDP are compiled also at constant prices, i.e. the transactions making up GDP are valued at the prices of the base year. It should then be noted that GDP at constant prices cannot be compiled by the income approach since components of value added, such as operating surplus or profits, cannot be factored into price and volume components.

Most African countries, like Lesotho, establish the level of GDP by the production approach. The expenditure side is also compiled but with a discrepancy compared to the production estimates. The income components of GDP are tabulated with operating surplus derived as a residual.

The above definitions are according to the 2008 SNA, the latest international recommendations regarding national accounts.

3.2 Estimates of GDP in Lesotho

The Lesotho Bureau of Statistics (BOS) is responsible for annual and quarterly GDP estimates for the country. As explained above, the level of GDP is established by the production approach. The expenditure side is compiled with a discrepancy compared to the production estimates. The income components of GDP are also tabulated. Quarterly estimates of GDP compiled by the production approach have been developed and are published since 2018.

Lesotho applies the definitions of the 2008 SNA as far as available data allow. Revised estimates of GDP were published in 2017 with the base year for the estimates at constant prices updated to 2012. An economic census and a household budget survey provided detailed data for the new base year. In a few cases, there were no credible data for a new benchmark. Therefore, the previous estimates were accepted as the benchmark for 2012. Annual and quarterly estimates are compiled by using a variety of data sources. Deflators for the estimates

[1] There are no subsidies on products in Lesotho. That is why this document refers to taxes on products in the following without mentioning subsidies.

at constant prices include the Lesotho CPI and South African producer price indices (PPI). Lesotho is a member of. The Common Monetary Area links South Africa, Namibia, Lesotho and Eswatini into a monetary union. Also, a major part of Lesotho's imports comes from South Africa. Besides, many South African companies are present. Therefore, South African PPIs are used in all these countries, while they have not developed their own PPI.

City GDP for Maseru has been compiled by the production approach for the years 2016-2020, both at current and constant prices. Thus, Table 1 in Appendix 1 shows the national GDP by economic activity (industries) for those same years alongside the estimates of city GDP.

Lesotho uses NADABAS for the compilation of the national accounts. The system is also used for the estimates of Maseru's GDP. NADABAS combines Excel with a database. Calculations are carried out in Excel workbooks while results and source data are stored in a database. Links between Excel workbooks are replaced by links between Excel and the database.

3.3 Regional estimates of GDP

Regional estimates of GDP are compiled by many countries worldwide. For example, the members of the European Union are required to provide regional GDP-estimates compiled by the production approach. In addition, estimates of household consumption and gross fixed capital formation are compiled by region. Some African countries also compile regional estimates of GDP. Examples are South Africa with estimates for its nine provinces, and Kenya with estimates for its 47 counties.

The concepts and definitions of regional GDP-estimates are the same as for national estimates although additional specifications are needed. A few pages of the 2008 SNA deal with regional estimates (Chapter 18E). More comprehensive guidelines for regional national accounts have been published by EUROSTAT, the statistical agency of the European Union. Finally, the UNDP has compiled a handbook on the compilation of regional GDP.

Estimates of city GDP is a special case of regional estimates of GDP. What is specific is the definition of the area to be measured. Otherwise, methods and problems regarding regional estimates apply also to city estimates.

As explained in Section 2 above, Lesotho is administratively divided in 10 districts. Over the years, there have been some thoughts about compiling estimates of district GDP, but suggestions have never been developed. About half the population in Maseru District lives in Maseru City. However, the city also includes two constituencies in Berea District making up 17 percent of Maseru City as defined for this study.

Regional GDP is normally compiled by the production approach. It is difficult, if not always impossible, to use the expenditure approach. The reason is data difficulties, regarding exports and imports which must cover trade with foreign countries as well as trade with other regions. Therefore, for example, the requirements of the European Union do not require regional GDP by expenditure. In summary, the expenditure approach is impossible for the estimates of city GDP.

There are three approaches to measure regional GDP: top-down, bottom-up and mixed methods.

Top-down methods involve the allocation of a national estimate to the regions by means of distribution apportioning indicators. An advantage of these methods is that they guarantee consistency between national and regional estimates.

Bottom-up methods involve the use of information on units that are resident in the region, e.g., survey data added up for all units in the region included in the survey. In the case of a sample survey, the sample must be designed to allow regional estimates. For example, the results of Lesotho's latest Household Budget Survey (HBS) can by its nature be added up by region. An advantage of these methods is that they directly use relevant sources at the regional level.

Mixed methods include elements of both bottom-up and top-down methods. It is rarely possible to employ bottom-up methods in their pure form.

GDP compiled by the production approach is estimated as the sum of values added plus taxes on products, which should also be allocated to regions (and included in city GDP). In theory, taxes on products should be allocated to regions (and the city) based on the allocation of taxable transactions. For example, a major part of non-deductible VAT is generated in retail trade and some services producing industries.

Maseru's GDP has been estimated by the production approach using top-down methods. In other words, Maseru's share of the GVA by economic activity and taxes on products has been estimated by applying the city's share of related indicators.

3.4 Sources and methods

This section provides an overview of data sources and methods, while more detailed descriptions by economic activity are provided in Part 2 of the report.

As indicated above in Section 3.2, city GDP for Maseru has been compiled for the years 2016-2020 both at current and constant prices. The 2008 SNA recommends that the base year should be updated every five years. Lesotho's GDP-estimates have 2012 as the base year and should be revised quite soon. Nevertheless, the estimates of city GDP must be consistent with the current GDP-estimates, therefore:

- The national totals have been accepted as they are even if new data indicate that the national total should be revised.
- The classification of economic activities has remained as it is; no new categories have been defined for the city estimates.
- The same deflators have been used for the estimates of city GDP at constant prices. There are no specific prices indices available for Maseru.

The national estimates by industry are compiled by institutional sector[2]. Thus, the contribution of small-scale household enterprises, the informal sector[3], is estimated. Production accounts at current and constant prices are compiled in the national estimates, by economic activity and institutional sector:

Output – Intermediate consumption = GVA

This is the bottom line for the estimation level of Maseru's GDP, but production accounts have not been compiled for Maseru. Various indicators have been used to estimate Maseru's share

[2] The 2008 SNA specifies five institutional sectors: non-financial corporations, financial corporations, general government, households, and non-profit institutions serving households.

[3] It is debatable whether all household enterprises should be classified as informal. Some of them are formal in the sense that they are registered. However, informal sector in this report is used as a label for small scale household enterprises, while formal sector includes all other institutional sectors: corporations, government and non-profit institutions.

of GVA at current prices by economic activity. Thus, the top-down method has generally been used. The estimates at constant prices have applied the relevant implicit deflator derived from the national estimates.

The estimates have been compiled to be presented for 20 economic activities as specified in Table A1.1 in Appendix 1. These are with a few exceptions the sections specified in the latest version of the International Standard of Industrial Classification (ISIC). The exceptions are the disaggregation of manufacturing in three categories and the aggregation of a few service activities. The level of estimation has been more detailed as described in the Part 2, Section 2.

The data sources used to estimate Maseru's share of GVA are discussed below under four headings:

- VAT-data
- The 2016 Population and Housing Census
- Household surveys
  – The 2017/18 Household Budget Survey (HBS)
  – The 2019 Labour Force Survey (LFS)
- Other sources.

The population census and the household surveys are new in the sense that they are not yet used in the national estimates.

VAT-data

Data from the Lesotho Revenue Authority (LRA) on sales reported by enterprises registered for VAT is an important source for the national GDP-estimates used as an indicator of output. The share of the enterprises located in Maseru has been used as an indicator for the city's share of GVA. VAT-sales has been used for the formal sector in the following industries:

- Manufacturing
- Wholesale and retail trade
- Accommodation and food services
- Real estate activities
- Professional service activities
- Administrative service activities

A few large enterprises in wholesale and retail trade have their head office located in Maseru while the activities take place both in Maseru and in other parts of the country. The estimates of Maseru's share are educated guesses based on discussions with the NA-team at BOS.

It was not possible to locate all enterprises in the VAT-records. Those enterprises were allocated to Maseru and the rest of the country in proportion to the allocation of enterprises for which the location is known.

The 2016 Population and Housing Census (PHS)

Population projections for relevant age groups have been used as a proxy to estimate enrolment in primary and secondary schools lacking proper enrolment data. Projections for urban population have been used to estimate annual changes in dwelling rentals

Household surveys

The HBS and LFS are sample household surveys. It must then be noted that samples in household surveys are designed to provide data by district and urban/rural. A specific problem was

to specify the urban enumeration areas in Berea District that are included in Maseru City and to exclude urban areas in Maseru District that are not part of the city.

The results of the HBS and LFS refer to one year, 2017 and 2019 respectively, i.e. allocation indicators are available only for one year. It has then been assumed that Maseru's share of the national estimate has not changed, which is somewhat dubious.

HBS: The enterprise module provided data on output by small scale enterprise that were used to estimate Maseru's share of the informal sector in the industries listed above under VAT-sales, except that consumption of grains and traditional beer has been used to estimate Maseru's share of informal millers and brewers of traditional beer.

Own consumption of vegetables, poultry and eggs were explored to estimate Maseru's share of agriculture. Besides, the agriculture module of the survey were expored to estimate the city's share of the output of pigs, poultry and eggs. However, it was not possible to extract the required data.

The housing module was used to estimate Maseru's share of rented and owner-occupied dwellings.

Finally, household consumption has been used to estimate Maseru's share of passenger road transport and a few consumer services, e.g. hair dressing.

LFS: Employment as recorded in the survey has been used to estimate Maseru's share of agriculture, water supply, construction, information and communication, and public administration. There is no other option regarding construction difficult as it is to find proper indicators for the national estimates. Alternative source data for four other industries have been discussed but were not available.

Other data sources

Diamond mining is not located in Maseru. However, the head offices of the mining companies are in Maseru and contributes to the GVA. The ratio of administrative expenses over output has been used to estimate Maseru's share.

Specific data are available from LEC and were used to estimate Maseru's share of electricity.

Finally, Maseru's share of GVA has been based on the share in related activities.

- Freight transport on wholesale and retail trade.
- Taxes on products on VAT-data for relevant activities regarding VAT and turnover in relevant activities regarding excise duties and fuel taxes

3.5 Limitations of the data collection and compilation

The estimates of city GDP are mainly based on existing data sources, which is a general limitation. Small surveys or studies designed to collect relevant data would improve the results but require resources. The limitations of the current estimates can be summarised as follows:

- Indicators based on intermittent surveys (HBS, LFS) are strictly speaking only valid for the survey years. The same is true for some data collected from specific institutions. However, the same ratio is assumed for all years.
- The indicators refer to one item in the production process, e.g., output or employment. It is then assumed that the structure of the production process is the same in Maseru as nationally, notably that GVA's share of output is the same nationally as in Maseru.

- Employment has been used for a few industries as indicated above. This may be a poor indicator especially for construction. Wages and salaries would have been a better indicator, but data are not available. However, employment in Maseru has been given a higher weight in some industries; see Part 2, Section 2.

4. RESULTS

This section provides an overview of the results, while detailed results, industry by industry, are provided in Part 2 of the report. Detailed tables are included in Appendix 1, while Appendix 2 contains a summary table converted into US Dollar. Table 4.1 shows Maseru's GDP, the national GDP and Maseru's share

Table 4.1: Gross domestic product

Description	2016	2017	2018	2019	2020
			Current prices million Maloti		
Maseru	16 253	15 888	17 193	18 555	18 438
National	32 060	31 765	34 161	35 518	34 624
			Percent		
Maseru's share	50.7	50.0	50.3	52.2	53.3

Maseru's share of Lesotho's population was about 17 percent in 2019, while its share of GDP is about 50 percent of the national GDP estimates. This means a huge discrepancy in GDP per capita between Maseru and the rest of the country as shown in Table 4.2.

Table 4.2: GDP per capita, Maloti

Description	2016	2017	2018	2019	2020
Maseru	51 913	48 716	50 743	52 758	50 555
Rest of the country	9 331	9 353	9 993	9 986	9 526
National	15 973	15 696	16 771	17 322	16 776

Figures 4.1 and 4.2 illustrate Maseru's share of GDP and the disparities in GDP per capita with averages for the years 2016-2020. Maseru's GDP per capita is slightly more than three times the national average, while GDP per capita for the rest of country is only about 20 percent of Maseru's GDP per capita.

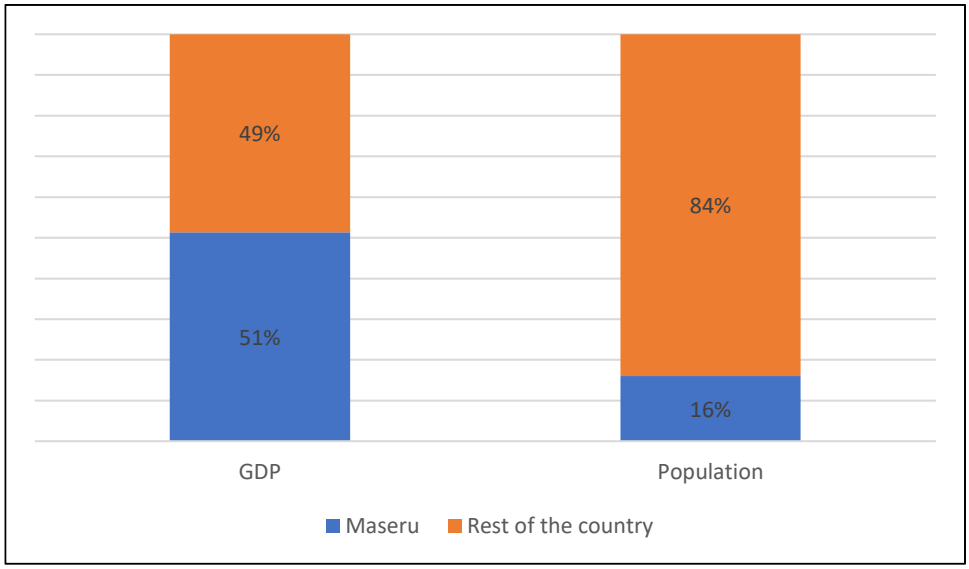

Figure 4.1: Shares of GDP and population

The large GDP per capita in Maseru could also reflect the high living standards in the city compared to other parts of the country. Besides, the average share of rural population was 63 percent (2016-20). A large part of these people is mainly dependent on agriculture which on average made up 4.6 percent of GDP those years.

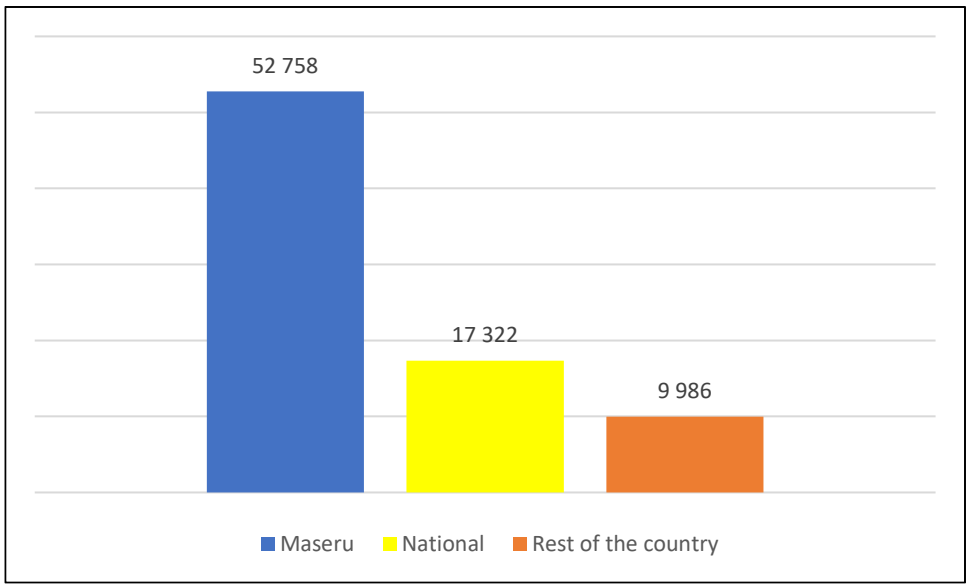

Figure 4.2: GDP per capita, average 2016-2020

Overall, Lesotho's economy has been declining in the past five years, where GDP has been shrinking from 2016 to 2020 as shown in Table 4.3 with growth rates measured at 2012 constant prices. This is true also for Maseru's GDP, although there was a slight increase in 2017 and 2018. The big decrease in 2020 was mainly attributable to COVID-19 related restrictions and low external demand.

Table 4.3: Gross domestic product, growth rates in percent

Description	2017	2018	2019	2020
Maseru	-4.1	2.4	1.0	-6.7
Rest of the country	-1.8	-4.6	-2.1	-6.5
National	-3.0	-1.1	-0.5	-6.6

The trends in GDP growth are also presented in Figure 4.3, with 2016 set equal to 100. The graph also reflects the large contraction of Lesotho's economy in 2020.

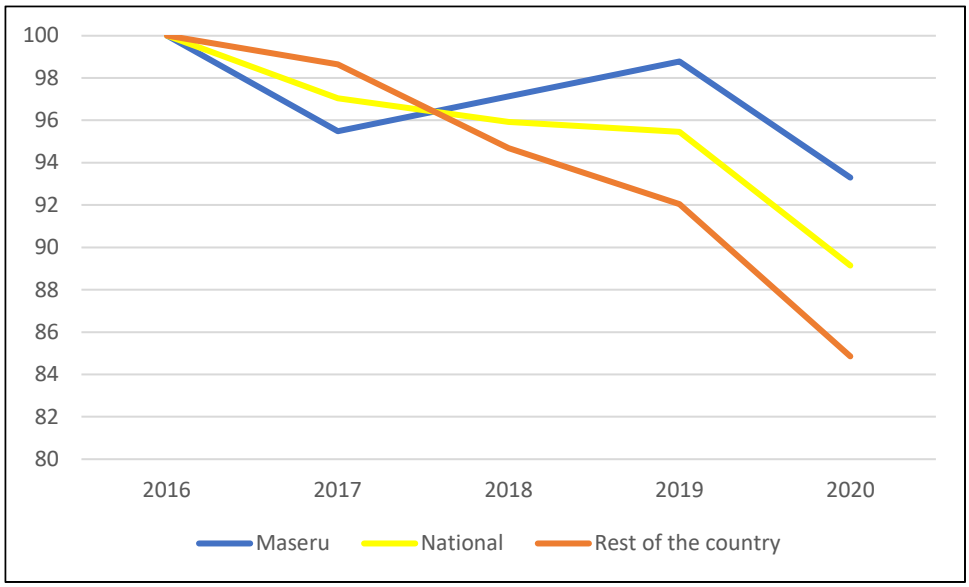

Figure 4.3: GDP development 2016-2020

At an aggregated level, the GDP estimates for Maseru City and at the national level can be grouped into primary, secondary and tertiary sectors:

- *Primary*: Agriculture, mining and quarrying
- *Secondary*: Manufacturing, electricity, water, and construction
- *Tertiary*: Service producing industries

Although somewhat outdated for analysis of an economy, it is used in Table 4.4 to show the structure of Maseru's and the national GDP.

Table 4.4: Gross domestic product, percent contribution

Description	2016	2017	2018	2019	2020
Primary sector					
Maseru	0.9	0.8	1.0	0.8	1.1
National	9.3	8.5	10.1	9.5	12.5
Secondary sector					
Maseru	26.9	25.1	27.3	27.6	29.9
National	25.2	24.0	25.0	24.6	22.6
Tertiary sector					
Maseru	59.2	60.4	57.1	57.2	55.6
National	54.9	56.0	52.9	53.9	53.5
Taxes on products					
Maseru	13.0	13.8	14.6	14.3	13.4
National	10.7	11.6	12.1	12.0	11.4

Figure 4.3 further illustrates the different structures of Maseru's and the national GDP. The tertiary sector, which is mainly services, is the main contributor to both Maseru and national GDP, while the primary sector, consisting of agriculture, mining, and quarrying, is the least contributor, particularly in Maseru's share of GDP.

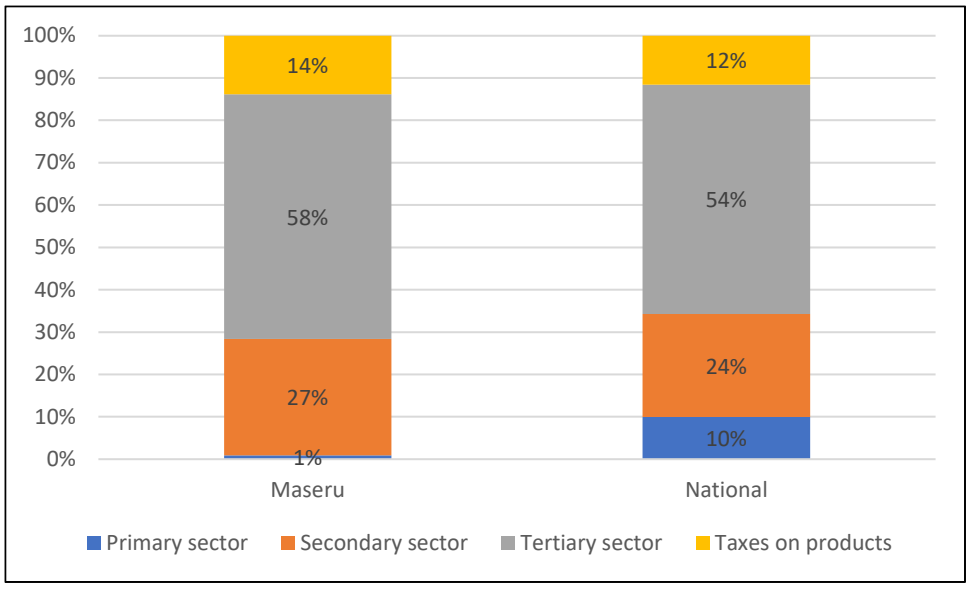

Figure 4.3: Contribution to GDP, average 2016-2020

National and Maseru GDP estimates are also grouped into 18 industries[4] where manufacturing was the largest contributor of Lesotho's economy, accounting for 26.5 percent of Maseru GDP and 15.9 percent of national GDP in 2020 (see Appendix 1 for reference). The large contribution by manufacturing was due to the contribution from textile, clothing, and foot-wear for both Maseru and national GDP. The services sector, particularly wholesale and retail trade, financial and insurance, and public administration and defence, also had a significant contribution to Maseru GDP and national estimates. The contribution of accommodation and food services has been particularly affected adversely by the COVID-19 related restrictions in 2020. The industry contribution to the national estimates and Maseru share plunged by more almost half between 2019 and 2020.

Although agriculture is important as a source of livelihoods, especially rural population, its contribution to GDP has been low since 2016, accounting for less than one percent of Maseru GDP and just above five percent of national GDP in 2020. The contribution of mining and quarrying, although still low, has shown much improvement at the national level, from 4.5 percent in 2016 to 7.4 percent in 2020. The Maseru GDP estimates are much lower, contributing on less than one percent. The large discrepancies between Maseru GDP and national GDP estimates in these two industries could be reflecting the fact that most of the agricultural activities as well as mining and quarrying plants are outside Maseru.

Apart from agriculture, textiles, clothing and footwear manufacturing, electricity supply, financial and insurance activities and education, all other industries recorded negative growth rates between 2019 and 2020, also reflecting the adverse effects of COVID-19 restrictions and significant drop in global demand that were experienced in 2020.

[4] Agriculture, forestry and fishing; Mining and quarrying; Manufacturing; Electricity supply; Water and sewerage, waste collection; Construction; Wholesale and retail trade; Transport and storage; Accommodation and food services; Information and communication; Financial and insurance activities; Real estate activities; Professional and technical activities; Administrative and support activities; Public administration and defence; Education; Human health and social work activities and; Other service activities.

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Vu Quang Viet. Gross Regional Products: Concepts and Country Practices

PART 2

1. INTRODUCTION

A summary of the methodology and results are included above in Part 1, Section 3.4 and Section 4 respectively. Part 2 contains detailed descriptions of the results and methodology in 21 sub-sections under Section 2, one each for the 20 industries specified in Appendix 1 and of taxes on products. The methodology is summarised in the Appendix 3. Section 3 provides conclusions regarding the viability of regular estimates of city GDP with recommendations in that regard.

Before going into details, Figure 1 ranks Maseru's share of the GVA by economic activity. Maseru's share of manufacturing, administrative and professional services, and communication are all above 70 percent. At the lower end, Maseru's share of mining and agriculture is only about five percent.

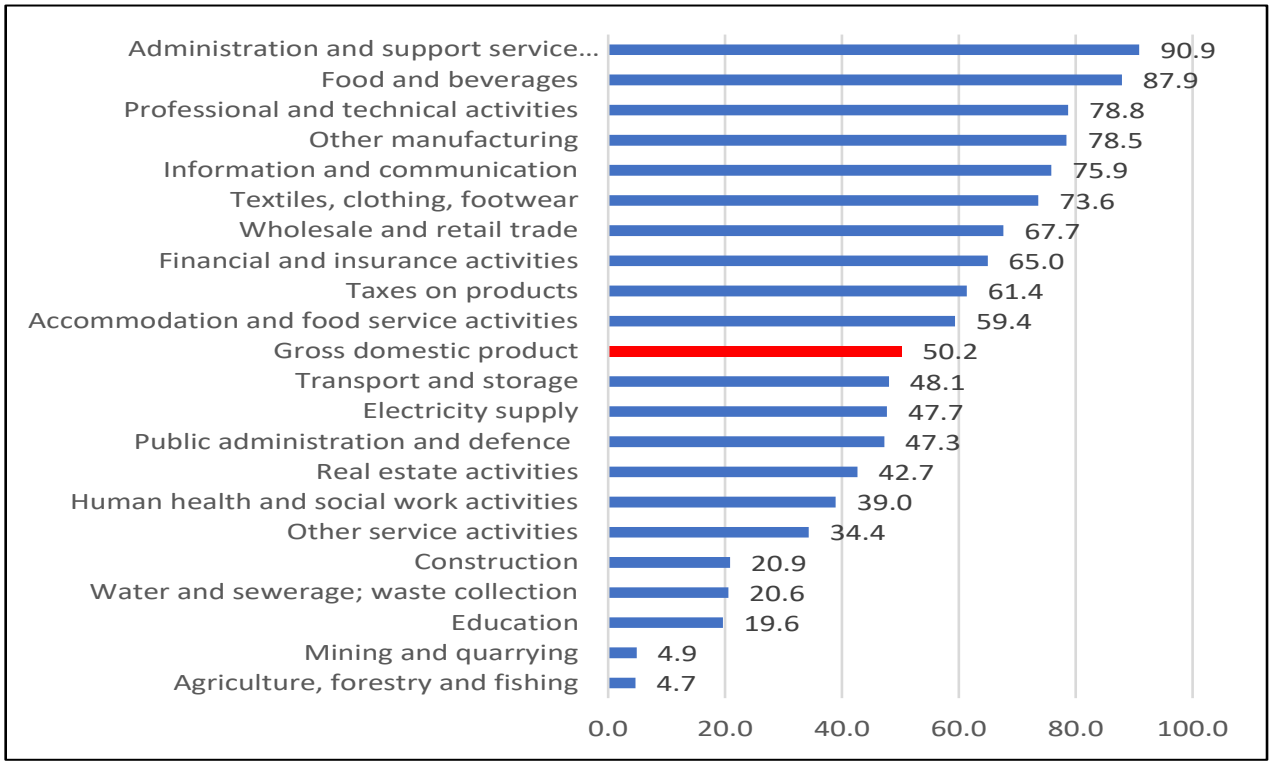

Figure 1: Maseru's share by economic activity, average 2016-2020

2. METHODOLOGY AND RESULTS

2.1 Agriculture, forestry, and fishing

Four industries are calculated separately with the national GVA 2019 (million Maloti) shown below. City GDP is estimated at that level. The results are shown in Table 2.1.

Growing of crops; horticulture	234
Animal production	1 222
Forestry and logging	67
Fishing and aquaculture	23
Total	1 546

Table 2.1: Maseru and national GVA, agriculture, forestry, and fishing,

	2016	2017	2018	2019	2020
GVA, current prices					
Maseru, million Maloti	69	69	65	70	79
National, million Maloti	1 532	1 526	1 438	1 546	1 757
Maseru's share, percent	4.5	4.5	4.5	4.5	4.5
GVA, constant prices, growth rates, percent					
Maseru		-20.2	-13.2	0.8	8.3
National		-20.2	-13.2	0.8	8.3

Maseru's share is based on employment according to the 2019 LFS. As explained below, it was not possible to extract better indicators from the agriculture module of the 2017/18 HBS.

Crops, horticulture, and animal production. It was not possible to extract data that would have been necessary for a better estimate. Horticulture exists in Maseru while growing of crops is negligible. Likewise, production of pigs, poultry and eggs exist in Maseru, while cattle, sheep and goats are negligible. The agriculture module of 2017/18 HBS collected data on production of detailed horticultural and animal products, but it was not possible to extract the necessary results. Another indicator from the HBS shows the number of households that received income from "sales of own produce" and "sales of livestock". The share of households in Maseru was 9.2 and 3.9 percent respectively. The indicator certainly overestimates Maseru's share as it does not reflect output for own consumption.

Forestry in Lesotho only includes production of firewood, collected to be sold and for own consumption. According to the 2017/18 HBS, Maseru's share of households with wood as the main source for heating was about one percent. Most of these households purchase the firewood and own collection is negligible.

Fishing and aquaculture do not exist in Maseru.

2.2 Mining and quarrying

Three industries are estimated separately with the national GVA 2019 (million Maloti) shown below. City GDP is estimated at that level. The results are shown in Table 2.2.

Quarrying	83
Diamond mining	1 635
Mining services	111
Total	1 830

Table 2.2: Maseru and national GVA, mining and quarrying

	2016	2017	2018	2019	2020
GVA, current prices					
Maseru, million Maloti	71	57	99	88	126
National, million Maloti	1 443	1 160	1 995	1 830	2 565
Maseru's share, percent	4.9	4.9	5.0	4.8	4.9
GVA, constant prices, growth rates, percent					
Maseru		14.3	-7.7	-11.4	-15.8
National		14.1	-9.4	-9.8	-17.2

Quarrying activities take place in Maseru; its share is based on VAT-data.

Diamond mining. There are no mines in Maseru. However, the head offices of large mining companies are in Maseru and contribute to the GVA. Their share of GVA, is based on the ratio

Administrative expenses / Output

Data are available for Letšeng, which is the largest mine. The average of the ratio for the years 2016-2020 is five percent, which is used as Maseru's share.

Mining support services are delivered at the mines and no share is estimated for Maseru.

2.3 Manufacture of food products and beverages

Six industries are estimated separately with the national GVA 2019 (million Maloti) shown below. City GDP is estimated at that level. The results are shown in Table 2.3.

Processing and preserving of meat	3
Manufacture of dairy products	–17
Manufacture of grain mill products	94
Manufacture of bakery products	45
Manufacture of other food products	5
Manufacture of beverages	195
Total	325

Table 2.3: Maseru and national GVA, manufacture of food products and beverages

	2016	2017	2018	2019	2020
GVA, current prices					
Maseru, million Maloti	285	248	378	287	288
National, million Maloti	343	298	413	325	312
Maseru's share, percent	83.2	83.4	91.4	88.2	92.5
GVA, constant prices, growth rates, percent					
Maseru		-12.6	48.9	-25.3	-1.7
National		-13.0	37.5	-24.0	-7.0

Processing and preserving of meat. Maseru's share, estimated at 75 percent, is based on the Economic Census 2012. The VAT-data are incomplete and could not be used.

Manufacture of dairy products. There is only one enterprise, which is located in Maseru.

Manufacture of grain mill products. There are two large enterprises, Lesotho Flour Mills (in Maseru) and Lesotho Milling Company (not in Maseru). VAT-data is used to estimate Maseru's share of corporations. There are several small-scale mills, household enterprises. Their share of GVA has varied between six and 16 percent. Maseru's share is based on the purchases of grain reported in the HBS; most households purchasing grain rely on small scale mills to grind the grain.

Manufacture of bakery products. Maseru's share of corporations, estimated at 95 percent, is based on the Economic Census 2012. VAT-data are incomplete and could not be used. Keep in mind also that many supermarkets operate a bakery, which is included under retail trade in VAT-data. Household enterprises make up 10-13 percent of the total with Maseru share guesstimated at 50 percent.

Manufacture of other food products. There is only one enterprise, which is not located in Maseru.

Manufacture of beverages. Maluti Mountain Brewery is located in Maseru and makes up about 95 percent of GVA. There is also one enterprise bottling water, which also in Maseru. Household enterprises produce homebrew. Maseru's share is based on consumption of home-brew as reported in the HBS.

2.4 Manufacture of textiles, clothing and footwear

Two industries are estimated separately with the national GVA 2019 (million Maloti) shown below. City GDP is estimated at that level. The results are shown in Table 2.4.

Manufacture of textiles and clothing	5 239
Manufacture of leather and footwear	30
Total	5 269

Table 2.4: Maseru and national GVA, manufacture of textiles, clothing and footwear

	2016	2017	2018	2019	2020
GVA, current prices					
Maseru, million Maloti	2 999	2 721	3 304	3 813	4 376
National, million Maloti	4 344	3 985	4 852	5 269	4 931
Maseru's share, percent	69.0	68.3	68.1	72.4	88.7
GVA, constant prices, growth rates, percent					
Maseru		-8.8	14.0	8.2	16.9
National		-7.3	14.9	2.4	-4.7

Manufacture of textiles and clothing. All large enterprises produce for exports, many of them under AGOA with duty free exports to USA. Most of them are located in Maseru or Maputsoe, an industrial site in Leribe District. VAT-data are used to estimate Maseru's share. The informal sector contributes less than one percent to the GVA. The estimate of Maseru's share is based on the enterprise module of the HBS

Manufacture of leather and footwear. VAT-data are used to estimate Maseru's share of corporations. The informal sector contributes about one percent to the GVA. The estimate Maseru's share is based on the enterprise module of the HBS.

2.5 Other manufacturing

Twelve industries are estimated separately with the national GVA 2019 (million Maloti) shown below. City GDP is estimated at that level. The results are shown in Table 2.5.

Manufacture of wood and wood products	0
Manufacture of paper and paper products	21
Printing and reproduction. of recorded media	9
Manufacture of chemicals and chemical products	5
Manufacture of pharmaceuticals	5
Manufacture of rubber and plastics	14
Manufacture of non-metallic mineral products	48
Manufacture of metal products, machinery	203
Manufacture of electronic equipment	3
Manufacture of electrical products	33
Manufacture of furniture	5
Other manufacturing	22
Total	369

Table 2.5: Maseru and national GVA, other manufacturing

	2016	2017	2018	2019	2020
GVA, current prices					
Maseru, million Maloti	388	301	283	288	213
National, million Maloti	496	400	365	369	247
Maseru's share, percent	78.3	75.2	77.5	78.1	86.2
GVA, constant prices, growth rates, percent					
Maseru		-24.3	-9.4	-3.4	-28.3
National		-20.1	-10.5	-2.9	-35.8

VAT-data are used to estimate Maseru's share of corporations. The informal sector contributes about ten percent to the GVA of non-metal mineral products and a smaller share for other activities. The estimates of Maseru's share are based on the enterprise module of the HBS.

2.6 Electricity supply

Two enterprises are involved: Lesotho Electricity Company (LEC) and Lesotho Highlands Development Authority (LHDA). Their GVA in 2019 (million Maloti) are shown below. The results are shown in Table 2.6.

LEC	362
LHDA	29
Total	391

Table 2.6: Maseru and national GVA, Electricity supply

	2016	2017	2018	2019	2020
GVA, current prices					
Maseru, million Maloti	162	173	213	228	244
National, million Maloti	342	415	474	391	521
Maseru's share, percent	47.1	41.4	44.6	58.5	46.8
GVA, constant prices, growth rates, percent					
Maseru		-7.4	7.2	15.8	-10.7
National		6.9	1.8	-9.7	9.3

LEC buys and distributes electricity (imported and produced in Lesotho) over the grid. Sales data are available by type of customer. Domestic customers are largely buying for household consumption, while all other customers are largely buying for intermediate consumption. Maseru's share of GVA is calculated as follows:

- First, GVA is split between domestic and all other customers based on sales data.
- Second, the "domestic" GVA is assumed to reflect household purchases. Maseru's share is based on consumption of electricity according to the 2017/18 HBS.
- Third, the rest of GVA ("business" GVA) is assumed to reflect intermediate consumption. Data are available on electricity quantities consumed by industry and have been used to allocate the "business" GVA by industry. Maseru's share of each of the major consuming industries is based on the share of its GVA.
- Fourth, Maseru's GVA is the sum of "domestic" and "business GVA for Maseru.

LHDA operates Muela Hydro-power station which is not in Maseru.

2.7 Water supply and sewerage

Two enterprises are involved: Water and Sewerage Company (WASCO) and LHDA. Their GVA in 2019 (million Maloti) are shown below, while the results are shown in table 2.7.

WASCO	549
LHDA	751
Total	1 300

Table 2.7: Maseru and national GVA, Water supply and sewerage

	2016	2017	2018	2019	2020
GVA, current prices					
Maseru, million Maloti	265	265	251	287	256
National, million Maloti	1 204	1 203	1 141	1 300	1 163
Maseru's share, percent	22.0	22.0	22.0	22.0	22.0
GVA, constant prices, growth rates, percent					
Maseru		-3.1	-4.1	3.4	-0.6
National		-3.1	-4.1	3.4	-0.6

WASCO supplies piped water and sewerage to urban areas in the country, while **LHDA** operates the dams and the delivery of water, exports, to South Africa. The head office is in Maseru and contributes to the GVA. It was not possible to procure separate indicators for WASCO and LHDA. Therefore, Maseru's share is based on employment according to the 2019 LFS.

2.8 Construction

The national estimates include only one industry with GVA in 2019 (million Maloti) shown below, while the results are contained in Table 2.8.

Construction	1 067

Table 2.8: Maseru and national GVA, Construction

	2016	2017	2018	2019	2020
GVA, current prices					
Maseru, million Maloti	280	275	271	223	139
National, million Maloti	1 342	1 320	1 298	1 067	667
Maseru's share, percent	20.9	20.9	20.9	20.9	20.9
GVA, constant prices, growth rates, percent					
Maseru		-3.3	-3.7	-20.3	-38.5
National		-3.3	-3.7	-20.3	-38.5

Construction is particularly difficult to estimate because of lack of dedicated data sources. The national estimates are therefore based on indicators: GFCF in buildings and structures by government, combined with an indicator based on VAT-sales (construction work and sales of building materials) and population growth for the informal sector. Employment according to the 2019 LFS is used to estimate Maseru's share of GVA. Average earnings are higher in Maseru and, therefore, Maseru employment is given a weight of 1.2.

2.9 Wholesale and retail trade

Three industries are estimated separately with the national GVA 2019 (million Maloti) as shown below. Table 2.9 contain the results.

Trade in and repair of motor vehicles	234
Wholesale and retail trade of fuels	121
All other wholesale and retail trade	3 130
Total	3 484

Table 2.9: Maseru and national GVA, Wholesale and retail trade

	2016	2017	2018	2019	2020
GVA, current prices					
Maseru, million Maloti	2 283	2 343	2 311	2 025	1 721
National, million Maloti	3 484	3 567	3 368	2 939	2 428
Maseru's share, percent	65.5	65.7	68.6	68.9	70.9
GVA, constant prices, growth rates, percent					
Maseru		-3.1	-5.1	-17.1	-19.9
National		-3.5	-9.2	-17.9	-23.7

VAT-data are used to estimate Maseru's share of corporations. The informal sector contributes about five percent to the GVA of Trade in and repair of motor vehicles and about eight percent of all other wholesale and retail trade. There are no household enterprises in Fuel trade. The estimates of Maseru's share are based on the enterprise module of the 2017/18 HBS.

2.10 Transport and storage

Four industries are estimated separately with GVA 2019 (million Maloti) as shown below, while Table 2.10 contains the results.

Passenger transport by road	390
Freight transport by road	226
Support activities for transport	14
Postal and courier activities	3
Total	633

Table 2.10: Maseru and national GVA, Transport and storage

	2016	2017	2018	2019	2020
GVA, current prices					
Maseru, million Maloti	328	316	328	292	212
National, million Maloti	650	629	653	633	507
Maseru's share, percent	50.5	50.3	50.2	46.0	41.9
GVA, constant prices, growth rates, percent					
Maseru		-4.6	-5.4	-13.0	-23.3
National		-3.6	-5.9	-10.0	-17.4

Passenger transport by road. The national estimate for 2012 (the benchmark) is based on the 2010/11 HBS, while the annual increases are assumed to be equal the urban population growth. Virtually all passenger transport is household consumption. Thus, Maseru's share is based on the 2017/18 HBS.

Freight transport by road. The national estimate for 2012 (the benchmark) is based on previous estimates, i.e. the estimates on the 2007 base year. The annual changes at constant prices are assumed to be associated with wholesale and retail trade. Maseru's share is estimated with the assumption that is the same as its share of wholesale and retail trade.

Support activities for transportation. The national estimates are based on VAT-sales. Activities of some of the enterprises involved are countrywide although the head office is in Maseru. The city's share of GVA is assumed to be the same as that of freight.

Postal and courier activities. Postal activities are included in public administration. Maseru's share of Courier activities is assumed to be the same as that of freight.

2.11 Accommodation and food service activities

Two industries are estimated separately with GVA 2019 (million Maloti) as shown below, while Table 2.2.11 shows the results.

Accommodation	145
Food service activities	104
Total	249

Table 2.11: Maseru and national GVA, Accommodation and food service activities

	2016	2017	2018	2019	2020
GVA, current prices					
Maseru, million Maloti	178	191	219	158	73
National, million Maloti	319	342	330	249	140
Maseru's share, percent	55.8	55.9	66.4	63.4	52.3
GVA, constant prices, growth rates, percent					
Maseru		5.1	11.5	-25.5	-49.2
National		5.4	-6.4	-23.5	-39.6

Accommodation. Maseru's share of the formal sector i based on VAT-sales. The informal sector makes up about four percent of the total. In lack of data in the 2017/18 HBS, this is allocated as the formal sector.

Food service activities. Maseru's share of the formal sector is based on VAT-sales. The informal sector mainly includes cooking and selling of "street food". It made up about 25 percent of the total 2016-18 increasing to 48 percent in 2020. The reason is a sharp decline in the formal sector due to Covid-19 restrictions. The estimate of Maseru's share is based on the enterprise module of the 2017/18 HBS.

2.12 Information and communication

Three industries are estimated separately with GVA 2019 (million Maloti) as shown below, while Table 2.12 shows the results.

Publishing and broadcasting activities	26
Telecommunications	937
IT and other information service activities	40
Total	1 004

Table 2.12: Maseru and national GVA, Information and communication

	2016	2017	2018	2019	2020
GVA, current prices					
Maseru, million Maloti	736	651	688	693	595
National, million Maloti	1 066	942	996	1 004	862
Maseru's share, percent	69.0	69.0	69.0	69.0	69.0

	2016	2017	2018	2019	2020
GVA, constant prices, growth rates, percent					
Maseru		-9.3	8.9	1.2	-11.8
National		-10.3	7.6	3.5	-13.7

Maseru's share of corporations can be based on VAT-sales regarding **Publishing and broadcasting activities** and **IT and other information service activities.** The informal sector makes up about 10 percent of the latter, and Maseru's share can be assumed to the same as for corporations

Telecommunications make up more than 90 percent of the total. Three large enterprises are included: Vodacom, Econet and Multichoice. Vodacom and Econet provide mobile telephones services, the latter also fixed telephone lines. Multichoice provides satellite television services. The three companies have head offices in Maseru and local offices around the country. Maseru's share should be based on employment data provided by those enterprises. It was not possible to obtain proper data.

Considering the lack of data for telecommunications, employment according to the 2019 LFS is used to estimate Maseru's share of GVA, which also includes all three industries. Average earnings are higher in Maseru and, therefore, Maseru employment is given a weight of 1.2.

2.13 Financial and insurance activities

Five industries are estimated separately with GVA 2019 (million Maloti) as shown below, while Table 2.13 contains the results.

Central banking	223
Other monetary intermediation	3 018
Other financial service activities	88
Insurance and pension funding	605
Activities auxiliary to financial services	159
Total	4 094

Table 2.13: Maseru and national GVA, Financial and insurance activities

	2016	2017	2018	2019	2020
GVA, current prices					
Maseru, million Maloti	2 094	2 003	2 045	3 180	3 448
National, million Maloti	2 627	2 589	2 667	4 094	4 397
Maseru's share, percent	79.7	77.4	76.7	77.7	78.4
GVA, constant prices, growth rates, percent					
Maseru		-5.9	-2.4	53.3	6.5
National		-3.9	-1.9	52.0	5.4

Quarterly data are available on number of employees in the banking sector, which shows that about 80 percent are in Maseru. The numbers include the **Central bank** and the four commercial banks (**other monetary intermediation**) and are used to estimate Maseru's share.

Regarding the other three industries, it is assumed that the share of employment is similar to the banking sector. Employment according to the 2019 LFS is not compatible with the above data and seems to underestimate Maseru's share.

2.14 Real estate activities

GVA 2019 can be split in three parts (million Maloti) as shown below. Table 2.14 contains the results

Corporations	165
Household enterprises	104
Owner-occupied dwellings	1 100
Total	1 245

Table 2.14: Maseru and national GVA, Real estate activities

	2016	2017	2018	2019	2020
GVA, current prices					
Maseru, million Maloti	530	552	556	542	509
National, million Maloti	1 280	1 295	1 284	1 245	1 192
Maseru's share, percent	41.4	42.6	43.3	43.5	42.7
GVA, constant prices, growth rates, percent					
Maseru		4.9	1.8	-2.2	-6.2
National		2.1	-0.1	-2.4	-4.5

Rented dwellings and **Owner-occupied dwellings.** Maseru's share is based on the 2017/18 HBS. Statistics on rentals that are actually paid in Maseru are available. Imputed owners' rentals are based on number of households in owner-occupied dwellings. The survey also asked for the rent that the owner would charge if the house were to be rented.

Non-residential premises. Maseru's share is based on VAT-data.

2.15 Professional, scientific and technical activities

The national estimates include only one industry with GVA in 2019 (million Maloti) as shown below, while the results are contained in Table 2.15

Professional, etc. services	244

Table 2.15: Maseru and national GVA, Professional, scientific and technical activities

	2016	2017	2018	2019	2020
GVA, current prices					
Maseru, million Maloti	210	204	193	190	174
National, million Maloti	248	249	251	244	242
Maseru's share, percent	84.5	82.0	77.0	78.1	72.0
GVA, constant prices, growth rates, percent					
Maseru		-4.4	-7.1	-5.0	-10.3
National		-1.2	-1.3	-5.9	-2.9

Maseru's share of the formal sector in based on VAT-sales. The informal sector makes up about six percent of the total. The estimates of Maseru's share are based on the enterprise module of the 2017/18 HBS.

2.16 Administrative and support activities

Four industries are estimated separately with GVA 2019 (million Maloti) as shown below, while Table 2.16 shows the results.

Rental and leasing activities	246
Travel agencies, tour operators, reservations	3
Security and investigation activities	172
Admin and support service activities n.e.s.	197
Total	618

Table 2.16: Maseru and national GVA, Administrative and support activities

	2016	2017	2018	2019	2020
GVA, current prices					
Maseru, million Maloti	625	617	590	565	494
National, million Maloti	696	680	643	618	543
Maseru's share, percent	89.7	90.8	91.8	91.4	90.9
GVA, constant prices, growth rates, percent					
Maseru		-2.8	-6.7	-7.2	-15.5
National		-4.0	-7.7	-6.8	-15.0

The three first industries above only include corporations and no informal sector. Maseru's share is then based on VAT-sales.

Admin and support service activities n.e.s. Maseru's share of corporations is based on VAT-sales. The informal sector makes up about six percent of national GVA. Maseru's share is based on the enterprise module of the 2017/18 HBS.

2.17 Public administration and defence

The national estimates include only one industry with GVA in 2019 (million Maloti) as shown below, while the results are contained in Table 2.15

Public administration	3 988

Table 2.17: Maseru and national GVA, Public administration

	2016	2017	2018	2019	2020
GVA, current prices					
Maseru, million Maloti	1 691	1 811	1 858	1 885	1 920
National, million Maloti	3 579	3 832	3 933	3 988	4 064
Maseru's share, percent	47.3	47.3	47.3	47.3	47.3
GVA, constant prices, growth rates, percent					
Maseru		4.3	-2.4	1.3	-1.2
National		4.3	-2.4	1.3	-1.2

The national estimates include all government activities except education and health. A significant part of these activities is carried out in Maseru, but government departments and extra-budgetary accounts have local offices and staff employed in other districts. Maseru's share is based on employment according to the 2019 LFS. Average earnings are higher in Maseru and, therefore, Maseru employment is given a weight of 1.5.

2.18 Education

The national estimates can be split into three parts with GVA 2019 (million Maloti) shown below. Table 2.18 contains the results

Public schools (primary and secondary)	2 134
Parastatals (tertiary)	295
Private education	246
Total	2 674

Table 2.18: Maseru and national GVA, Education

	2016	2017	2018	2019	2020
GVA, current prices					
Maseru, million Maloti	445	478	499	535	550
National, million Maloti	2 388	2 494	2 536	2 674	2 670
Maseru's share, percent	18.6	19.2	19.7	20.0	20.6
GVA, constant prices, growth rates, percent					
Maseru		4.9	3.0	4.7	7.6
National		-0.4	-1.4	0.5	1.1

Public schools. Most public schools are operated by religious organisations, but teachers' salaries are paid by government. Therefore, these schools are estimated together with schools operated by government. Maseru's share should preferably be based on enrolment numbers, but data were not available. Therefore, population numbers in relevant age groups are used to project enrolment numbers for years when they were last avialable. Secondary education is given a weight of 1.5 because average cost per student is higher compared to primary education

Parastatals include the National University of Lesotho, Lesotho College of Education and a few other institutes of higher learning. The education parastatals except the University are in Maseru and are estimated as the City's share. However, a small part of the university is in Maseru with approximately ten percent of the employees, estimated as Maseru's share

Private education includes private primary and secondary schools, a few institutes of higher learning, and other enterprises such as driving schools. Data are scarce for the national estimates, which are largely based on assumptions. Maseru's share is based on guesstimates: primary and secondary schools = 70 percent; higher learning = 100 percent; and other education = 50 percent.

2.19 Human health and social work activities

The national estimates can be split into three parts with GVA 2019 (million Maloti) shown below. The results are shown in Table 2.19

Government hospitals and clinics	201
Non-profit institutions	214
Private health facilities	356
Total	994

Table 2.19: Maseru and national GVA, Education

	2016	2017	2018	2019	2020
GVA, current prices					
Maseru, million Maloti	417	336	441	444	451
National, million Maloti	994	900	1 131	1 166	1 168
Maseru's share, percent	41.9	37.3	38.9	38.0	38.6

	2016	2017	2018	2019	2020
GVA, constant prices, growth rates, percent					
Maseru		-20.9	28.2	-1.5	0.9
National		-13.3	20.2	0.5	-2.1

Government hospitals and clinics. Maseru's share is based on the number of patients in Government hospitals in Maseru. Outpatients are given a weight of five percent of inpatients.

Non-profit institutions. Many hospitals and health centres in Lesotho are operated by the Christian Health Association of Lesotho (CHAL) with a financial contribution provided by government. None of the hospitals and health facilities are located in Maseru.

Private health facilities. Tšepong Hospital makes up more than 90 percent of private health care. It is a referral hospital operated as a Public Private Partnership including the Lesotho Government and a company in South Africa. The hospital is located in the outskirts of Maseru and is included in the City's GDP. Maseru's share of other private health facilities is based on population numbers.

2.20 Other service activities

Four industries are estimated separately with GVA 2016 (million Maloti) shown below. Table 2.20 contains the results.

Arts, entertainment and recreation	36
Activities of membership organisations	44
Other personal service activities	179
Private households with employed persons	39
Total	298

Table 2.20: Maseru and national GVA, Other service activities

	2016	2017	2018	2019	2020
GVA, current prices					
Maseru, million Maloti	88	92	95	103	102
National, million Maloti	262	267	276	298	295
Maseru's share, percent	33.5	34.5	34.5	34.5	34.7
GVA, constant prices, growth rates, percent					
Maseru		2.9	2.5	5.8	-2.1
National		-0.2	2.5	5.4	-2.7

Arts, entertainment and recreation. Maseru's share is based on the 2019 LFS.

Membership organisation; other services. Maseru's share is based on the 2019 LFS.

Private households with employed persons. Maseru's share is based on household expenditure on domestic staff (maid, gardener, babysitter) according to the 2017/18 HBS.

2.21 Taxes on products

Categories of taxes on products as estimated 2019 are shown below. There are no subsidies on products. The results are shown in Table 2.21.

VAT	2 893
Import duties	230

Excise duties	213
Fuel taxes	600
Export taxes	334
Total	4 270

Table 2.21: Maseru and national taxes of products

	2016	2017	2018	2019	2020
GVA, current prices					
Maseru, million Maloti	2 110	2 186	2 508	2 662	2 467
National, million Maloti	3 422	3 673	4 117	4 270	3 954
Maseru's share, percent	61.7	59.5	60.9	62.3	62.4
GVA, constant prices, growth rates, percent					
Maseru		-2.6	-0.5	-13.8	-23.5
National		3.1	-1.7	-6.8	-3.9

VAT. Non-deductible VAT is mainly charged in Wholesale and retail trade and hotels and restaurants. Thus, Maseru's share is based on VAT-sales in those industries.

Import duties. 50 percent of these duties is allocated to Maseru, which is roughly the same as its share of national GDP.

Excise duties are levied on beverages and, thus, their share is the same as that of the brewery. The share is 100 percent because the brewery is in Maseru.

Fuel taxes. Maseru's share is based on VAT-sales in fuel trade.

Export taxes. Mining royalties are charged on diamond exports. Thus, Maseru's share is the same as diamond mining.

3. CONCLUSIONS AND RECOMMENDATIONS

The estimates of city GDP for Maseru are based on existing data sources. There are a few exceptions, where data have been requested from a few institutions often with difficulties to get responses. Section 3.5 in Part 1 mentions such limitations in the methodology and estimates. This is in addition to those where guesstimates (educated guesses) have been used in a few cases, based on discussions with the NA compilers at BOS. Nevertheless, the results are what could be achieved given limitations in source data and resources and should give a fairly realistic picture of Maseru's economy within Lesotho. However, future regular estimates of city GDP will require dedicated resources in order to improve the estimates. The national accounts team at BOS includes four staff and is fully occupied with compilation of annual and quarterly GDP.

As stated in Part 1, Section 3.1, estimates of city GDP is a special case of regional estimates of GDP. Such estimates have never been considered in Lesotho. Survey samples and statistical data are generally organised by districts, which would be the obvious areas for estimates of regional GDP. However, regional estimates would not make sense for two reasons

a) Little power and resources are allocated to the districts; administrative and survey data are organised by district and are sufficient for any policy needs.
b) Lack of source data; it would not be possible to separate the 20 percent of Maseru City constituencies that are in Berea district.

On the other hand, estimates of Maseru GDP are useful for reasons that have been discussed in this report.

The latest comprehensive revisions of Lesotho's national accounts were carried out from 2013 to 2016 with the base year for the estimates at constant prices updated from 2007 to 2012. The revised estimates were published in 2017. Next round of revisions and rebasing should be carried out quite soon. Revision plans should consider possibilities and requirements for the estimates of City GDP.

Recommendations regarding future estimates of city GDP for Maseru can be summarises as follows:

- Updated estimates of city GDP should only be compiled after the estimates of national GDP have been revised and rebased.
- Regular estimates of city GDP require additional resources; dedicated source data are needed.
- Apart from city GDP, regional estimates of GDP are not recommended.
- Estimates of city GDP should be considered in the plans for next round of revisions and rebasing.

APPENDIX 1: DETAILED TABLES

Table A1.1: Maseru and national GDP 2016-2020, current prices, million Maloti

Description	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020
	Maseru GDP					National GDP				
Agriculture, forestry, and fishing	69	69	65	70	79	1 532	1 526	1 438	1 546	1 757
Mining and quarrying	71	57	99	88	126	1 443	1 160	1 995	1 830	2 565
Manufacturing	3 673	3 271	3 965	4 388	4 877	5 183	4 683	5 630	5 963	5 490
Food and beverages	285	248	378	287	288	343	298	413	325	312
Textiles, clothing, footwear	2 999	2 721	3 304	3 813	4 376	4 344	3 985	4 852	5 269	4 931
Other manufacturing	388	301	283	288	213	496	400	365	369	247
Electricity supply	161	172	211	228	244	342	415	474	391	521
Water and sewerage; waste collection	265	265	251	287	256	1 204	1 203	1 141	1 300	1 163
Construction	280	275	271	223	139	1 342	1 320	1 298	1 067	667
Wholesale and retail trade	2 283	2 343	2 311	2 025	1 721	3 484	3 567	3 368	2 939	2 428
Transport and storage	328	316	328	292	212	650	629	653	633	507
Accommodation and food services	178	191	220	158	73	319	342	330	249	140
Information and communication	736	651	688	693	595	1 066	942	996	1 004	862
Financial and insurance activities	2 094	2 003	2 045	3 180	3 448	2 627	2 589	2 667	4 094	4 397
Real estate activities	530	552	556	542	509	1 280	1 295	1 284	1 245	1 192
Professional and technical activities	210	204	193	190	174	248	249	251	244	242
Administrative and support activities	625	617	590	565	494	696	680	643	618	543
Public administration and defence	1 691	1 811	1 858	1 885	1 920	3 579	3 832	3 933	3 988	4 064
Education	445	478	499	535	550	2 388	2 494	2 536	2 674	2 670
Human health and social work activities	417	336	441	444	451	994	900	1 131	1 166	1 168
Other service activities	88	92	95	103	102	262	267	276	298	295
Total: All industries	14 143	13 702	14 685	15 893	15 971	28 638	28 092	30 044	31 248	30 670
Taxes on products, net of subsides	2 110	2 186	2 508	2 662	2 467	3 422	3 673	4 117	4 270	3 954
Gross domestic product	16 253	15 888	17 193	18 555	18 438	32 060	31 765	34 161	35 518	34 624

Table A1.2: Maseru and national GDP 2016-2020, current prices, percent contribution

Description	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020
	Maseru GDP					National GDP				
Agriculture, forestry, and fishing	0.4	0.4	0.4	0.4	0.4	4.8	4.8	4.2	4.4	5.1
Mining and quarrying	0.4	0.4	0.6	0.5	0.7	4.5	3.7	5.8	5.2	7.4
Manufacturing	22.6	20.6	23.1	23.6	26.5	16.2	14.7	16.5	16.8	15.9
Food and beverages	1.8	1.6	2.2	1.5	1.6	1.1	0.9	1.2	0.9	0.9
Textiles, clothing, footwear	18.5	17.1	19.2	20.6	23.7	13.5	12.5	14.2	14.8	14.2
Other manufacturing	2.4	1.9	1.6	1.6	1.2	1.5	1.3	1.1	1.0	0.7
Electricity supply	1.0	1.1	1.2	1.2	1.3	1.1	1.3	1.4	1.1	1.5
Water and sewerage; waste collection	1.6	1.7	1.5	1.5	1.4	3.8	3.8	3.3	3.7	3.4
Construction	1.7	1.7	1.6	1.2	0.8	4.2	4.2	3.8	3.0	1.9
Wholesale and retail trade	14.0	14.7	13.4	10.9	9.3	10.9	11.2	9.9	8.3	7.0
Transport and storage	2.0	2.0	1.9	1.6	1.2	2.0	2.0	1.9	1.8	1.5
Accommodation and food services	1.1	1.2	1.3	0.9	0.4	1.0	1.1	1.0	0.7	0.4
Information and communication	4.5	4.1	4.0	3.7	3.2	3.3	3.0	2.9	2.8	2.5
Financial and insurance activities	12.9	12.6	11.9	17.1	18.7	8.2	8.2	7.8	11.5	12.7
Real estate activities	3.3	3.5	3.2	2.9	2.8	4.0	4.1	3.8	3.5	3.4
Professional and technical activities	1.3	1.3	1.1	1.0	0.9	0.8	0.8	0.7	0.7	0.7
Administrative and support activities	3.8	3.9	3.4	3.0	2.7	2.2	2.1	1.9	1.7	1.6
Public administration and defence	10.4	11.4	10.8	10.2	10.4	11.2	12.1	11.5	11.2	11.7
Education	2.7	3.0	2.9	2.9	3.0	7.4	7.9	7.4	7.5	7.7
Human health and social work activities	2.6	2.1	2.6	2.4	2.4	3.1	2.8	3.3	3.3	3.4
Other service activities	0.5	0.6	0.6	0.6	0.6	0.8	0.8	0.8	0.8	0.9
Total: All industries	87.0	86.2	85.4	85.7	86.6	89.3	88.4	87.9	88.0	88.6
Taxes on products, net of subsides	13.0	13.8	14.6	14.3	13.4	10.7	11.6	12.1	12.0	11.4
Gross domestic product	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table A1.3: Maseru and national GDP 2016-2020, constant prices, annual growth rates, percent

Description	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020
	Maseru GDP					National GDP				
Agriculture, forestry, and fishing		-20.2	-13.2	0.8	8.3		-20.2	-13.2	0.8	8.3
Mining and quarrying		14.3	-7.7	-11.4	-15.8		14.1	-9.4	-9.8	-17.2
Manufacturing		-11.5	14.7	2.5	10.9		-9.5	13.9	-0.9	-7.7
Food and beverages		-12.6	48.9	-25.3	-1.7		-13.0	37.5	-24.0	-7.0
Textiles, clothing, footwear		-8.8	14.0	8.2	16.9		-7.3	14.9	2.4	-4.7
Other manufacturing		-24.3	-9.4	-3.4	-28.3		-20.1	-10.5	-2.9	-35.8
Electricity supply		-7.4	7.2	15.6	-10.7		6.9	1.8	-9.7	9.3
Water and sewerage; waste collection		-3.1	-4.1	3.4	-0.6		-3.1	-4.1	3.4	-0.6
Construction		-3.3	-3.7	-20.3	-38.5		-3.3	-3.7	-20.3	-38.5
Wholesale and retail trade		-3.1	-5.1	-17.1	-19.9		-3.5	-9.2	-17.9	-23.7
Transport and storage		-4.6	-5.4	-13.0	-23.3		-3.6	-5.9	-10.0	-17.4
Accommodation and food services		5.1	11.5	-25.5	-49.2		5.4	-6.4	-23.5	-39.6
Information and communication		-10.3	7.6	3.5	-13.7		-10.3	7.6	3.5	-13.7
Financial and insurance activities		-5.9	-2.4	53.3	6.5		-3.9	-1.9	52.0	5.4
Real estate activities		4.9	1.8	-2.2	-6.2		2.1	-0.1	-2.4	-4.5
Professional and technical activities		-4.4	-7.1	-5.0	-10.3		-1.2	-1.3	-5.9	-2.9
Administrative and support activities		-2.8	-6.7	-7.2	-15.5		-4.0	-7.7	-6.8	-15.0
Public administration and defence		4.3	-2.4	1.3	-1.2		4.3	-2.4	1.3	-1.2
Education		4.9	3.0	4.7	7.6		-0.4	-1.4	0.5	1.1
Human health and social work activities		-20.9	28.2	-1.5	0.9		-13.3	20.2	0.5	-2.1
Other service activities		2.9	2.5	5.8	-2.1		-0.2	2.5	5.4	-2.7
Total: All industries		-4.8	2.1	4.0	-3.3		-3.7	-1.1	0.3	-6.9
Taxes on products, net of subsides		-2.6	-0.5	-13.8	-23.5		3.1	-1.7	-6.8	-3.9
Gross domestic product		-4.5	1.7	1.7	-5.5		-3.0	-1.1	-0.5	-6.6

APPENDIX 2: SUMMARY TABLES, US DOLLAR

Table A2.1: GDP and GDP per capita, US Dollars

	2016	2017	2018	2019	2020
GDP current prices, million USD					
Maseru	1 105	1 193	1 298	1 283	1 117
Rest of the country	1 075	1 192	1 281	1 173	980
National	2 179	2 385	2 578	2 456	2 097
Maseru's share	50.7	50.0	50.3	52.2	53.3
GDP per capita, USD					
Maseru	3 529	3 657	3 830	3 649	3 062
Rest of the country	634	702	754	691	577
National	1 086	1 178	1 266	1 198	1 016
Exchange rate LSL/USD	14.71	13.32	13.25	14.46	16.51

APPENDIX 3: SOURCES AND METHODS SUMMARISED IN A TABLE

The national estimates by economic activity are compiled by institutional sector. Thus, the contribution of small-scale household enterprises is estimated. A major part of these are informal while a few are formal. No such distinction is made in the national estimates.

The estimates of city GDP will not distinguish the household sector. However, the distinction is important because the methods can be different for the household sector, which is shown in a separate column in the table. The national totals are estimated as the sum of included sectors. Exceptions are agriculture, construction and transport. The total for these economic activities is based on data that don't distinguish sectors.

Economic activity	**Formal, national**	**Informal, national**	**Formal, Maseru**	**Informal, Maseru**
Agriculture, forestry and fishing	Major crops and livestock numbers from APS Benchmarks for fruit, vegetables, poultry, eggs, firewood based on the 2010/11 HBS Wool, mohair, fish based on exports		Employment data, 2019 LFS	
Mining and quarrying	Diamonds: Company data and detailed data on prices and carats Quarrying & services: 2012 based on EC. Timeseries based on VAT-data	n/a	Diamonds: Ratio of administrative expenses over output Quarrying: VAT-data Services: Not I maseru	n/a
Manufacture of food and beverages	2012 based on EC, time-series based on VAT-data; complemented by company data from two large mills and the brewery	2012 based on EC; timeseries based on assumptions, e.g. same as formal sector	VAT-data	2017/18 HBS Maseru's share of related consumption; enterprise module
Manufacture of textiles, clothing and footwear	2012 based on EC, time-series based on VAT-data and US imports data (AGOA)	2012 based on EC; timeseries moved with the formal sector	VAT-data	The enterprise module of the 2017/18 HBS
Other manufacturing	2012 based on EC, time-series based on VAT-data	2012 based on EC; timeseries moved with the formal sector	VAT-data	The enterprise module of the 2017/18 HBS
Electricity supply	LEC: Company data and detailed data on sales (values and quantities) LHDA: Company data (hydropower plant)	n/a	LEC: Sales by household and intermediate consumption; HC based on 2017/18 HBS; IC based on Maseru's GVA-share of major consumers. LHDA: The hydropower plant is not in Maseru	n/a
Water supply	WASCO: Company data LHDA: Company data (exports of water to South Africa)	n/a	Employment data, 2019 LFS	n/a
Construction	Based on GFCF in buildings and structures by government, combined with an indicator based on related VAT-sales and population growth for household enterprises.		Employment data, 2019 LFS; employment in Maseru given a higher weight	

Economic activity	Formal, national	Informal, national	Formal, Maseru	Informal, Maseru
Wholesale and retail trade	2012 based on EC, time-series based on VAT-data	2012 based on EC; timeseries moved with the formal sector	VAT-data	The enterprise module of the 2016/17 HBS
Transport and storage	Passenger road transport: 2012 is based on the 2010/11 HBS; annual increases based on urban population growth Freight road transport: 2012 is based on previous estimates. The annual changes at constant prices are assumed to be associated with wholesale and retail trade. Support activities; courier services: 2012 based on EC, time-series based on VAT-data		Passenger road transport: Based on the 2016/17 HBS (consumption of transport) Freight road transport: Maseru's share assumed to be the same as its share of wholesale and retail trade Support activities; courier services: Maseru's share assumed the same as for freight	
Accommodation and food service activities	2012 based on EC, time-series based on VAT-data	2012 based on EC; timeseries moved with the formal sector (accommodation): urban population growth (food)	VAT-data	The enterprise module of the 2017/18 HBS
Information and communication	Telecommunications: Company data and VAT Publishing, IT: 2012 based on EC, timeseries based on VAT-data	2012 based on EC; timeseries moved with the formal sector	Employment data, 2019 LFS; employment in Maseru given a higher weight	Insignificant; Maseru's share assumed the same as formal
Financial and insurance activities	Banks: Company data Other finance: 2012 based on EC, timeseries based on related financial indicators Insurance: Company data Auxiliaries: 2012 based on EC, timeseries based on related insurance data	n/a	Number of employees in banks, data provided by the Central bank; the same share is assumed for other parts of the industry, e.g. insurance	n/a
Real estate activities	2012 based on EC, time-series based on VAT-data	2012 is based on the 2010/11 HBS; annual increases based on population growth (own dwellings)	VAT-data	Paid rentals in Maseru and estimated rentals in own dwellings; the 2017/18 HBS
Professional and technical activities	2012 based on EC, time-series based on VAT-data	2012 based on EC; timeseries moved with the formal sector	VAT-data	The enterprise module of the 2016/17 HBS
Administrative and support activities				
Public administration and defence	Government expenditure data and company data from parastatals	n/a	2019 LFS: Employment; employment in Maseru given a higher weight	n/a
Education	Public schools: Government expenditure data Parastatals: Company data Private education: 2012 based on EC, timeseries based on enrolment and VAT-data	n/a	Public schools: Enrolment based on population in relevant age groups Parastatals: Company data, parastatals in Maseru Private education: Guesstimates	n/a

Economic activity	Formal, national	Informal, national	Formal, Maseru	Informal, Maseru
Human health and social work activities	Government health: Government expenditure data Non-profit institutions: Government contributions and company data Private health: 2012 based on EC, timeseries based on company and VAT-data	2012 based on EC; timeseries moved with the formal sector	Government health: Share of inpatients and out-patients (lower weight) Non-profit institutions: No facilities in Maseru Private health: Tsepong is in Maseru; 50/50 for others (minor part)	Same share as the formal sector
Other service activities	2012 based on EC, time-series based on VAT-data and assumptions	2012 based on EC; timeseries moved with the formal sector	Maseru's share of consumption of related services in the 2016/17 HBS	Same share as the formal sector
Taxes on products	Government revenue data		VAT: same as Maseru's share of wholesale and retail trade + hotels and restaurants' Import duties: 50/50, roughly the same as Maseru's share of total GVA Excise duties: same as Maseru's share of Manufacture of beverages Fuel taxes: same as Maseru's share of fuel trade Export taxes: same as Maseru's share of diamond mining	