South African Township Economies and Commercial Property Markets

A CONCEPTUALISATION AND OVERVIEW

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South African CitiesNetwork

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FOREWORD

Over the past decade, the development of townships into more economically and socially sustainable communities has been the subject of growing interest in South Africa. However, the understanding of township economies and related commercial property markets is limited. This undermines the ability of the private and public sectors to effectively intervene in these markets to strengthen and grow them.

Since 2012, in response to this challenge, Urban LandMark and the South African Cities Network (SACN) have been cooperating to:

- understand the current nature and structure of township economies and related commercial property markets;
- identify the data and data sources needed to assess these economies; and
- identify ways in which these townships economies could be grown at scale.

The undertaking began with a first project in 2012, when Urban LandMark commissioned the Palmer Development Group to undertake a desktop literature review of township economies. By drawing on existing research and data sources, the project sought to develop a consolidated picture of township economies and related commercial property markets. A preliminary conceptual framework was developed to document and understand the existing literature.

The SACN then partnered with Urban LandMark to commission Black and Matsei to strengthen the conceptual framework, and describe and investigate more deeply some of the characteristic features of the township economy.

This consolidated report synthesises the detailed findings of the two studies. The conceptual framework provides an important basis for understanding the nature of (and prospects for) township economies, and makes a much needed contribution to research and development planning. This can form the basis for more concerted and focused action by the variety of stakeholders who are interested in investing in vibrant township economies in the country.

We look forward to engaging in debates and discussions around the implications of this work with partners who share our interest in township economic development, stimulating knowledge generation on the subject, and taking it forward into more concrete action for the improvement of the lives and prospects of the people.

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March 2015

HEADLINE FINDINGS ON TOWNSHIP ECONOMIC SECTORS

AGRICULTURE

will remain an important survivalist activity rather than a significant driver of township economic growth.

Constraints	Opportunities
• Land in townships is scarce and needed for other uses, such as housing. • The lack of land, infrastructure, skills and funds means that it is difficult to reach the economies of scale and markets needed for agriculture to be profitable and viable.	• Successful urban agricultural projects exist. • The sector is important for household survival strategies and as an entry point into the economy.

MANUFACTURING

may, to a limited degree, be attracted by cheap land in the townships, so long as infrastructure and networks are in place.

Constraints	Opportunities
• Lack of infrastructure, access to suppliers and modern distribution networks in townships. • Existing capacity for large-scale manufacturing is available in other, better located areas, as a result of the general decline in manufacturing in the country.	• Cheap land often available in many townships.

RETAIL ACTIVITIES

will benefit from changing consumer patterns but will also require deeper markets than those available currently in townships.

Constraints	Opportunities
• The low-income and shallow local market supports mainly smaller enterprises and a limited number of large shopping centres. • Perception of most township business owners who consider the provision of suitable space less important than access to finance and customers. • The costs of developing new retail space cannot always be passed onto the (small) tenants through higher rents.	• Changing expenditure patterns of township residents, to more frequent convenience shopping. • Rising middle class and income from government grant leads to higher demand for retail products.

PERSONAL AND HOUSEHOLD SERVICES

dominate home-based enterprises found in townships.

Constraints	Opportunities
• Overall low levels of income and demand characteristic of townships.	• Being located in the township is not a disadvantage compared to other economic activities, such as manufacturing and business services.

BUSINESS SERVICES

require skilled staff and broad client base, which are not found in townships and inhibit growth of the sector.

Constraints	Opportunities
• Low level of activity in other sectors. • Low skills and education levels.	• Growing middle class populations in townships.. • Downstream demand for business services (e.g. doctors and lawyers) may result from major public facilities (e.g. hospitals and magistrate courts) in townships, especially if done at scale and as a package of public facilities.

TRANSPORT

influence business location decisions.

Constraints	Opportunities
• Unidirectional, inefficient transport flows (i.e. full in one direction and empty on return). • Inefficiencies increase in relation to the township's location and distance from the economic opportunities.	• Increased provision of public transport infrastructure (train stations, BRT etc.) in township areas.

TOURISM

depends on growth of tourism in the country, especially international tourists who dominate township tourism.

Constraints	Opportunities
• Access to finance for the marketing of establishments and the upgrading of premises. • The lack of training and business information.	• The B&B industry in townships is entrepreneurially driven. • Locational disadvantages of townships do not apply in tourism, as the business activity is related to the nature of the place (i.e. no or limited competition from areas in a city).

INTRODUCTION

Despite numerous studies on townships, research into township economies and related commercial real estate markets is limited. The majority of studies refer to the economy only as part of a broader discussion about other themes such as housing. And, while the information in these studies is useful, it is not captured and discussed within an overarching conceptual framework, which would allow the relationships and causal factors that shape and drive such economies to be understood.

Therefore, this report's objective is to develop a conceptual framework that can be used to better understand township economies and related commercial real estate markets. Existing research on township economies will also be reviewed in terms of this framework. **This report is not intended to be a definitive statement on township economies or a policy position, but rather a framework to stimulate and guide discussion and debate about township economies.** In so doing, it is hoped that the drivers, opportunities and constraints of such economies will be better understood, so that policy interventions to grow and manage these economies and markets will be more robust, conceptually grounded and therefore more effective.

It is important to note that, while generalisations are made with respect to townships, townships are highly heterogeneous as a result of their locations, histories and current dynamics. Therefore, any analysis and policy interventions must take these differences into account.

The report draws heavily from, and in some places directly reproduces, material from the following commissioned research reports:

- PDG. 2013. A Consolidated Review of Township Economies and Related Non-residential Real Estate Markets. Commissioned by Urban LandMark.
- Black and Matsei. 2014. A Consolidated Review of Township Economies and Related Non-residential Real Estate Markets – The Development and Application of a Conceptual Framework. Commissioned by the South African Cities Network (SACN) and Urban LandMark

Why understanding township economies is important

Many commendable state interventions have sought to address the high levels of poverty and unemployment in townships, as well as their segregated nature. However, these interventions have often been ineffective because of a poor understanding of the functioning and requirements of an economy. If the required fundamentals of an economy are missing, attempts to support and grow local township economic activities (or to attract external businesses) will inevitably have limited success.

The key question is whether socioeconomic problems in a township can be addressed by intervening within township economies or by improving the access of township residents to opportunities outside these areas. Or is a combination of the two required and, if so, in what proportion? Further, which sectors in townships have the greatest impact? To answer these questions, it is necessary to ascertain the degree to which economic activities within a broader city can be persuaded to (re)locate to township areas, and the extent to which the existing business activities in townships can be grown. This requires a conceptual understanding of the elements of a local economy and what is required for it to work.

This study is intended to assist researchers and policy makers (1) to identify and focus on the constraints (e.g. low skill levels) and opportunities (e.g. social capital) that are peculiar to township economies, and (2) to recognise that townships have their own particular historical and current dimensions, and differ from economic nodes and centres that developed more organically over time through market forces rather than exclusionary policies.

Report structure and methodology

Recognising that township areas are different from other economic nodes, the report begins by defining and describing townships. A 'prototype economy',[1] which includes the value chains that make up an economy and the factors that drive and grow an economy, is then explained. This prototype is used to assess a typical township economy, to identify which elements may be missing and, hence, the constraints that are preventing these economies from reaching their true potential. An analysis of the activities commonly found in townships looks at how these activities fit into the conceptual economy, their location requirements, how they operate in a township context, and the opportunities and constraints that affect their growth.

The remainder of the report discusses the general relationship between an economy and real estate, in particular the location requirements of an economy's different elements. Then, in terms of these requirements, the low levels of investment in the built environment in townships are examined. Sectors with the greatest potential for growth are identified, and suggestions made of other activities that could be targeted in order to grow these economies.

[1]A typical economy containing the broad spectrum of activities found in most economies.

DEFINITION AND CATEGORISATION OF TOWNSHIPS

The term 'township' is a legal term that refers to a formally promulgated urban area. However, the term is also used to define areas that were historically created (through central planning) to racially segregate South African cities and to create labour pools for the broader colonial and apartheid economies. More recently the term has continued to be used to describe areas developed through the housing subsidy programme, despite the very different policy intentions of this programme. Thus 'township economy' refers to the microeconomic and related activities taking place within areas broadly defined as 'townships'. **However, it is important to recognise that these areas differ significantly in terms of their histories, location characteristics, current dynamics, constraints and future potential.**

Notwithstanding these differences, township areas often have the following common characteristics:

- Most township economies still currently serve the dual purpose of providing cheap labour to established nodes and cities, and of absorbing growing numbers of 'surplus' labour.
- They are often relatively poorly located and are spatially disadvantaged in terms of facilitating economic activity and accessing other economic nodes and job opportunities.
- They generally have a disproportionate concentration of lower income households and lower skills levels.

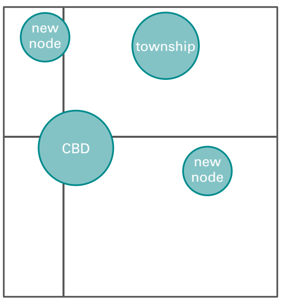
As a result, many township residents either offer their labour services to outside areas, often incurring high travel costs in the process, or engage in a range of small-scale economic activities within the township itself.

Townships can broadly be defined and described in terms of their geographic location, socioeconomic profiles, their origins and their growth trajectories.

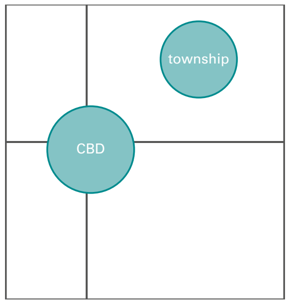
Location

Townships can geographically be grouped as follows:

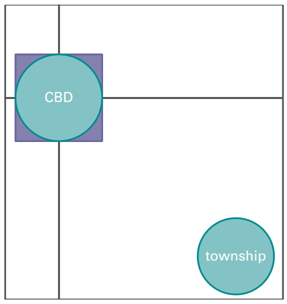
Located in large metropolitan and secondary cities that are typically multi-nodal. For example: Soweto in the City of Johannesburg; Mamelodi in the City of Tshwane and Mdantsane in Buffalo City.



Located in large to small towns which typically only have one central node or business district. For example, Zolani in Ashton and Ndluli in Ceres.



Located in peri-urban or dense settlements, largely detached from the central business district (a multi-use urban economic node). For example, Hammanskraal outside City of Tshwane and Botshabelo outside Mangaung.



The considerable variation in location, along with the multi-nodal nature and expansion of many urban areas, has meant that some townships are more integrated and better located than others. For example, Duncan Village and Alexandra are no longer at the periphery of the cities of East London and Johannesburg respectively. Duncan Village is about 2–3km from the East London CBD, while Alexandra is situated 3km from the economic node and commercial hub of Sandton. Similarly, Soweto was considered poorly located when established, but its locational disadvantage has diminished as the Johannesburg metropolitan areas has grown.

However, integration and close proximity to economic nodes do not necessarily result in the expected economic spill-overs and economic development, and often these areas suffer from significant over-crowding, as migrants seek to benefit from these good locations.

Based on the above, township locations can be classified as:

a) Core: relatively well located but typically with some remaining detachment from the urban economy (in other words the location criterion is less significant).
b) Periphery: on the fringe of a city or town or far from the core or another major urban node.
c) Displaced: outside the urban edge of the town or city (people in the township rely on the town/city for the purchase of goods and services and for employment).

Socioeconomic profiles

Townships tend to be dominated by residential housing for relatively low-income people, which defines the 'buying power' and (to a large extent) the skills profile of people living in a township. These factors have a primary influence on the business opportunities within the township and hence on the real estate requirements.

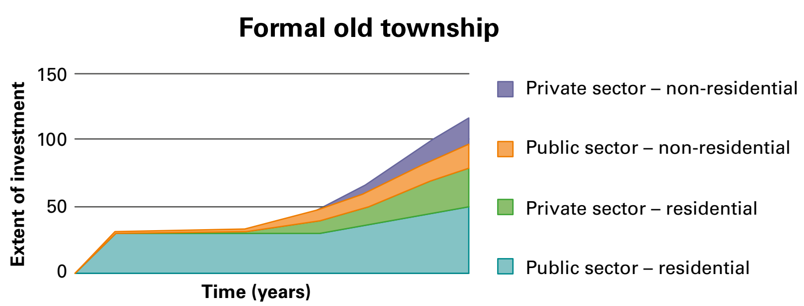
Origins and growth trajectories of townships

In broad terms, the establishment of townships as described above have occurred through:

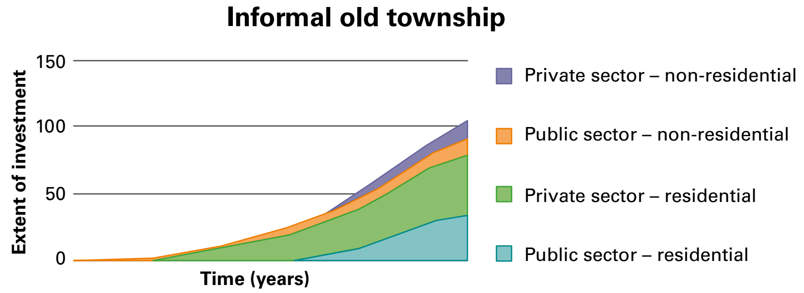
i) A formal process: (local, provincial or national) government decides to establish a residential area and invest in residential real estate development. These areas are divided into the old formal Apartheid-era housing developments and the newer formal 'RDP era' developments.

ii) An informal process: a community initiates a settlement or typology of housing through their need to gain access to housing where housing is scarce. This is usually done without the consent of government. Furthermore, an entire settlement may be informal, situated on land not owned by the residents and/or not formally promulgated as an urban area with the required infrastructure. Alternatively, parts of a formal urban area may be informal in that it is illegally occupied, and/or the structures built on the land may not have the required development rights and may not be built to the legislated building standards.

Different levels and types of investment have occurred in township areas depending on their origin and type. This is indicatively shown in the following four diagrams.

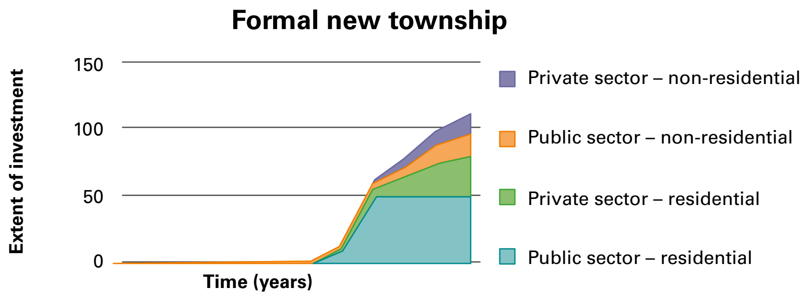


- *In the past*: public sector investment in residential real estate since the establishment of the township.
- *Since democracy*: gradually increasing private and public investment in residential and commercial real estate.

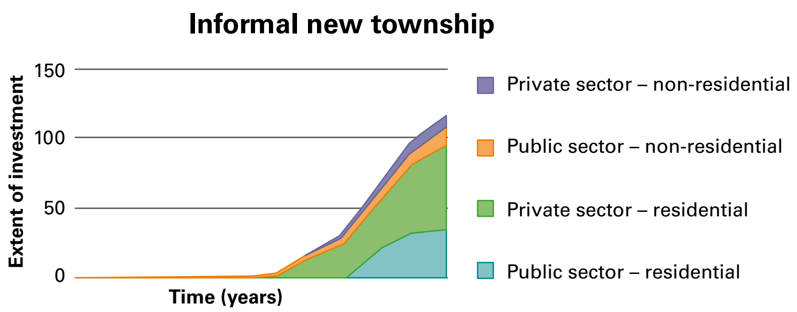


- *In the past:* no public sector investment but private investment in the residential sector.
- *Since democracy:* public sector investment in the residential sector but very little investment in the commercial sector.

Formal and informal new townships are those established since democracy.



- Significant public sector investment in residential real estate and gradually increasing private and public investment in residential and commercial real estate.



- Some public sector investment in residential real estate market but very little investment in commercial real estate markets.

This analysis shows that the current balance of investment in the township is important. For example, an older, relatively well-located formal township will have a relatively mature investment profile, with public sector investment as the initiator boosted by additional investment post 1994. This has created a relatively good platform for private sector commercial investment. In contrast, new informal settlements have a poorly established 'platform' with substantially lower levels of public and private investment.

CONCEPTUALISING AN ECONOMY[2]

Prototype economy

Before looking at township economies, it is worth looking at the 'textbook' economy, which reflects the basic elements of most real world economies. While these economies may have significant differences, they also have much in common, as illustrated in Figure 1. This circular flow diagram shows the interrelationships between the main institutions, markets and sectors of the 'prototype' economy. This will help to highlight the uniqueness of the typical township economy (in later sections).

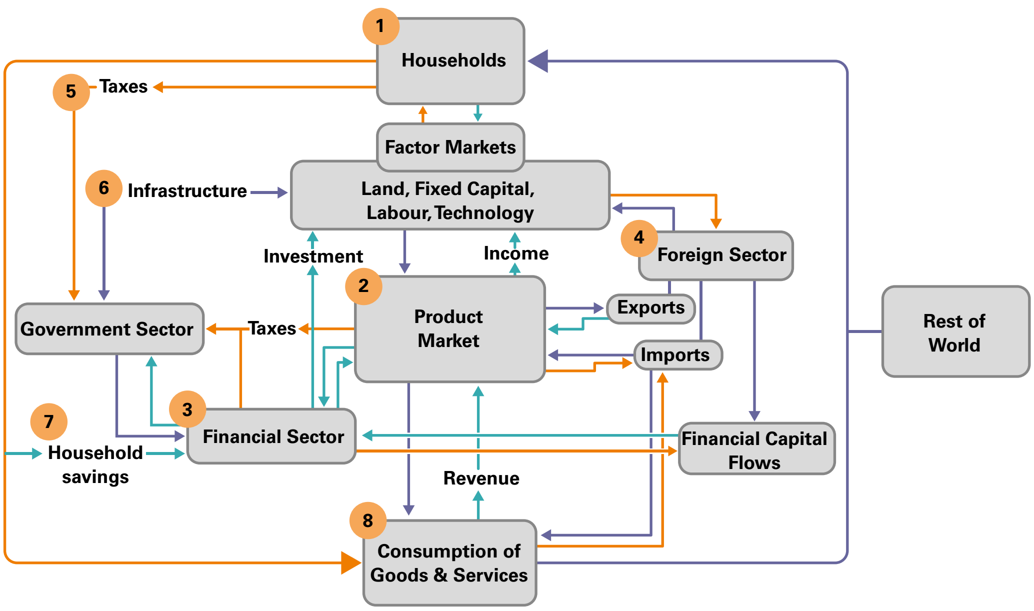


Figure 1: The Prototype Economy

❶ Households supply inputs to the product markets, in return for which they receive income in the form of rentals, interest payments, wages, salaries and profit.
❷ Product markets produce goods and services for both export purposes and domestic consumption.
❸ The financial sector provides funding of fixed capital or investment for the product markets.
❹ Some (skilled) labour and technologies (intermediate inputs) may be imported through the foreign sector and used to produce goods and services.
❺ Part of household income is paid as taxes to the government sector, in return for the provision of social and economic infrastructure services (❻), which (as discussed later) constitute an important source of economic growth.
❼ Another part is saved in the financial sector, as household savings.
❽ The remaining and largest portion of household income is spent on the consumption of goods and services, produced both locally and imported, thus closing the circular flow.

[2]This section is largely directly reproduced from Black and Matsei (2014).

Sectors in an economy

The circular flow of economic activity shown in Figure 1 takes place through the following broad economic sectors (McDonald and McMillen, 2011):

Agriculture and Mining

Manufacturing

- Petroleum products, chemicals, rubber and plastic
- Food beverages and tobacco
- Metal products and machinery
- Wood and paper
- Printing and publishing
- Furniture
- Textiles, clothes and leather goods
- Transport equipment
- Electrical products and instrumentation

Construction

Services

Distributive Services

- Transportation, storage, communication, utilities
- Wholesale trade
- Retail trade

Corporate Services

- Finance and insurance
- Real estate
- Business
- Legal
- Professional
- Membership organisations

Not For Profit

Consumer Services

- Hospitality
- Recreation
- Personal
- Private household services (e.g. plumbing)
- Repair services

Social Services

Government Services

Many economic sectors include and cut across a number of these activities. For example, tourism can include manufacturing and a range of retail, corporate and consumer services.

Real estate is often viewed as a sector in and of itself or the platform on which other sectors operate. In this report it is seen as both. It is a recognised economic sector because significant activity and a large number of transactions occur through real estate brokering, renting, management and construction processes. However, it is also a 'unique' sector, providing the physical platform for all the other sectors.

Unregulated (informal) economic activities are often classified as an economic sector, resulting in very different activities being grouped together under one broad banner. This broad classification is conceptually inaccurate and unhelpful from an analytical and policy perspective. Activities are defined as 'informal' if they fail to comply with some regulation (e.g. registered tenure, business registration, land-use or building regulation and other required licences) or do not pay certain taxes (e.g. VAT). In other words, the definition is based on a legal status and has very little to do with the nature of the economic activity itself. Therefore, it is more useful to recognise that an economic activity may be more or less regulated, and that both formal and informal activities may take place within the same value chain and within the same sector. As a result, although many of the activities in township areas are unregulated, this report does not focus on whether they are formal or informal.

Value chains

In an economy, raw materials, intermediate inputs, and final goods and services flow within and between the sectors through a series of value chains. A value chain is simply an economic or geographic segment that contains interlinked industries, often stretching beyond (politically determined) geographic boundaries. Thus local or township enterprises may *supply* goods or services (inputs) to other enterprises within the chain (forward linkages), or *buy* goods and services (inputs) from other enterprises (backward linkages).

Growth in the economic system

The broader economy and different sectors grow or decline through the value chains that link the circular system together. This growth and decline can be driven exogenously (by external factors) or endogenously (by internal factors).

Exogenous growth can be either *macroeconomic* or *microeconomic*. Macroeconomic growth occurs when all or most sectors and industries are growing as a result of widespread growth in the national or global economies – made possible, for example, by a tax or interest rate cut or buoyant global economic conditions. Thus, even if reliant on only a few economic sectors, the provincial or local economy will still benefit from this growth, provided it has the resources and required infrastructure to expand operations. Microeconomic growth occurs when only one or a few related sectors or industries are growing country-wide or worldwide, e.g. computer and other related electronic industries. This is usually due to a shift in demand over time. If the local economy does not produce the good or service in demand, it will lose out to its counterparts that do produce the good or service. Thus small and open local economies need to identify such 'winning' sectors.

Endogenous growth is usually triggered at the *microeconomic* level *within* a regional or national economy. It may take the form of a cost-cutting technological innovation in a particular sector or industry, e.g. a new irrigation system, a cheaper, more efficient solar heating system, or a new cultural initiative that draws in people from neighbouring areas. The establishment of a new enterprise, which benefits from a workforce that is less expensive than elsewhere, may also trigger this growth.

Endogenous growth, as defined here, can follow periods of exogenous growth, in which case the distinction becomes somewhat blurred. Nevertheless, the main point is that small and open local economies should ideally be competitive and dynamic, partly by reducing (or at least maintaining) production costs and boosting factor productivity. Most types of infrastructure, e.g. transport, electricity and water supply, or training and education, have precisely this effect of cutting costs and boosting productivity. Therefore, the role of government in providing the necessary infrastructure becomes of paramount importance (Figure 1).

A small and open economy is part of one or more value chains. Therefore, it needs to keep abreast of and prepare for economic developments occurring along the same value chain(s) stretching beyond its own borders. At the same time, such an economy needs to develop initiatives that either strengthen its nodal position on existing value chains or to enable it to become part of a lucrative new value chain.

The role of infrastructure in driving the growth of an economy

Investment in a country's economic or physical infrastructure can boost the productivity of inputs used by existing private enterprises (Aschauer, 1989) by: lowering transport and communication costs, and thus cutting down on travel time; reducing the time and costs involved in negotiations; and facilitating the discovery of new input and output markets. It may also 'crowd in'[3] (encourage or attract) new private investment, including foreign direct investment, as new firms open up or existing firms expand operations. The new or improved infrastructure triggers both (mostly financial) externalities[4] and new private investment, neither of which would have happened in the absence of such infrastructure investment.[5]

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[3] Crowding in occurs when government spending boosts the demand for goods, which in turn increases private demand for new output sources, such as factories.

[4] An externality is a side effect or unintended consequence of an action taken by an unrelated party (i.e. external to the party affected by the consequence of that action). Externalities can be positive or negative.

[5] Much the same can be said of public investment in education, training, and healthcare. Significant differences are found when these spending categories are suitably disaggregated. Vocational training often produces higher returns than poor quality formal schooling, and so too does good quality primary and secondary education in relation to certain categories of tertiary education. Other categories of tertiary education in turn provide the specialised skills that are necessary for sustained economic growth (Bhorat, 2004).

Infrastructure-driven growth can be illustrated using a simple algebraic formula, whereby a regional or township economy (GDP) is:

$$GDPR = f\,(K_P,\ K_G,\ eN) \qquad (1)$$

This formula says that the region's GDP[6] is positively related to the quantity of fixed capital (f) owned by the private sector (KP) and government sector (KG), by labour of different skills (N) and by the efficiency of that labour (e). However, capital investment (or increases in KP and KG) are bound to raise the productivity of labour. Thus labour productivity is positively related to KP and KG, and equation (1) can be extended as follows:

$$GDPR = g\,(K_P,\ K_G,\ e\,(K_P,\ K_g)\ N) \qquad (2)$$

Equation (2) highlights the fact that physical and human capital investments are necessary for boosting labour productivity and, importantly, sustained economic growth. Most studies show that public infrastructure investments have a positive impact on productivity in the private sector. For example, the World Bank (1994: 14) concluded that 'the role of infrastructure in growth is substantial, significant and frequently greater than that of investment in other forms of capital'.

Importantly, infrastructure investments in township economies also serve to address the poverty problem directly. Such investments may well assist in the creation of new micro-, small and medium-sized enterprises, attracting new investments from neighbouring cities and towns (and from further afield) and, in the process, creating new job opportunities. It can therefore be argued that providing infrastructure services in township economies may serve the dual purpose of promoting sustainable growth and alleviating poverty.

[6]GDP is simply the value added, or income earned, within a particular period – usually a year – and consists of wages and salaries, rentals, and dividends and interest payments.

CONCEPTUALISATION OF THE TOWNSHIP[7]

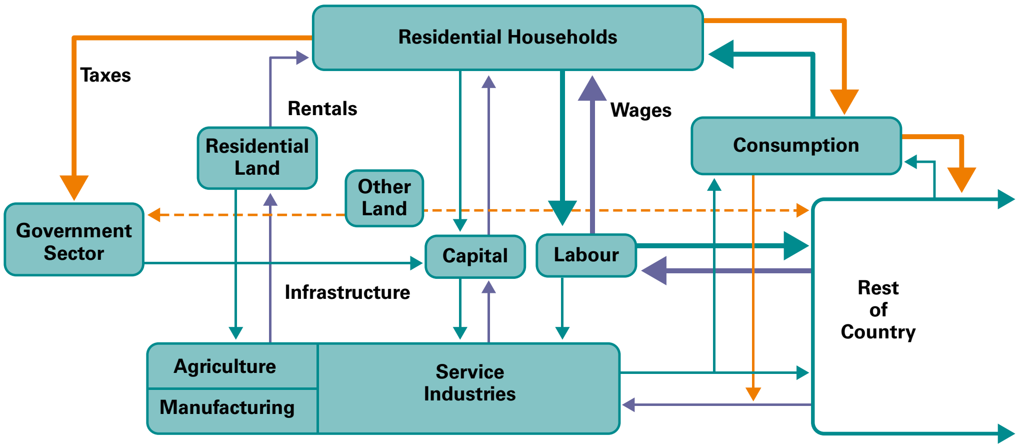

Figure 2: Township Economy

Township economies are intrinsically linked to the country-wide economy, as Illustrated in Figure 2. The township economy is a good example of a small and open regional economy.

Figure 2 also highlights some of the peculiarities of township economies – e.g. the thick arrowed lines indicate that households rely on working and earning wages outside the township and spend most of their wages on goods and services produced and sold outside the township economy, and en route travelling back from work to their township homes.

The typical township economy's most important characteristics are the high levels of unemployment, under-employment and widespread poverty, (WCPG: Treasury, 2013), and high rates of in-migration from rural and other poorer areas in the country. In townships, unemployment rates are higher than the official rate for the country as a whole, while the extent and depth of poverty are also greater (Leibbrandt et al., 2010).

Townships are a major supplier of labour to nearby cities and towns, with wages and salaries the main source of income. Therefore, township economies depend on the state of (and cyclical fluctuations in) the economies of the cities and towns to which they are linked and the provincial, national and global economies. Algebraically, the GDP of a township or region T is:

$$GDPR_T = f\,(\,GDPR_Z\,) \qquad (3)$$

Where $GDPR_Z$ is the GDP of the rest of the province, country or world.

[7]This section is largely directly reproduced from Black and Matsei (2014).

It is through these linkages that township economies experience *exogenous* changes, which can be either positive or negative. An increase in $GDPR_Z$ can lead, via the value chains, to an (exogenous) increase in $GDPR_T$ and employment, while a decrease in $GDPR_Z$ has the opposite effect. Either way the impact on $GDPR_T$ is likely to be limited or have unexpected results. For instance, a general business cycle upswing may not have the desired effect on $GDPR_T$ because the township or region has only a small number of relatively underdeveloped value chains and lacks the requisite infrastructure. Changes in migration patterns may also undermine the otherwise positive effect on region T (Todaro, 1969). A higher $GDPR_T$ may lead to higher levels of labour in-migration from rural and other poorer areas, as new migrants perceive their chances of securing a better job or income-earning opportunity to be higher in region T than in their current locations. The *net* effect could be an increase rather than a decrease in unemployment, under-employment and in the size of the informal sector in the township economy.

Consequently, alternatives must exist or be developed to strengthen the *endogenous* sources of stability and growth. Apart from basic infrastructure services, alternatives would (and to some extent do) include agricultural and agri-processing activities, small-scale manufacturing, retail trade, business services, transport and tourism, some of which would be (and to some extent already are) linked directly and indirectly to nodes beyond the closest cities and towns (WCPG: Treasury, 2013).

OVERVIEW OF THE MAIN TOWNSHIP ECONOMIC SECTORS

This section[8] discusses the key sectors that dominate the most common economic activities in townships. They include urban agriculture (primary sector), manufacturing (secondary sector) and various services-related activities – retail, personal and household services and business services (tertiary sector), and finally the transport and tourism sectors, which cut across all primary, secondary and tertiary sectors.

After defining the sector, the discussion looks at the degree to which the sector is exogenously (externally) or endogenously (inwardly) focused, and whether backward and forward linkages exist. Forward linkages refer to enterprises *supplying* goods or services (inputs) to other enterprises within the value chain, while backward linkages refer to enterprises *buying* goods and services (inputs) from other enterprises.

This is followed by a broad overview of the sector's location requirements in order to understand whether townships are likely to attract and support such a sector. Lastly, the discussion explores how the sector operates in the townships and the supply and demand-side opportunities and constraints for its growth.

Although real estate is recognised as an economic sector, it is not specifically addressed in this section. Instead, the relationship between real estate and economic activity is discussed in detail in Section 6. However, the significance and importance of the residential rental market (e.g. backyard room rentals) in a township economy must be recognised.

Similarly, although construction is an important economic activity, especially for employment, it is not discussed in the report. The location of construction depends on the level of investment in buildings and infrastructure and is predominantly a 'following sector'. The actual business of construction is not property intensive, although there are some linkages to offices and limited 'industrial' style property for contractors' yards.

[8]This section draws heavily from Black and Matsei (2014), PDG (2013), Balchin et al. (1995), Goodall (1972), and McDonald and McMillen (2011).

Agriculture

Agriculture is the cultivation of animals and plants for food, fibre, fuel, medicines and other products for direct consumption or as inputs into manufacturing processes. The low value add of most agricultural products means that large volumes need to be sold and large volumes produced to capitalise on the cost savings brought about by the economies of scale. As a result, the agricultural sector is predominantly externally orientated (exogenous) so that it can supply a wider and larger market. Backward linkages occur in terms of accessing inputs (seed, equipment etc.). Forward linkages can occur with the manufacturing (agro-processing), distribution and retail sectors.

SPATIAL REQUIREMENTS. Environmental characteristics, such as the vegetation, climate, rainfall and soil affect the demand for, and use of, agricultural land. Agricultural land is usually rural, since activities do not need to be in the immediate vicinity of the consumer or the retailer. Instead, proximity to transport infrastructure is important, so that farm produce can be easily transported to the market.

Activity in a township context

Compared to generic agricultural activities, urban agriculture is located in the heart of townships. It occupies small areas of land in private home backyards, public community facilities and other un-utilised land, which could be privately or publicly owned. Township urban agriculture is often driven by survivalist and subsistence motivations, and considered a refuge option rather than a path for development. Urban agriculture can potentially contribute to food production and employment but is often abandoned, when other economic opportunities arise. The ability to access land also determines who practices farming in urban townships.

Like suburban urban agriculture, township urban agriculture tends to be endogenously focused, with limited forward linkages to informal local retail outlets. The low scale of activity means that the backward linkages with other sectors are also small.

CONSTRAINTS AND OPPORTUNITIES FOR GROWTH

The structural constraints facing the sector mean that it is unlikely to be a significant driver of township economic growth.

Constraints	Opportunities
• Land is scarce in townships. • Competition from other uses e.g. housing. • The lack of land, infrastructure, skills and funds to purchase the necessary inputs. This inhibits the sector's ability to benefit from economies of scale and to reach markets necessary for it to be a profitable and viable (rather than survivalist) activity.	• Successful urban agricultural projects do exist. The importance of this sector – for household survival strategies and as an entry point into the economy – should not underestimated and hence should be supported where possible.

Manufacturing

Manufacturing refers to a range of activities, from handicraft to high tech, but is most commonly applied to industrial production, where raw materials are transformed into finished goods on a large scale.

Manufactured goods can broadly be divided into non-durable (e.g. textiles and processed foods), intermediate and capital goods (car tyres or assembly of vehicles). To be viable, manufacturing often requires economies of scale and large markets because customers tend not to purchase goods (especially capital goods) regularly. Manufacturing serves endogenous and exogenous markets. It has strong backward and forward linkages because production processes transform raw and semi-processed goods and materials into intermediate and final products for consumption.

SPATIAL REQUIREMENTS. The choice of location depends on various factors, including:

- type of market
- type of goods produced
- labour requirements
- the production process. For most production processes, access to infrastructure is a pre-requisite, especially adequate, reliable and affordable power.

Existing locations possess high levels of inertia. Therefore, relocation is only likely to occur when profits earned at alternative sites are high enough to compensate for the disinvestment costs. Consequently, relocation is uncommon, with firms choosing to augment existing capacity (e.g. open branches and additional factories) rather than to relocate.

The locational choice of a manufacturing firm will depend on a number of factors:

a) **The market and suppliers are internal or external**
If the market is external to the city, or the goods produced rely on non-local suppliers, then the access to economic infrastructure (regional road networks, airports, ports etc.) will determine the locational choice. Examples include steel industries, agro-processing and electrical goods. If markets are local and relatively small, the opportunity for economies of scale is limited, but transport costs are relatively high because of the frequency of the deliveries required. Consequently, space requirements are limited, and firms can reduce transport costs by competing for centrally located sites.

b) **'Bulk-to-value' ratio is how bulky an input or final product is in relation to its value**
If the 'bulk-to-value' ratio is high, then transport costs will influence the company's location. The ratio depends on whether the production results in weight-loss (e.g. agro-processing) or weight-gain (e.g. beverages). Heavy industries often rely on raw materials that are weight-losing in the production process and so require economies of scale to be feasible. Such operations are space extensive, need to serve a very large regional, national or international market and are preferably be located near the source of raw material. The demand will be for sites that are peripheral, larger, cheaper, well connected

to regional transport infrastructure and allow more intrusive (e.g. hazardous) activities. Such sites will also enable the firm to secure and 'bank' land for future expansion, which is generally only possible where land is cheaper because of the holding costs involved. Light industrial firms tend to be smaller and engage in higher value-add, more flexible operations requiring less storage space. Being less capital and space intensive, they can compete for better-located sites that are closer to the local markets and access to skilled labour. This flexibility allows them to occupy and convert existing, well-located built stock, while the nature of these businesses means that they will be part of a larger production line involving a range of complementary and partnership firms. (See Section 6.1.2.)

c) **The type of labour required**
If semi and highly skilled labour is needed, companies will want to be close to public transport, as workers often live in outlying suburbs because of the sector's relatively low wages and of limited residential stock in predominantly commercial and industrial areas. This public transport location requirement is less important for distribution-related activities that are less labour-intensive.

d) **The production process**
Specialised space may be required if the production processes require large horizontal spaces with large eaves, storage areas and space that allow delivery vehicles to operate. If inputs are imported, then the locational choice is based on minimising the costs for the inputs sources and the degree to which the regional supplier network can be accessed.

Activity in a township context

Manufacturers tend to source from a range of suppliers and distribute products to relatively widely dispersed markets. However, manufacturing occurs on a small scale in most townships because of the generally poor location and infrastructure, and limited backward and forward industries based in these areas. Where it does occur, manufacturing is often home-based, serves local markets and includes activities such as sewing, baking, furniture manufacture, metal products etc. A survey of 240 small businesses in townships across Gauteng found that only 11% participated in the manufacturing sector, producing furniture, steel stands for domestic use and protective safety products (Nijiro et al., 2010). A similar percentage was found in another study of home-based entrepreneurs in Katlehong, Orlando East and Mamelodi townships: 6% were involved in dress making, 3.5% in welding and 2% in carpentry (Shisaka, 2006).

In contrast, manufacturing that occurs outside of township areas is an important source of employment for township residents. As many township residents are employed in the formal manufacturing economy, the slowdown in the country's manufacturing performance affects the job security of many township residents and reduces the consumer demand in these areas.

CONSTRAINTS AND OPPORTUNITIES FOR GROWTH

Cheap land alone is unlikely to attract manufacturers to townships.

Constraints	Opportunities
• Lack of infrastructure, access to suppliers and modern distribution networks in townships. • Existing capacity for large-scale manufacturing is available in other, better located areas, as a result of the general decline in manufacturing in the country.	• Cheap land often available in many townships.

Retail trade

Retail is the sale of goods or services for final use and consumption (not resale). Retail goods can be durable, semi-durable or non-durable.

Non-durable goods and services are usually consumed on a recurrent basis (e.g. daily) have short lifespan (e.g. food) and have a relatively low mark up. They are more endogenously focused, as convenience to customers is critical.

Semi-durable goods are also used often but have a lifespan of about one year (e.g. clothes). Durable goods are generally consumed less frequently, have a longer lifespan and are consumed over three or more years (e.g. motor cars). Semi-durable and durable goods tend to have an exogenous focus, as they are consumed less frequently and require a larger customer base.

Retail has strong backward linkages to suppliers and weaker forward linkages in the form of marketing and property management.

SPATIAL REQUIREMENTS. Customers want convenience, while retailers want a minimum turnover (i.e. sell a certain number or amount of goods) in order to be viable and to capture the consumers' spending power.

Capturing this power relies on:

- The trade or catchment area, i.e. the number of people with reasonable access to the retailer.
- The amount of disposable income, i.e. money available after paying other household expenses (e.g. rent, transport, school fees). The percentage of the disposable income spent on each good will depends on personal circumstances (e.g. size of family, age and tastes).
- The level of competition within the trade area (i.e. other retailers offering the same goods).
- The particular retailer's drawing power, which is greater for the bigger retailer, although accessibility, safety, age and quality are also important factors that influence pulling power.

While retailers tend to locate close to where their customers reside or work, being able to access wholesale suppliers and distribution centres is also important.

The demand for retail space is a function of the type and quantity of goods and services being sold from a particular location.

Non-durable goods and services. Retailers of non-durable goods and services will need to be close to their customers because these goods and services generally have to be purchased regularly, have a low purchase value relative to transport costs and a relatively low the mark-up (gross profit). Therefore, to succeed, retailers will need to sell high volumes and be able to access a minimum number of customers on a regular (daily) basis. *Lower mark-up but greater volumes enables a retailer to operate viably*. The size of the required customer catchment area will depend on how far customers are prepared to travel to make regular purchases, the number of people living or passing through the area (density – number of people per km2) and the buying power (income) and the tastes/needs of the people living in the area. As customers are not prepared to travel far for such goods and purchase them regularly, these retailers draw their customers from a small catchment area.

Semi-durable and durable goods. As the purchase of semi-durable and durable goods occurs less often, and the purchase value is generally higher relative to transport costs, consumers will be more prepared to travel to purchase such goods. However, successful retailers will still have to be located within relatively easy access of the transport network. The value added in the production of these goods is generally higher and so price mark-ups are higher. However, as customers purchase such goods less often, a larger catchment area of customers is required. *Higher mark-ups but lower volumes enables a retailer to operate viably*. The catchment area for semi-durable and durable goods is larger because customers are prepared to travel further to make such a purchase. To induce customers to travel further, retailers will often draw on the concepts of complementarity and comparability (see Section 6.1.2).

Good transport infrastructure. Good transport infrastructure is important for customers to be able to access the retailer outlet and for the retailers to be able to access wholesale supplies. While retailers tend to locate close to where their customers live or work, they also need to access wholesale suppliers and distribution centres to be able to purchase in bulk, maintain inventory levels and reduce transport costs.

Activity in a township context

Townships may have low incomes, which reduce the size of these retail markets (especially for higher-value goods), but often have large populations, many of whom receive government grants. This, together with a growing middle class living in these areas, means that the size of these retail markets have grown over the past number of years. Furthermore, township populations are consumption oriented, with many households spending a significant percentage of their income on food and beverages, clothing and footwear, home electronics and furniture, making retail (unsurprisingly) the overriding economic activity in townships.

Township retail businesses take various forms, from established large-scale, regional shopping centres to small, informal retail businesses, such as Spaza shops. Both forms of retail trade tend to be inwardly focused, supplying to the surrounding communities. The sector is highly sensitive to changes in endogenous demand, which depends on the market, population size, income levels and changing expenditure patterns.

Large shopping centres bring higher-value goods closer to residents, reducing the need to travel and preventing some income leakage from the area. These large centres can also act as anchor tenants, allowing smaller enterprises to capture the passing trade, and be a focal point around which further investment can occur (e.g. Jabulani Mall in Soweto).

CONSTRAINTS AND OPPORTUNITIES FOR GROWTH

Low incomes in townships mean that the market does not have enough depth to support the usual hierarchy of retail activities.

Constraints	Opportunities
• The low-income and shallow local market supports mainly smaller enterprises, which are prone to failure and lose out to large shopping centres. • Perception of most township business owners who consider the provision of suitable space less important than access to finance and customers. • The costs of developing new retail space cannot always be passed onto the (small) tenants through higher rents.	• Changing expenditure patterns of township residents, to more frequent convenience shopping. • Rising middle class and income from government grant leads to higher demand for retail products.

Services

Services are generally defined as those activities that add value to a process, activity or product without the provider partaking in the final risk, return or ownership thereof. These activities include:

- Activities that add value to a product (e.g. electrical repair)
- Activities that add value to a person (personal services e.g. hair-dressing)
- Activities that add value to a process, by undertaking routine processing of information (e.g. business process outsourcing or BPO), providing answers to non-standardised problems (e.g. legal advice), or producing, processing and trading in specialised information (e.g. stock trading)

A service can be directly visible in the outcome and the customer (e.g. business service) or it can perform a support role and is generally less visible (e.g. ICT support).

Personal and household services

Personal and household services refer to the supply of services, such as hair salons, crèches, small-scale medical practices, mechanics, plumbers, and electricians. Personal services mainly exist as small-scale businesses, which are either home-based or occupy relatively small commercial buildings.

Personal and household services are endogenously focused, since the emphasis of the activity is on the consumer or client. The demand for these activities is based on which household goods the consumers own, as well as the consumers' income levels and tastes and preferences.

Backward linkages tend to be limited, but forward linkages are strong, as the service is usually performed on a person or product.

SPATIAL REQUIREMENTS. The type of properties required will vary according to the type of service activities and can include rooms in a formal building with commercial rights, a warehouse or garage, and back rooms in houses in residential areas.

- Health practitioners, such as doctors, demand rooms in which to attend to patients, and usually occupy a house that has commercial rights.
- Mechanics, may operate from the backyard in their house, or rent a warehouse or garage.
- Hairdressers and beauticians either run the businesses from their homes, or operate from commercial buildings.
- Some activities, such as plumbing and electrical engineering, do not require any property, since they work in the homes of their clients.

Activity in a township context

Like retail services, businesses providing personal and household services in townships are also internally orientated, as their clients are township residents. These services include hair salons, childcare, mechanics, traditional healers, plumbers and electricians. The activity costs little, which means that only relatively low rentals can be paid, and needs to be close to customers. This means that most personal and household services activities operate out of residential properties or spaza-type properties.

CONSTRAINTS AND OPPORTUNITIES FOR GROWTH

Personal and household services dominate home-based enterprises.

Constraints	Opportunities
• Overall low levels of income and demand characteristic of townships.	• Personal and household services do not suffer the same location disadvantages (i.e. being situated in a township) as other economic activities such as manufacturing and business services.

Business services

Business services generally provide ancillary support to other businesses e.g. accounting or legal services. Some businesses service their local market, for example a local accountant or bookkeeper will serve clients from the local suburbs or town.

However, as such services are generally not required on a continuous basis, to remain viable, business services companies usually have to serve a wider market outside of the local area. This means that businesses can be both endogenously and exogenously orientated.

Large-scale business service operations can have strong backward linkages in that they require lots of office supplies (computers, space etc.) to survive, but generally the forward linkages are stronger in that the activity is performed on a process or a good.

SPATIAL REQUIREMENTS. Business services generally require relatively well-located office space in order to access skilled staff and clients (commercial and corporate).

Smaller-scale operations may start out in residential properties, but, as the business grows, more specialised office space is usually require d (including adequate parking facilitates to accommodate an increasingly car-orientated work force).

Business Service activities are space intensive and labour intensive. They also require reliable and affordable power (for air-conditioning and broadband/IT) and good access to airports, in response to increasing globalisation of economic activity.

Service functions are **space intensive** because of health and occupation requirements, productivity drivers and agglomeration forces. Office use can usually out-compete all other uses for a site (except ground-floor retail) and therefore dominates central areas. However, often the lower value-add, more routine functions are relocated to cheaper, less central locations.

Service operations are also **labour intensive** and usually require high skills and education levels. The scarcity of such skills means that (1) companies need to locate in central locations, to draw from as wide a pool as possible, (2) highly trained labour can choose to a greater degree where they are employed, so companies need to locate where highly trained employees want to work (and live). Thus, ease of access and quality of the workspace plays a big role. This quality will be determined by the quality of the accommodation (e.g. A-grade office space), and the level of amenity, diversity and safety in the surrounding area.

Service functions can be **more mobile** than manufacturing activities. However, as staff become socially entrenched in an area, the potential loss of key staff should the firm relocate often means that firms remain relatively fixed in a particular location.

Activity in a township context

Business services provide ancillary support to other sectors, and so the size of the sector is determined by the size and growth of the other sectors (retail, manufacturing, transport and tourism etc.) in the township areas. Business services companies also tend to employ scarce, highly skilled professionals who reside in high-quality residential neighbourhoods. Given the relatively small scale of these sectors and the need for skilled staff, the low level of business services in townships is not surprising.

Financial services, including accounting and book-keeping, cash loaning, funeral services, financial advice and insurance brokerage, make up a significant component of this sector. These businesses tend to be either home-based or located in rented office buildings within the townships.

Companies providing business services generally have to locate outside the township areas to service wider markets. Business services commonly found in the suburbs outside of townships are property brokers and estate agents. However, the low level of formal property transactions in townships, means that these agents are poorly represented. Not only does this reduce the size of the sector but also undermines the efficiency of the property market in the areas.

CONSTRAINTS AND OPPORTUNITIES FOR GROWTH

The difficulty of attracting skilled staff to township areas and the low client base inhibit the growth of this sector.

Constraints	Opportunities
• Low level of activity in other sectors. • Low skills and education levels.	• Growth of middle class populations in these areas. • The provision of major public facilities (e.g. hospitals and magistrate courts) in townships may create down-stream demand for business services such as doctors' rooms and lawyers' offices. The impact of these facilities is also likely to be maximised if done at scale and as a package of public facilities.

Transport

The **transport sector** consists of private and public modes of transport. In essence, its role is to move people or goods from one place to another and, therefore, has both an endogenous and exogenous focus.

The transport sector has backward linkages to the manufacturing sector that assembles, manufactures and operates vehicles, to retail and personal services (purchase of the necessary car parts, repairs and maintenance by local mechanics) and to fuel retail, as taxis, buses and trains consume diesel and petrol.

Forward linkages are to the business services, retail and tourism sectors, through the transportation of goods and people.

SPATIAL REQUIREMENTS. The transport sector has specific spatial requirements, depending on the mode of transport.

- Airports need to be built for air travel
- Taxis and buses need parking and loading space (ranks and terminuses, which can form a focal point for other economic activity.
- Private vehicles demand parking space and this demand is increasing, as the demand for private cars increases.

Activity in a township context

Transport in South Africa is a key sector because it connects people to economic opportunities, which is especially important for township economies needing to be integrated into the mainstream economy. Most township residents do not have private transport and depend on public transport, to commute for work and other reasons. Thus transport is externally focused but internally driven.

Taxis or minibus taxis are the most popular form of public transport, although township inhabitants also use buses and trains. While buses and trains are government-regulated, the taxi industry is privately owned and is less government-regulated. Regardless of their area of operations, taxis generally operate from key locations and, as cities and townships have grown overtime, the taxi routes have evolved to meet rising demand especially in previously unfrequented areas.

The taxi industry plays a critical role in the success of other property developments, linking consumers to businesses. Developers of retail centres need the support of the taxi industry, and in return for their support, space is provided to build taxi ranks at the new development.

CONSTRAINTS AND OPPORTUNITIES FOR GROWTH

The public transport system creates a structure of corridors and nodes, which influences business location decisions.

Constraints	Opportunities
• The current transport flows are unidirectional and display a highly inefficient system (i.e. public transport is full in one direction and empty on return). • Inefficiencies increase in relation to the township's location and distance from the economic opportunities.	• Increased provision of public transport infrastructure (train stations, BRT etc.) in township areas.

Tourism

Definition and spatial requirements

Tourism cuts across many activities from the primary, secondary and tertiary sectors. The sector includes recreational, cultural and sporting activities and has strong linkages to the hospitality, catering, retail and transport industries.

Demand depends on the total number of persons who travel (or wish to travel) to use tourist facilities and services. Tourism/travelling is often considered a luxury good and dependent on people's income levels and available time.

Tourism generally has an exogenous focus and has strong backward and forward linkages because it involves multiple sectors.

SPATIAL REQUIREMENTS. Location factors are mostly aligned to the historical, cultural and natural assets within an area, as well as to major events that may occur there.

Activity in a township context

Township tourism attracts people from outside area to experience 'township culture' and to gain a perspective on South Africa's racial history. Key features of the tourism experience involve visits to cultural and political sites, crafts markets, shebeens and local restaurants. Hospitality and catering services are mainly offered from people's homes, in the form of bed and breakfast accommodation (B&Bs), to give tourists a more intimate township experience.

CONSTRAINTS AND OPPORTUNITIES FOR GROWTH

Growth depends on the growth of tourism in general in the country, especially international tourists who dominate township tourism.

Constraints	Opportunities
• Access to finance for the marketing of establishments and the upgrading of premises. • The lack of training and business information.	• The B&B industry in these areas is entrepreneurially driven rather than based on survivalist models. • Many of the locational disadvantages that townships exhibit with respect to other economic activities do not apply in tourism, as the business activity is related to the nature of the place (i.e. no or limited competition from areas in a city).

THE RELATIONSHIP BETWEEN ECONOMIC ACTIVITY AND COMMERCIAL REAL ESTATE

Commercial property space is made possible through a combination of state investment in public goods (such as roads and infrastructure) and private investment in response to a demand by users (e.g. businesses) for certain types of space (offices, factories etc.). This demand has two elements: the desire to occupy a certain space because it meets the user's needs, and the ability of that user to pay a sufficient amount for the space. No successful developer (whether a small shop-owner or a large-scale developer) will develop new space unless the value of the completed space is greater than the cost of development. Therefore, the amount of rent that firms are willing and able to pay determines whether new space is developed or not.

The willingness and ability of a firm to pay enough rent is partly a function of how well the space (location and site) enables the business to operate and thus make money. How much a firm can pay is a function of the gross profit, i.e. income from a good or service (turnover) less the direct costs (e.g. material). After paying wages, rent, tax etc., the remaining amount can then be paid as profits to the owner of the firm. Therefore, the greater the gross profit, the more money is available to pay wages, rent etc. As a very rough rule of thumb, a firm should pay about 10% of the turnover towards rent.[9] Paying a higher percentage may mean insufficient funds to pay for the materials, wages etc. Therefore, to grow a commercial property market (e.g. to provide space for small businesses in townships) requires understanding (1) the economic/business activities that drive the demand for such property, and (2) how this property contributes to the success of these business activities. The key is understanding where and why firms locate in particular locations.

Choosing where to be located is just one of the business decisions that a firm makes. Other aspects that a firm will take into account include the line of business (sector), the scale of the business and the type of production to be undertaken. While the location can influence these decisions, location decisions are usually taken after deciding on the line of business, scale of operation and method of production. Research has shown that companies locate where they do for a number of technical, institutional, contextual, social and human behaviour reasons. Notwithstanding these reasons, an area usually has to possess certain attributes, i.e. some minimum technical requirements, to induce a company to locate there. **The question is whether a township area possesses these attributes.**

A company will usually take into account the nature of its production process, its ability to access the required inputs (labour, materials etc.) and customers, as well as the availability of suitable space. The suitability of the space will depend on factors such as the availability of infrastructure, quality of space, level of safety and cleanliness of the broader area. Transport (accessibility) is often one of the most important factors in a company's location decisions.

[9]This amount can vary from firm to firm and industry to industry.

In most cases, a company will want to locate where it can increase profits by minimising costs and maximising income. However, such a location is rare, and so trade-offs often need to be made. For example, a firm can reduce costs by being close to their suppliers but will probably incur higher transport costs because of being further away from their customers. The most desirable location will be where the least trade-off has to be made and profits can be maximised. This will be determined by the relative costs and importance of accessing the factors of production (land, capital, labour and entrepreneurship/knowledge) and supplying a customer base. These costs will differ from firm to firm and from sector to sector, and will depend on the firm's specific requirements, whether the firm needs to engage with external partners, and the cost of locating to a particular location.

Nevertheless, it should be noted that a city's land-use pattern reflects not only the immediate and current space requirements of the existing activities, but also the cumulative needs of activities and policies (apartheid, spatial development zones etc.) over time. Furthermore, relocation and sunk costs may result in inertia that prevents firms from relocating to (in theory) more optimal locations. As a result, 'changes in locational patterns probably come about more as a result of changes in the population of firms comprising an industry than as a result of the physical relocation of firms comprising that industry' (Goodall, 1972: 122).

Notwithstanding the above, to understand why certain activities occur where they do and how they can be induced to move to a particular location (e.g. a township), the specific location requirements of the different economic activities need to be understood.

Firm location factors in general

Two general factors play an important over-arching role in firms' decision where to locate: accessibility and agglomeration or clustering.

General accessibility

Accessibility dictates the ease with which companies interact with external parties such as primary and intermediate suppliers, customers and staff, and the ease with which they can access industry specific and broader urban facilities.

Clustering

The clustering of firms is often sparked by the location of a large firm, creating the demand for smaller, specialist supplier firms that group around it. The following activities tend to cluster: manufacturing; finance and legal services; business and professional services; distribution; health, social services and education; retail trade; and recreation services.

Manufacturing industries may cluster because of:

- location economies, i.e. firms produce similar or identical products in order to attract customers (e.g. clothing, printing and publishing, petroleum refining, food products), or
- urbanisation economies, i.e. cost savings associated with producing in a large city (e.g. wood products, precision machinery, metal products.).

Light industry tends to cluster because of urbanisation economies and heavy industry because of localisation economies.

Retailers will often draw on the concepts of complementarity and comparability to induce customers to travel and incur higher transport costs to make their purchases.

- Complementarity means that different retailers selling different goods will co-locate so that a customer can meet a number of their retail needs by making one trip ('it makes the trip worthwhile').
- Comparability is when a number of similar retailers (e.g. shoe stores) co-locate, which in effect gives the customer greater choice, and therefore the trip to the particular retail location more attractive.

Retailers of higher-order and complementary goods will often cluster together to increase their catchment area and compete with each other in terms of value, service delivered, style and taste. Retailers of lower order and more common goods tend to compete on price and convenience and therefore will tend not to cluster together but rather locate where a particular market is not being served adequately. A retailer or retail centre will often look to expand in an existing area to cater for a growing customer base and or to prevent a competitor from capturing this increase in market size.

Supermarkets and shopping centres are able to maximise the levels of complementarity and comparability, making them popular outlets for retailers because:

- The available space is often larger (often more than 1000m2) than that available on main streets and specialised (e.g. refrigeration rooms and dedicated loading areas).
- The high visibility and access locations mean that a retail centre can often out-compete other users for the 'prime' spots with the greatest exposure and levels of passing traffic.
- The available parking cannot often be found on in central business areas.
- Property management is taken care of, allowing retailers to focus on their core business of selling (not on maintenance, security and cleaning).

The agglomeration (cluster) effect: by renting in a centre, retailers benefit from a 'package of features' where the 'whole is greater than the sum of its parts'

Incompatibility or diseconomies of agglomeration can occur when companies incur negative externalities by being located in close proximity to each other. This is often due to the nature of the production functions (e.g. noxious activities).

Changing technology has also reduced the need for physical clustering, while increasing land costs, declining space availability and high levels of congestion make clustering less economically advantageous. A firm is only likely to relocate when profits earned at alternative sites are high enough to compensate for the cost of moving. Consequently, relocation is uncommon, and firms instead choose to augment existing capacity (e.g. open branches and additional factories) rather than relocate.

Examples and implications for township property markets

Based on the prototype economy, a township economy is missing many economic activities, and such activities that do occur are generally of a lesser scale.[10] This is partially because townships were established for non-economic reasons and so do not possess the location attributes (access, infrastructure, markets etc.) needed by the economic activities, thus reducing the effective demand for commercial, industrial and retail space. For example, business services need to be close to corporate clients and to draw on skilled labour, both of which tend to be absent from township areas. As a result, demand for office space in is low in townships.

Existing economic activities, such as retailing, deal in relatively small volumes of low-cost goods (e.g. food) and can only afford to pay low rentals, which are generally too low to generate sufficient property value to overcome the costs of constructing such space. The difficulty in selling mid-sized commercial erven in Cosmo City is evidence of the low demand for this property type. As a result, many economic activities occur in residential properties or informal structures that do not command significant rentals. Nevertheless, the lack of formal economic space may also be due to development issues such as land ownership patterns, lack of title, infrastructure constraints and so on. The one exception has been the growth of formal shopping centres in township areas over the past 10–15 years; a growth driven by various forces:

i) Many of the retail markets in the suburban areas are saturated and so retailers are looking elsewhere to expand their markets.
ii) The incomes and living standards of township residents are higher, significantly increasing their buying power (effective demand).
iii) Many township residents purchase their higher-cost goods (clothes, electronics, processed food etc.) outside of the township, and so retailers are merely capturing this ‘leaked’ income by locating closer to township residents.
iv) Most of the retail centres that have been developed are large and able to draw on all or large parts of the township as their catchment area, ensuring sufficient market size.
v) The convenience factor that drives retail means that retailers have had to locate closer to their customers to capture these markets.
vi) The political stabilisation of township areas has made property development easier in these areas.

[10] It should be noted that many market-produced suburbs (residential areas) also lack the full range of economic activities but not to the same (extreme) degree as township areas.

In summary, many economic activities do not exist in township areas, resulting in no (or very little) demand for related commercial space (e.g. offices). Existing economic activities either serve a small, localised market (e.g. spazas) and do not generate enough income to be able to pay the rentals needed to make formal developments viable, or are very large and serve the entire or most of the township (e.g. formal shopping centres). The result is a 'missing gap' of certain commercial property types (e.g. medium-sized retail, office, industrial parks) in township areas.

CONCLUSION

Despite many attempts, state interventions aimed at addressing the high levels of poverty and unemployment in townships has had a limited impact because the required fundamentals of an economy are missing. To date, little research has been done into specifically township economies and related commercial real estate, as most studies refer to the economy only as part of a broader discussion (e.g. about housing). As a result, the functioning and requirements of township economies are poorly understood.

This study uses a conceptual framework to understand township economies and related commercial real estate markets, and to review relevant existing research. It examines the drivers, opportunities and constraints of different economic activities within townships. Although generalisations are made, the study recognises that townships are highly heterogeneous as a result of their locations, histories and current dynamics.

Townships did not originate or grow because their location made them good places to do business. They were established either for political reasons or as a result of a housing policy. Thus they do not possess the location attributes necessary for the range of activities that make up an economy. The economic activities that do occur are usually limited in scale and depth, and in many cases do not include particular activities.

Furthermore, the report has shown that building business space (offices, retail centres, industrial parks etc.) is only viable if the economic activities that demand this space can afford high enough rentals – so that the property value created is greater than the cost to construct such space. As the ability to pay rent is a function of the gross profit generated by an enterprise, and many township-based economic activities are of a small scale and order, the limited commercial and industrial property in these areas is not surprising.[11]

To guide interventions aimed at growing and managing township economies, the following principles are proposed.

The size of a market is recognised as the most important factor

For a business enterprise to succeed and grow, the most important factor is the size of its market. Therefore, broadly speaking, activities with an exogenous focus – with access to a larger market – are more likely to grow an area's economy. This is not to say that activities serving only local areas cannot be drivers of growth but rather that such growth is constrained by the size of the local market.

[11] Similarly, on the supply-side, issues such as land tenure, development rights and infrastructure constraints that often plague townships need to be addressed before more developers will be willing to invest in commercial property.

Economic activities with an exogenous focus need inputs and access to markets across an entire city and beyond. They also need significant infrastructure and specialised space in order to be able to operate at a viable scale. However, townships are characterised by isolation, inadequate infrastructure and poor links into the regional communication networks. This means that they are unlikely to meet the location requirements of such activities in the short to medium term. Therefore, unless these constraints are addressed, efforts to attract large-scale manufacturing and high-end business services activities are unlikely to be successful.

Interventions are based on a systemic approach, as part of a total package

Improving the operations and environments of township enterprises must be based on a systemic understanding of how and where these enterprises operate that considers: the quality of life, social capital, knowledge inputs, financing, suppliers, markets, infrastructure, business management skills, availability of specialised services, industry support and government policies (Karuri-Sebina and Muchie, 2014). Infrastructure and urban management in townships should be developed to be on a par with other economic nodes in a city, so that townships can begin to compete on an equal footing.

However, the scale of the impact is likely to be relatively limited because: (1) The growth of economic activities is constrained by the size of the local market, which may in some cases have reached its limit. (2) Infrastructure investment is only likely to stimulate economic activity when the full range of supply and demand-side factors necessary for an enterprise to succeed are in place.

Sectors with locational advantages are developed

The focus should be on endogenous sectors and activities, which include retail, consumer services (personal, recreational and household services), lower order business services, transport and tourism. By definition, these sectors and activities have to occur in the area, and so townships have a locational advantage and can compete successfully with other areas. For example, it is very difficult (if not impossible) to provide a household service (e.g. plumbing repairs) other than in a township resident's house. In addition to the location advantages, these activities often have relatively low barriers to entry in terms of start-up capital and skills required. This makes them a good fit in township areas, which have high levels of structural unemployment and generally low skill and education levels.

In addition, undeveloped (and underdeveloped) activities should be encouraged and supported, including the arts, music, faith-based activities, public services and housing. These activities can succeed in township areas because they are near their markets, draw on a local support base and attract external customers precisely because they are township based. Townships can therefore compete with other areas from a locational perspective to start and grow such enterprises.

The provision of public services and housing could grow local enterprises

Due to the scale of their provision and, in some cases, the large multipliers involved, it is suggested that the provision of public services (e.g. waste collection and management) and housing present significant platforms on which to stimulate and grow local enterprises and economies. These services can only be consumed in the township areas, and there is a constitutional obligation to provide many of these services. As a result, these services are being provided in these areas regardless and, as the consumption has to occur locally, other areas can't provide these services (e.g. waste collection has to take place locally). Notwithstanding the management, supply-chain and training issues involved, local enterprises could be grown to provide such services.

Spaces should be designed to allow for flexible use

On the one hand, as the scale of many of the enterprises is limited, the ability to afford specialised space such as offices, shops and factories is low. On the other hand, the public provision of commercial space (public incubators, trading stalls etc.) has generally met with limited success in the past, as such space is often badly located and difficult and costly to manage. As a result, the use and conversion of residential space should not be prohibited, but rather the provision and design of such properties should manage the negative externalities (e.g. noise) and accommodate (e.g. through increased infrastructure capacity) these uses.

Townships are integrated into the broader city structure and economy

Although, the potential does exist to grow township economies, especially with respect to local, consumption-based activities, it is limited. Therefore, the socioeconomic issues associated with most townships are not going to be fully addressed through local economic development initiatives alone. Consequently, it is imperative that these areas continue to be physically and functionally connected and integrated into the broader city regions, so that township residents and business people can access and benefit from the opportunities that lie beyond these borders.

Research gaps relating to drivers of township economies should be addressed

Clearly, a range of factors (other than location, real estate and infrastructure) determine the success of township economies. These include factors such as business and technical skills, access to customers, access to finance, supply-chain management, supplier, customer and industry networks, government policy and regulations and the range of innovative and social processes that influence these factors. However, often little is known of the nature and issues relating to these factors, and hence significant research needs to be done in this regard to address these gaps.

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