Economic Intelligence Unit
Office of the Executive Mayor

Who we are
A research-oriented unit in the Office of the Executive Mayor, headed by the Chief Economist.

Services we offer
- Advisory Services: Qualitative and quantitative research and analysis on micro and macroeconomic conditions affecting decision-making. Deliverables include annual, quarterly and monthly publications, research papers and position papers.
- Consultancy Services: Policy and strategy development, planning, analysis, research across a number of areas.
- Support Services: Collaborative partnership on projects and stakeholder management co-ordinate the programmes of the City and to establish protocols in a manner that enables it to respond to Council’s oversight requirements.

Our Mandate
The core function of the Economic Intelligence Unit is to conduct economic policy research aimed at contributing towards appropriate economic policy formulation processes and advise the City accordingly.

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2016 Capital Economic Outlook

2016 was a tumultuous year. Significant global events elevated political uncertainty to levels last seen during the Great Recession. The world started the year on the back of wide-spread terror attacks in Europe; the Presidents of major global economies like Brazil and South Korea, being impeached; the unforgettable June vote of the United Kingdom to leave the European Union; the continued economic slowdown in China; and lastly the unexpected and unprecedented victory of President Donald Trump in the United States of America. Crucially, as political uncertainty continues rising, the future expectation of economic growth keeps on falling.

We have started seeing evidence of the effect of political uncertainty on the world economy when OPEC countries announced cutting oil production in an attempt to arrest the almost two-year freefall we observed in oil prices; we saw the Federal Reserve in the US hiking their prime interest rate for only the second time in the last decade; we have witnessed the rise of a new age of ‘nationalism’ in response to the perceived imperfections of globalisation; the worrying rise of extremism in many different forms across the globe and global economic growth performance is at its worst since the start of the new millennium.

The world we face today is quite different to the one we lived in a mere five years ago.

Notwithstanding a very bleak economic picture, we believe that for any economy to thrive, one needs essentially three ingredients: people, who can perform an array of different jobs exceedingly well; businesses which can employ these skills and in turn, produce output effectively and competitively; and a conducive and enabling environment within which a people-business relationship is allowed and stimulated to flourish.

Therefore, our annual Capital Economic Outlook (the CEO) is deliberately compiled to not only present a snapshot of the immediate past of our economy, but more importantly to also present a forward-looking approach to our City’s economy. Enjoy the read!
OUR BACKGROUND
The City of Tshwane is classified as a Category A Grade 6 urban municipality by the Municipal Demarcation Board in terms of section 4 of the Local Government Municipal Structures Act, 1998 (Act 117 of 1998). The Municipality was established on 5 December 2000 through the integration of various municipalities and councils that had previously served the greater Pretoria regime and surrounding areas.

On 28 May 2008, a proclamation through the Government Gazette was made to incorporate the former Metsweding District Municipality, including Dinokeng tsa Taemane (Cullinan) and Kungwini (Bronkhorstspruit) into the borders of City of Tshwane. The incorporation, which gave birth to the new City of Tshwane in May 2011 after the local government elections, was in line with the Gauteng Global City Region Strategy to reduce the number of municipalities in Gauteng by the year 2016.

The new City of Tshwane has a Mayoral Executive System combined with a ward participatory system in accordance with section 2 (g) of the Determination of Types of Municipality Act, 2000 (Act 1 of 2000), and section 2(1) (c) (vii) of the North-West Municipal Structures Act, 2000 (Act 3 of 2000); it has 107 wards, 214 councillors and about 3.1 million residents, and is divided into seven regions. It covers 6 368km² of Gauteng’s 19 055km² and stretches almost 121 km from east to west and 108 km from north to south making it the third-largest city in the world in terms of land area, after New York and Tokyo/Yokohama.

As the administrative seat of Government and hosting a number of Embassies, City of Tshwane has proven to be a leader on the African continent in providing affordable industrial sites, various industries, office space, education and research facilities.

An estimated 90 percent of all research and development in South Africa is conducted in the City of Tshwane by institutions such as Armscor, the Medical Research Council, the Council for Scientific and Industrial Research, the Human Sciences Research Council and educational institutions such as the University of South Africa, the University of Pretoria and Tshwane University of Technology.
In a quest to fulfil the objectives of the NDP, the City has embarked on numerous projects aimed to improve living standards of the local public. A series of projects have been strategically rolled out across the municipal jurisdiction as a means to contribute towards mitigating the triple challenges facing the country, both on a national and local scale.

Significant progress has been made in all flagship projects initiated by the City, which will culminate with transformation of the nation’s capital. Conceptualisation of these projects are in line with council policies in pursuit of spatial transformation and economic growth.

Some of these projects encompass:
- Free Wi-Fi,
- A Re Yeng,
- Township Revitalisation,
- Tshwane House
City of Tshwane Township Revitalisation

In line with the NDP and the Gauteng Province’s revitalization of the township economy strategy, the City of Tshwane has rolled out numerous programmes aimed at promoting the equal redistribution of wealth. In order to accelerate growth of township economies, the City has undertaken core projects which in turn will contribute towards poverty alleviation and job creation.

The breakdown of the 2015/16 financial year achievements and plans are as follows:

- Eco-Furniture Factory Ga-Rankuwa: R1.5 million towards rental and utility services;
- Youth-owned township bakery facility worth R3.8 million was launched in Soshanguve in the 2015/16 financial year;
- A R6.6 million first car wash facility will be implemented;
- Brick-making facility in Mamelodi has been allocated R4.9 million;
- A budget of R3 million has been set aside for construction of a paper towel manufacturing facility;
- Fresh produce facility will receive an amount of R13.5 million over the next 3 years, which includes R3 million in 2015/16 for construction in Marabastad.

Free Wi-Fi

The pilot project launched in late 2013, with 5 key sites identified and then enabled as Free Internet Zones (FiZ). Aligning to Tshwane’s academic stronghold status, WiFi was initially rolled out at 3 key educational institutions and in 2 high-traffic community centres: Tshwane University of Technology Soshanguve Campus, University of Pretoria Hatfield Campus, Tshwane North College, Mamelodi Community Centre and Church Square in the Pretoria CBD.

The second phase of implementation saw a further 213 FiZs begin to bring public spaces in the City’s sprawling township communities - Soshanguve, Mamelodi and Atteridgeville - online. In April 2015, Tshwane celebrated as Project Isizwe breached the half a million mark.

To date, Project Isizwe has deployed more than 750 FiZs across the City with an additional 700 planned for the Capital City by the end of 2016. FiZ locations are carefully selected public spaces like schools, healthcare facilities and community centres.

Like any big city, people in Tshwane are on the move. In 2014, Project Isizwe switched on WiFi Bus, which delivers a free experience to 350 000 connected commuters. Working in partnership with RADWIN, Project Isizwe is able to provide this world-first in mobile connectivity - vehicular mobile units on the busses connect to specialised high capacity base stations along the route to ensure uninterrupted connectivity.
**Tshwane Rapid Transit (TRT)**

An initiative aimed at transforming public transport and that will improve commuters’ experience of mobility. The project uses a concept known as Bus Rapid Transit (BRT), A Re Yeng, Light Rail Tram (LRT), Non-Motorized Transport (NMT), Tshwane Bus Services and Wonderboom Airport. The City added 12 more buses with free Wi-Fi access in the existing fleet during the 2015/2016 financial year. 20 compressed natural gas (CNG) buses were delivered in Nov and Dec 2015.

Status: A pre-feasibility study has been done to introduce a Light Rail Tram (LRT) into the local transport system. The City advocates for public forms of transportation and discourages private motorised transport, and thus the improvement and integration of public transport systems.

**Tshwane House**

The Tshwane House is set to be the seat of the city council and will be representative of the old and the new since it will be located on the site of the demolished municipal headquarters, the Munitoria. It will be home to the legislative and executive branches of the city. Construction is almost complete on Madiba, Pretorius and Thabo Sehume streets and Tshwane House is envisaged to be ready for occupation by mid-2017. This is slightly behind schedule as per the plans and initial project life progress.
OUR ECONOMY

REVITALISE
Our Global Economy

Recent data shows that global economy continued to expand during 2015 at a moderate and uneven pace, as the protracted recovery process from the recent global financial crisis was still saddled with uncompleted and in some instances, fragmented post-crisis adjustments. In the second quarter of 2015, the global economy recorded modest growth, despite divergence in the performance of major individual economies. Global recovery has also been confronted with some new challenges, including a number of unexpected shocks, such as the intensifying geopolitical conflicts in various areas of the world and the humanitarian impact thereof as well as growing cyber insecurity across developed and emerging market economies.

Global growth again fell short of expectations in 2015, slowing to 2.4 percent from 2.6 percent in 2014. The disappointing performance was mainly due to a continued deceleration of economic activity in emerging and developing economies amid weakening commodity prices, global trade, and capital flows. Going forward, global growth is projected to edge up, but at a slower pace than envisioned in the June 2015 forecast, reaching 2.9 percent in 2016 and 3.1 percent in 2017-18. The forecast is subject to substantial downside risks, including a sharper-than-expected slowdown in major emerging and developing economies or financial market turmoil arising from a sudden increase in borrowing costs that could combine with deteriorating fundamentals and lingering vulnerabilities in some countries. (IMF World Economic Outlook, 2015).

The economic performance of the world’s two largest economies is indicative of growth divergences in 2015 among major economies throughout the world. The United States economy is gradually powering up, while China’s economy is gradually powering down or at least tapering off (World Bank, 2015). Countries like United Kingdom and India fared fairly well, while Brazil and Russia remain in deep recession. Most countries, such as Canada for instance, however, fall into the ‘moderate growth’ performance category. For many countries, the negative trade impact of the Chinese economic slowdown has far outweighed the positive impact of the resuscitation of the U.S economy and increased trade. Most major developing and emerging market economies have been acutely hit by China’s slowing growth, particularly in Africa.

**Figure 2** depicts global and developing country growth prospects from 2007 to 2017. Despite a modest recovery in high-income countries, global growth slowed in 2015, as developing-country growth dipped to a post-crisis low. Weakening prospects are most visible among key commodity exporters, pointing to a significantly lower contribution to global growth than in the past. China’s gradual slowdown and rebalancing continued. Low-income countries continued to show some resilience, but a rising share of the world’s extreme poor live in countries with slowing growth.

**FIGURE 2:**
GROWTH OF WORLD GROSS PRODUCT AND GROSS DOMESTIC PRODUCT BY COUNTRY GROUPING, 2007–2017

![GDP growth, actual and projected](image-url)

**A. GDP growth, actual and projected**

- World
- High-income countries
- Developing countries

![Global GDP growth forecasts over time](image-url)

**B. Global GDP growth forecasts over time**

<table>
<thead>
<tr>
<th>Percent</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
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<tr>
<td>June (previous year)</td>
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<tr>
<td>January</td>
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<tr>
<td>June</td>
<td>3.5</td>
<td>3.0</td>
<td>2.5</td>
<td>2.0</td>
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<td>Actual</td>
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Global sector analysis

According to a 2015 report by the Food and Agriculture Organisation (FAO) of the United Nations, real global value-added in the Agriculture, Forestry and Fisheries (AFF) sector rose from $0.7 trillion to $1.9 trillion between 1970 and 2013, although the sector’s contribution to real GDP fell from 4.3 percent to 3.3 percent. It is important to note that these measures, however, ignore the crucial role of the sector in the agro-industry value-chain, natural resource use, environmental impacts, and food security.

In 1970, the main contributors to global agriculture value added were Asia and the Pacific as well as Europe, accounting for 34 percent and 27.5 percent of global output respectively. By 2013, Asia and the Pacific account for almost half the world’s value-added in agriculture at 49.8 percent. According to the World Bank, services’ correspond to ISIC (International Standard Industrial Classification) divisions 50-99, which include value added in wholesale and retail trade (including hotels and restaurants), transport, and government, financial, professional, and personal services such as education, health care, and real estate services. This sector also includes imputed bank service charges, import duties, and any statistical discrepancies noted by national compilers as well as discrepancies arising from rescaling. Accounting for about 63.5 percent of total global wealth, the services sector is the largest sector of the world. The United States accounts for the largest share of the services sector in the global economy, which boasts around 13.5 trillion USD. The services sector is the largest sector of 194 countries, with more than 30 countries reliant on this sector for more than 80 percent of their GDP.

Source: http://chartsbin.com/view/1002
Global Inflation trends

Global inflation remains moderate, despite elevated inflation rates in about a dozen developing countries and economies in transition, and some developed economies in the euro area that are confronted with the risk of deflation.

Average inflation for developed economies is estimated to have decreased from 1.3 percent in 2014 to 1.1 percent in 2015 (mainly due to the slowdown in consumer prices in both Japan and the US), inflation in the EU is estimated to have decreased from 0.4 per cent in 2014 to almost 0 per cent in 2015 due to several factors including a sizeable output gap coupled with a slow-paced recovery. A fall into deflation is considered a downside risk for several euro area countries because if persistent, deflation could potentially lead to greater reluctance by households and businesses to increase their current spending, thus weakening aggregate demand.

The average inflation rate for the economies in transition is estimated to have decreased by 1.0 percentage points in 2015. Average inflation for developing economies is expected to fall slowly over the outlook period. In Africa, inflation should decrease significantly to almost 8.3 percent in 2017, as a result of increasingly prudent monetary policies as well as moderating import prices, after increasing substantially between 2015 to 2016. While inflation for East Asia is expected to remain around the recent levels of 3–5 per cent over the outlook period, a significant decrease is projected for South Asia due to falling inflation in almost all countries, especially in India and Iran. In Western Asia, inflationary pressures have been well contained, with the exception of the Syrian Arab Republic, Turkey and Yemen. In Latin America and the Caribbean, average regional inflation has continued to increase in 2015, driven by Argentina and Venezuela, however, it is expected that will decrease moderately to 8.8 percent in 2015.

Our Country Economy

Real economic growth in South Africa turned positive in the third quarter of 2015. Following a contraction of 1.3 per cent in the second quarter of 2015, growth in real gross domestic product accelerated to an annualised rate of 0.7 per cent in the third quarter. This turnaround in growth reflected increases in the real value added by both the secondary and tertiary sectors.
By contrast, the real value added by the primary sector declined at a slightly faster pace over the period. (SARB, 2016). In its Medium Term Budget Policy Statement, the South African National Treasury projected that the domestic economy will grow at about 1.7 per cent in 2016. This projected growth rate signals a considerable fall from the projections made in the annual budget speech (which takes place February), when Treasury optimistically envisaged a 2 percent growth rate for 2015 and 2.4 per cent in 2016. The IMF also projects a decline in growth for 2016 (National Treasury, 2015). According to National Treasury, the factors that contributed to the review of the growth rate, which has resulted in growth forecasts being adjusted lower, include electricity supply constraints, falling commodity prices and lower confidence levels. All of which have resulted in South Africa’s growth forecasts being revised downwards.

The public sector wage bill, however has been increasing while growth has been very slow. Persistent shortages in electricity have had a knock-on effect on the economy and occurred concurrently with the worst drought in two decades, which continues to devastate agriculture whose real proportion of GDP has been reduced by 16.2%.

The Rand (ZAR) depreciated by more than 30% between December 2014 and December 2015 against the US Dollar (USD), making it one of the worst performing currencies for the 2015 period.

Consumer price index (CPI) inflation remained within the target range of 3% to 6% year-on-year in 2015, owing to the continued currency depreciation and the ongoing drought, with pressures on the CPI likely persisting in 2016.

Limited electricity supply, although more predictable than over the preceding 4 year period, high electricity cost and new capacity energy infrastructure that has been delayed for more than 4 years, have also weighed down manufacturing, mining and service-sector activity.

National government revenue increased by 8.4% to reach ZAR 955 billion (24.8% of GDP), mainly due to higher collection of personal income tax, taxes on property and value added taxes. National government expenditure increased by 8% to reach ZAR 1.13 trillion (29.4% of GDP). Monetary policy has been tightened with the repurchase rate reaching 5.75% during 2015 to respond to the rising inflation risk. Despite the increased rate, demand for credit by the private sector rose by 8.6% in August 2015 compared to 8% in June.

Unemployment remains persistently high at 25.3%, and is particularly pervasive among the youth, at 52.5% in 2015. High unemployment, especially among black South Africans, is
the main cause of the widening income inequality, as shown by a Gini coefficient of 0.69, which is one of the highest in the world. To resolve these challenges, the government unveiled a nine-point plan to kick-start economic growth, increase investment and create jobs:

- Resolving the energy challenge;
- Revitalising agriculture and the agro-processing value chain;
- Advancing beneficiation or adding value to the mineral wealth;
- More effective implementation of a higher impact Industrial Action Policy Action Plan (IPAP);
- Encouraging private-sector investment;
- Moderating workplace conflict;
- Unlocking the potential of SMMEs, cooperatives, townships and rural enterprises;
- Boosting the role of state-owned companies, information and communication technology infrastructure and broadband roll-out, water, sanitation and transport infrastructure; and
- Operation Phakisa, which is aimed at growing the ocean economy and other sectors.

National sector analysis

The diversification of a country’s economic structure has proven to be a critical aspect of growth, particularly in the event of internal and external shocks. Historical data and current growth trends indicate that the existence of more than one or two major sector or subsectors allow economies to transition better when anticipated and unanticipated shocks occur.

According to the South African Reserve Bank, the real valued added by primary sector in the second quarter of 2015 contracted significantly. Despite a promising start of an increase of 3.3 percent in the first quarter of 2015, measured over a year, the real output of the primary sector declined at a rate of 9.3 percent in the second quarter as production levels in both agriculture and the mining sector declined over the period.

Source: Data from domestic authorities
Although the manufacturing sector continues to occupy a significant share of the South Africa economy, despite its relative importance declining from 19 percent in 1993 to about 17 percent in 2012 in real terms (Statistics South Africa, 2015), a downward trend was recorded for the second quarter in the manufacturing sector. Contracting at a rate of 2.4 percent in the first quarter, real value-added by the manufacturing sector shrank even more in the second quarter, with a reported decline of 6.3 percent. Production declines were recorded across sub-sectors with the larger declines recorded in the sub-sectors that supply basic iron and steel, non-ferrous metal products, petroleum and chemical products. The downward trend in these subsectors has been attributed to decreased demand from China specifically, as well as dwindling domestic demand, falling commodity prices, energy constraints and higher production costs. A significant contraction has also been recorded in the food and beverages subsector, and this is due to lower domestic and regional demand. Consequently, according to the South African Reserve Bank, the utilisation of the production capacity in the manufacturing sector has thus contracted slightly to 80.7 percent in the second quarter of 2015 from 81.5 percent in the first quarter.

Although the increasing economic activity in the construction sector has been playing an increasingly significant role in the secondary sector, thanks to major private and public infrastructure development projects, growth in the real value-added by the construction sector has moderated in second quarter of 2015.

The economic importance of services in the South African economy has grown considerably in the growth story of South Africa since the dawn of democracy. Not only has it become a major contributor to real GDP, but the sector has played a major role in job creation, attracting investment and increasing trade flows as an input to manufacturing and as well as a highly tradable component of the economy.

In spite of a slowing growth in the tertiary sectors, the service sector has grown in contrast with the manufacturing sector. Growth in real output by government accelerated, while the economic performance of the transport, communication, finance, insurance, real-estate and business services grew at a slower rate in the first and second quarter of 2015.

The National Development Plan aspires to ensure economic growth of more than 5 percent per year to achieve the envisaged employment, economic and social transformation objectives. This essentially means that the economy will have to grow by two percentage points more than the average growth rate over the past couple of decades. The government has made great strides in redressing the unequal access to services and facilities by investing partly in redressing the inherited underinvestment in infrastructure through the National Infrastructure Plan, which will result in additional infrastructure investment over the coming years to the extent of a quarter of 2013 GDP. The vast majority of this investment is in electricity generation and transport infrastructure.

Our Provincial Economy

The Gauteng economy is the driving force behind the South African economy as it is the major contributor to the national GDP. Furthermore, Gauteng remains the economic and industrial hub of South Africa and the SADC region and a significant player in Africa’s rising economic fortunes. Gauteng accounts for more than 10 percent of Africa’s GDP and since 2010 has been the most popular foreign investment destination for projects in Africa.
During the 2015 State of the Province Address (SOPA), Premier David Makhura emphasized that the Gauteng City Region should be integrated globally as a competitive city region where economic activities of different parts of the province complement each other in consolidating Gauteng as economic hub of Africa and an internationally recognised global city region. The key elements of radical economic and decisive spatial transformation, which will help in addressing the structural problems of the provincial and national economy as outlined by SOPA (2015) are as follows:

- Changing ownership patterns to bring black people into the economic mainstream and creating black industrialists;
- Changing the current industrial structure of our economy to privilege manufacturing and industrialisation through the processing of rich mineral resources and other raw materials locally;
- The development of new modern, innovation-driven industries in the areas of high-tech, biotechnology, the green economy and blue economy;
- Investing in skills development to change the skills profile of the citizenry in line with the new strategic sectors and modern industries;
- Changing income distribution to ensure equity and decent living standards for all;
- Transforming the apartheid spatial economy and human settlement patterns to integrate economic opportunities, transport corridors and human settlements;
- Growing the SMME sector as a key driver of growth and revitalising and mainstreaming the township economy;
- Strengthening the capacity of the state to direct economic development and enhance the competitiveness of strategic economic sectors;
- Significant investment in economic infrastructure as the key stimulator of growth and investment;
- Transformative partnerships between the private and public sector in addressing the developmental challenges outlined in the NDP.

In July 2015, the province released the Gauteng City Region Development Plan (2015-2020). This plan provides a comprehensive overview of the economy, sets policy direction for a sustainable, balanced and equitable economic development. The implementation of this plan and other associated strategies aims to contribute to the diversification of the provincial economy. The subsequent monitoring and evaluation of these strategies will further contribute to enhancing and sustaining national economic output.

**FIGURE 6:**
GAUTENG’S CONTRIBUTION TO GDP & OTHER PROVINCES, 2005-2015

Source: IHS Global Insight, 2016
This section provides an analysis of the provincial economic performance, the structure as well as the outlook for the province’s economic sectors. Contributions towards the GVA (gross value added) are made by the province’s three metropolitan municipalities namely: the City of Johannesburg (CoJ), the City of Tshwane (CoT) and Ekurhuleni, and three district municipalities: Metsweding, West Rand and Sedibeng. The metropolitan municipalities are made up of large urbanised city regions while districts are relatively rural in nature. Furthermore, metros cover smaller area of land in comparison to districts, but are bigger in terms of population and constitute higher levels of economic activity. This section entails economic analysis in terms of GVA and GDP performances of the three Gauteng Metros and two districts.

Given its major contribution to the GDP, Gauteng has always played a significant role in the national economy. For the period 2005 to 2015, Figure 6 shows Gauteng’s contribution to GDP and compares this to average contributions by other provinces. From 34.0 percent in 2005, the province’s relative contribution increased steadily to 35.21 percent in 2015. The relative contribution of the Gauteng province to the national economy is more than one third over the entire review period. Although not shown in the figure above, the Gauteng provincial economy is not only the power house of the South African economy, but also of the SADC region and indeed, the whole of Africa.

The economy of the province has diversified significantly since the early 1990s when it was dominated by activities in the mining and manufacturing sector. Currently community services, finance and business service subsectors have become the major contributors to the province’s GVA.
The City of Johannesburg contributes more to South Africa’s gross domestic product (GDP) than any other city, which accounts for 15 percent of the South African economy and 42 percent of the economy of Gauteng province and its top three sectors include finance, community service and trade. The CoJ’s Growth and Development Strategy 2040 (GDS 2040) acknowledges the ever-changing economic and social forces that affect South Africa and the vital role that cities play in creating an enabling environment for private business to confidently invest in job-creating sectors. In line with its GDS 2040 plan and the broader theme of building a more inclusive, faster-growing and sustainable economy a number of sectors have been prioritised for investment. These include Agribusiness, BPOs and ICT, Creative Industries, Green Economy, Infrastructure, Manufacturing, Mining Beneficiation and Tourism.

Tshwane plays an important role in the economy of Gauteng, some of the best performing sectors include community services, finance and transport. The City contributes 9 percent to the South African economy and 25 percent to the economy of Gauteng Province. The City of Tshwane 2030 Sustainable and Inclusive Growth Strategy (SIGS) has been initiated by the City to create specific actions in order to realise the aspirations of the City – in conjunction with the Province and National activities. Four sectors have been identified, in which the City will focus its efforts over the next fifteen years.

The four sectors are:
- Education and the Knowledge Economy;
- Agriculture and Agro-processing;
- Business and Diplomatic Tourism; and
- Green Economy.

The City will continue to support traditional sectors, such as the automotive, mining, retail, finance and support services sectors, which already have strong plans and strategies and remain core assets of the City’s economy.

Ekurhuleni’s GVA accounts for 8 percent of the South African economy and 22 percent of the Gauteng Province economy. The top three sectors in Ekurhuleni are manufacturing, construction and transport. In the State of the Ekurhuleni Address, the Executive Mayor, Cllr. Mondli Gungubele stressed that although manufacturing displayed a steady decline in its contribution to employment since 1996, it remains central for employment goals in the municipality. In an effort to strengthen Ekurhuleni’s economy, and to achieve the socio-economic goals of creating employment, reducing poverty and inequality, the municipality has out Growth and Development Strategy (GDS) themes. One of these themes, highlights the metros objective to Re-industralise. Under this ambit, Ekurhuleni aims at revitalising the manufacturing sector and the regeneration of township economies.

Source: IHS Global Insight, 2015

FIGURE 9: ECONOMIC PERFORMANCE OF GAUTENG DISTRICT MUNICIPALITIES
The Sedibeng District Municipality accounted for about 3.8 percent of Gauteng’s GVA in 2004, but this has increased to 5.7 per cent in 2015, the district also contributed 2.0 percent nationally in 2015. The current size of Sedibeng District Municipality is R61.5 Billion (constant prices 2010). This may partly be as a result of the declining contribution of the manufacturing sector. The Sedibeng District Municipality is one of the five most important centres of high-value mass production manufacturing in South Africa. Manufacturing contributed 31.4 percent to the local economy in 2015, making it the single biggest contributor to the municipality’s GVA. This is dominated by the fabricated metal (ArcelorMittal) and chemical (SASOL) sectors.

West Rand accounted for 5.3 percent of the province’s economic output in 2004 and this declined to 4.6 per cent in 2015. The current size of West Rand District Municipality is R49.9 billion (constant 2010 prices). Economic activity in the region is led by the mining & quarrying sector, despite posting a steady decline in recent years.

Gauteng’s economic structure is dominated by service sectors. From an economy originally dominated by mining, the province has grown in diversity. Gauteng was established with the establishment of Pretoria in 1855 and the establishment of Johannesburg thereafter in 1886 as gold mining towns the sectoral contribution and composition of Johannesburg’s economy demonstrates the dominance. However, today the sectoral contribution and composition of Gauteng’s economy demonstrates the dominance of finance, community services and manufacturing. Combined, these sectors accounted for a 65.5 percent of GVA in 2015.

The structure of Gauteng’s economy has not changed substantially over the last 10 years, however several sectors have shown promising growth over the past decade. These include community services, which at 4.3 percent recorded the highest growth increase, followed by finance with a 2.0 percent increase and electricity with 1.2 percent increase in the growth rate. According to Gauteng City Region Economic Development Plan (2015-2020), given its current economic structure, the province will have to be biased towards the service sectors, especially community services, finance and transport relative to productive sectors such as manufacturing, transport and construction. Nonetheless, if Gauteng is to create jobs in the productive sectors, which traditionally absorb a relative high labour force, the province will need to take bolder steps to arrest the de-industrialisation dilemma, which will require having a higher employment multiplier and innovative strategies for creating new wealth. The manufacturing sector should be at the centre of economic growth and development, hence the need to invest skills in various sub-sectors of the economy and addressing the high barriers of entry characterised by monopoly, oligopoly in critical sectors.
industries with high growth potential such as agro-processing (maize, flour and wood related industries) and steel. The concerted reducing of high barriers of entry will be a significant driver for new emerging businesses (enterprises) that are trying to gain access into the mainstream economy. Such an approach would have high multiplier effects in terms of inclusion.

Over the period 2005 to 2015, the economy of Tshwane registered the highest growth among the metropolitan municipalities in South Africa, averaging 3.9 percent per annum. The growth trend over this period was quite volatile, reaching both lows of -0.9 percent and highs of +6.2 percent over the 11-year period. Tshwane’s economy outperformed both provincial and national growth averaging at a growth rate of 4.2 percent compared to 3.4 percent in Gauteng and 3.0 percent in South Africa.

FIGURE 11: TSHWANE GVA GROWTH TREND 2005-2015
Source: IHS Global Insight, 2016

FIGURE 12: SECTORS PRIORITISED BY GAUTENG CITY REGION ECONOMIC DEVELOPMENT PLAN
Source: Gauteng City Region Development Plan (2015-2020)
In a quest to achieve the goals set out in the NDP, the Gauteng Province has prioritised eleven industrial sectors which will be supported extensively to in order to maximise on the potential employment/development multiplier, as well as on the backward and forward linkages identified in these sectors. This sectoral strategies support labour intensive industries that largely consume skilled, semi-skilled labour by leveraging highly skilled workers in the province.

The principal objective of the eleven Industrial sector strategies is to provide the Gauteng Provincial Government and its partners with a structured approach and actionable plans to stimulate, revive and sustain the economic sectors that would positively affect the industrialisation, transformation and modernization of the economy. The sector strategies aim to drive the Gauteng economy in a new trajectory with the following outcomes:

- An economy that is modern in that it promotes the diversification of the industrial structure;
- An economy that is inclusive in that it contributes to the revitalisation of township economies and to spatial development;
- An economy that is inclusive that it expands opportunities for greater ownership and control by previously disadvantaged groups;
- An economy that is inclusive in that promotes equality through high income distribution; and
- An economy that is inclusive in that it creates more employment.

Source: Statistics South Africa-CPI, 2015

FIGURE 13: INFLATION LEVELS FOR GAUTENG AND ITS THREE METROS, JAN-OCT 2015
The inflation rate of the three metropolitan municipalities in Gauteng are compared in the figure 2.38 from January to October 2015. The monthly inflation rate for Tshwane remained constant at 4.9 percent between September and October 2015 whereas the inflation rate for both City of Johannesburg, Ekurhuleni and Gauteng increased over the same period by 0.1 percentage points.

Table 1 shows that the main determinants of inflation in Gauteng based on the respective weighting of the items and the determinants are prices changes in housing and utilities, transport, miscellaneous goods and services food and non-alcoholic beverages. These four broad determinants, in terms of weighting, contributes more than 71 percent to the level of inflation and inflation movements in the province.

Among the 12 group indices, the annual inflation rate of education (9.1), restaurants and hotels (8.9), miscellaneous goods and services (7.5) alcoholic beverages and tobacco (6.9), food & non-alcoholic beverages (6.1), health (5.8), clothing and footwear (5.5), housing and utilities (5.1) were higher than the national rate of 4.7 percent. Transport and communication accounted for negative contribution of 1.9 and 1.8 respectively. The annual increases of the five indices out of twelve indices were above the upper limit of the inflation target zone of 6 percent.

Our City Economy

Globally, cities are the driving force for economic development and social progress, and in the South African context it is at the level of local government that the actual realisation of the ideals of the Freedom Charter, the Constitution, the RDP and the NDP is driven. Indeed, the country’s Metros account for more than 60 percent of South Africa’s economic output.

In reality, cities have historically driven growth in South Africa. According to Turok (2012), cities have consistently outpaced the rest of the country in terms of economic and employment growth. This is because they tend to be more productive in terms of the

### Table 1: Gauteng’s CPI Group Indices, Weights and Percentage Change

<table>
<thead>
<tr>
<th>Index Description</th>
<th>Weight</th>
<th>Month-on-month</th>
<th>Year-on-Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food &amp; non-alcoholic beverages</td>
<td>13.06</td>
<td>0.5</td>
<td>6.1</td>
</tr>
<tr>
<td>Alcoholic beverages and tobacco</td>
<td>5.21</td>
<td>0.7</td>
<td>6.9</td>
</tr>
<tr>
<td>Clothing and Footwear</td>
<td>3.16</td>
<td>0.4</td>
<td>5.5</td>
</tr>
<tr>
<td>Housing and utilities</td>
<td>23.74</td>
<td>0</td>
<td>5.1</td>
</tr>
<tr>
<td>Household contents and services</td>
<td>4.67</td>
<td>0.4</td>
<td>2</td>
</tr>
<tr>
<td>Health</td>
<td>1.6</td>
<td>0.5</td>
<td>5.8</td>
</tr>
<tr>
<td>Transport</td>
<td>18.52</td>
<td>-2.6</td>
<td>-1.9</td>
</tr>
<tr>
<td>Communication</td>
<td>2.6</td>
<td>0</td>
<td>-1.8</td>
</tr>
<tr>
<td>Recreation and culture</td>
<td>3.68</td>
<td>0.4</td>
<td>3.1</td>
</tr>
<tr>
<td>Education</td>
<td>3.23</td>
<td>0</td>
<td>9.1</td>
</tr>
<tr>
<td>Restaurants and hotels</td>
<td>3</td>
<td>0.1</td>
<td>8.9</td>
</tr>
<tr>
<td>Miscellaneous goods and services</td>
<td>15.9</td>
<td>0.6</td>
<td>7.5</td>
</tr>
<tr>
<td>All Items</td>
<td>100</td>
<td>-0.2</td>
<td>4.3</td>
</tr>
</tbody>
</table>

Source: Statistics South Africa-CPI, 2015
value of the goods and services they generate and the efficiency with which they are produced. According to the World Bank (2009) this partly reflects the ‘agglomeration economies’ that benefit large concentrations of economic activity, including: matching business requirements for labour, premises and other resources; sharing infrastructure, services and information; and mutual learning between firms and other institutions.

This implies that city-regions will have an even more relevant role as engines of economic growth and social cohesion. Tshwane, like other capital cities around the globe, is a core driver of national growth and development. Tshwane’s economy will have to grow massively if it is to fulfil the NDP targets of eliminating poverty.

The City of Tshwane is home to a range of higher-value functions such as corporate headquarters, financial and business services and manufacturing, and high-order public services, such as national departments, universities and major hospitals. To be more specific, the City accommodates more than 30 Johannesburg Stock Exchange (JSE) listed companies, home of national government departments, three Universities, hosts 134 foreign embassies and missions and 26 international organisations, giving it the largest concentration of diplomatic and foreign missions in the world after Washington DC in the USA.

The City of Tshwane, as one of the major economic hubs in the country, has not been an exception to this trend. The economic output of the City of Tshwane has expanded at an annual average of 3.9 percent per annum over the last five years, outstripping the national GDP growth average by at least one percentage point between 2010 and 2015. Overall, no city in the Gauteng City Region outperformed the growth rates recorded by the CoT in the last five years.

The City of Tshwane is the fourth biggest municipality in South Africa and second biggest in Gauteng in terms of gross value added by region with gross value add of R245.1 billion. In 2015, City of Tshwane contributed 25 percent to the provincial economy. Moreover, Tshwane accounted for 9 percent of the Country’s economic compared as compared to 15 percent for the City of Johannesburg.
According to the City of Tshwane’s Sustainable and Inclusive Growth Strategy, the City has considerable potential to grow its economy and significantly increase employment levels over the next 15 years. Tshwane has the potential to double the size of its economy and its workforce over this period, generating an additional R330 billion in GVA, together with 1.2 million additional jobs.

**Structure of Tshwane’s economy**

Tshwane has a diversified, emerging as a vibrant economy with significant community services, finance and transport. Tshwane has a large government sector (community services), reflecting the presence of national and provincial departments and parastatals. The sector recorded 32.3 percent contribution to Tshwane’s GVA in 2015. The five main sectors in 2015 were community services (32.3 percent), finance (25.1 percent), transport (12.2 percent), Trade (12.4 percent) and manufacturing (9.5 percent). Overall, the significant sectors of growth in Tshwane include government, social and personal services, construction, trade, transport and finance with the green economy and research and innovation and development representing crucial multi-dimensional and dynamic sectors of growth.

In particular, for the City of Tshwane to achieve total additional GVA or in other words the added-value required to meet NDP targets, the City needs to more than double the size of its economy (from ZAR 232.7 billion in 2013 to ZAR 645 million in 2030) and create almost one million jobs. The City’s economy is concentrated around non-tradable sectors, which made up almost 70 percent in 2015. The challenge with non-tradable sectors (such as subsistence agriculture, telecommunications, transport, and retail, etc.) is that they only grow in reaction to economic developments and population growth trends, and cannot achieve growth independently.
Tshwane’s Sustainable and Inclusive Growth Strategy (SIGS), which advocates for development in sectors with the greatest potential to grow in terms of GVA. These are to be developed against the backdrop of the green economy concept and principles. Education and the knowledge economy, agricultural production and agro-processing, tourism and the green economy could contribute up to 770,000 jobs and ZAR 110 billion to GVA by 2030, accounting for 65 percent and 26 percent of NDP targets respectively. These high potential sectors also represent a great opportunity for citizens with different levels of skills to find a job in the near future.

For these sectors, the City is well positioned to drive growth. Achieving this sustainable and inclusive growth will require focus and proactive actions, as well as the collaboration of other stakeholders (national and provincial government, private-sector investors, donors and academia).

Tshwane’s 7 Regional Economic Overview

The City of Tshwane is divided into seven administrative and functional regions that have been created to assist with a multidimensional approach to improve service delivery. The Regionalization Model has assisted the City to better organise, coordinate and align the interaction between government and the people.

**FIGURE 17: PROPORTION OF TSHWANE GVA-R BY REGION, 2004 AND 2014.**

Source: IHS Global Insight, 2016

Figure 17 above summarises the GVA and contribution by all regions in the City of Tshwane, this figure further illustrates the change in GVA contribution in 2005 and 2015. It can be noted from the figure that the Regional contribution to Tshwane’s GVA only changed marginally over the period. Region 3 is still relatively dominant in Tshwane in terms of GVA contribution with a 30 percent contribution, although this has decreased from 34 percent from 2005. Region 6 is the second largest contributor at 25 percent, this contribution has changed slightly over the last ten years.

Region 5 (old Nokeng tsa Taemane) and Region 7 (old Kungwini) are the regions with the lowest contributions to Tshwane’s economy, the regions contributed 2 and 3 percent respectively.

**Government, Community and Personal Services**

The sector includes a wide variety of government, social and personal services delivered by the public and private sectors, including public administration, education, health and social work, recreational and sporting activities and other personal service activities.
This sector is predominantly determined by the City budget and the budget of other spheres of government who implement projects within the City’s boundaries. As such, the sector has an impact on individuals and households beyond what can be captured in traditional economic data sets (such as the impact of child support grants over and above their monetary value). This sector is crucially important in terms of the services it provides, and also as an employer and as a contributor to the City’s overall growth.

In 2015 the government, community and personal services sector contributed 40.7 percent in Region 1, 32.0 percent in Region 2, 35.3 percent in Region 3, 31.4 percent in Region 4, 26.8 percent in Region 5, 33.3 percent in Region 6 and 20.4 percent in Region 7. Region 1 is dominated by community services while Region 7 has the lowest GVA contribution in this sector, lower contribution is positive, as economic growth in the area is being generated by the private sector and reflects the re-distributive nature of government spending.

Finance

The finance sector includes all financial intermediation, real estate, renting and leasing, computer and related activities, research and development and a range of "other" business service activities. When we compare all 7 seven regions in the City, Region 4 outperforms all other regions with a GVA contribution of 30.7 percent followed by Region 3 with 28.6 percent and Region 6 with 27.5 percent.

Transport and communication

The transport and communication sector is highly diverse, and includes land, water and air transport as well as transport via pipeline, all auxiliary transport activities (such as travel agents, logistics companies, etc.) and postal and telecommunications services. The sector’s contribution to GVA is 11.4 percent in Tshwane, region 1 has the highest contribution in terms of transport and communications with 13.3 percent followed by region 2 with 12.7 percent. Region 7 had the lowest contribution in 2014 with just 9.3 percent increase. The City recently implemented the BRT system to enhance public transport in the City. The BRT systems enhance bus efficiency through segregated bus lanes, designs that make boarding and exiting buses quick, bus priority at intersections and effective coordination at stations and terminals. According to the Department of Transport (2015), the concept of a modern Bus Rapid Transit System (BRT) is critical to the success of South Africa’s transport systems. Local transport cannot work if it does not incorporate a good bus service that is accessible, affordable and attractive to a broad range of people across society. This will increase the GVA contribution of the sector and support households with lower disposable income as the cost of public transport drops.

The contribution of communication is expected to increase across the City due to the implementation of Tshwane Free Wi-Fi. The City has successfully rolled out the first phase of its free Wi-Fi project to residents and students in Tshwane at open public spaces in line with its long-term plan to provide free Wi-Fi to all government educational institutions in Tshwane by 2016, and to embrace digital technologies for the purposes of education and economic upliftment. The roll-out of the second phase makes the City of Tshwane the largest provider of free Wi-Fi in South Africa with capacity for 1 million users in public spaces at 213 schools in Soshangwe, Mamelodi and Atteridgeville.
The ICT sub-sector remains a key part of the Tshwane economy, and seeks to create ubiquitous connectivity to every household, Small, Micro and Medium Enterprises (SMMEs), communities, government institutions (schools, clinics, etc.) and residents across the City.

Trade

The trade sector covers all wholesale, commission and retail sale of all goods. It also includes all hotel, conference and restaurant activity. Region 2 has the highest trade with 12.9 percent followed by region 6 and 7, all with 11.7 percent. Region 5 experienced lowest level of trade with 9.6 percent.

It is generally accepted that interest rates, credit extension policies, GDP growth and inflation are the major determinants of the trade sector’s growth performance. Therefore, as long as the macro-economic environment remains positive this sector will perform well.

Manufacturing

The manufacturing sector is the fourth largest contributor to Tshwane’s economic output. Region 7 boasts the highest contribution for manufacturing, manufacturing contributes 17.9 percent to the regional GVA. Region 7 is zoned as agricultural as it has vast arable land, more than 80 percent of which is used for crop production and livestock. Most manufacturing and distribution and related companies are located at Ekandumstria and Bronkhorspruit. In Region 2 there is a significant concentration of manufacturing, which is the highest concentration across all regions, the region accounts for 15.8 percent of output in this sector. With manufacturing as one of the most prominent sectors in Region 1, owing to the industrial zones (such as the auto cluster in Rosslyn), this sector contributes 12.9 percent to the region 1’s total output.

The manufacturing industry remains an important driver of economic driver in the City of Tshwane, there are regions with relatively small manufacturing. Region 3 is the smallest contributor in terms of GVA contribution by the manufacturing sector. The sector only contributed 7.2 percent to the regional total output. It should be noted that in some regions the sector’s contribution to GVA is less, mainly due to strong growth in sectoral contribution of other sectors and this does not indicate an absolute decline in manufacturing itself.

Construction

The construction sector covers site preparation, demolition or wrecking of buildings and other structures, preparation of building sites, construction of homes, construction of other buildings and heavy construction such as highways, streets, bridges, tunnels, etc. As such, this sector is relatively difficult to analyse with certainty as there are a myriad variables that influence its performance. Nonetheless, current data Region 7 has the highest contribution with 4.7 percent followed by Region 2 with 3.8 percent and Region 6 with 3.4 percent. Region 1 has the lowest contribution with only 2.9 percent contribution to the GVA.

Mining

The contribution made by the mining sector on average in the City is relatively marginal. The mining sector contribution ranges between 1.2 percent and 5.2 percent in 2015. Region 7 registered the highest contribution from the mining sector at 5.2 percent while region 1 register the lowest contribution with 1.2 percent.
Agriculture

The agricultural sector includes all activities related to the growing of crops, horticulture, the farming of animals, animal husbandry and veterinary service as well as forestry, logging, the production of organic fertilizers and fishing operations. Although agriculture makes up an insignificant contribution to the region’s output and to Tshwane’s GDP, Region 7 has some of the best farming land in Gauteng. Region 7 had the highest contribution to GVA in 2015 with 4.5 percent followed by Region 2 with 1.7 percent. The City’s agricultural activities are understandably very limited given the highly urbanised nature of the area.

Electricity, Gas, Steam and Hot Water

This sector includes activities related to the production, collection and distribution of electricity, gas and gaseous fuels as well as the collection, purification and distribution of water. In Tshwane electricity is supplied to the residents and business by Council. Overall this sector contributes 2.8 percent to the City’s economy. Region 2 had the highest contribution to the GVA with 3.9 percent followed by Region 1 with 3.8 percent with the lowest being region 5 with 2.1 percent.

GVA per Capita

Gross value added (GVA) for a region includes the compensation of employees, the net operating surplus, the consumption of fixed capital (gross value added at fixed costs), other taxes on production less other subsidies on production (gross value added at basic prices) in that region.

Figure 18 shows the GVA per capita for the period 2005 and 2015. From this it can be observed that at a regional level, GVA expenditure is the highest in Region 3 followed by regions 4 and 6. The GVA per capita expenditure hasn’t changed much over the period of 10 years however, the City of Tshwane has a large consumer base and subsequently a large market size.
City of Tshwane Population

The City of Tshwane continues to be a diverse and culturally vibrant capital City. In 1996 the total population of Tshwane was 1,897,449 and has since increased to over 3 million in 2015. For the period 2005-2015, Tshwane’s population grew annually between 2.9 percent to 4.3 percent. From Figure 20, it can be observed that during the 2005 to 2008, Tshwane witnessed an accelerated pace of growth in population numbers, which was followed by a slight dip immediately after 2008. This decline has been cited as one of the myriad effects of the 2008 economic downturn at city levels and its impact on labour migration patterns. The migratory nature of Tshwane’s population, especially in the peri-urban areas, makes the City’s population growth levels particularly sensitive to shocks. One can argue that the poor labour market conditions and lack of opportunities resulted in decreased in-migration levels. The figure further indicates that subsequent to 2009, the total population in Tshwane has been increasing at declining growth rates.

Furthermore, as indicated in Figure 19, region 1 has the largest population in Tshwane accounting for approximately 28 percent of the total population. Region 5 and 7 are the least populated regions in Tshwane, accounting for approximately 3.1 and 4 percent respectively in the total Tshwane population.

However, region 3, 4 and 5 have witnessed the largest population growth percentage over the 2005 – 2015 period. These were estimated at 4.5 percent, 9.7 percent and 5.1 percent, respectively whilst region 2 experienced the least growth in its population numbers i.e. 1.5 percent over the same period.

The large concentration of economic opportunities in region 4, primarily within the financial and professional services sectors, is one potential justification for the large population growth percentage in comparison with all other 6 regions in Tshwane.
Figure 20 disaggregates population growth rates in Tshwane by population groups. As indicated in the figure, the fastest growing population group in Tshwane is the Asian community peaking at 6.8 percent per annum growth in 2008, the growth rate has shown a declining trend since 2008 but still remains the fastest growing population group. The second fastest growing population group is the African group which on average grew at rate of 3.8 percent per year. Interestingly, the White population group recorded negative growth for the period 1997–2005 and only regained the positive growth trajectory (though marginal) from 2006 to 2015.

**City of Tshwane Youth Profile**

The Human and Science Research Council (HSRC) asserts that the demographic dividend occurs when there is a large economically active population, supporting a relatively small dependent population. When a larger proportion of the population falls within the working-age group, it is considered beneficial, especially if the group is productively employed. With fewer children to support, a ‘window of opportunity’ is created to raise economic output, education and skills and to generate the wealth needed to cope with the future needs of the aging population. This generally arises when there is a ‘youth bulge’, a phenomena that can be deserved in many developing countries.

South Africa has a large youth population however, the majority of youth are inactive. South Africa’s National Youth Policy (2009-2014) defines youth as persons from 15-34 years old. According to the Statistics South Africa 2014 Mid-year population report, about 66 percent of the total population in South Africa is below the age of 35 years. Figure 21 indicates the 2015 population pyramid for the City of Tshwane. As indicated in the figure, young people under the age of 35 in the City adds up to over 1 million, that is, they account for 35.7 percent of total population in the City. This highlights the apparent youth bulge in Tshwane’s population profile, one can attribute the large student population in the City resulting from the large concentration of higher education institutions as a justification.

**FIGURE 21:**
**TSHWANE POPULATION PYRAMID, 2015**

Source: IHS Global Insight

South African youth still face significant challenges such as high unemployment rates, relatively high HIV infection rates and an increase in youth headed households for the ages 15-24. In South Africa, secondary school Gross Enrolment (GER) is high at over 90 percent. However, two million young people aged between 19-24 years are neither employed nor in an educational institution (NEET).
Unemployment, approximately 45.4 percent of males are unemployed while more than half of female youth between 15 and 24 years (55 percent) are unemployed. Labour market trends such as the growth of non-standard employment including self-employment, temporary or part-time employment and sub-contracting have intensified the precarious position of young people in the labour market.

Moreover, a 2015 Statistics SA report shows that most of the jobs created in the past two decades were in low-skill sectors such as retail, construction, and in lower end private services, such as security and household services. These sectors are characterised largely by insecure employment and low wages. Informal employment in these formal sectors of the economy is also a widespread practice and the most prevalent form of youth employment.

Entrepreneurial activity in South Africa, although very low, has increased marginally over the last 10 years. In 2014 the early entrepreneurial activity rate dropped by an unprecedented 34 percent, and unfortunately continued its trend into 2015. According to the 2015 Global Entrepreneurship Monitor South Africa Report, South Africans aged between 25 and 44 years are entrepreneurially active, accounting for between 50 and 60 percent of all early-stage activity. Although, the low prevalence of entrepreneurial activity in the 18–24 age cohort is in line with general global trends of entrepreneurial activity, it is of great concern in the South African context. The percentage of 18–24 year olds in South Africa involved in early-stage entrepreneurial activity is significantly lower than the average for sub-Saharan Africa (which at 26 percent is more than five times the South African figure for this age group).

**Education**

Education in South Africa continues to be an area of apprehension among industry experts, global business leaders and students. The South African education system has a track record of faring poorly in comparison with African countries and the rest of the world on numerous standardised tests and surveys.

To elaborate, the quality of South Africa’s educational system has been ranked 139 out of 143 countries reviewed in the 2015 World Economic Forum (WEF) Global Technology Report, the Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ III) 2007 study shows that South Africa’s average student reading scored tenth out of the fifteen African countries reviewed and eighth on average student mathematics scores.

Furthermore, adult functional literacy levels in the country have been ranked 57 out of 119 countries in WEF’s 2015 Global Technology Report.
As indicated in Figure 22, the functional literacy levels for the 15 years and older population in Tshwane were recorded at levels that are above the overall National and Gauteng province levels. The functional literacy rate in Tshwane was recorded at 90.5 percent. It can also be noted from the figure that the African population group’s functional literacy level continues to be the lowest among all other population groups in the country, in the province and in Tshwane. South Africa’s historical legacy of systematic social injustice has gravely fragmented social balances in the country this explains the lower literacy among the African population group in the country.

The City of Tshwane, being government’s administrative capital and a city with the largest concentration of higher education institutions in the country, boasts a relatively better educated population than other metros in the country.

As indicated in Figure 23, the percentage of persons with no schooling or grade 2 represents a marginally small share of the City’s population, at approximately 3.9 percent in 2015. Tshwane has a large concentration of persons with matric and post-matric qualifications currently recorded at 57.3 percent. Furthermore, it can be noted that on average, 33 percent of the population in each of the City’s 7 regions have attained a Matric qualification.

This corresponds with the finding that functional literacy levels in Tshwane are at levels higher than National average and Gauteng.
The South African labour market has been volatile over the years, one can attribute negatively affected global market conditions, prolonged labour market strikes in the country, political instability and labour market structure in the form of wage rigidities as the main culprits to the volatility.

As indicated in Figure 24, the unemployment rate (both official and unofficial definition) worsened over the 2008 (Q1) – 2015 (Q1) period. The official unemployment rate worsened from 23.5 percent in 2008 (Q1) to 26.4 percent in 2015 (Q1). According to the OECD, labour market reforms in the country could go far in improving labour market conditions. The study argues that reforms need to be centered around ‘wage flexibility’ as this can potentially boost employment opportunities, particularly in the case of small-medium-sized enterprises that will absorb the ever-growing number of youth entering labour market and low-skilled workers.

Figure 25 indicates how total employment disaggregated by economic sectors has been performing over the period 2005 - 2015. The City of Tshwane recorded average growth in employment of approximately 3.3 percent over the reviewed period. It should be noted that employment growth saw a drastic decline during the global financial crisis period. Tshwane’s year-on-year employment growth declined from 6.4 percent in 2007 to -1.5 percent in 2010. Tshwane’s informal employment sector was hit hardest by recession period compared with the formal sector, sustaining a negative average growth rate of 2.1 percent compared with a 2.2 percent average year-on-year percentage change in the formal sector employment.

Furthermore, it can be observed that the Agriculture sector was the hardest hit during the recession period, the sector sustained a 1.8 percent decline in average employment (y/y) over the 2007 – 2010 period. The increasingly volatile food prices resulting from market conditions and energy related challenges serve as a justification for marginal employment gains in the aforementioned sectors.

Figure 25: CITY OF TSHWANE EMPLOYMENT (Y/Y PERCENTAGE CHANGE), 2005 - 2015

Source: IHS Global Insight 2016

Statistics South Africa defines official unemployment as the proportion of the labour force or persons aged between 15 and 64 years who were not employed in the reference week; actively looked for work or tried to start a business in the four weeks preceding the survey interview; were available for work, i.e. would have been able to start work or a business in the reference week.

Unofficial unemployment (expanded unemployment rate) definition includes discouraged work seekers (persons who were not employed during the reference period, wanted for work or tried to start a business in the four weeks preceding the survey interview; were available for work, i.e. would have been able to start work or a business in the reference week).

Marginal employment gains in the aforementioned sectors.

3 Marginal employment gains in the aforementioned sectors.
Introduction

Service delivery is a core component of government’s mandate to address key socio-economic objectives of creating safe, inclusive and equitable environments while addressing, among others, poverty and unemployment. The provision of water, sanitation, roads, waste removal and electricity are primarily the focus of service delivery and these services form the core enablers for economic activity. Consequently, service delivery commitments and improvement plans are noticeable in many national, provincial and local government documents. For example, the South Africa Constitution (1996) mandates local government to provide services to communities in a sustainable manner, to promote social and economic development and a safe and healthy environment, and to encourage the involvement of communities and community organisations in the matters of local government.

The Bill of Rights in the South African Constitution states that all citizens have rights of access to housing, health care, food, water and social security. It also says that government must take reasonable measures to ensure that, over time, everyone is able to enjoy these rights.

The effective delivery of municipal services is crucial to creating a South Africa that works. In South Africa, households and businesses depend on the provision of basic municipal services, including water supply, sanitation, solid waste management, district heating, and roads. These services support the economic development of municipalities. Poor levels of service, interruptions, and other problems can undermine quality of life in municipalities and erode trust in local government.

This section assess the extend to which the essential services of access to electricity, water, sanitation, waste removal in the City of Tshwane have been provided in the past five years with a focus on households.

Electricity

Electricity is the lifeblood of the global economy – a crucial input to nearly all of the goods and services of the modern world. Peter Voser (Chief Executive Officer of the Royal Dutch Shell in the Netherlands) at the Energy Community Leader 2011, World Economic Forum said,

“Without heat, light and power you cannot build or run the factories and cities that provide goods, jobs and homes, nor enjoy the amenities that make life more comfortable and enjoyable”.

Not only has electricity become a necessity of economic growth and development, but is also a need for performing basic functions associated with living.

Figure 26 illustrates the share of households with electricity in the City of Tshwane Metropolitan Area from the year 2005 – 2015. The figure illustrates there has been a positive but slow increase in the number of households with electricity connections. This is primarily due to the challenge of a growing demanding for new electrical connections as a result of population growth. The City however, remains committed to enhance the quality of life of all the people of Tshwane through a
In an effort to address the current national electricity challenges, the City of Tshwane has undertaken plans to increase the generating capacity of its current coal-fired power stations in Rooiwal and Pretoria West as the national electricity utility Eskom struggles to meet demand.

In a study that analyses and estimates economic activity trends if the Rooiwal and Pretoria West Power Stations refurbishment projects are implemented (calculating the difference from what would otherwise be expected if the project did not occur), the University of Pretoria found that the impact of the power stations’ refurbishment on the economic growth of the City of Tshwane metropolitan area, as measured by the gross geographic product (GGP) impact per industry, as well as the employment impact would add between 6.89 percent and 7.62 percent (once off) to the GGP of the local economy in the short-run per annum. Moreover, the refurbishment of the two power stations could also lead to additional growth of between 2.19 percent and 2.43 percent per annum to the GGP over the long-run to the local economy. This further reiterates the City’s commitment to the role it plays in supplying electricity to its residents and supplying it as an enabler for economic activity.

Water

Projected future water scarcity is a global phenomenon, on a larger scale this has been attributed to climate change and the ongoing environmental degradation as well as the destruction of fresh water bodies. Water is an important source of life, thus the South African Constitution says that all citizens have the right to an adequate amount of safe water; therefore ensuring access to safe drinking water for all members of the population, without discrimination, is an obligation for the government.

South Africa is facing serious challenges with the country’s water supply. The availability of water has become one of the most decisive factors that will affect the economic, social
and environmental well-being of South Africa over the next decade.

Figure 27 shows that from 2005 – 2015, the share of households in the City of Tshwane with access to water through piped water inside dwellings has increased, which reflects a dedication to improvements in the delivery of water services.

Sanitation

Many cities continue to experience population growth that far exceeds the ability and resources of local authorities to extend coverage of infrastructure or provide adequate levels of sanitation services (Lüthi et al., 2011). The majority of the urban population living in low-income settlements use some form of on-site sanitation but many of these facilities are rudimentary and poorly maintained. These systems are considered to be inadequate from a public health perspective.

According to estimates by the WHO/UNICEF global Joint Monitoring Programme for Water Supply and Sanitation based on survey and census data, the share of South Africans with access to improved sanitation increased slowly from 71 percent in 1990 to 75 percent in 2000 and 79 percent in 2010. In 2010, an estimated 11 million South Africans still did not have access to improved sanitation: They used shared facilities (4 million), buckets (3 million) or practiced open defecation (4 million).

Sections 24 and 27 of the Bill of Rights in the Constitution grant specific rights to access to sufficient water, an environment not harmful to health and well-being and the protection of the environment from degradation. The right to basic sanitation is not an explicit constitutional right. However, the right to sanitation could be derived from the right to a clean environment read together with the right of access to clean water.

Statistics show that the City of Tshwane has been increasing access to sanitation for its residents, but the pace of delivery remains a concern. Data from IHS Global Insight Regional Explorer (2016) shows that by 2015 only 795 330 of the almost 1 000 000 Tshwane households had access to flush toilets.

The City of Tshwane acknowledges the strides it has already made to ensure that its citizens have decent sanitation, however as illustrated in Figure 28 though progress has been significant, a lot of work still needs to be done to increase the share of households with flush toilets.
Solid waste management and service delivery systems are critical to public health, environmental sustainability, economic development and poverty reduction. Effective solid waste management systems can contribute to improving public health outcomes through reducing opportunities for disease spreading vermin to thrive, such as those at unregulated local dumpsites.

In 2001, the South African government set itself the target of providing all households access to refuse removal services by 2012. Significant progress has been made in expanding access, but significant challenges remain. Lack of access to services remains highest in rural municipalities, where consumers either dispose of waste themselves or dump it in an unregulated manner. But domestic waste collection services are often neither necessary nor viable in many rural areas, with households producing mostly organic waste that can be disposed safely on-site.

According to the South African National Treasury (2011), solid waste management is typically seen as a pressing priority for urban areas where there is a higher per capita and spatial concentration of waste production, and the potential for various social and economic problems is higher in the more concentrated settlements of urban areas. Extending access to basic solid waste collection services remains a critical policy priority in large cities. Figure 29 illustrates the number of household which enjoy the services of formal refuse removal by the City of Tshwane from 2005-2015. While the City of Tshwane has recorded substantial progress in this regard, the pace leaves room for improvements.
Housing

Living in satisfactory housing conditions is one of the most important aspects of people’s lives. Figure 30 illustrates that over 50 percent of Tshwane residents live in formal housing.

To address the City’s housing backlogs, the City has partnered with the Gauteng Department of Human Settlements, and identified housing mega projects within the 2015/16 financial year where a total of 5,000 serviced stands are expected to be delivered.

The City also committed to social housing units which will be developed over the next three years with funding committed to the installation of services during the 2015/16 financial year, as well as exploring the redevelopment of old hostels into bachelor units. Through its flagship project, Re Aga Tshwane (We are building Tshwane) the City of Tshwane is also committed to formalising informal settlements by providing the residents of the informal settlements with serviced stands.

Tshwane has made great progress in addressing poor services and lack of services in areas that were marginalised by apartheid policies. However, it recognises that there is still a lot of work to do. The size and socio-spatial inequalities of Tshwane make it particularly complex for the City to address its infrastructure gaps and adequately respond to growing demand. The City has urban, rural, and industrial components, each with their own specific challenges. Ensuring improved service delivery will mean taking into account the different context of each region, and ensuring that strategies are developed that will work in that area.

Transport System in the City of Tshwane

During the past few decades cities in developing countries have experienced huge population growth. The increase in population has led to the increase in the demand for urban transport and this creates an enormous challenge for cities to cope especially when the transportation infrastructure is not efficient and appropriate for the actual transport demand.

Having identified the transport challenges within its metropolitan boundaries, the City of Tshwane developed its comprehensive integrated transport plan with a vision of a transport system created to support a sustainable city, a system that positions the Capital City to meet the economic and social needs of its citizens. To give effect to the transport

![Figure 30: Household by Type of Dwelling](Source: IHS Global Insight, 2016)
vision, goals and objectives of the city, this section highlights Tshwane’s initiatives aimed at transforming public transport and improving commuters’ mobility experiences through three critical transport modes, the Bus Rapid Transport (BRT) systems, Non-motorised transport and the Passenger Rail System.

**Bus Rapid Transit**

Bus Rapid Transit (BRT) systems is growing in popularity throughout the world. BRT systems are being promoted in South Africa and elsewhere as a potentially effective way of delivering greatly improved public transport services to marginalised urban communities and thereby reducing exclusion-related poverty (DOT, 2007). The systems also provide sufficient transport capacity to meet demands in many corridors, especially in large metropolitan regions.

The South African Department of Transport advocates that local transport cannot work if it does not incorporate a good bus service that is accessible, affordable and attractive to a broad range of people across society (DOT, 2007). In line with this thinking, the City of Tshwane’s BRT system is a high-quality, customer-oriented bus service that delivers fast, comfortable and low-cost urban mobility.

**MAP 2:**
**TSHWANE RAPID TRANSIT (TRT) ROUTE**

Source: City of Tshwane Rapid Bus Transit System (TRT)
The BRT System is aligned with the City’s Integrated Rapid Public Transport Network (IRPTN) Strategy and aims to provide an efficient and accessible transport system comparable to private transport. The TRT infrastructure maximises the facilities for non-motorised traffic (i.e. cycling and walking) along the entire route and is designed to fit in with the existing streetscape. The Tshwane BRT uses the very latest, modernised bus technologies, including intelligent transport systems, a fibre optic backbone, Wi-Fi, CCTV, and real-time commuter information boards, which can provide such details as when the next bus is due.

Non-motorised transport

The South African government is beginning to realise the importance of non-motorised transportation as part of the overall transport network. In 2008, the national government developed a National Non-motorised Transport Policy, a document which provides a single framework and an enabling environment for the Department of Transport, other departments and stakeholders to address the challenges inherent in Non-motorised Transport (NMT).

As a mode of transport, non-motorised is available to almost everyone. The majority of this class of transport modes are healthy, non-polluting, versatile, reliable and include all means of transport that are human powered. Non-Motorised Transportation includes walking, animal-power and bicycling, and variants such as small wheeled transport (skates, skateboards, push scooters and hand carts) and wheelchair travel (Department of Transport, 2008).

Figure 31 illustrates the status quo of NMT in Tshwane. There is a high proportion of walking trips (29% in total), for all trips within Tshwane. The cycling trips are captured as part of “other” and could account for 0.8 % cycling modal share within the City.

To meet the transport demands of a growing City, in 2010 Tshwane developed an NMT Masterplan. The Master plan is aimed at creating an NMT Network for Tshwane comprising of a Metropolitan Bicycle Master Plan (MBMP) and a Regional Bicycle Master Plan (RBMP).

The MBMP was developed on the basis of connecting potential bicycle trip generators and attractors such as tourism sites, scenic routes, residential communities, places of work and strategic facilities through a metropolitan bicycle network - local area, shorter distance routes (City of Tshwane Integrated Transport Plan, 2015). The City of Tshwane will continue to promote and develop non-motorised transport both as a valuable mode of transport, as well as a means to encourage and grow liveable communities.

“NMT forms a safe, attractive and well used component of any trip or journey in the City of Tshwane and has become an instinctive choice for travel in the City” – (Tshwane NMT Framework, 2013).
**Passenger Rail System**

Metrorail Gauteng - a division of the Passenger Rail Agency of South Africa (PRASA), is a network of commuter rail services in Gauteng province, serving the province’s three metropolitan municipalities. According to the Gauteng MEC of Transport, Mr. Ishmail Vadi (2013), “rail is the backbone of the Gauteng public transport system” and following many years of underinvestment, PRASA is undertaking a complete overhaul of its commuter rail systems in Gauteng. The agency has developed a modernisation programme focused on the key Mabopane-Pretoria-Germiston-Johannesburg-Soweto corridor which will see a combination of new rolling stock, the upgrading of track and signaling infrastructure and the redevelopment of stations.

The rail transport in Gauteng also entered a new era in 2011 with the opening of the Gautrain Rapid Rail Link which links the Cities of Ekurhuleni, Johannesburg, Tshwane and O. R. Tambo International Airport. The link was built to relieve the traffic congestion in the Johannesburg–Tshwane traffic corridor and offer commuters a viable alternative to road transport. In an effort to relieve traffic congestion the inner city of Tshwane, the city has completed a pre-feasibility study to introduce a Light Rail Tram (LRT) into the local transport system to complement the city’s integrated rapid transport network.

**Sustainability interventions**

**Introduction**

In the wake of climate change and dwindling natural resources, the City of Tshwane is in a process of ensuring sustainability of its business and plans.

In accordance, the City pursued principles of sustainable development focusing on the following game changers:

- Resilient city;
- Resource-efficient city;
- Inclusive, diversified and competitive city economy;
- Livable communities that are supported by quality infrastructure;
- Benchmark for innovative and excellent city governance; and
- An activist citizenry that is engaging, aware of their rights and presents themselves as partners.

To monitor the city’s progress on sustainable interventions, the Office of the Executive Mayor, established the City Sustainability Unit (CSU) in 2013; and it is mandated to address climate change and stimulation of the green economy through policy development, research, awareness-raising and demonstration projects. Due to the paradigm shift towards sustainable development and decoupling economic development and resource exploitation, the CSU’s mandate crosscuts every department’s activities.
## Milestones

Key milestones in the City of Tshwane’s Sustainability Journey since its inception:

- January 2013: The City Sustainability Unit is established to guide the transition to a green economy and to promote city sustainability;
- July 2013: the Green Building Policy and Bylaw is promulgated making City of Tshwane the first municipality in South Africa to gazette such a bylaw;
- August 2013: The City launches its Strategic Framework for a Transition to a Green Economy;
- November 2013: First phase of the supply of free wi-fi services in strategic places such as tertiary institutions;
- December 2013: Request for Information (Expression of interest) on Green Economy interventions issued;
- March 2014: A sod turning for the establishment of a multi-purpose Material Recovery Facility to be supported by a separation at source programme in Regions 3 and 4;
- June 2014: City Sustainability Unit unveils its Tshwane Green programme aimed at raising sustainability awareness among all city stakeholders;
- July 2014: The Carbon Footprint for 2012/13 Financial Year is announced and vulnerability assessment undertaken;
- July 2014: City of Tshwane is announced as the most livable city by the Gauteng City Region Observatory;
- October 2014: first ever Tshwane Green Ride, a 30km family fun ride from Mamelodi to Rietondale and back to demonstrate benefits of cycling and connecting diverse localities;
- November 2014: City of Tshwane announced as 70th member of the C40 joining as an Innovator City, a category reserved for cities that have shown leadership in climate action;
- March 2015: City of Tshwane is announced the National Earth Hour Capital 2015;
- March 2015: The new City of Tshwane headquarters, Tshwane House, is announced as a green building with a 5 star Green grading status;
- April 2015: Development of the Food and Energy Agropolitan Centre commissioned;
- May 2015: the City invests in 10 electric cars for its fleet;
- May 2015: City of Tshwane becomes a member of the Green Building Council of South Africa’s Green Building Leadership Network; and
- June 2015: City of Tshwane’s second year to host Sustainability Week and to launch the inaugural African Capital Cities Sustainability Forum.

The City of Tshwane through the City Sustainability Unit intends to transform the capital city of this country into the most sustainable city in Africa. The City Sustainability Unit (CSU) is tasked to champion the implementation of sustainability programmes driving the city’s response to the global sustainable development and climate change challenges while leveraging on the available economic and financial mechanisms to attract revenue.
Projects

Some of the Projects implemented thus far include:

1. Energy Efficiency Project
2. Streetlights Replacement of 125W (Mercury Vapour) with 70W (High Pressure Sodium) luminaire
3. Traffic Lights Replacement of 50W halogen and 75W incandescent lamps with 9W LED lights on traffic intersection
4. Building Lights Replacement the T8 fluorescent lamp with T5 energy efficient lamps
5. Renewable Energy Project (Solar Water Heaters – Installation of 100litre vacuum tubes and flat plate SWH system at low cost houses)
OUR RESEARCH

REVITALISE. STABILISE. DELIVER.
In 2014, the City of Tshwane embarked on an innovative approach of disposing land through way of public auction. The project allows the city to dispose of a small portion of land that is not essential for service delivery. The disposal of the selected land parcels will allow the city to further improve service delivery and address the disparities of the past, addressing the needs of the citizens. The land parcels once developed will also generate employment and development opportunities, as well as increase income through rates and taxes that could further assist the City in addressing the needs of the citizens. Disposal of Municipal land by way of public auction it promotes good governance as the price and disposal is done in a manner that prohibits collusion and corruption. Furthermore, once the property is sold the agreed price established at the auction stands.

The City of Tshwane is concerned with ensuring and promoting processes that maximise its fiscal sustainability as well as identifying alternative sources of revenue within the context of radically transforming its economic landscape and trajectory. Land-based financing models garnered an increasing level of significance within the sphere of urban infrastructure finance, particularly in developing countries. This is aligned with the dynamics of the current economic environment in which cities are assuming more a significant role in the economic growth and development trends of countries. Land asset sales are an attractive tool to mobilize investment resources, an approach that has been tested over time in other countries. Most techniques of land-based financing have significant practical advantages including; generating up-front revenue, reducing dependence on debt and potentially eliminating the need for periodic valuations of all taxable property under property tax systems.

Provinces and municipalities are assigned key service-delivery functions such as basic education, health, social development, housing, roads and provision of electricity, water and municipal infrastructure. In addition, provinces and municipalities have some autonomy in allocating resources to meet basic needs and responding to provincial and local priorities, while giving effect to national priorities. National government has primary revenue-raising powers. However, provinces and municipalities have limited revenue-raising capacity and the resources required to deliver provincial functions do not lend themselves to self-funding or cost recovery.

Municipalities finance most of their expenditure through property rates, user charges and fees. It is widely recognised however, that rural municipalities raise significantly less revenue than larger and metropolitan municipalities. Although transfers to local government have grown significantly in recent years providing municipalities with greater resources to deliver services, major funding gaps remain for a number of municipalities. This growing need for funding has called for an exploration of ways in which local government can raise funds, and the effective and efficient disposal of publicly owned land, in an innovative manner, is one such option.

The Council resolved on 4 November 2014 to dispose of access land by way of public auction in terms of the Municipal Finance Management Act (Act 56 of 2003) and MAT Regulations. The motivation to sell these properties is based on the realisation that the municipality can utilise its assets to attract investment in the City, address economic challenges such as unemployment and also generate income through its property portfolio. Therefore properties that have the potential to generate high income, improve development within the City and meet basic community needs were identified.
The High Street Auctions Company facilitated two very successful land auctions, which were held in March and May 2015. The City sold 19 land parcels to various developers and prominent investors. The total value of the 2 auctions was in excess of R180 million.

**Incentive framework and incentive policy**

One of the critical success factors for attracting developers and investors is to offer a compelling value proposition with respect to leasing of land, disposal of land and the ability to process any land related application within acceptable timeframes. The City of Tshwane must in this respect identify appropriate incentives that can be utilised to attract potential developers and/or investors to develop within the CoT. Further development within the CoT will not only enhance short-term revenue streams to the CoT, but will also stimulate long-term local economic development within the metropolitan region.

The Development Investment Incentives (DII) Policy allows the City to offer key incentives and a structure within which to facilitate the incentives to potential developers and investors to attract further investment into the City to further unlock the benefit of the auctioned land, but furthermore to encourage and promote development in the City that would ultimately be to the benefit of the residents of Tshwane.

The DII Policy, which came into effect on 28 May 2015 through a Council Resolution, identifies a range of incentives available to investors and methods in which the City can facilitate the investment opportunities effectively, furthermore the Policy allows the City to identify different categories of investments with respect to investment amounts and zoning categories. Moreover, the DII policy facilitates the inclusion of incentives within the existing structures of the rates policy of the City and has created a mechanism for developers to apply for incentives.

**Financing capital expenditure**

The surge of urbanisation has given birth to megacities residing more than 10 million people. It is estimated that by 2030, nearly two thirds of the world’s population will be residing in urban areas (Economist, 2002). Africa currently with just three megacities, is no exception. Urban populations in Africa are expected to triple in the next 50 years, changing the profile of the region and challenging policy makers to harness urbanization for sustainable and inclusive growth Freire et al. (2014). One cannot deny the opportunities that urbanisation presents, the challenges likewise. Infrastructure development forms the backbone of leveraging opportunities and tackling challenges related to urbanisation. The World Bank in collaboration with major donors and multilateral institutions in a 2009 study estimated Africa’s infrastructure development needs at US$ 93 billion each year. This estimate is particularly guided with large deficits in energy infrastructure (estimated at US$ 9 billion a year), water supply and sanitation infrastructure and transport. Infrastructure expenditures in South Africa are financed through a variety of financing instruments as indicated in Figure 36 and Figure 37.
Figure 36 provides an overview of local government capital financing instruments that are utilised in South Africa. As indicated in the figure, local government relies quite heavily on intergovernmental transfers to finance capital expenditures. Intergovernmental transfers accounted for approximately 57 percent of the total local government capital budget in the 2010/11 financial year and this is expected increase to 61.1 percent in the 2016/17 financial year. Internally generated funds’ contribution to capital expenditures are expected to increase from 16.3 percent in 2010/11 financial year to 21.7 percent 2016/17 financial year. This can be attributed to the anticipated hikes in services charges such as electricity tariffs and sluggish in markets conditions.

Municipal borrowing which includes finance leases and a capital component of PPP unitary payments, contributed approximately ZAR 8.7 billion (23.9 percent) to the overall local government capital budget in the 2010/11 financial year and this is expected to increase to approximately ZAR 9.8 billion (15.6 percent) in the 2016/17 financial year. Literature argues that borrowing and PPP’s financing instruments are best fitted to finance economic as opposed to social infrastructure. The need for greater investments in economic infrastructure to drive the country’s growth trajectory truly justify the estimated increased usage of borrowing for capital expenditures over the 2013/14 MTREF.

Public contributions and donation include contributions from both local and foreign donors. As one would expect, this financing instrument contributes the least to financing municipal capital expenditures. As indicated in the figure, public contributions and donations accounted for approximately 2.5 percent of total capital budget in the 2010/11 financial year and this is expected to decline 1.7 percent in the 2016/17 financial year.

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FIGURE 37: CAPITAL FINANCING INSTRUMENTS BY METROPOLITAN MUNICIPALITY

Source: National Treasury Database
Table 2 outlines varying innovative approaches to financing capital expenditures, adapted from literature that can still be fully exploited by the country’s local government.

### TABLE 2: VARYING APPROACHES TO FINANCING MUNICIPAL CAPITAL EXPENDITURES

<table>
<thead>
<tr>
<th>Capital Financing Instrument and Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Informal taxation</strong></td>
</tr>
<tr>
<td>Contributions made by local residents outside the formal tax system to the construction and maintenance of local public goods. Payments are coordinated by public officials but enforced largely through social customs and norms. In fact, individuals in many communities throughout the developing contribute substantially to local public goods such as roads and water systems, both in money and labor, with often complex arrangements in determining how much each household should pay and what penalty ties apply for those who free ride. These systems are called by many different names such as gotong royong in Indonesia and harambee in Kenya. These informal payments can be quite large, they are often regressive in their pattern and their form differs significantly across countries Alm (2010)</td>
</tr>
<tr>
<td><strong>Public-private partnerships/private participation in Infrastructure (PPPs)</strong></td>
</tr>
<tr>
<td>PPPs can be regarded as the public sector partnering with the private sector or rather shifting a share of their infrastructure provision responsibility to the private sector in an attempt to mitigate the fiscal burden already borne by the government without compromising on adequate delivery of this service. Kitchen (2006) indicates that “both parties contribute funds or services in exchange for certain future rights.” He further indicates that effective and efficient PPP agreements are based on a mutual understanding of the risks that are borne by both parties.</td>
</tr>
<tr>
<td><strong>Full Privatization</strong></td>
</tr>
<tr>
<td>Complete privatization of a service by a government/sub national government such as privatizing a public bus system Alms (2010)</td>
</tr>
</tbody>
</table>

#### Advantages
- Potentially lowers costs by encouraging competition
- Can potentially minimize the financial burden that service provision would impose on municipal governments
- Can potentially improve service delivery

#### Disadvantages
- Benefits from privatization not guaranteed where competitive market pressures are not encouraged
- Some services often require government financial support usually through subsidies due to high financial pressures such as high operating costs
- Private sector does not usually provide for externalities adequately such as sewage, dams roads unless government financing is involved even in the case where the provision of service is used as a way of redistributing income
- Some infrastructure services may be characterized by large economies of scale through production and/or distribution, therefore government may be needed to establish pricing schemes or subsidizing the service to move toward universal service
- Government may be required to regulate privatized firms, through regulation of quality services and prices
Land and Asset-based sources of finance

Classified according to Peterson (2010) as developer exactions including impact fees (when developers are required to finance some or all infrastructure that new developments impose on local governments such as roads, water and power delivery and sewage delivery); value capture (when the provision of infrastructure is typically capitalised in land and housing values, the notion is that local government should be able to appropriate some of this increase in value) and land asset management (where municipal governments exchange land assets for infrastructure assets).

Tax incremental financing (TIF's) bonds

According to Kitchen (2006) these bonds are sold to provide up-front financing for the purchase or reclamation of land and for the installation of public infrastructure such as street lights, water and sewer lines etc. with the intention to sell the land to a private developer at lower costs that the original costs incurred by the local governments (land cost write-down). The rationale is that for a specified period of time, TIFs tax revenues from the area are divided into the two, taxes based on pre-developed assessed value of property (which are retained by local governments for general use) and taxes on increased assessed values arising from redevelopment of the area (which are then deposited into a special increment fund with the intention to utilise the revenues from this fund to repay bonds that have been issued). He further recommends that TIF bonds can be used as an instrument to resolve growing problems associated with revitalisation of urban core, developing brownfields and controlling urban sprawl.

Lease-purchase financing

“Local governments have the use and ownership of assets and equipment without incurring standard debt. The lease-purchase anticipates full ownership at the end of the lease term. The lessee owns the title from the beginning of the lease, while the lessor retains only a security interest.” Campaign Country Regional Planning Commission (2010)

Pooled financing

Municipalities and projects are pooled for the purpose of accessing market finance, while minimising costs and risks involved, and thus attracting favourable capital financing terms from the market (Alam, 2010). This type of financing is most applicable to municipalities that need to fund small projects but are not able individually to source capital financing from the market for various reasons such as poor credit ratings. Finance Corporation Financial and Fiscal Commission (2014).

Highlights from the water scarcity study

Introduction

The water scarcity study comes as one of the City of Tshwane’s proactive ways to curb potential future resource deficits. Ever-growing population numbers coupled with dwindling natural resources call for proactive means to intercept foreseen potential pressure on resources. The study is aimed to inform on the risks that could potentially negate the objectives of the Water Resources Master Plan and result in water scarcity within the City of Tshwane.

The City of Tshwane is no exception to the imminent water scarcity problems facing cities throughout the world. Water scarcity is a consequence of a number of factors that
encompass climate change and population growth through both migration and natural in situ growth. In its basic definition from the United Nations, water scarcity refers to a scenario where demand for freshwater exceeds the supply.

A study by Maddocks, Maddocks, Young and Reig (2015), found that 33 countries face extremely high water stress in 2040. These countries are located adjacent to the Mediterranean and Caspian Seas and include Saudi Arabia, Libya, Iran and Pakistan, Namibia, Botswana and South Africa could face an especially significant increase in water stress by 2040. This means that businesses, farms, and communities in these countries in particular may be more vulnerable to scarcity than they are today.

Liveability is one of the City's strategic objectives. The water scarcity study will help the city in addressing the impending water scarcity thereby helping the municipality achieve its mandate to deliver services, especially to the poor.

The purpose of the CoT Water Resource Master Plan (WRMP) was to investigate the possible upgrading or extension of the City's own water resources, with a view to reduce the dependence on imports from the Vaal River basin (via Rand Water). It also concerns the Crocodile River basin and the Olifants River basin, which both receive significant sewer return flows from the City that influence the yields of the local water resources and water allocations to downstream users. The recommendations of the WRMP would promote the strategic objectives set by National Government relating to water resource management, while ensuring the long term development objectives of the City is realised.

The implementation of the WRMP along with water awareness programmes will enable the City to increase its water resourcefulness in order to cope with water interruptions from bulk water service providers.

Source: City of Tshwane
Current Water Sources And Demand

The CoT currently has an average potable water demand of 987 Ml/d. Approximately 72 percent of the demand is supplied by Rand Water Board, the main water source being the Vaal River. The remainder is generated internally by CoT’s own fountains, springs, boreholes and Water Treatment Plants (WTP), of which Rietvlei WTP (40 Ml/d), Roodeplaat WTP (60 Ml/d), Bronkhorstspruit (54 Ml/d) and Temba WTP (60 Ml/d) are the largest. Magalies Water Board (MW) also owns and operates three WTPs which supply CoT, namely Klipdrift WTP (18 Ml/d), Wallmannsthal WTP (12 Ml/d) and Cullinan WTP (16 Ml/d).

In accordance with the City of Tshwane’s current water and sewer Master Plan, which is based on the City’s approved Spatial Development Framework, the CoT potable water demand is set to increase over the next 40 to 50 years from 987 Ml/d to 2600 Ml/d, with an associated increase in sewer return flows to 1600 Ml/d. The anticipated future water demand and sewer return flows are based on a population growth rate of ±2 percent per annum.

The WRMP will ensure sustainable water provision to the City by reducing the dependency on Rand Water to 1816 Ml/day by 2022. The capacity of the water treatment plants will be increased as follows:

- Stepwise increase the Rietvlei Water Treatment plant (WTP) capacity from the 40 Ml/d to 140 Ml/d;
- A further expansion the Rietvlei WTP to 240 Ml/d once water is transferred from Ekurhuleni’s Olifantsfontein Waste Water Treatment Works to Rietvlei Dam;
- Expand the Roodeplaat WTP capacity from 60 Ml/day to 240 Ml/day;
- Expand Temba WTP from 60 Ml/day to 180Ml/day to address peak summer demand;

The core objective is to ensure sustainable water supply to the City of Tshwane. This will be done by expanding the water and waste water treatment plants within the City. Although infrastructure is critical for water provision, there are unforeseen risks that could potentially negate all the objectives of the WRMP. These risks include:

- Rapid population increase
- Climate Change
- Acid Mine Drainage
- Ground and surface water pollution
- Age and Maintenance of existing infrastructure
- Non-payment of services

The projections for demand are mapped against the total water requirements as obtained from WRP consultants. The graph below shows the requirement results not taking into account the water losses. Given this we see that the low projection never crosses the CoT Scenario as created by WRP, but crosses the recon study as obtained from the DWA. Both the medium and high scenario’s cross the WRP scenario in 2052 and 2043 respectively but does not breach the total requirements of the City of Tshwane as modelled in the WRMP.
When taking into account the water losses, the findings show that for both the low and medium term the water demand exceeds the original water demand estimates for a portion of the period, but return to positive by the end of the period. However, this is not the case with the high scenario as it remains in the negative. This illustrated the importance of reducing water losses. However, by shocking the model and reducing the water losses to 15 percent, all the balances between demands come to a positive end by around 2050. This shows the importance of curbing water losses in ensuring that water demand needs are met.

When shocking the model and assuming that the economy will grow at 5.2 percent per annum, in an accelerated growth scenario, the findings shows that the water demand for the economy will exceed the estimated total requirements in the WRMP. The realistic scenario will breach the top requirements estimate by 2053, whilst the medium and high scenarios will breach the total requirements estimates in 2050 and 2046 respectively. This shows that shocking the model with accelerated growth, there is a possibility that current water supply measure (given the current usage patterns) as such water demand management must be put in place.
If one adds water losses to the mix, the negative difference between the original demand estimates and the new estimates increase exponentially. No amount of water loss improvement can cancel out the negative effect permanently as in all cases the new scenario exceeds the total requirements of the City of Tshwane. The scenarios presented represent an accelerated high growth, thriving population, placing extensive pressure on the City’s resource demand and shows that in the event that water losses are not considerably curtailed, whether through water reuse measures or effective campaigns for responsible water use, the City of Tshwane will experience greater yet avoidable increases in demand.

Given the complexities of the water resource system it was not possible to remodel the water system, however, there is no reason to contradict this analysis. Notwithstanding, the study set out to determine whether the infrastructure expansion given the current share of Rand Water, water supply, approximately 72 percent, would be sufficient to meet demand. Taking the information as given in the WRMP, the water infrastructure capacity of the city was calculated. Currently this is approximately 328 million cubic meters per year. With planned expansions and excluding the Raw water augmentation plans. Different demand scenarios were mapped for this infrastructure capacity, taking into account peak summer demand as well as the maximum water requirement for the City of Tshwane.

![Water System and Supply Mapping 2012 - 2050](source)

From Figure 42 taking into account both water sources given the assumption that 72 percent of water comes from Rand water. Mapping on it the realistic economic growth, population variant scenarios the findings show that the planned water infrastructure expansion offer a more efficient response to responding adequately to expected water demand, as even the total water requirements for the City falls under the total supply consistently. When mapping out the peak summer demand using a factor of 1.5 of demand, the findings show that for the high scenario there are multiple breaches with respect to the total possible supply and demand. This implies that water demand management might be needed. The medium scenario also breached the supply levels at 2053. This demonstrates that if the population growth accelerates (keeping in mind the trend of rapid urbanisation in South Africa), it is likely that down the line, the City will have to further add capacity to the system to address demand pressures on the infrastructure.
Figure 43 below shows a similar graph with the increased growth scenario. Again on the demand side normally the system is able to meet the demands of residents and businesses. However, in peak summer time the demand will need to be monitored as it exceeds supply, quite significantly, especially from 2046 onwards.

The world’s demand for water is likely to surge in the next few decades. Rapidly growing populations will drive increased consumption by people, farms and companies. More people will move to cities, further straining supplies. An emerging middle class could clamor for more water-intensive food production and electricity generation.

Whatever the drivers, extremely high water stress creates an environment in which companies, farms and residents are highly dependent on limited amounts of water and vulnerable to the slightest change in supply. Such situations severely threaten national water security and economic growth. National and local governments must bring forward strong national climate action plans and support a strong international climate agreement at the December 2015 United Nations Climate Change Conference, COP21 talks. Governments must also respond with management and conservation practices that will help protect essential sustainable water resources for years to come.

Business intelligence for alternative development futures

Introduction

The world over, it is a generally accepted fact that the global population is growing. A popular response to both population and targeted economic growth is to plan for a city that will absorb or influence future shifts. This sometimes comes in the form of development expansion areas and so-called ‘new cities’ or neighbourhoods that promise both additional housing and work opportunities.

It is not considered as sage to speak of population decline, especially within the context or an urbanising world. But if we are to do our due diligence, we must consider futures for population growth as well as decline.

The purpose of this discussion is to consider the possibility of alternative development futures and the manner in which we plan for and think about our future City, so that we may be better prepared for the unknown, specifically with regards to connecting our intentions for economic growth with urban planning initiatives. This section of the report questions the assumptions we make about the future, and asks whether there isn’t a better way to prepare for the unknown and whether the unknown might not be exactly the opposite of what we are preparing for.
Accuracy of population projections

A rarely spoken about subject is the accuracy of past population projections. Between 1957 and 1998, the UN made numerous world population projections. The margins of error ranged from one to seven percent. Global population figures tend to reflect the least amount of error due to an aggregation of populations from different countries.

These errors are relatively modest for this scale of projection. But such errors on a city-scale might have far greater consequences. It is never the expectation that population projections will be exactly precise, but understanding the dynamics around the factors that cause these errors or variations is very important, especially during intermediate phases towards a long-term goal, when certain interventions may have to be adjusted.

One of the most relevant factors for the over-estimations of the global population figures by the U.N., as depicted in the figure above, was the decline of fertility rates at a more rapid rate than expected (Bongaarts and Bulatao, 2000), amongst others, like net migration figures.

Not surprisingly, coming across comprehensive studies and analyses of the past projections versus actual population figures for individual cities are not easy to come by. In South Africa, while certain trends point to a likely projection, should we perhaps not also consider the alternatives as we prepare for population futures?

Shrinking Cities

In 2013, the United Nations published a report which indicated 28 cities that are projected to decline between 1990 and 2025. These cities are found in developed, emerging-market and developing economies, each with their own unique history, politics and economy, but subject to similar fates insofar as population figures are concerned.

Cities that have fared well economically, regardless of population growth or decline, are cities that have ensured enhanced productivity, infrastructural development, quality of life, equity, social inclusion, a well-educated labour force and environmental sustainability. UN-Habitat (2013) calls these the ‘five dimensions of prosperity’.

\[ \text{Source: Bongaarts and Bulatao, 2000} \]
\[ \text{UN-Habitat, 2013} \]
What is additionally important to note is that productivity growth in cities with a greater degree of labour-intensive economies will absorb more of the available workforce than a capital-intensive urban economy.

### Table 3:

**Selection of Shrinking Cities According to Rank**

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>28. Havana, Cuba</td>
<td>2,108,000</td>
<td>2,130,000</td>
<td>2,094,000</td>
<td>-0.66 %</td>
</tr>
<tr>
<td>27. Rome, Italy</td>
<td>3,450,000</td>
<td>3,362,000</td>
<td>3,376,000</td>
<td>-2.14 %</td>
</tr>
<tr>
<td>25. Milan, Italy</td>
<td>3,063,000</td>
<td>2,967,000</td>
<td>2,981,000</td>
<td>-2.68 %</td>
</tr>
<tr>
<td>14. Seoul, South Korea</td>
<td>10,544,000</td>
<td>9,773,000</td>
<td>9,767,000</td>
<td>-7.37 %</td>
</tr>
<tr>
<td>11. St. Petersburg, Russia</td>
<td>4,989,000</td>
<td>4,575,000</td>
<td>4,557,000</td>
<td>-8.66 %</td>
</tr>
<tr>
<td>7. Monrovia, Liberia</td>
<td>1,042,000</td>
<td>827,000</td>
<td>932,000</td>
<td>-10.56 %</td>
</tr>
<tr>
<td>4. Zaporizhzhya, Ukraine</td>
<td>873,000</td>
<td>775,000</td>
<td>758,000</td>
<td>-13.17 %</td>
</tr>
<tr>
<td>3. Donetsk, Ukraine</td>
<td>1,097,000</td>
<td>966,000</td>
<td>941,000</td>
<td>-14.22 %</td>
</tr>
<tr>
<td>2. Budapest, Hungary</td>
<td>2,005,000</td>
<td>1,706,000</td>
<td>1,711,000</td>
<td>-14.66 %</td>
</tr>
<tr>
<td>1. Dnipropetrovsk, Ukraine</td>
<td>1,162,000</td>
<td>1,004,000</td>
<td>967,000</td>
<td>-16.78 %</td>
</tr>
</tbody>
</table>

**New Cities and Ghost Towns**

Shanghai, China is the third most populous city in the world, at a population of 23 million people and a growth rate of 2.9 percent between 2010 and 2015. China, itself, has four megacities - more than any other country in the world. They are, in order of population size, Shanghai with 23 million people at a density of 6100/km², Beijing with 22 million at 5500/km², Guangzhou with 20 million at 6000/km² and Shenzhen with 12 million at 6900/km² (Demographia, 2015).

In order to absorb this growing population, China is investing in a growing number of new cities and neighbourhoods which have garnered considerable attention with regards to how many of them remain ‘ghost cities’, such as the infamous Kangbashi and Yujiapu. And yet, construction of new cities, neighbourhoods and even smaller urban centres in and around rural areas continues.

China is not alone. Following the recession of 2008, a number of cities across Europe suffered a similar fate, leaving several residential estates and neighbourhoods newly built on investor optimism standing empty. Ireland, Spain, and Valentia of Italy have succumbed to this post-recession burden.

In all likelihood, megacity populations such as those in China will eventually expand to take up space in ghost cities. The new district on the eastern side of Zhengzhou, which was a near ghost town in 2013 and is now a bustling urban area, busy with daily activity and serves as a good example of the possibilities that exist for Chinese ghost cities in the future. However, the current population figures, densities and growth rates in China are

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7 Kotkin and Cox, 2013  
8 Badkar, 2014; Rapoza, 2015
unique only to a handful of other countries in the world, and individual cities should be careful not to ‘copy and paste’ the Chinese approach when dynamics and factors are wholly different.

**Tshwane: Mega and still Growing**

The City of Tshwane has been expanding in a discontinuous manner not exclusively due to sprawl, but also due to expanding boundaries between 2001 and 2011. These have been political decisions and not planning decisions. As a result, the city form is sprawled and discontinuous. At a size of 6,368km² and a population of just over three million people, Tshwane’s population density averages 471 people per km².

Between 1946 and 1996, the geographic area formerly delineated as Tshwane experienced growth averaging around 3.7 percent over the 50 years. But then between 1996 and 2001, as in all the other metros of the country, Tshwane experienced a leap of growth, averaging around 18.02 percent for this 5 year period. As explained above, this is a reflection of the political climate during this time, which allowed population groups previously prohibited from becoming citizens of the old Tshwane from migrating closer to better economic and social opportunities.

Coupled with the amalgamation of a number of local municipalities that included those in other provinces, the population was bound to see a steep increase.

Following the relative stability of the new metro, Tshwane’s population growth remained reasonable between 2001 and 2011 at an average of three percent. Between 2011 and 2015, Tshwane increased from a population of approximately 2.9 million to approximately 3.2 million, largely as a result of the most recent amalgamation with Metsweding to the east of the former Tshwane.

*South African Cities Network, 2004*
If the economy of the City is to become more equitable, sustainable and productive, so, too, must the City spaces in which those economies operate. Urbanisation is likely to require that the City makes significant investments in economic infrastructure. The City has already identified a number of economic infrastructure investments to be rolled out in the medium- to long-term. These investments need to reduce transport and service delivery costs, reduce energy consumption to make cities more sustainable.

While some of the projects that have been identified to date are spatially targeted in order to achieve the above objectives, some of the projects are being identified in a disconnected way that already reflects a discontinuous and sprawled city. For some of these disjointed projects, the logic is that the strategic geographic positioning of Tshwane as the gateway to Africa in the north of South Africa and also with the North-South linkages to the two other metros (Johannesburg and Ekurhuleni) that make up the economic core of Gauteng will stimulate economic activity where it may not be as apparent. In view of national, provincial and even local space economic policies, it is imperative that we ensure an investment correlation between physical economic infrastructure and targeted economic hubs. If the investments are misaligned with accurate development futures, these investments may become white-elephants – or ghost cities – left to haunt the financial reserves of the City and detracting from the funding required to pursue impactful initiatives that will decisively reduce socio-economic inequality in the City.
Envisioning for Alternative Development Futures

Economic sustainability requires that cities are able to adapt to unexpected outcomes or new opportunities. The versatility of a city’s economy is dependent on the level to which capacities have been created to anticipate the possibility of ‘baseline’, ‘intervention’ or ‘wild card’ scenarios. The goal should always be to advance evidence-based decision making, but always with an understanding that the future is unknown.

Recent work by Statistics South Africa has made great strides in terms of ‘geographically weighted regression’ which makes it clear that statistical analysis could be deceiving if separated from spatial plotting. The ‘where’ of what happens is very important, and can communicate different biases if not spatially plotted. Time analysis is clearly an equally important dimension. It is therefore critical to model trends spatially for a deeper understanding of various dimensions. There are various options that can be pursued in this regard. One such option that the City is currently investigating is Urbansim.

Urbansim is a numerical modelling and simulation platform developed to study urban growth patterns 30 years into the future. It simulates the dynamic interaction between government policies, economic cycles, where people live, where they work and how they commute between home and work across various networks over extended periods of time. The scenarios created are wholly dependent on the quality of data that is used as input. Integrity and detail of the data is imperative which is why direct city-level data will yield richer and more accurate than data referenced from other sources.

Urbansim extracts from the European model for the South African context. The scenarios are tested against 2001 and 2011 census outcomes. If there is correlation from back-dated data sets and scenarios, then simulation is done 30 years into the future. The results of the Urbansim investigation by the City of Tshwane will be ready during 2016. But for Tshwane, and other cities, it is important that cities continue to actively seek various means, in addition to those like Urbansim, of investigating alternative development futures across all sectors so that we can be better prepared in that regard.

The economy will not reward us for what we (think we) know, but rather for what we do with and about what we (think we) know.

Tshwane Real Estate trends

In this section the real estate trends for South Africa and Cities in South Africa will be analysed and discussed. The section will focus on South Africa and progress to city level.

Since the financial crisis buying and demand in the real estate market has diminished but has the market recovered and to what extent. From the figure below it can be observed that the demand index for housing decreased by almost 20 points between January 2008 and May 2009, this is likely due to the unfolding of the financial crisis and people falling on hard times a further indicator of this the increase in supply of houses and the gap between supply and demand, with supply exceeding demand it is obvious that the strength of the market would decline as shown as well. Thus from this graph it is clear that the real estate market was hard hit by the financial crisis. However, by October 2014 the market

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As presented by Dr Arulsivanathan Naidoo of Statistics South Africa at the Economic Regions Learning Workshop on 13 November 2014
had recovered to a point where demand exceeds supply so and a continued increase in the market strength of the housing market is expected. Further, this is also indicative of a recovery of the economy.

Keeping with the theme of inflation using data from Lightstone (2015), Municipal Inflation index we are able to determine the inflationary pressures in six metropolitan municipalities from 2008 onwards.

From Figure 48 the lowest inflation in house prices over the period 2011 to 2013 were recorded in Nelson Mandela Bay, whilst the highest inflation in prices from April 2013 is observed for Cape Town and Tshwane, with Tshwane showing increased price inflation in 2015 coming in line with Cape Town. In two of the metros, Ethekwini and Nelson Mandela Bay, there has been decreasing inflation and as a result house prices in 2015.

Furthermore, whilst both Tshwane and Johannesburg showed increasing inflation for the period 2013 – 2014, Ekurhuleni had a decrease in inflation, showing an upturn in 2015. Thus, overall there is a general increase in inflation except for 2 of the metros.

Lastly, house prices across the three metros will be compared and discussed with a particular focus on Tshwane house prices according to house sizes.
Figure 49 shows that on both the nominal and real middle segment house prices the three metros move relatively together for the most part with Tshwane ("Pretoria") being slightly more expensive than Johannesburg from 2012 onwards and this trend is diverging. Overall Housing is cheaper in Ekurhuleni. Furthermore, when looking at the real house prices the same pattern emerges but we can see that even though there has been some recovery in the market it has been slow and steady.

Focusing further on Tshwane and looking at housing prices for different size houses we see that on the nominal graph during the financial crisis there wasn’t a pronounced decline in house prices during the financial crisis, but when we look at the real figures we see there is a much more substantial effect on house prices more so for larger homes, possibly due to the inability to sell properties as a result of decreased demand. However, what is very interesting, but expected, is the upshot in prices shortly after the financial crisis in small house prices, this is indicative of an increase in demand for houses in that price range, possibly as a result of changing economic circumstances and reduced disposable household income. Furthermore, it can be observed that since 2012, the large property market has been recovering whilst the small and medium property markets are growing very slowly possibly due to the intense competition experienced in those sectors of the industry.
In conclusion, the property market as a whole is recovering and consumer demand is increasing, which is an indicator that the economy is recovering albeit slowly. Nevertheless, we are not out of the woods yet and increasing house prices are more inflation driven than value driven which could cause further problems down the line if not managed properly.

FIGURE 50: TSHWANE HOUSE PRICES

Source: ABSA
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