2015 was a challenging year for the global economy. This report adds context and insight into the economic dynamics of Zambia during the year with cutting edge analysis.
The Year 2015 was a turbulent year for Zambia. Currency depreciation spilled off into inflationary pressures in the latter half of the year greatly undermining the Bank of Zambia’s efforts to keep inflation in single digits, effectively succeeding in making the Government miss their yearend target. Commodity prices continued to pose a strange dilemma in Zambia with the effect of lower copper prices directly affecting Zambia’s export earnings and trade balance whilst lower oil prices seemed to have failed to filter through to the ordinary consumer through a complex structure of oil procurement and exchange rate losses. Power rationing is expected to have taken just under a fifth of GDP in 2015 with lower productivity across all industries. This remains a very serious short to medium term threat to Zambian growth. The fiscal position remains weak and is expected to weaken further in an election year while debt recently breached an international standard threshold indicating that more debt may be unsustainable. Monetary policy will remain tight in the short to medium term to rein in inflation which will probably only stabilize in 2017. Growth in 2015 is estimated to have slowed to 4%, under potential output but still greater than global growth at 2.4%. Unemployment is estimated to have increased to 13.4% whilst year end inflation skyrocketed to over 20% with high prices across the board mostly. Unfortunately we find that the economy has been in decline since the PF took power in 2011 according to an output gap GDP residual analysis. The outlook for 2016 is blurry and will only clear after the August elections.

Kampamba Shula
Economist
EXECUTIVE SUMMARY

Six years after the world economy emerged from its broadest and deepest postwar recession, a return to robust and synchronized global expansion remains elusive.

The year 2015 has been economically challenging. The slowdown in the Euro zone and in the Chinese economy has lowered the demand for, and the price of copper.

For countries that export oil and other commodities, changes in prices affect both the output gap and potential output itself, so recent movements in commodity prices also inform the near-term and longer-term output forecasts.

Global growth disappointed again in 2015, slowing to 2.4 percent compared to 3.4 percent in 2014.

Zambian Growth is estimated to have been at 4% in 2015. We base our analysis on the notion that a positive (negative) output gap will be correlated with excess demand (slack) in the labor market and lead to increases (decreases) in inflation.

Since 2013 Zambia has had a negative output gap with it becoming larger in 2015 indicating there is a lot of slack in the economy which coincides with our analysis of increased unemployment rate from 7.9 to 13.4%.

The only curveball to our analysis is inflation. The annual rate of inflation, as measured by the all items Consumer Price Index (CPI) for 2015 was broadly stable around 7% from January to September. In October however the inflation rate doubled and consequently increased in the last quarter closing at a record high since 2003 of 21% and has stayed in double digits ever since.

Liquidity conditions tightened following monetary policy measures taken to address rising inflationary pressures and stabilize the exchange rate. The overnight interbank rate rose sharply above the BoZ Policy Rate corridor and overnight lending rate.

Monetary policy focused on the achievement of the inflation target of 7.0% for 2015, this was obviously not achieved. During the fourth quarter, the Policy Rate was raised to 15.5% from 12.5%. The increase in the Policy Rate was motivated by a significant increase in inflation to 14.3% in October from 7.7% in September 2015 and an Elevated inflation outlook for 2016.

As with the trend in 2014 the Zambian Kwacha continued its depreciation against major convertibles. The year 2015 witnessed the most dramatic deterioration of the Zambian local currency the Kwacha in the economy’s recent history.

Zambia’s fiscal position constantly faces expenditure pressures that have always outpaced revenue generation; hence the mounting fiscal deficits in recent years. Containing the wage bill remains the biggest ‘headache’ for the Government. The last 5 years have also seen the Debt-to-GDP ratio grow from 20% to over 41% in 2015 which is now beyond the sustainable threshold of 40% of the GDP.
Power rationing took off at least a fifth of GDP in 2015 and is expected to place downward growth pressures on the 2016 outlook.

Despite all this, sectors like wholesale and retail, construction and real estate remained strong in 2015 signaling that there is hope at the end of the tunnel for the Zambian economy.

Probably the most sad news to have come out of this report is analysis of the economy using output gap GDP standardized residuals which confirm that the economy has been in decline ever since the PF took over government in 2011. The numbers are unfortunately overwhelming in this regard but can only be truly observed with a residual analysis. A normal plot of GDP over time would be too simplistic an analysis for the complex economy.

The outlook for the Zambian economy remains blurry and will probably clear up only after the August 2016 elections.

As with the trend in 2014 the Zambian Kwacha continued its depreciation against major convertibles. The year 2015 witnessed the most dramatic deterioration of the Zambian local currency in the economy's recent history.

In this report we introduce two concepts relatively new to Zambian economic analysis. We introduce the bond yield curve and the NAIRU. The NAIRU is an important building block of business cycle theory. Few economists would deny that shifts in aggregate demand, such as those driven by monetary policy, push inflation and unemployment in opposite directions, at least in the short run. That is all one needs to believe to accept the NAIRU concept. The economy experiences many kinds of shocks that influence inflation and unemployment. In light of this fact, it would be remarkable if the level of unemployment consistent with stable inflation were easy to measure. The available evidence is too weak to establish decisively which hypothesis is right, but the literature on the NAIRU has made progress. Demography and government policy both play some role. In addition, changes in productivity growth appear to shift the inflation-unemployment tradeoff.

We also introduce the bond yield curve to Zambia analysis which is a lot simpler than the NAIRU. It represents yields of various Government bonds at different periods of time in a year. Its relevance for analysis lies in its ability to show the relation between long and short term debt and general investor perceptions in the market.
INFLATION

The Consumer Price Index (CPI) measures changes over time in the general level of prices of goods and services that households acquire for the purpose of consumption, with reference to the price level in 2009 (i.e. base year 2009 =100).

The annual rate of inflation, as measured by the all items Consumer Price Index (CPI) for 2015 was broadly stable around 7% from January to September. In October however the inflation rate doubled and consequently increased in the last quarter closing at a record high since 2003 of 21%.

- Food and non-alcoholic beverages: The increase in this Division was mainly as a result of increases in the prices for Maize grain, Bread, Imported Bread flour, Buka Buka fish, dried bream, Rape vegetable and dried beans.
- Clothing and footwear: The increase in this Division is attributed to the increase in prices for Imported chitenge material, Ladies imported dress, Pants, Ladies imported shirts and Baby nappies.
- Housing, Water, Electricity, Gas and Other fuels: The increase in this Division is mainly attributed to the increase in electricity tariffs and prices of charcoal.
- Furnishing, Household equipment, routine household maintenance: The increase in this Division was mainly influenced by Blanket, Silver plate and shoe polish.
- Miscellaneous goods and services; The increase in this division was mainly attributed to increases in prices of Hair plaiting and set, Men’s Haircuts, photocopying and Hammer milling charges.

*Source: Central Statistics Office 2015*

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Zambia’s major export products in 2015 were from the intermediate goods category (mainly comprising copper cathodes and sections of refined copper) accounting for 81.0 percent. Exports from the Consumer goods, Raw Materials and Capital goods categories, collectively accounted for 19.0 percent of the total exports in 2015.

Non-Traditional Exports dropped in the first half of the year and rebounded in the second half only dipping slightly in the last quarter. Traditional exports remained flat in the first half of the year with an increase in the second half and slight dip in the last quarter.
The overall contribution of Metals and their products to the total export earnings in 2015 was 73 percent. On the contrary, Traditional exports contributed 27 percent to the total export earnings in 2015. This ratio still shows the amount of work the country needs to do to diversify its export portfolio away from traditional exports of copper and copper cathodes to agriculture and manufacturing.

The SADC region accounted for almost half the total imports in 2015. This figure needs to be disaggregated for analysis as a bulk of those imports are copper and cobalt concentrate from Congo Dr and from Mauritius with Gas oils. Our biggest trade partner in SADC is South Africa from where we import various items ranging from Gas oils to Urea and Machinery.
The major import products by category in 2015 were Capital goods, accounting for 35 percent. The Consumer goods category was second with 32 percent, followed by Intermediate Goods (22 percent) and Raw material Category (11 percent). In 2015, the country was a net importer of Capital goods, contributing an average of 35 percent of the total imports.

Whilst other import goods remained relatively stable, the value of consumer goods imported began rising as early as May 2015. This can be attributed to the depreciation of the kwacha against major convertibles which raised the kwacha value of imported goods. Capital Goods began to join the trend in August 2015 till we saw what can only describe as an amazing jump in the value of intermediate and more importantly consumer goods imported in October 2015. This was the spill off of volatile currency depreciation.
Traditional and Non-Traditional Exports

Zambia recorded a trade deficit valued at K13,191 Million in 2015 with the highest deficit in October 2015 of K 2,585.3 Million and the lowest deficit in February 2015 of K74.8 Million. This means that the country imported more in 2015 than it exported in nominal terms.

EXCHANGE RATE

As with trend in 2014 the Zambian Kwacha continued its depreciation against major convertibles. The year 2015 witnessed the most dramatic deterioration of the Zambian local currency – the Kwacha – in the economy’s recent history. Relative to Zambia’s major trading currencies, the value of the Kwacha has been depreciating persistently since at least 2008.

You will notice that the Kwacha experienced a major depreciation which began in September 2015 in the graph above. This piece of information is crucial in analyzing the recent trends in trade balance and inflation across the board.
We ran a correlation test between the price of copper and the real effective exchange rate and found a value of 0.79 which translates to 79%. This means more often than not copper price movements explained close to 80% movements in the exchange rate in 2015. This is in line with our previous analysis of the trade balance.

AGRICULTURE

The performance of the agriculture sector during the 2015/2016 farming season was unfavorable owing to inadequate rainfall in certain parts of the country. Despite this, the total availability exceeds and equals the national requirements in all basic food crops in the national diet. The food balance shows an overall surplus of staple foods. Food prices may affect the level of food consumption. Cross-border trade, mostly to the DRC, that occurs on a continuing basis and that is likely to occur during the 2015/16 marketing season does not include Formal trade, this part of the economy still remains highly unreported.

Agricultural productivity has remained low not only due to the vagaries of the weather, but also due to over reliance on maize production, even in areas where the conditions are clearly not suitable for the crop.
Energy

In the recent past ZESCO, the national electricity utility has heightened load shedding (electricity rationing) throughout the country. The reason for this action has been attributed to insufficient water in the reservoirs at Kariba and itezhi due to “below average” rainfall experienced during the 2014/15 rainy season\(^2\). The load shedding averages 6-10 hours per day and affects industries, commercial undertakings, offices and domestic customers alike. This has led to a public outcry and anger against the national utility.

From the information received it is clear that Lake Kariba started the year 2014/15 on a lower reservoir level than the previous 5 years with approximately 40 billion cubic meters in storage at 30th September 2014. The allocation for 2015 was 45 billion cubic meters. This means all the available water was allocated for power generation. Further the inflows during the subsequent months were lower than the outflows from the power plant leading to a net drawdown of the reservoir.

ZRA became aware of the low inflows as early as December 2014 and started reviewing their simulations for a probable below normal rainfall. In March 2014, ZRA first informed the utilities of the impending crisis but did not reduce water allocation for power generation. Later, during the same month, when it became clear that the inflows were subdued, ZRA revised the water allocation downwards to a total of 33 billion cubic meters and informed the two utilities to restrict their maximum generation to 500 MW each, down from a possible 700MW each according to the initial water allocation.

The ZRA report (July 2015) shows that despite the restriction, the utilities continued to generate way above the revised threshold of 500MW leading to a net draw down of the reservoir. It is interesting to note that a 2010 report sponsored by ESKOM titled Impact of Climate Change on Hydro-Electric Generation in the Zambezi River Basin puts the 30 year (1970-2000) historical average storage in Kariba at 33.244 billion cubic meters. This figure is way below the designed storage of 65 billion cubic meters. It is important that Kariba being a multi-year storage reservoir effort is made to keep the reservoir as high as possible during each year.

The Kariba dam was designed as a multi-year reservoir this means one average rainy season is not sufficient to fill it up. Further if operated at the designed firm generation; there is sufficient water for 3 rainy seasons. This means a single drought event should not drastically impact negatively operations of the power stations particularly when the drought is preceded by an average rainy season. There is therefore need to revise the way the reservoir is currently operated.

Overall, the effects of the increasing load from all sectors of economic activity have had a toll on the hydropower resource. Whilst Zambia’s installed capacity is sufficient to meet the needs of the economy, the “fuel” (water) is currently a big constraint as it is provided by nature.

\(^2\) Engineering Association of Zambia Report on Load shedding 2015
Copper output for 2015 was projected at 808,000 metric tonnes. Actual 2015 copper production is came in at 662,326 metric tonnes. The major factors for this negative performance are the low global copper prices stemming from less global demand for commodities in China. These negative developments in the mining sector caused major job losses with Government trying to intervene accordingly.

Metal prices have fallen on concerns about global demand, especially the slowdown in commodity intensive investment and manufacturing activity in China, but also owing to increases in supply following the past mining investment boom.
In 2016, Government proposes to spend K53.14billion, representing 25.8 percent of GDP. This will be financed through domestic revenues of K42.11 billion and grants from co-operating partners of K550 million. Financing will comprise K6.07 billion in net external financing representing 2.9 percent of GDP and net domestic borrowing of K1.75 billion representing 0.9 percent of GDP. Amortization is projected at K2.66billion.

The Government aims to raise 57.2% of the budget from Tax revenues, 22% from Non-Tax revenues, 15% from foreign financing and 4.7% from domestic borrowing.
MONETARY POLICY

Lending Rates

Source: Bank of Zambia 2016

Liquidity conditions tightened following monetary policy measures taken to address rising inflationary pressures and stabilize the exchange rate. The overnight interbank rate rose sharply above the BoZ Policy Rate corridor and overnight lending rate.

Monetary policy focused on the achievement of the inflation target of 7.0% for 2015, this was obviously not achieved. During the fourth quarter, the Policy Rate was raised to 15.5% from 12.5%. The increase in the Policy Rate was motivated by a significant increase in inflation to 14.3% in October from 7.7% in September 2015 and an elevated inflation outlook for 2016.

Following a further tightening of monetary policy, which included restricting access to the overnight lending facility (OLF) to once a week, the interbank rate rose sharply and exceeded both the Policy Rate and the OLF rate towards the end of the quarter.

Source: Bank of Zambia 2016

As a consequence of tight liquidity conditions, the overnight rate remained above the Policy

3 Bank of Zambia Monetary Policy Statement February 2016
Rate throughout the quarter. The Bank resisted bringing the interbank rate back into the Policy Rate corridor as injecting liquidity into the market risked triggering volatility of the exchange rate, and hence inflationary pressures.

Source: Bank of Zambia 2016

The tight liquidity conditions, which were also partly the result of Bank of Zambia providing of foreign exchange support to the market compelled banks resort to the OLF and Rediscount window for liquidity. Consequently, Treasury bill rediscounts and the amount of funds borrowed on the OLF soared.

Source: Bank of Zambia 2016

Bond yields rose on the backdrop of increased domestic borrowing by government which crowded out the private sector.
The yield curve represents Government bonds across different maturing periods. As we can observe the curve trends higher which signals increased appetite for long term Zambian debt. The spike in the 3 year and 5 year bonds shows the recent Eurobond issuance in July at significantly higher rates. The July series also shows the effect of a sovereign debt downgrade by rating agencies mid last year.

FISCAL POLICY

Zambia’s fiscal position constantly faces expenditure pressures that have always outpaced revenue generation; hence the mounting fiscal deficits in recent years. The Government intends to spend ZMW53.1 billion in 2016 from ZMW46.7 billion in 2015, a nominal increase of 14%.

The Government’s intentions on expenditure rationalization towards consolidation are clear. It intends to cut spending across all outlays, except general public services, which comprise debt interest payments and the setting up of a sinking fund for the expanding public debt, increased funding to the Local Government Equalization Fund and the holding of the tripartite elections/referendum. Outlays on road infrastructure and empowerment funds have also been ‘spared’ – the Government proposes to increase spending on road infrastructure from 12% of the budget in 2015 to 18% in 2016. The education sector is the most affected by the reduction in spending from 20.2% of the total budget in 2015 to 17.2% of the total budget in 2016.

The 2016 budget will see a rise in the public sector wage bill from 9.0% of GDP in 2015 to 9.3% of GDP in 2016 due to the lifting of the two-year wage and hiring freeze. Due to the increased cost of living since the last wage increment, the labour movements are likely to negotiate very hard for pay hikes for their members. Plus the Government is looking to recruit more teachers (5,000 in 2016), health workers, police officers, personnel in new districts, and agricultural extension workers. The Government is also expected to fund already on-going infrastructure development projects to mitigate the huge infrastructural gaps that the country still faces.
The recent issue of the third Eurobond has added more to the already high interest payments on the rapidly rising public debt. All these expenditures represent considerable spending pressures that are likely to compromise the well-intentioned fiscal consolidation measures. This is likely to undercut economic growth necessary for both social welfare and long-run fiscal sustainability.

Containing the wage bill remains the biggest 'headache' for the Government. The public sector employs 359,000 people, which is roughly 38% of the total formal sector work force of 944,000. Central and Local Government public sector workers in 2014 accounted for 27.5% and 3.1% of the total formal sector workforce, respectively. The wage bill has nominally increased by an average of 23% per year during the period 2011-2014, with the biggest jump being 34% in 2014 following the unprecedented wage increases of up to 200% for government workers in September 2013. About 22,000 jobs were added to the central government between 2012 and 2014. Thus, even though the 2016 Budget Speech does not explicitly mention this, judging from this short history, one of the fiscal consolidation priorities of the Government for 2016 should be to tackle the large public sector wage bill.

Generally, the wage bill is expected to naturally grow overtime. However, the rate at which it has been growing in Zambia in relation to other macroeconomic indicators is worrying. The wage bill as a percentage of GDP has since 2011 outpaced the growth in GDP and the inflation rate.

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*Zambia Institute for Policy research and Analysis 2016 Budget Analysis*
During 2015, Zambia has faced a number of external and domestic shocks, in the form of weakening global demand for copper (since 2010), sharp currency depreciation, and severe electricity shortages. As a consequence growth has slowed and the budget deficit widened, placing immense pressures on the Government to borrow. The 2016 budget projects that it will be 79% domestically financed, 20% debt financing and 1% will come from grants.

Zambia’s past borrowing has caused the public debt stock to increase considerably both on the domestic and external fronts. The sharp jump recorded in external liabilities was mainly due to the latest Eurobond of US$1.25 billion which was acquired in July 2015 at less favorable terms compared to the earlier two Eurobonds.

The last 5 years have also seen the Debt-to-GDP ratio grow from 20% to over 41% in 2015 which is now beyond the sustainable threshold of 40% of the GDP. Therefore, this may be a signal to the domestic and international markets that the debt is becoming unsustainable; implying an increasing risk of default and inviting higher interest rates on future commercial borrowing.

The increase in the external financing component in 2016, at 15% of the total budget, is worrying particularly in comparison to the 9% in the 2015 budget\(^5\). For instance, given the current

\(^5\) 2016 Budget Analysis, ZIPAR Report
depreciation of the local currency, interest rate payments on existing foreign debt are expected to increase to ZMW4.01 billion for project loans and ZMW3.95 billion for programme loans. Therefore, accumulating debt further may result in a wider fiscal deficit. In 2015, Government borrowed way beyond the set target of financial borrowing increasing its external financing liabilities to ZMW6.58 billion.

In light of the burgeoning debt stock and high interest payments, Government has in the 2016 budget made a deliberate shift in debt policy by placing emphasis on external finance which has increased by 67% compared to a reduction of 38% in domestic borrowing. The assumption here is that external financing is likely to be cheaper compared to domestic loans and will reduce crowding out of the private sector.

### 2015 LIVING CONDITIONS SURVEY HIGHLIGHTS


The 2015 LCMS collected data on various topics; however this article highlights findings on demographic characteristics. Demographic characteristics are important in understanding the living conditions of the people through the impact they may have on the prevailing social economic situation.

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66 2015 Living conditions survey, Central Statistics Office

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The estimated total Population in the living conditions monitoring survey 2010 was 13,064,000 in 2010 and 15,474,000 in 2015, representing an increase of 18.5 percent.

The distribution of population by rural and urban shows that there were more people in rural areas than in urban areas in both 2010 and 2015.

Population Distribution by Rural & Urban

<table>
<thead>
<tr>
<th>Year</th>
<th>Rural</th>
<th>Urban</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>60.5</td>
<td>39.5</td>
</tr>
<tr>
<td>2015</td>
<td>58.2</td>
<td>41.8</td>
</tr>
</tbody>
</table>

Source: Central Statistics Office 2016

However, there has been a 2.3 percentage points increase in the population residing in urban areas from 39.5 percent in 2010 to 41.8 percent in 2015. This is key point for analysis in our view because the ratio of rural to urban should also affect how nationwide strategies are implemented, be it in policy or business.

GROWTH EMPLOYMENT AND LABOUR PRODUCTIVITY

National Output

Real GDP growth for 2015 is projected to be 4% compared to the target of 7.0% on account of:

- Adverse weather conditions, which affected the 2014/15 agriculture performance;
- Continued weaknesses in the global economy, reflected in a decline in copper prices;
- Subdued performance of the mining sector, which also affect growth of services and manufacturing sectors;
- Heightened power rationing in the second half of the year; and, Exchange rate depreciation, increase in fuel prices – High cost of imported inputs and production costs
Our estimation of growth is slightly higher than the Bank of Zambia and Ministry of Finance for reasons we feel that growth was underpinned in the following sectors that Bank of Zambia sector Credit growth shows us.

Credit Growth in sectors like Wholesale and Retail remained strong underpinning our belief that the informal sector which still very underreported did well. The smuggling of maize across borders is such an example of the resilience of the informal sector to global economic shocks.

The real estate sector remained strong with credit growth accelerated as the property transfer tax had been reduced in the 2016 budget. This spurred on new acquisitions and loans to finance real estate projects.

The Construction sector also showed good credit growth in the period mainly underpinned by government’s robust infrastructure program and the introduction of Dangote Cement who have drastically reduced the cost of construction by supplying affordable quality cement.
From the year 2005, the Gross domestic product of Zambia was mainly driven by commodity prices of Copper with a slight dip in the 2008 financial crisis. What we seem to observe now is an adjustment to lower commodity prices which will slow down growth prospects in the medium term.

The output gap, defined as the difference between the actual and potential output, relates to the state of the economy in its business cycle.
In 2005, changes in copper prices caused Zambia to have an actual output far greater than its fundamental potential all through till 2008 when the financial crisis hit the commodity market. Zambia went through a contraction and produced below its potential output due to global demand pressures. From 2010 to 2012 the global economy began showing recovery in commodities and Zambia’s economic growth followed suite with actual output outstripping potential output. From 2013, global growth became sluggish, with demand for both commodities and nontraditional export slowing down. For the first time in the last decade Zambia’s actual output has fallen to below 2% of potential output. This fall in output cannot be explained by a dip in copper prices alone but a combination of power deficits which took as much as 70% productivity from manufacturing and similar numbers from other sectors and lower rainfall which has resulted in less agricultural prospect.

**UNEMPLOYMENT**

Most reports on unemployment in Zambia have been breakdowns of the labour force survey by disaggregating data by sex, occupation, sector, age or some other demographics. Our report here goes a step further in its analysis and introduces the concept of the Non Accelerating Inflation Rate of Unemployment (NAIRU) and its relevance for policy prescriptions. According to the latest Zambia Labor Force report commissioned by the Zambian Ministry of Labor and Social Security and implemented by the Central Statistical Office, a person is employed if in the period concerned they performed work for pay either in cash or kind, barter or family gain (CSO, 2013). It is immediately noticeable that this definition is broader than most people’s concept of employment, which often focuses on participation in the labor force. Zambia’s official definition implies that a homemaker or a housewife who tends to household activities, such as making sure the house is clean and preparing meals, is employed. Therefore, the homemaker is, officially, not part of the unemployment statistic. Employment is also assumed for young people (e.g. a 15 year old) who work, often for free, in a family kantemba (micro-business), or who help weed the maize field. Also, employment is officially counted for a mine retiree and the peasant farmer who both work in their own vegetable gardens. These cases illustrate the Zambian state definition of
working for family gain, in which employment does not mean garnering a wage or salary.

Related to the issue of measurement of unemployment is the term “unemployment rate”. This is defined as the ratio of the unemployed population to the labor force in given period of time (CSO, 2013). The labor force, also referred to as the economically active, is defined as all persons above a specified minimum age who are either employed or unemployed. In Zambia, the minimum age is 15 for the labor force survey.

Our estimations using a Phillip Curve place the unemployment rate in 2015 at a five year high of 13.46%. Notice our estimations are based on an amalgamation of World Bank and Central statistics office Data.

It seems consistent with Friedman’s assertions7 that Inflation and unemployment are negatively correlated only in the short run. This is shown by the small negative slope on the left of the curve. Unemployment and inflation are positively if not

\[ y = 0.194x^2 - 3.617x + 23.53 \]

\[ R^2 = 0.603 \]

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7 Milton Friedman, the Role of Monetary Policy. American Economic Review, pp. 1–17, 1968
uncorrelated in the long run which is shown by a positive slope on the right.

Most reports on unemployment in Zambia have been breakdowns of the labour force survey by disaggregating data by sex, occupation, sector, age or some other demographics. This report goes a step further in its analysis and introduces the concept of the Non Accelerating Inflation Rate of Unemployment (NAIRU) and its relevance for policy prescriptions.

NAIRU stands for the non accelerating inflation rate of unemployment there are, however, two issues that fail to command consensus among economists, which we address in this essay. The first issue is whether the concept of the NAIRU is a useful piece of business cycle theory. We believe it is, and we explain why. In our view, the NAIRU is approximately a synonym for the natural rate of unemployment.

This concept follows naturally from any theory that says that changes in monetary policy and aggregate demand more generally, push inflation and unemployment in opposite directions in the short run. Once this short-run tradeoff is admitted, there must be some level of unemployment consistent with stable inflation.

**YOUTH EMPLOYMENT**

The youth unemployment is quite high at 25%. On this age group men have a higher unemployment rate than women. Urban youth unemployment is a large problem. As with most other African countries, the formal sector in Zambia grows too slowly to absorb the estimated 300,000 young people entering the labour market each year. Therefore many end up in precarious and informal jobs.

Underemployment is also very high. Much underemployment is due to seasonal changes in rural activity, but underemployment was also high in urban areas. The concept of underemployment does sometimes also include those who are employed below their skill-level, whereas the measure for Zambia is confined to time-related underemployment, indicating those who involuntarily worked less than 40 hours per week.

The average weekly hours worked in Zambia was 31 hours per week, in rural areas 28 and 40 in urban, and 33 for men and 29 for women.

**SECTORAL EMPLOYMENT**

Agriculture is by far the single largest employment sector in Zambia. It absorbs around 73% of the employed, yet only contributing to around 18% of GDP. The sector has low productivity and is mostly pre-industrialised.

The second largest employment sector is Trade, Restaurants and Hotels, where around 10% of the labour force is employed. Outside agriculture, women tend to find employment in trade and in public administration. Some sectors are male dominated, but otherwise there are not very apparent gender segmentations on the labour market.

The construction sector has an unusually high contribution to GDP, which is certainly because of massive construction investments in the copper mining industry. The mining and quarrying industry has comparably few employed and contribution to GDP.
Who are we?

Quka Consulting is a firm which leverages three core pillars of Ideas, Insight and Innovation to solve our client’s problems. We recognize the importance of making informed decisions and uniquely leverage our expertise to the advantage of our clients.

What we do?

Quka Consulting provides professional services around the following core specialisations:

- Market Intelligence
- Corporate Advisory
- Business Solutions

How can we help you?

Quka Consulting is dynamic in its execution of solutions based on three core pillars namely:

- Ideas
  - We work with our clients to create solutions based on original thought
- Insight
  - Capitalizing upon our local knowledge and experience we provide tailored solutions
- Innovation
  - We strategize bespoke solutions based on research and analysis integrating global trends and best practices

Thought Leader in Data analytics

Quka Consulting has become an authoritative voice for commentary and opinion on matters concerning Zambia’s dynamic economy and investment environment.

Contact Us

Website: www.qukaconsulting.com

Email: Kampambahshula@gmail.com, info@qukaconsulting.com

Phone: +260973833383 +260969657058,