SOCIO-ECONOMIC IMPACT OF COVID19 ON ZAMBIA

Advisory Note to Her Honour the Vice President of The Republic of Zambia Mrs. Inonge Wina on 25 March 2020

ABSTRACT

As the COVID19 pandemic thickens globally confirmed cases total 402,159 with a sum of 23,377 on 24 March. Mortality rate globally stands at 4.35% representing 17,507 while those reported to have recovered account for 25.82% (103,820). Emerging Markets continue to be impacted include Zambia having recorded 3 cases to date. Measures put in place include heightened monitoring and continuous awareness to lock downs for nations whose infection tolls have significantly risen like south Africa, Nigeria etc. The COVID 19 continues to impact economies globally and regionally evidenced by a commodity and stock market crash that has raised fears of a world recession worse than one caused by the 2008 financial crisis. Commodities such as copper remain suppressed at levels below $5,000 per metric ton while crude trades for $26/bbl. Currency weakness has been a result of a stronger dollar across the board (DXY) that has sucked parity strength from Emerging and Frontier Market (EMF) currencies such as the South African Rand , Russian Ruble, Brazilian real, Mexican Peso and Zambian Kwacha that trade at lows. Zambia is beginning to feel the impact of the disease pandemic through currency weakness, cancellation of flights, delays in construction deliveries and other economic forecasts around the 21-day South Africa lock down scenario.

THE ECONOMICS ASSOCIATION OF ZAMBIA

President - Dr. Lubinda Habazoka

National Secretary – Mutisunge Zulu

Background

The coronavirus epidemic has emerged top risk surpassing the much spoken about Sino -US trade war, climate change and global warming effects and geopolitical tension between US and Iran. Most, major global crises have been financial and economic in nature. However, the world has seen a rapid evolution of risks from pure financial to non – financial in nature bringing a whole different perspective to business preparedness, hedging, sustainability and operational resilience. The most significant non-financial risks the world has seen are climate change effects (causing a wide array of effects to include energy generation shocks) and disease pandemic risks impacting travel, health, economics and markets which is the focus of this paper.

Evolution of Risk from Financial to Non-Financial. Twenty nineteens (2019's) top risks in order of seniority were Sino - US trade war impasse, Brexit and geopolitical tensions between US and Iran. This has a fair share of market reactions ranging from emerging market currency volatility to commodity price swings (such as copper and crude) to global growth slowdowns. As the year faded with time decay most of these risks were in détente with phase 1 trade deal signed between Xi Jinping and Donald Trump, Brexit deal concluded and easing tension in the middle east. The year 2020 shocked the market with disease epidemic, an unpredictable non-financial risk that have ravaged financial markets close to what was seen in the 2008 financial crisis. Stocks, commodities, growth, production and health have all come under stress. The World Health Organization (WHO) declared this a global pandemic, financial regulators have come to the rescue with emergency deep rate cuts to inject liquidity in the market to restore confidence. Global growth concerns are the biggest drivers of commodity and stock future price volatility. Goldman Sachs, Barclays, International Monetary Fund – IMF and the World Bank have slashed global, Chinese and the United Sates growth forecasts for 2020.

With a deepening COVID19 pandemic, Emerging Markets (EM) continue to be rattled by the panic and dollar stampede exacerbated by demand for high quality safe haven assets such as gold, dollar cash and US treasuries. There is very muted appetite for risker assets globally hence the massive sell-off pressure. With no known cure, markets are in 'risk and sell-off'[1] mode hemorrhaging valuation in stock markets which continue to be whipsawed in limbo. Commodities remain suppressed with copper the bellwether for economic pulse last trading for $4,810 per metric ton after hitting 2011 lows of $4,343 per metric ton as inventories are at highs on the London Metal Exchange (LME) and the Shanghai Futures Exchange (SFE) are at record highs. A stronger dollar as measured by DXY index a measure against a basket of 6 major currencies at 102.5, has sucked parity strength from Emerging and Frontier Market (EMF) currencies such as the South African Rand (ZAR) which is trading north of 17.8 for a unit of dollar as the Kwacha closed Tuesday 24 March trading at all-time lows of 17.65 for a unit of green back.

The IMF, at a G20 finance ministers and central bank governors, warned that COVID-19 outbreak could have a deeper recession[2] that the 2008 financial crisis. This was echoed at the G20 finance ministers and central bank governors.

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[1] Risk and sell-off mode refers to investors exiting investments in assets preferring to lock liquidity in quality asset classes.

[2] Trading economics – COVID19 Recession to be worse than 2008 Crisis

Meaning for Zambia. For Zambia, the effects, despite no case of coronavirus infection case recorded, will compound the already existing *'risk to growth'* themes namely energy deficits (exacerbated by climate change effects) and fiscal vulnerabilities on account of rising debt fueled by rising infrastructure spend. February inflation ebbed higher to 13.9% while interest rates are priced high with an elevated yield curve (29% - 1 year and 33% - year). External debt stands at $11.23billion (Dec19) while domestic debt is pegged at K80.3billion (Dec19). Domestic excluding value added tax refund arrears rose to K26.3billion (Dec19). COVID-19 effects will compound the copper producers' fiscal burden and potential supply disruptions could shock the already vulnerable economy to result in weaker growth in an already suppressed environment. However, some positives are forecast from potential ease in fuel prices should crude prices remain persistently low.

EXECUTIVE SUMMARY

What COVID -19 means for Zambia

Supply Disruption could wane Infrastructure Projects and Specific Performance. COVID-19 Novel has resulted in immense business disruption whose effects are yet to be quantified by Zambia. However, we forecast full extent to be factored in by May to June in key sectors such as mining, public sector and construction. Zambia has a fair share of construction business with Chinese entities that could be impacted by disruption in China.

Demand Side to weigh Mining. On the demand side the mines are more exposed due to potential weakness in demand for red metal (copper) as growth forecasts for China are trimmed to 5.5% for 1H20. Weaker demand for base metals such as copper could weaken the already frail mining sentiment from import duty on concentrates, uncertainty around the power bulk supply agreement and generally lower than usual production levels. Being Africa's second largest copper hot spot, weaker metal demand is likely to affect production and mines are already stockpiling to manage copper stocks in the quest to hedge suppressed prices. Barrick Gold in the Democratic Republic of Congo is drawing lessons from its Ebola virus era to manage the coronavirus epidemic business effects.

Currency Bears and Higher Cost Push Inflationary Effects. Despite Zambia not having reported a single case, the effects of the virus are still evident in the currency and base metal markets. The spread of the virus to Africa (Nigeria, South Africa, Cameroun and Egypt) has fueled jitteriness in the emerging and frontier market space causing asset sell – off pressure and disinvestment risk measured by capital flight as fund managers seek safer haven bets. The Kwacha is trading north of K15.3 for a unit of dollar consequently as could extend losses even further as global sentiment weakens.

Cheaper Dollar Funding and a 'blow out' in Eurobond Credit Spreads. With markets funds awash following asset sell - off pressure as demand for risker assets ebbs higher, demand for dollar denominated assets such as high-quality US treasuries (10-yr paper) is suppressing dollar interest rates. Weak global sentiment could exacerbate a massive blow out in credit default spreads resulting in higher yields on emerging market dollar bonds which could narrow Zambia's chances of refinancing its soon maturing eurobonds.

Fuel Prices easing a Stimulus to Business Pulse (PMI). Crude markets have not been spared with weak growth forecasts for China for 1Q20 to 5.5% (Goldman Sachs) which has priced into the markets suppressing prices to lows of $45/bbl. initially and was compounded by price war effects of a deadlock between Saudi Arabia and Russia pushing crude 25% lower to $35/bbl. (09 March) for international benchmark ICE Brent as WTI US crude futures slid to $31/bbl. on the New York Mercantile Exchange (NYMEX). Saudi has vowed to ramp production to 10million bpd after April when the 1.7million quota expires. This comes at a time that the OPEC+ member states failed to agree on a 1.5million supply curb in Vienna between 05-06 March and as such crude markets were wildly shocked with depression to levels last seen in 1991 during the gulf war era. A lower oil price is a positive for Zambia as the import costs will significantly ease.

Crude Bears, Manufacturing Stimulus boost for Zambia. This is positive for Zambia as extended crude price bears will translate to lower fuel prices off course weighed against currency stability. Purchasing Managers Index (PMI) remains in contraction at 48.5 (Feb) supported by higher energy costs that have elevated the operational cost environment for manufacturers. A weaker oil price could provide stimulus to current factory activity weighed by high fuel costs.

Trade Shocks could Spiral Inflation. Zambia's net import trade position is defined, 33% by inflows from South Africa, while the bulk of Small to Medium Scale commerce is with China. Should the virus expanse widen in South Africa, travel bans could be imposed which could cripple Zambia's supply chains and supermarkets as most of these source products from South Africa.

Weaker Copper Prices a narrow Mineral Royalty Tax base. As a bellwether of global growth and economic pulse, Dr. Copper has been impacted significantly losing over 12% in value from start of year. Zambia's foreign exchange market is dependent on foreign exchange flows which as a function of international prices and local production levels. Weaker prices compound the already existing weak mining sentiment weighed by 15% import duty, mining litigation quagmires and uncertainty around the electricity bulk supply agreement which expires on 30 March.

Stockpiling Behavior by Miners. Miners have started to stock pile base metals as a self-hedge towards global demand which is a price management technique that the likes of Barrick Gold are already exercising drawing experiences from historic pandemic eras.

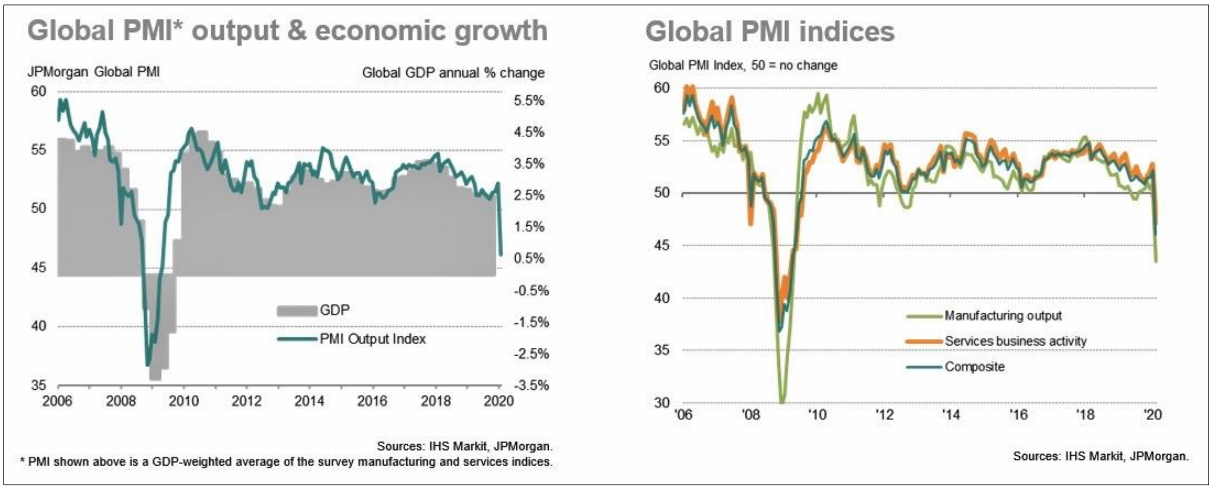
Increased Donor Funding. Zambia has put up a fund for K50million to help step up efforts to detect and prevent potential spread of the deadly virus. However, should the infections spread in Southern Africa, Zambia and other African nations could receive an influx of donor aid to help mitigate effects of spread. For now, the closest to Zambia are the three confirmed cases in South Africa.

Pandemic Emergency Response Plans a litmus test for Operational Resilience. With evident impacts on the business ecosystem, business entities should by now have in place emergency response plans as part of risk management frameworks to stress test operational resilience. These should go beyond just health and prevention but must delve into business impact assessment and resilience. The epidemic resilience plans will be a litmus true test of how organizations will exhibit preparedness and resilience to potential disruption.

Potential Tourism Slump. Zambia enjoys an influx of tourists from Europe who use the East and Southern Africa route to access the natural wonders of the world. Zambia's foreign exchange inflows and tourism levies could be dented by the deadly virus effects through travel cancellations globally by tourists that have suspended travel for now.

Global Growth Slumps the Steepest – PMI

Global growth slid the steepest since May 2009 according to February – PMI data. The JPMorgan Global PMI™ (compiled by IHS Markit) fell by a record 6.1 points in February, down from 52.2 in January to 46.1. The latest reading is comparable with global GDP rising at an annual rate of just over 0.5% (at market prices), down from almost 3% back in January. Manufacturing output fell globally at the fastest rate since April 2009, while service sector activity slumped to a degree not seen since May 2009[3].



The deterioration was predominantly linked to the COVID-19 outbreak and led by a survey-record slump in activity across both manufacturing and services in China. Growth across the rest of the world meanwhile came close to stalling, registering the weakest expansion since September 2012.

Stock Markets Lose $17trillion in Valuation[4].

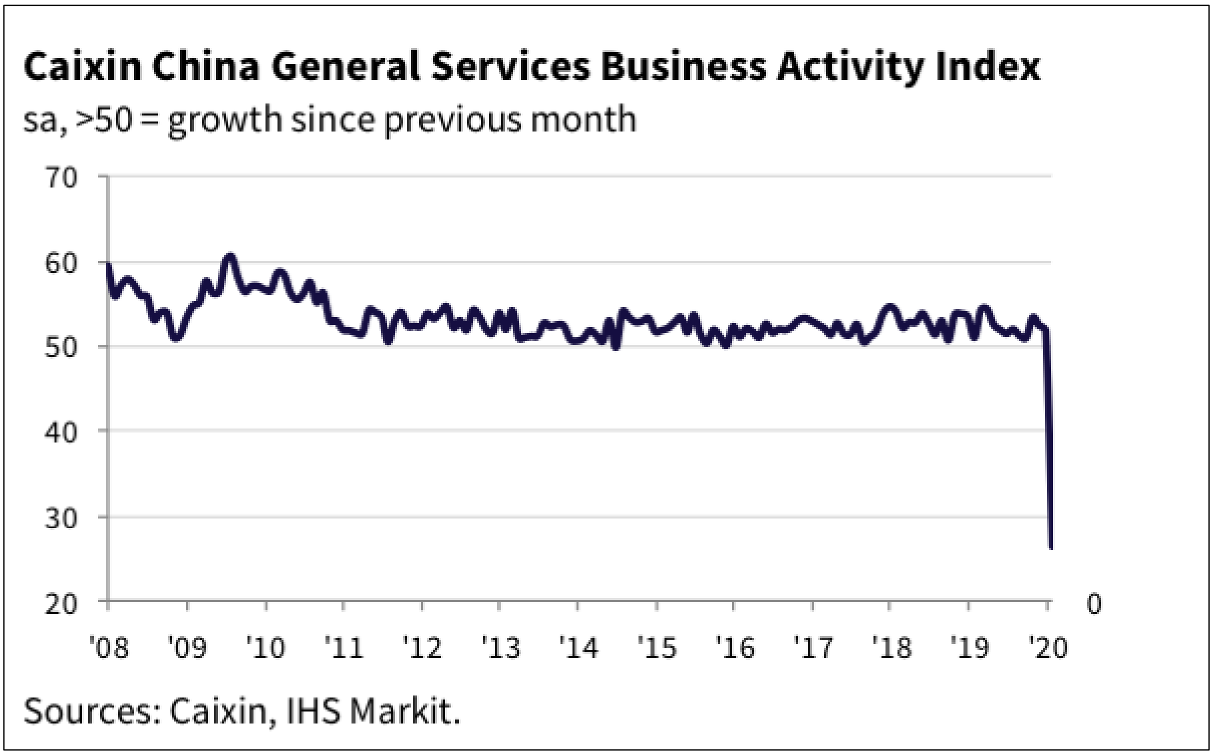
The COVID-19 threat landscape has been underestimated to the extent that if not managed appropriately and with agility could cripple the business ecosystem and slide the world deeper into recession. The coronavirus has been said to impact the elderly more whose immune systems are weaker that the younger generation. Stock markets have to date shaved over $17trillion in valuation with Wall Street major indexes at steep lows (Dow Jones Industrial Average – DIJA, S&P500 and NASDAQ) while Asian stock futures continue to take a cue as the death and infection toll rises. MSCI index of Asian Pacific Shares excluding Japan, the CSI 300 (Chinese Mainland Index), AXJO (Australian index), Japanese Nikkei and South Korean KOSPI have all been in red more than in green this year.

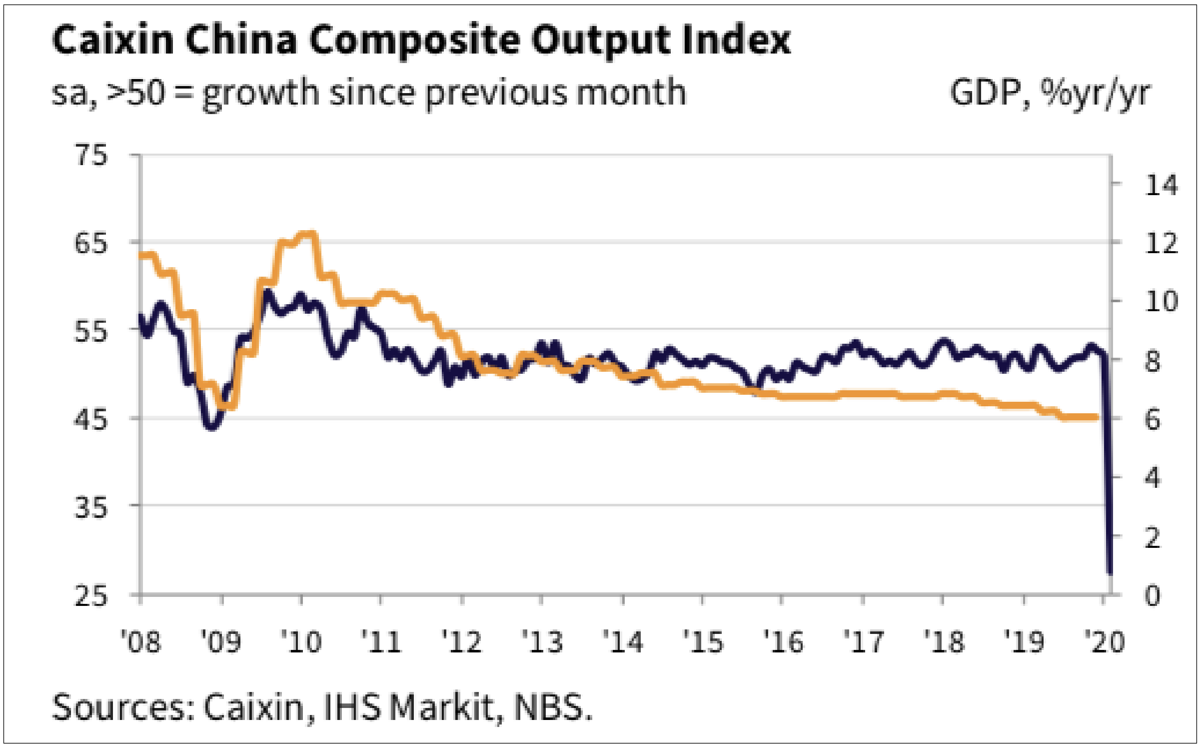
China's Factory Activity Deteriorates Sharply[5]

Purchasing Managers Index (PMI) readings for China headlined at record lows of 40.3 (Feb) versus 51.1 (Jan) for the Caixin China General Manufacturing benchmark. This was weaker than November 2008 financial crisis levels and was the lowest since 2004. However, the official National Bureau of Statistics (NBS) Purchasing Managers Index (PMI) plunged to a

[3] Data extracted from Markit Economics website.
[4] Bloomberg

record low of 35.7 from 50.0 below market expectation of 46.9 as the rapid spread of coronavirus disrupted the supply chain. New orders, raw material inventories, employment and supplier delivery time all sank below expectations. *The 50 mark separates growth from contraction.*

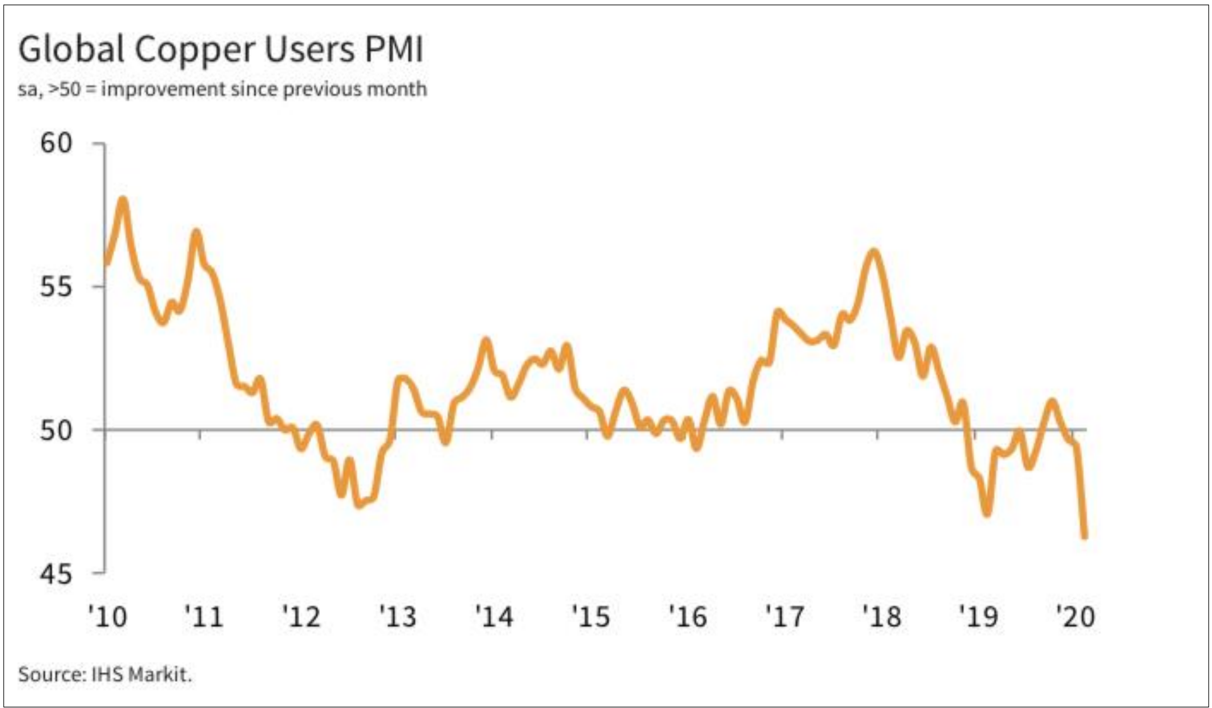




China in Trade Deficit[6]**.** China posted its first trade deficit since March 2018 of $7.09billion in Jan- February 2020 combined missing its expectation of $24.6billion surplus. Year on year exports slumped 17.2%wider that a 14% forecast while imports ebbed lower 4% versus 15% expectations. However, trade surplus with the United States leaned $25.4billion from $42billion a year earlier.

Chinas Foreign Exchange Reserves Slide $9billion. Strategic reserves in the world's second largest economy ebbed $8.8billion to $3.1trillion in February amid a weakening Yuan considering the COVID-19 virus cases. However gold reserves rallied $99.2billion.

Global Copper Users Purchasing Managers Index. The global copper-using industry stalled in February, as the outbreak of coronavirus led to marked falls in production in key markets such as China. New orders also declined sharply, prompting reductions in both purchases and inventories. Weaker supply chains were also observed, with lead times lengthening at the strongest rate in the series history. The seasonally adjusted Global Copper Users Purchasing Managers Index TM (PMI) – a composite indicator designed to give an accurate overview of operating conditions at manufacturers identified as heavy users of copper – dropped from 49.0 in January to 46.2 in February, to signal a solid deterioration in the health of the copper-using industry. Central to the downturn was the emergence of the coronavirus outbreak in China, which led to several factory shutdowns. As a result, output at Asian copper users contracted at the sharpest rate for over 11 years. Input price inflation remained solid during February, with firms citing raw material shortages as a key factor leading to higher costs. Despite this, output charges rose only marginally.



Global Central Banks Rate Cut Contagion to Cushion Recession Fears. Much as coronavirus is not a direct economic shock indicator, its effects do shock economic indicators and as such has triggered central banks across the world to respond aggressively to cushion

[6] Data from trading economics website.

adverse impact of slowdown in growth. The US Federal Reserve for the first time since 2008 financial crisis had an emergency rate decision meeting slashing rates 50 basis points guiding rates between 1-1.25% on 02 March while the Canadian central bank also cut rates 50bps. Other central banks expected to cut rates are the Bank of Japan (BOJ), European Central Bank (ECB) by 10bps and the Bank of England (BOE). This follows the need for liquidity and stimulus in the world to cushion effects of slowdown in growth. The Peoples Bank of China (PBOC) in February cut 1-year and 5-year benchmark rates to stimulate the weakening growth pace after the virus caused stock market jitters and supply chain disruptions. The PBOC offered $29billion in one-year medium term loans lowering the 1-year rate 10 basis points to 3.15% and has been active in reverse repurchase agreements[7]. The Chinese fiscal authorities are looking to cut taxes too, intended to given liquidity to business houses in these tough times.

Geopolitics and Iran Sanctions Rethink. COVID – 19 gives geopolitical risk a different turn as the United Nations and the US could rethink the sanctions on Iran to allow for testing equipment to be accessible to the Middle East which ideally aren't and the death toll in the zone has ebbed higher to over 250.

Demand for Safer haven bets rises Steeply. Pharmaceutical stocks, gold and US treasuries have been the winners in this disease epidemic season because demand for medicines and related research is very high as the world searches for a cure, while bullion and US treasuries are traditionally safer haven bets in such times. Gold is trading for $1,700/ounce, a record level while US treasury yields sank to below 1% at 0.5% for the 10-year tenor pushing bond prices[8] to their highest. Curve inversion was occasionally observed with the shorter end paying higher than the longer end signally potential recessionary fears due to cracked market fundamentals. The markets were last dislocated this much in the 2008 financial crisis.

Travel Business Hemorrhages Revenues. Travel business is set to hemorrhage over $39billion due to cancellation in flights to infected regions. Airline stocks have been hit the most with depressed business as clients opt to operate locally via remote. Investment bankers have not been able to fly to key destinations for fear of the virus and as such the Mergers and Acquisition (M&A) transactions have seen a decline in volumes and transactions. Flights from China and Europe into Kenya, Nigeria, South Africa and Cameroun are under very close surveillance. The recent cases recorded in Africa have caused alarm on the continent with threat landscape widening as wide as those in contact with infected passengers have travelled inland.

[7] Bloomberg – PBOC Cuts Interest Rate for One Year Loans to Support Banks. (16 February,2020)
[8] There exists an inverse relationship between bond yields and prices.

COVID19 and Socio-Economic Impact on Zambia

Supply and Demand Side Disruptions on Construction, Mining and EXIM Business

Supply Disruption could delay Infrastructure and Specific Performance. COVID-19 has resulted in business disruption effects that are yet to be quantified by Zambia. However, we forecast full extent to be felt by May to June in key sectors such as mining and construction. Zambia enjoys a fair share of construction business with Chinese entities that could be harnessing the impact of input supply side. These include Aviation Industry Corporation of China - AVIC, China Railway Construction Company - CREC, China Civil Engineering Company -CCEC, China Jiangxi, Shadong Dejian, Sunshare and China State Construction Company Ltd. – CSCC. This global supply chain disruption could manifest in declines in off-balance sheet risks taken by commercial banks as a result of delays and weak business pulse in the construction sector. This could potentially delay infrastructure projects which could imply breaches in specific performance contracts.

Zambia's Head of State greets Aviation Industry Corporation of China – AVIC staff.

Works at Simon Mwansa Kapwepwe International Airport Stall. Infrastructure projects such as the $522million Copperbelt International Airport have stalled as specialist equipment ordered from Europe and China has been delayed while 50-100 Chinese specialists can not travel to Zambia because of the Pandemic globally.

Demand Side to Weigh on Mining. On the demand side the mines are more exposed due to potential weakness in demand for red metal (copper) as growth forecasts for China are trimmed to 5.5% for 1H20. China's copper and base metal demand has suffered the most after an extended lunar holiday to 03 February, delays in concentrate feeds to smelters and record 4-year warehouse stocks at both the Shanghai Futures Exchange – SFE and London Metal Exchange – LME. Warehouse stocks on the SFE are at 345,126 tons (24 March) the highest since April 2016 while the LME recorded 200,275 tons on the same day. Weaker demand for base metals such as copper could weaken the already frail mining sentiment from import duty on concentrates, uncertainty around the power bulk supply agreements and general lower than usual production levels.

A miner working at the First Quantum Mining – FQM smelter

Cheaper Dollar Funding and Blow out in Eurobond Credit Spreads[9]. With markets funds awash following asset sell off pressure as demand for risker assets ebbs highest, demand for dollar denominated assets such as high-quality US treasuries is suppressing dollar interest rates lower. Ten (10) year US treasuries are tracking 0.48% the lowest in over 120 years as 30- year bonds pay 0.9% has steeply eased the cost of funding. Ideally dollar interest rates such fall to ease cost of credit but the disinvestment risk following the market jitteriness as cash flush units seek safer assets will cause liquidity tightening that could further force the US Federal Reserve to slash rates 75 basis points in its March 18 meeting to provide market stimulus.

A decline in 10-year treasuries should ideally ease yields on emerging and frontier market dollar bonds Zambia inclusive, however this will not hold as credit default spreads are expected to blow out given falling global sentiment and asset-sell off pressure as players close out on emerging market positions. Zambia's bonds remain the least attractive on the emerging and frontier market ladder.

Weaker Currency and Higher Cost Push Inflationary Effects. Despite Zambia not having reported a single case, the effects of the virus are still evident in the currency and base metals markets. The spread of the virus to Africa caused immense jitteriness in the emerging and frontier market space that caused asset sell – off pressure and disinvestment risk in the currency markets causing valuation losses.

Emerging and frontier market currencies such as the Brazilian Real, Mexican Peso and Zambian Kwacha has posted steep depreciations as bond holders exit these markets and seek safer haven store such as dollars causing currency shocks sending EM currencies to lows. The Kwacha is trading at an all-time low of K17.55 for a unit of dollar as disinvestment risk and dollar demand for agriculture inputs funding gripped the market. The Brazilian central bank injected $3billion in swaps to stabilize its currency while the Kwacha eased pressure

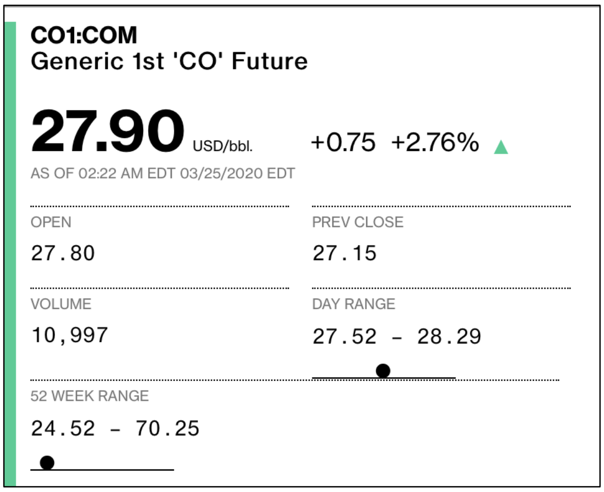
[9] See Appendix A for Eurobond yields for African Bonds as extracted from Reuters.

after mining flows last week were observed when miners sold dollars to raise Kwacha to meet operational costs. However, the concern would be that should inflationary pressure persist, the central bank could tighten monetary policy as its models are inflationary based. In a suppressed growth environment, gross domestic product for Zambia could constrict further.

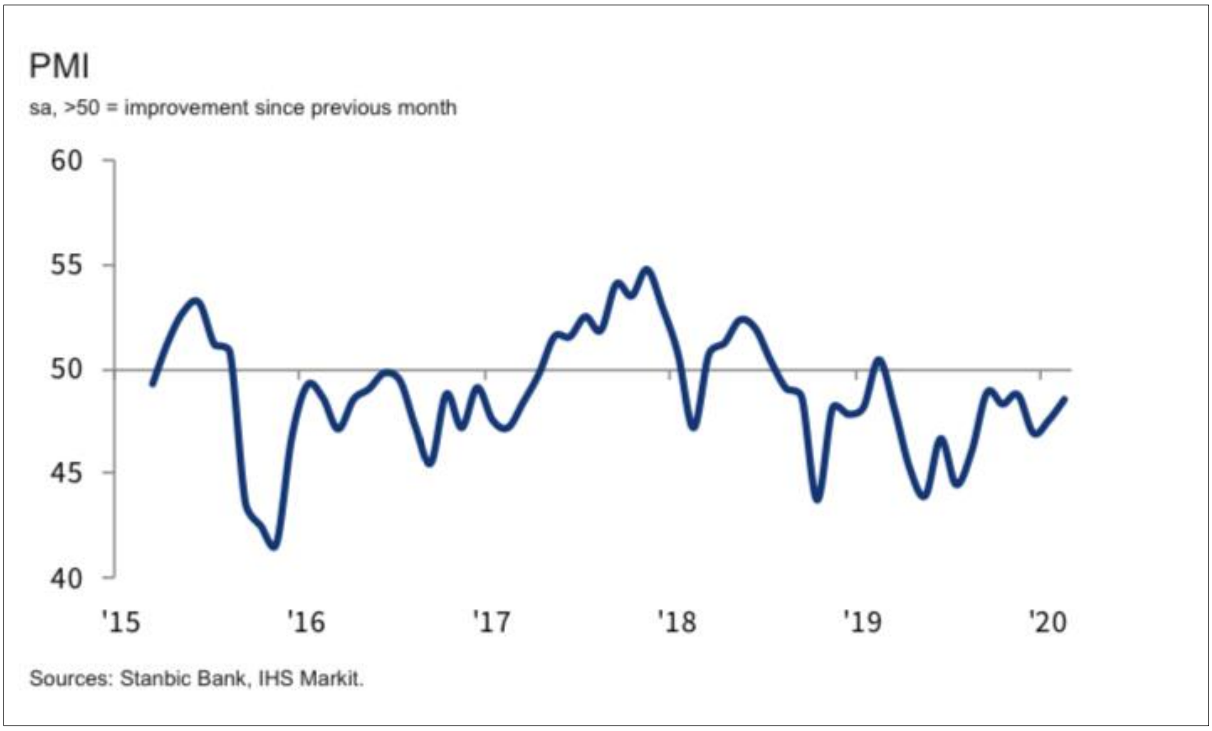
Fuel prices are expected to ease following a decline in international crude prices.

Fuel Prices should ease and Business Pulse to Benefit. COVID-19 has impacted the crude markets exacerbated by weak growth forecasts for China for 1Q20 to 5.5% which has priced into the oil markets suppressing prices to lows of $45/bbl. for international benchmark ICE Brent as WTI US crude futures trade for $40/bbl. on the New York Mercantile Exchange.

This comes at a time that the OPEC+ member states failed to agree on a 1.5million supply curb in Vienna between 05-06 March and as such crude markets are depressed as oil races for the 'thirties' per barrel. Russia and Saudi Arabia, the defacto leaders of respective OPEC and ex OPEC groups. Suffice to say OPEC+ will not be offering support to crude prices which could weigh lower given pressure from coronavirus waned aggregate demand effects on China and US growth rates.



International Crude bears, Manufacturing stimulus boost for Zambia. This is positive for Zambia as extended crude price bears will translate to lower fuel prices off course weighed against currency stability. So far, the decline in crude prices far outweighs the loss streak effects of the Kwacha. Zambia grapples with high energy prices following the two price hikes of circa. 18% effected in 2019 which have weighed inflation to 13.9% and weak private sector pulse as measured by Purchasing Managers Index (PMI) of 48.5 (Feb). Higher fuel costs have elevated the operational cost environment for manufacturers, so then a weaker oil price could provide stimulus to current factory activity weighed by high fuel costs.



Trade Shocks could Spiral Inflation. Zambia's net import trade position is defined 33% by inflows from South Africa, while the bulk of Small to Medium Scale commerce is with China. The extended factory closure and restrictions in travel to some key spots in China has impacted Zambian business owners that continue to experience delays in delivery etc. Should the virus expanse widen in South Africa, travel could be leaned as already instituted by some players in the market while trade with South Africa could cripple Zambia's supply chains and supermarkets as most of these source products from South Africa. Collections at the border through taxes and levies could decline by as much as $5-$7million daily should the infection rates exponentially spike in South Africa. This has the potential to spiral inflation from a food and commodity shortage perspective.

Weaker Copper Prices a narrow net for Mineral Royalty Taxes. As a bellwether of global growth and economic pulse, Dr. copper has been impacted significantly losing over 12% of value from start of year. Copper trades for $5,607 a metric ton (06 Mar) on the London Metal Exchange – LME. Zambia's foreign exchange market is dependent on foreign exchange volumes which as a function of international prices and production levels. Weaker prices compound the already weak mining sentiment weighed by 15% import duty, litigation and uncertainty around the electricity bulk supply agreement. Lower production and prices translate to narrow tax nets for mineral royalty taxes which impact the shoring of already low foreign exchange reserves at $1.35billion. Business disruption and restriction of movements will severely impact revenue collection at borders as fluidity of traffic will sharply decrease. A good number of South African owned business conduits through traffic on Zambian roads earning the coffers revenues through toll fees which are expected to decline in the 21-day period. SA trucks ferry goods and services for haulage purposes, transport fuel and copper cathodes and grain in and out of Zambia.

Stockpiling Behavior by Miners on Potential Force Majeures. Miners have started to stock pile base metals as a self-hedge towards global demand and a price management technique. The likes of Barrick have already started to hoard copper to cushion falling aggregate demand from China considering the coronavirus impact. Barrick will make inference to its Ebola virus scenario.

Pandemic Emergency Response Plans a Litmus Test for Operational Resilience. With evident impacts on the business ecosystem, business should by now have in place emergency response plans as part of risk management frameworks to stress test operations. These should go beyond just health and prevention but must delve into business impact assessment and resilience. The epidemic resilience plans will be a litmus true test of how organizations will exhibit preparedness and resilience to potential disruption. This will include ability to adopt technology that will allow business continuity at all costs including allowing staff to work from homes in case of disease outbreak that does not allow social closeness. This is critical in the financial services sector. It will be very naïve for businesses to lack backup plans. It should be implored upon regulators to ensure in the capital markets, insurance industry, banking and others that operational resilience is tested.

SAA / Emirates Flight Cancellation Will Weigh Tourism and Airport Taxes.

The 81- year old South African national carrier South African Airways (SAA) flies to Zambia more frequently than Zambia's own local airlines and is a key carrier servicing the Lusaka – Johannesburg, Ndola – Johannesburg and Livingstone – Johannesburg routes. On 20 March, SAA suspended[10] its international and regional flights until 31 May on concerns of a thickening COVID19 pandemic. This was a dent in Zambia's traffic flow and business planning for commerce purposes. However, in the interim, local airlines like Proflight Zambia stepped in to service the route which becomes difficult to operate in the lockdown period. With a lockdown on SA it will be practically impossible for Proflight to fly into South Africa which will impact their international revenue streams from the Durban Johannesburg route for 21 days. A fair share of transport is by road for most Micro and Small to Medium Sized Entrepreneurs (MSMEs) who will be impacted during by the 21-day lockdown. With the SMEs playing a key role in the Zambian economy, the sector will bear the brunt of disruption their business pattern.

[10] SAA press release on 20 March 2020

Zambia records an influx of tourists from Europe who use the East and Southern Africa route to access the natural wonders of the world. It is as though the copper producer is hedged from direct exposure of not having direct flights from corona infected regions. However, through Kenya and South Africa, Zambia has frequent flights into Livingstone and Lusaka the capital whose volumes could be impacted adversely should the epidemic steepen in expanse. This would affect hotel occupancy and ultimately result in lower than usual foreign exchange inflows and tourism levies.

Increase in Donor Funding. Zambia has put up a fund for K50million to help step up efforts to detect and prevent potential spread of the deadly virus. However, should the infections spread in Southern Africa, Zambia and other African nations could receive an influx of donor aid to help mitigate effects of spread. Multilaterals such as the World Bank and International Monetary Funds have set up emergency funds to assist over 80 countries across the world to combat COVID19.

GDP Forecast for 1H20 Remains Feeble at 1.7%. The impact of a 21 day lock down will puncture Zambia's business pulse to add more pressure to the already suppressed environment from energy risks and feeble fiscals. We revise Zambia's growth forecast for 1H20 to 1.7% given the vulnerabilities to external shocks and the black-swan risks to growth. These not only put a strain on state coffers but disrupt the wheels that oil economic growth. Zambia's medium-term inflation projection is revised to 15%-18% as currency risks will persistently remain elevated.

How COVID has driven Operational Business Behavioral Change. After COVID19 pandemic era, supply chain structure will be re-thinked with less dependency on China and a greater drive towards manufacturing locally to cushion effects of external shocks. More businesses will look to addressing operational resilience by building capability for virtual meetings and business continuity which for a long time has not been fully embraced. It will shape the digitization transactability appetite for players pushing a shift towards a cashless environment in tandem with higher hygiene standards and far better health facilities. Capital planning will become very critical to cushion pandemic risks through inclusion of non-financial risks in stress testing models to assess the resilience of business houses. There will be a greater drive for sovereign wealth funds and build up momentum for strategic reserves as a buffer for external shocks.

The South Africa 21 Day Lock down Scenario – What it means for Zambia

Shortages and Potential Food Price Spiral

Zambia's net import position exposes it to potential product shortages which could cause and food price spirals. Thirty three percent (33%) of the copper producers import bill is with South Africa. Most of Zambia's malls and stores are of South African origin such as Woolworths, Game Stores, Shoprite and Pick & Pay whose inventory feeds from supply chains from South Africa. Lock down initiatives risk shocking the fluidity of non-food supplies and food stock to Zambia. However, this provides an opportunity to local manufacturers to tap the likely gap to be created by supply disruptions. COVID19 will change business behavior post the pandemic. This should ideally result in with reduced dependency on China and other import partners by driving a greater push towards local production to absorb supply shocks. However, the likelihood of this happening is dependent on the will to boost manufacturing which has for years been attempted but with very minimal success. The South African lock down could weigh both food and non-food inflation to spiral the Consumer Price Index higher. Zambia's medium-term inflation forecast is revised higher to 15% -16% as food and non-food supply risks ebb higher. This adds onto already existing currency weakness and energy risks for Zambia. Higher inflation risks are concerning because they determine the monetary policy posture of the central bank eventually. The Bank of Zambia on 24 March in its 1H20 Monetary Policy Statement said they would work towards getting inflation back within 6%-8% this year which could entail tighter monetary measures to curb inflation.

Mining Transport Haulage Business could be Impacted. Much as the SA lock down will leave supply chains fully operational, however with the requirement for more individuals to be indoors, the delivery of metals from Zambia such as copper cathodes and blister copper could be slowed in the period affecting business flow. Zambia uses the South Africa ports of Durban to export copper across the world let alone its blister copper is transported from Chambishi mine to Durban via rail. Copper cathodes are ferried by road into mainland South Africa. Zambia produces about 220,000 – 230,000 metric tons of blister copper annually on average for onward shipment to China. Its copper cathodes are churned out by the big four namely Barrick's subsidiary Lumwana, Glencore Plc's subsidiary Mopani, First Quantum Mining's unit Kansanshi and Vedanta's Konkola Copper mines. Despite buyers of copper sitting in Switzerland and China, storage facilities and ports for transportation reside in South Africa.

The 3 weeks of disruption could weigh warehousing storage business too. Haulage business is structured in a fashion that allows for delivery of commodity while simultaneously collecting other commodities in reverse flow. This will acutely be affected and could lead to entities paying higher storage fees during the period.

Tax Revenue and Toll Fee Collections to be Impacted. With a decline in haulage transportation flow, the southern corridor border tax revenue and toll fee collections will dent a hole in the treasury. Kariba, Victoria falls and Kazungula borders are the most likely exit points to feel the adversity of the lock down initiative. Zambian roads are arteries for South African transport companies which the copper producer benefits through fees and taxes.

Crude Ferrying Business Could impact Fuel Supply. With the Zambian government opening the window for more Oil Marketing Companies (OMCs) to import crude following Indeni Refinery challenges, South African transporters play a very immense role in the fuel supply chain ferrying crude from various docking spots in Southern and East Africa. These include Durban, Beira, Dar-es-salaam to mention but a few. The decision by the South African authorities has potential to short supply for the artery that relies on South African ports. As such this has potential to cause bottlenecks or delays in delivery which risks weighing national production. Fuel supply shortages could slide Zambia further into contraction on the Purchasing Managers Index.

Air Border Shut Down is Already Denting Tourism. SA's national carrier South African Airways (SAA) announced a suspension of its international and regional flights until 31 May as the disease pandemic thickens. Before this decision, the Zambia office was already embattled with an influx of cancellations as passengers shied away from travelling in this disease pandemic era. SAA flies to Zambia more times than any other airline ferrying tourists and business travelers. Suspension of flights was a blow to Zambia but created an opportunity for local airlines servicing the Durban and Johannesburg routes such as Proflight Zambia that implemented a safety and hygiene policy to give confidence to travelers.

Demand for private chartered airlines has increased with carriers such as Mahogany, Proflight and Royal Air Charters from clients that prefer to travel privately for fear of contracting the virus. The hospitality industry continues the bear the brunt of cancellations which have spiked to 25,000 adding strains to service providers with employment on the line in the sector. Tourism levies, hotel occupancy and other service-related sectors remain at risk.

Widened Pressure on the Zambian Treasury. As highlighted above, the lock down scenario provides potential supply chain disruption that could lead to decline in revenues collected from toll fees, tourism levies, border fees, potential food and non -food related shortages. This puts Zambia's growth momentum at risk for 1H20 threatening non-attainment of the 3% 2020 project target by the MinFin. April trade and Purchasing Managers Index headline readings are forecast to be underwhelming for the red metal producer. With actualizing risks to growth for Zambia, downgrade risks by international rating agencies remain elevated as the disease pandemic effects provides an additional layer of pressure on the treasury coffers.

Appendix A: - Eurobonds Yields for African Bonds

W 3: Africa Credits (Shared)

Ticker	Last Price	%1D	Bid	Ask	Bid YTM	Ask YTM	YAS ZSpd	Net	%5D	%3M	Chg 6M Pct	Iss Dt	Amt Out	Iss Dt
ANGOL 7 08/16/2019														
ANGOL 9 1/2 11/12/25	↑62.333	+.27%	61.476	63.190	21.746	20.887	2024.8454	+.166	-43.33%	-46.18%	-45.33%	11/12/2015	1500000000.(	11/12/2015
BTUN 2 1/2 04/18/17												04/18/2012	.00	04/18/2012
BTUN 4.35 08/15/17												08/15/1997	.00	08/15/1997
BTUN 5 3/4 01/30/25	↑84.682	+.78%	84.117	85.246	10.134	9.801	917.9466	+.657	-11.12%	-9.57%	-9.51%	01/30/2015	1000000000.(	01/30/2015
BTUN 8 1/4 09/19/27	↑100.729	+.14%	100.112	101.347	8.229	8.019	731.8656	+.143	-1.80%	+1.37%	+2.57%	09/19/1997	150000000.0(	09/19/1997
EGYPT 5 3/4 04/29/20	↓99.931	-.15%	99.624	100.238	9.144	3.891	312.7537	-.147	-.45%	-1.24%	-1.65%	04/29/2010	1000000000.(	04/29/2010
EGYPT 5 7/8 06/11/25	↑95.218	-.35%	94.667	95.769	7.223	6.897	625.9728	-.330	-11.46%	-10.38%	-8.03%	06/11/2015	1500000000.(	06/11/2015
EGYPT 6 7/8 04/30/40	↓79.188	-2.57%	78.423	79.953	8.971	8.805	800.3221	-2.091	-20.10%	-19.43%	-18.18%	04/29/2010	500000000.0(	04/29/2010
ETHOPI 6 5/8 12/11/24	↓95.115	+.15%	94.511	95.719	8.081	7.749	713.6267	+.140	-9.81%	-11.60%	-9.53%	12/11/2014	1000000000.(	12/11/2014
GABON 6 3/8 12/12/24	↑77.690	-2.64%	75.611	79.769	12.290	11.902	1268.3153	-2.110	-23.61%	-22.98%	-18.21%	12/12/2013	736000000.0(	12/12/2013
GABON 6.95 06/16/25	↓74.577	-.55%	73.871	75.283	14.405	13.207	1257.3666	-.410	-28.72%	-27.99%	-23.49%	06/16/2015	700000000.0(	06/16/2015
GABON 8.2 12/12/17												12/12/2007	.00	12/12/2007
GHANA 10 3/4 10/14/30	↑106.956	+.50%	105.935	107.976	9.851	9.670	887.6855	+.535	-16.12%	-16.26%	-16.25%	10/14/2015	1000000000.(	10/14/2015
GHANA 7 7/8 08/07/23	↓97.727	-1.62%	94.656	100.799	8.339	7.857	731.8390	-1.614	-9.84%	-9.43%	-9.48%	08/07/2013	253197799.0(	08/07/2013
GHANA 8 1/2 10/04/17												10/04/2007	.00	10/04/2007
GHANA 8 1/8 01/18/26	↓85.317	-.50%	85.317	89.317	11.542	10.514	1030.3222	-.433	-21.84%	-19.74%	-19.15%	09/18/2014	1000000000.(	09/18/2014
IRAQ 5.8 01/15/28	↓84.985	+.51%	83.831	86.139	8.742	8.350	1149.2259	+.434	-14.20%	-12.78%	-14.17%	01/19/2006	2700000000.(	01/19/2006
IVYCST 5 3/4 12/31/32	↑85.796	+.64%	84.989	86.603	9.046	8.554	867.9075	+.548	-13.01%	-14.77%	-13.61%	04/16/2010	1114841980.!	04/16/2010
IVYCST 5 3/8 07/23/24	↓95.558	-.04%	94.590	96.526	6.779	6.330	573.6365	-.034	-8.93%	-8.70%	-6.90%	07/23/2014	140521000.0(	07/23/2014
IVYCST 6 3/8 03/03/28	↓96.688	-.22%	96.185	97.191	7.023	6.810	616.7138	-.209	-10.54%	-7.74%	-5.90%	03/03/2015	1000000000.(	03/03/2015
KENINT 5 7/8 06/24/19												06/24/2014	.00	06/24/2014
KENINT 6 7/8 06/24/24	↓99.970	+.20%	99.088	100.852	7.075	6.796	620.7886	+.203	-7.33%	-7.66%	-6.39%	06/24/2014	2000000000.(	06/24/2014
MOROC 4 1/4 12/11/22	↓104.757	+.10%	104.353	105.161	2.595	2.305	179.8921	+.102	-1.18%	-.50%	-.45%	12/11/2012	1500000000.(	12/11/2012
MOROC 5 1/2 12/11/42	↑117.401	+.08%	116.810	117.993	4.324	4.134	330.5679	+.089	-8.52%	-2.55%	-2.49%	12/11/2012	750000000.0(	12/11/2012
MOZAM 10 1/2 01/18/23												04/06/2016	.00	04/06/2016
NGERIA 5 1/8 07/12/18												07/12/2013	.00	07/12/2013
NGERIA 6 3/4 01/28/21	↑97.667	+.19%	96.742	98.592	11.025	8.685	813.1806	+.188	-5.06%	-6.25%	-5.85%	01/28/2011	500000000.0(	01/28/2011
NGERIA 6 3/8 07/12/23	↑85.855	-.53%	84.342	87.369	12.019	10.871	1033.6899	-.456	-18.55%	-19.09%	-18.03%	07/12/2013	500000000.0(	07/12/2013
REPCAM 9 1/2 11/19/25	↑95.575	+.12%	94.214	96.935	10.893	10.267	979.1086	+.112	-14.50%	-13.82%	-12.55%	11/19/2015	750000000.0(	11/19/2015
REPNAM 5 1/2 11/03/21	↑101.060	+.08%	100.755	101.364	5.153	4.580	409.8253	+.085	-3.20%	-2.97%	-2.62%	11/03/2011	500000000.0(	11/03/2011
REPNAM 5 1/4 10/29/25	↓93.713	-.26%	92.942	94.483	6.614	6.488	583.5953	-.246	-9.30%	-9.35%	-7.72%	10/29/2015	750000000.0(	10/29/2015
RWANDA 6 5/8 05/02/23	↑93.739	-.49%	92.791	94.688	9.040	8.524	800.0864	-.466	-11.84%	-11.65%	-13.41%	05/02/2013	400000000.0(	05/02/2013
SENEGL 6 1/4 07/30/24	↓101.143	-1.12%	100.455	101.830	5.778	5.520	492.5816	-1.150	-6.35%	-7.36%	-6.26%	07/30/2014	500000000.0(	07/30/2014
SENEGL 8 3/4 05/13/21	↑103.532	+.26%	103.101	103.963	6.248	5.317	480.6832	+.271	-3.34%	-4.89%	-5.03%	05/13/2011	300000000.0(	05/13/2011
SEYCHE 8 01/01/26	↓104.268	-.08%	102.661	105.875	7.429	6.712	514.8545	-.086	-.36%			02/11/2010	101336700.0(	02/11/2010
SOAF 5 7/8 05/30/22	↑104.600	-.66%	104.460	104.740	3.744	3.614	312.9302	-.690	-2.01%	-2.36%	-2.36%	05/30/2007	1000000000.(	05/30/2007
SOAF 5 7/8 09/16/25	105.378	-.71%	105.010	105.745	4.826	4.678	403.0109	-.750	-3.66%	-3.71%	-4.53%	09/16/2013	2000000000.(	09/16/2013
TNZNIA Float 03/09/20	100.553y	+.14%	100.176	100.931	.000	.000		+.140		-.67%	-1.23%	03/08/2013	.00	03/08/2013
USGG10YR	↓.8705	+8.24%	.8817	.8705				+.0663	+10.64%	-53.73%	-55.51%			
ZAMBIN 5 3/8 09/20/22	↑43.827	-3.75%	41.809	45.845	44.379	41.460	4096.2106	-1.708	-30.59%	-33.61%	-33.21%	09/20/2012	750000000.0(	09/20/2012
ZAMBIN 8 1/2 04/14/24	↑43.611	+.03%	42.378	44.844	37.386	34.342	3377.0255	+.013	-32.96%	-37.14%	-37.37%	04/14/2014	1000000000.(	04/14/2014
ZAMBIN 8.97 07/30/27	↓45.022	-.60%	44.092	45.952	26.587	25.395	2657.1538	-.273	-30.27%	-34.72%	-34.83%	07/30/2015	1250000000.(	07/30/2015

Appendix B – Bilateral Trade Data

SA EXPORTS TO ZAMBIA Section Description	2 018	2 019
Live animals	262 260 763,00	250 962 589,00
Vegetables	700 927 796,00	706 529 116,00
Animal or vegetable fats	384 504 463,00	442 654 158,00
Prepared foodstuffs	2 488 901 193,00	2 368 293 813,00
Mineral Products	2 288 503 920,00	1 938 051 207,00
Chemicals	5 021 257 111,00	5 243 662 208,00
Plastics & Rubber	2 457 617 358,00	2 372 894 574,00
Raw hides & leather	48 186 200,00	40 138 105,00
Wood Products	146 255 851,00	150 684 109,00
Wood pulp & paper	860 868 152,00	889 624 785,00
Textiles	575 361 868,00	569 453 654,00
Footwear	195 530 564,00	184 754 268,00
Stone & Glass	385 054 267,00	386 689 809,00
Precious Metal	9 710 295,00	8 610 497,00
Products Iron & Steel	3 874 217 237,00	3 533 277 625,00
Machinery	7 492 162 557,00	6 866 391 121,00
Vehicles aircraft & vessels	3 567 251 643,00	3 325 224 034,00
Photographic & medical equipment	412 103 819,00	398 350 547,00
Toys & Sport apparel	940 352 120,00	801 238 018,00
Works of art	879 970,00	1 415 453,00
Other unclassified goods	20 586 983,00	1 394 571,00
Equipment Components	144 151,00	13 347,00
	32 132 638 281,00	**30 480 307 608,00**

Appendix C: - Bilateral Trade Data

ZAMBIA EXPORTS TO SA	2 018	2 019
Section Description		
Live animals	19 281 007,00	25 736 226,00
Vegetables	95 578 378,00	102 854 004,00
Animal or vegetable fats	1 023 385,00	290 678,00
Prepared foodstuffs	433 123 776,00	372 381 525,00
Mineral Products	25 500 588,00	65 103 754,00
Chemicals	25 521 740,00	33 540 779,00
Plastics & Rubber	24 394 602,00	23 865 327,00
Raw hides & leather	1 153 486,00	1 315 655,00
Wood Products	3 712 528,00	4 962 610,00
Wood pulp & paper	869 131 960,00	405 713 944,00
Textiles	199 166 422,00	199 621 958,00
Footwear	21 810,00	871 684,00
Stone & Glass	1 072 100,00	1 602 868,00
Precious Metal	2 204 342,00	1 017 025,00
Products Iron & Steel	1 599 804 338,00	1 523 750 686,00
Machinery	209 346 854,00	296 552 454,00
Vehicles aircraft & vessels	17 766 924,00	17 415 110,00
Photographic & medical equipment	10 838 811,00	9 302 011,00
Toys & Sport apparel	2 775 679,00	1 421 425,00
Works of art	291 288,00	522 957,00
Other unclassified goods	5 084 780,00	4 073 159,00
Equipment Components	-	-
	3 546 794 798,00	**3 091 915 839,00**