Volume.2 | Issue No.4 ISSN: 2706-896X

# QUARTERLY ECONOMIC CHRONICLES

2020/Q4

# ABOUT THIS PUBLICATION

The Quarterly Economic Chronicles is Vindilac Analytics' economic flagship, highlighting a series of economic events taking place at the national, regional and global levels. It is highly driven by the need for economic literacy and financial journalism on the African continent. By providing an economic report that is clear to a non-economist, we unintentionally create an enabling environment for citizens to make informed economic decisions. Our report is unique for it is now compiled and published in several official languages spoken in South Africa. This enables readers to understand economic chronicles in their mother tongues. It is worth noting that this report aims to complement existing economic reports in South Africa.

ISSN: 2706-896X



All queries should be addressed to info@vindilac-analytics.co.za

For more information on Vindilac Analytics' services, please visit the website below:

www.vindilac-analytics.co.za

# Table of Contents

## ACKNOWLEDGEMENTS

We would like to acknowledge and give special thanks to our team members who contributed significantly to this project. The contributors to this project are as follows:

**Team Leader**
Mr Baneng Naape

**Full-time Writer**
Mr Marius Masoga

**Seasonal Writer**
Ms Mulalo Sehlako

**Full-time Writer**
Ms Tumelo Matlhako

**Full-time Writer**
Mr Bekithemba Qeqe

**Full-time Writer**
Mr Thabang Kumalo

**Seasonal Writer**
Ms Mkrola Chwayita

**Seasonal Writer**
Mr Thabang Serobe

**Xitsonga Translator**
Ms Lucerth Makamu

**Seasonal Writer**
Ms Olwethu Shedi

**Seasonal Writer**
Ms Zaziwe Maluleke

**Seasonal Writer**
Mr Mongi Tshaka

**Seasonal Writer**
Mr Caleb Qoyo

**Sepedi Translator**
Ms Catherine Muhava

**isiXhosa Translator**
Ms Sinesipho Ndlovu

**Setswana Translator**
Ms Tebogo Tau

**Editor**
Mr Ndivhuwo Doctor Sundani

**Tshivenḓa Translators**
Ms Mosibudi Munyadziwa

The whole team would like to give thanks to the Almighty God, for the strength and guidance throughout this work.

# 1. EXECUTIVE SUMMARY

The year 2020 has been a turbulent one for the global economy. The decline of economic activity in many parts of the world and the consequent shocks to global demand and supply led to severe destructions in the volume of trade and patterns of economic growth across the globe. Global financial markets on the other hand experienced bouts of volatility for most of the time during the year due to the growing health risk, continuous revisions of growth expectations, rising uncertainty and heightened risk aversion associated with the outbreak of the Covid-19 pandemic.

Like other affected countries globally, South Africa took bail out measures to cushion the businesses and households from the negative effects of Covid-19. In particular, socio-economic relief package of R500 billion was unveiled and used to pay social benefits to households, support small businesses in the formal and informal sector, and help businesses pay salaries. Further, direct benefits were channelled through increased old-age grant and child support grant as well as the introduction of the R350 grant for the unemployed citizens who are not recipients of any other government support scheme. Although this has been a largely successful intervention as it increased their disposable income, uptake informal businesses was restricted and/or delayed due to the requirements to have a bank account, register for tax and Unemployment Insurance Fund, inter alia.

In the education sector, the uneven distribution of online learning resources raised concerns about equal access to quality education. Additionally, the state of digital infrastructure raised concerns about readiness, effectiveness, and efficiency of e-learning. This publication argues that the outbreak did not only serve as a wake-up call, but also as evidence of how the poor execution of policy can deny the country an opportunity of not only taking advantage of developments occurring in the world, but also to cope and respond timely to disruptions. Despite the plethora of policies serving to prepare the education system, the sector remained vulnerable to the shock and struggled to respond and cope timely with the covid-19 disruption. Most students, especially from rural areas, could not access education due to high data prices, lack of devices for offline learning, lack of devices for online learning.

The covid-19 pandemic continues to weigh not only on the country's health and education systems but also on the public purse. While the government has taken extensive measures to alleviate the dire effects of the covid-19 pandemic on the livelihoods of citizens and business operations, the government remains challenged once more to over-stretch the deteriorating public purse. This is in light of the R20 billion ($1.3 billion) required to roll-out the vaccination programme. On the table currently, is the option to shift the burden to taxpayers (as usual) by increasing tax rates or to expand the fiscal deficit to unprecedented levels. The other option, although previously executed, would be to re-allocate public finances, in other words, to cut spending on certain government programmes although this would compromise service delivery.

The mandate of central banks globally has been at the forefront in 2020 as the monetary policy response to the Covid-19 pandemic had to be more robust and accommodative. While there are slight differences regarding the aim of monetary policy in various countries, the common goal is mostly to stabilise inflation, ensuring that it is low and/ or within a set target range. Efforts to insulate the South African economy from the worldwide pandemic saw the South African Reserve Bank (SARB) pursue an aggressive regimen unlike any before. By the end of the year, the repo rate was effectively reduced by 300 basis points to 3.5%. This is the lowest since the introduction of inflation targeting in 2000. Through lowering the policy rate and purchasing government bonds, the SARB aimed to induce much needed liquidity into financial markets. Consequently, borrowing became cheaper and accessible to the public. Hence, some businesses and households were better insulated from closing or job loss resulting from strict regulations amid economic lockdown (both domestic and global restrictions).

The covid-19 pandemic was a unique crisis as it required less human interaction which meant that companies with more labour-intensive work could not continue. Businesses had to adapt to the new normal which required good Information and Communications Technology (ICT) and broadband infrastructure. For almost two months, South Africans were only permitted to purchase essential items, which were basic goods and medical services. This meant that other types of goods and services were not permitted. This led to losses in different sectors, especially those that are labour intensive and/or sold non-essential goods. Thus far, the working hours lost due to Covid-19 in the second and third quarter of 2020 initially rose by 17.3 and 12.1 per cent, which is equivalent to 495 and 345 million full time jobs lost (ILO, 2020). Southern Africa has lost 20.3 and 14.2 per cent of work hours in the second and third quarter of 2020, accounting for 4 million and 2 million job losses, respectively (ILO, 2020).

In the retail front, numerous businesses closed down permanently including a luxury store Prada, Edgars stores and various small businesses. The tourism sector was also affected by constrained mobility and the closure of international borders. This led to a drastic drop in the occupancy rates of tourist accommodation. The collapse of demand and supply as well as decline in investments and prices led to significant decline in the volume of global merchandise trade, especially during the first half of the year. Equity markets began declining rapidly in late February 2020, losing around 30% of market value in a matter of weeks, with the speed of the sell-off exceeding that witnessed during the global financial crisis of 2008-2009 (WEF, 2020).

Technology has appeared to be a crucial investment during this pandemic and has played a major role in curbing the spread of Covid-19 through the distribution of information. It has the power to distribute information regarding the symptoms, self-testing feature, daily statistics of the active cases and preventative measures to flatten the curve. It also has the potential to enable business to operate remotely. This crisis gave rise to the new normal of working from home which created flexibility for individuals as they did not have to leave their homes to go to work. Productivity has also been reported to have risen, leading to better business outputs. This also reduced the amount of traffic congestions and carbon emissions. South Africa's energy sector, however, has been under scrutiny in recent years. This is due to the continued failure to evolve to clean and renewable energy at the global rate, infrastructural inefficiencies at Eskom, barriers to entry, the lack of adequate investment and high operational costs in the sector. These difficulties tend to pose major difficulties on the economy and its ability to recover and expand.

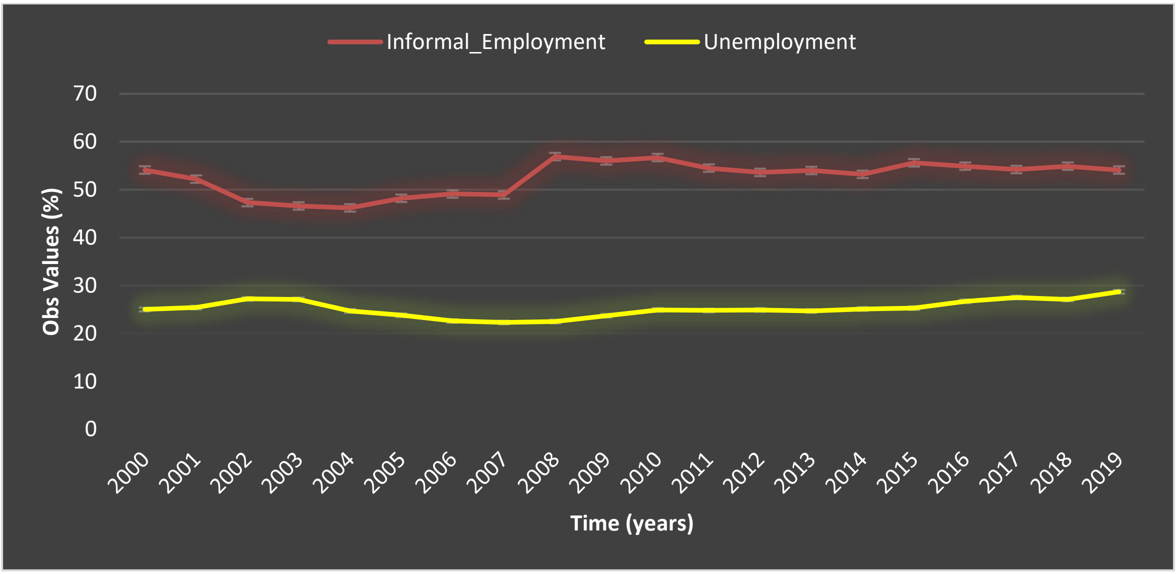
# 2. COMMUNITIES AND LIVELIHOODS

- Mongi Tshaka

## 2.1.Informal Sector – Not Immune to Global Shocks

For many, the informal sector serves as an important source of employment and livelihood especially in low-income countries where unemployment, poverty and inequalities are extremely high (Fourie, 2019). However, despite having dire unemployment, inequality and poverty rates, South Africa has a relatively small informal sector which employs only about a third of the country's workforce. The small size of the informal sector is partially ascribed to high restrictions to entry as well as wage reservation for the poor (Benhura & Magejo, 2020). This is contrary to the traditional view that the informal sector tends to be a shock absorber especially during crisis such as Covid-19. This view is premised on the general assumption that when jobs are lost in the formal sector, the newly unemployed labour force will gravitate towards informal employment as part of their livelihood strategy.

**Figure 2.1. formal unemployment and informal employment pre- and post- great recession**




*Source: SARB and ILO (2020)*

Historical and current evidence suggests that this is not necessarily the case in South Africa. The upward trend of formal unemployment as well as the downward trend of informal employment post 2008/2009 Global Recession as illustrated in figure 2.1 herein, suggests that job destruction in the formal sector did not translate to job creation in the informal sector. Our previous report (2020Q3) supports this, adding that in fact the informal sector is not just vulnerable to global shocks, but it is "hardest hit and slowest to recover". In addition to jobs losses, wages and hours worked declined significantly among men and women in the informal sector compared to their counterparts in the formal sector. For example, informal wages declined by 120% while the formal wages declined by 62% between April and June 2020 (Benhura & Magejo, 2020). Although the regulations are relatively less stringent, continued fears of infection and requirement to stay at home, does contribute to the loss of revenue as informal businesses have slowed down owing to reduced demand. Unsurprisingly, women disproportionately bear the brunt of the jobs losses, wage losses, and a decline of hours worked in both sectors (United National Development Programme, 2020). Benhura & Magejo (2020) further show that the urban dwellers who are in the informal sector and unemployed experienced the most severe impact of the lockdown regulations. This is no surprise given that the informal trading is largely concentrated in urban than rural areas.

### 2.2.Support Measures to Preserve livelihood

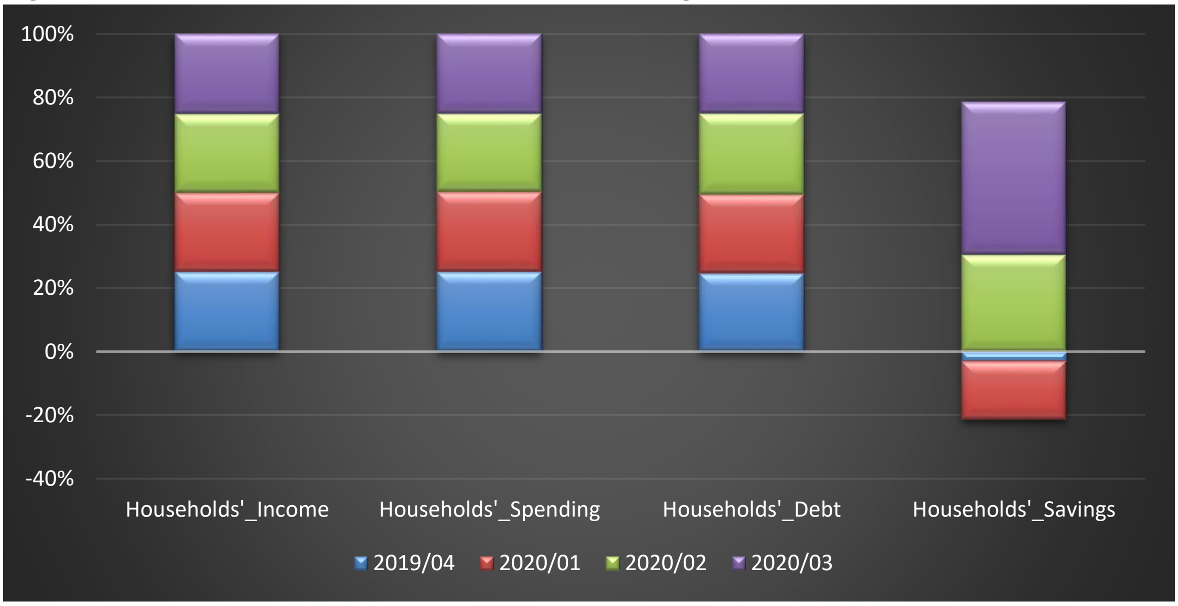
Employment policies in South Africa have largely targeted formal sector with less care for the informal sector. The limited protection and support for this sector is perhaps due to the fact that it is generally a poorly understood sector and the negative reputation it has received over the years due to the perception that it is typically less productive (Ng'weno & Porteous, 2018; OECD, 2009). Like other affected countries globally, South Africa took bail out measures to cushion the businesses and households from the negative effects of Covid-19. In particular, socio-economic relief package of R500 billion was unveiled and used to pay social benefits to households, support small businesses in the formal and informal sector, and help businesses pay salaries. Further, direct benefits were channelled through increased old-age grant and child support grant as well as the introduction of R350 grant for the unemployed who are not recipients of any other government support scheme (Khambule, 2020).

Although this has been a largely successful intervention as it increased their disposable income, uptake informal businesses was restricted and/or delayed due to the requirements to have a Bank account, register for tax and UIF, inter alia (Phaphama SEDI, 2020). Primarily, the informal workers indirectly benefited when they become unemployed or co-reside with the beneficiaries. Therefore, additional measures are necessary which directly target the informal sector in order to re-ignite income-generating activities among the informal sector.

### 2.3.Households' Behavioural Patterns

South Africa was already plagued by dire unemployment coupled with poor jobs quality pre-covid-19 pandemic. According to President Cyril Ramaphosa's 2020 State of the Nation Address, this was primarily driven by several factors relating to globalization, technology, climate change as well as sluggish economic growth, inter alia. The ensuing ramifications are reflected in the slightly declining levels of households' disposable income and expenditure, rising households' debt to disposable income as well as households' de-savings observed before the lockdown period. Figure 2 further shows that the households' disposable income took a slight upward trend which in turn fuelled an increase in households' Spending between the 2nd and 3rd quarter of 2020. The increased incomes and the resultant decline in households' debt to disposable income meant that the households no longer have to finance their expenditure through debt. Moreover, the increasing rise of households' savings in the 2nd and 3rd quarters of 2020 implies that the effect of Covid-19 is gradually inculcating a culture of saving among households. This trend is expected to continue as the future remains uncertain in the presence of the pandemic. In this vein, the extension of the unemployment grant is expected to encourage and facilitate this behavioural trend among households at least for the next few months.

**Figure 2.2. the trends of selected variables before and during lockdown in SA[1]**




*Source: SARB (2020)*

Government's social relief measures have to an extent managed to save not only the lives but also the financial health of vulnerable households in the face of declining wages and jobs losses owing to the Covid-19 induced lockdown regulations. However, there is a need for support measures inclusive of the realities of the informal sector workers whose socio-economic conditions are likely to worsen owing to lack of social security amid Covid-19. Importantly, there is a need to recognize informal sector as an integral part of the broader economy and accordingly design suitable policies to support it rather than suppress it.

1 *Figure 2.2 illustrates the logged (log10) values of households' disposable income, households' spending and households' debt to disposable income.*

# 3. EDUCATION AND HEALTH

- **Chwayita Mkrola**

## 3.1.Introduction

Mhlanga & Moloi (2020) assert that “The outbreak of Covid-19 came as a wake-up call to the education sector in South Africa”, as online learning remained central in protecting the right to quality. However, uneven distribution of online learning resources raised concerns about equal access to quality education. Additionally, the state of digital infrastructure raised concerns about readiness, effectiveness, and efficiency of e-learning. This section argues that the outbreak did not only serve as a wake-up call, but also as evidence of how poor execution of policy can deny the country an opportunity of not only taking advantage of developments occurring in the world, but also to cope and respond timely to disruptions. The preposition is that Covid-19 is a disruption that South African department of education planned to prepare for, struggled to cope with, and need to recover from.

## 3.2.Policies that prepared S.A for the disruption:

*The 2003 e-Education policy:*

In 2003, the department of education recognised the role of ICT in building in creating equal access to inclusive, quality education and improving education outcomes. The department further argued that ICT is “one of the most powerful means of supporting learners to achieve the nationally-stated curriculum goals” (Department of Education through ICT, 2003, p. 23). As a result, an e-Education policy was designed, with a goal of aligning the education system with the digital world. Herewith some extracts on ambitions of the e-Education policy, as stipulated in the Department of Education (2003):

- *Every South African learner in the general and further education and training bands will be ICT capable (that is, use ICT confidently and creatively to help develop the skills and knowledge they need to achieve personal goals and to be full participants in the global community) by 2013.*
- *The objective is to build digital and information literacy so that all learners become confident and competent in using technology to contribute to an innovative and developing South African society.*
- *The principle of equity should inform our approach and provide an alternative basis for supplying access to information and the allocation of resources. Equal access and equal competence must be the objective of our education system.*
- *The school curriculum in General and Further Education and Training is supported through effective and engaging software, electronic content and online learning resources, and teachers, content developers and administrators who contribute effectively to these resources.*
- *Every teacher, manager, and administrator in General and Further Education and Training must have the knowledge, skills and support they need to integrate ICT in teaching and learning.*
- *Every teacher and learner in General and Further Education and Training must have access to ICT infrastructure.*
- *Every teacher and learner in General and Further Education and Training must have access to an educational network and the Internet.*
- *Implementing e-Education must ensure that available resources are maximally and effectively utilised through effective procurement, value for money, and management for sustainability. Funding models and procurement mechanisms should achieve economies of scale. Roll-out plans should be affordable, scalable, and sustainable, based on generic activity-based design tools for teachers and learners.*

The 2003 e-Education policy acknowledged the importance of sustainable connectivity and electricity services in reaching the goal. This policy created an opportunity for resilience building in the education department and smooth adoption of e-learning. The e-Education policy was later supported by various government policies including the 2012 National

Development plan which stressed the need for advanced communication technology in expanding learning opportunities (National Planning Commission, 2012); the 2012 National Infrastructure Plan of South Africa which aimed at expanding access to communication technology through providing for broadband coverage to all households by 2020 and promoting equall access through investing in ICT infrastructure in townships and rural areas; the Department of Higher Education and Training (2013) documented that transitioning to remote learning may serve as means to expand access, reduce costs, and enhance quality of education, as well as efficient use of higher education and emphasised the need to address the challenge of uneven distribution of ICT infrastructure, and The 2014 Universal Access Policy highlighted the importance of affordability, accessibility, and availability of community services (The Department of Telecommunication and Postal Services, 2014).

### 3.3.Struggling to cope for the disruption:

Despite plethora of policies serving to prepare the education system, the department remained vulnerable to the shock and struggled to respond and cope timely to the covid-19 disruption. This signals the need to place the relationship between policy formulation and implementation, and departmental performance under scrutiny. Most students, especially from rural areas, could not access education due to high data prices, lack of devices for offline learning, lack of devices for online learning (Dube, 2020; Robinson, 2020). Although the department rolled out online learning tools such as laptops and tablets, data, and formulated partnerships with private service providers to ensure data availability and improve connectivity (Mhlanga & Moloi, 2020; Parliamentary Monitoring Group, 2020) not all schools received e-learning tools as some schools were set to receive the tools in 2021 (Parliamentary Monitoring Group, 2020).

Additionally, Dube (2020) found that barriers to e-learning in rural areas go beyond lack expensive data and lack of devices but include unavailability of network and lack of digital skills in some teachers. Teachers with lack of digital literacy still exist although the 2003 e-learning policy was set to equip all teachers with the skills necessary to integrate learning with Information and Communication Technology. These factors contribute to threatened education outcomes, meanwhile the economic impact of covid19 put education financing at risk (Mkrola, 2020). Post-disruption resilience remains a crucial part of South Africa’s education system.

### 3.4.Recovering from the disruption

Resilience may allow organisations to prepare for, cope with, and recover from disruptions (Duchek, 2020). South Africa’s education system displayed some level of resilience as their ability to prepare for the unknown was reflected in the 2003 e-Education plan and other complementary policies. Additionally, the department’s ability to distribute learning devices and the phased in approaches to returning to school showed the department’s ability to develop and act on plans that allow adaptation. However, failure to execute some important policy plans denied the department an opportunity to cope sufficiently and timely enough to minimise the impact of the disruption. Although DNA Economics ( 2020) predicts a neutral impact of covid19 on demand and supply of education and a recovery period of 1 to two years, it remains imperative for the S.A’s education system to attend to the burden of building a resilient, cost-effective, and inclusive education system within a period substantial economic difficulty. Failure to do so may reduce the competitiveness of the country through destroying human capital, thus creating negative implications for long term economic growth. The department of basic education devised a recovery plan aimed at minimizing the impact of learning losses and recruiting teaching assistants to for capacity enhancement (The South African government news agency, 2020). However, it is important to devise a plan that is recognises the deep economic impact of covid19 and that seeks to see results that go beyond education outcomes. The department of education must focus on aligning educational priorities with the industry demand to ensure every rand spent on a child yields returns that contribute to economic recovery. In recognition of the economic state, the department of education must commit to avoid irregular expenditure, priority must be given to functions that can be justified and that are directly related to education outcomes and building human capital, adoption of zero rated budgeting will also play a major role in this regard. Other recovery strategies may include:

- The department must introduce free distance learning in public institution and extend home schooling to up to grade 12 for qualifying and capable households, this to reduce burden on the education system soft and hard infrastructure.
- Encourage university students to volunteer to tutor students in basic education, engage with university societies in that regard.
- Public-private partnership in identification of scarce skills, curriculum formulation and offering education on the job training may play a key role in ensuring employability of students and graduates.

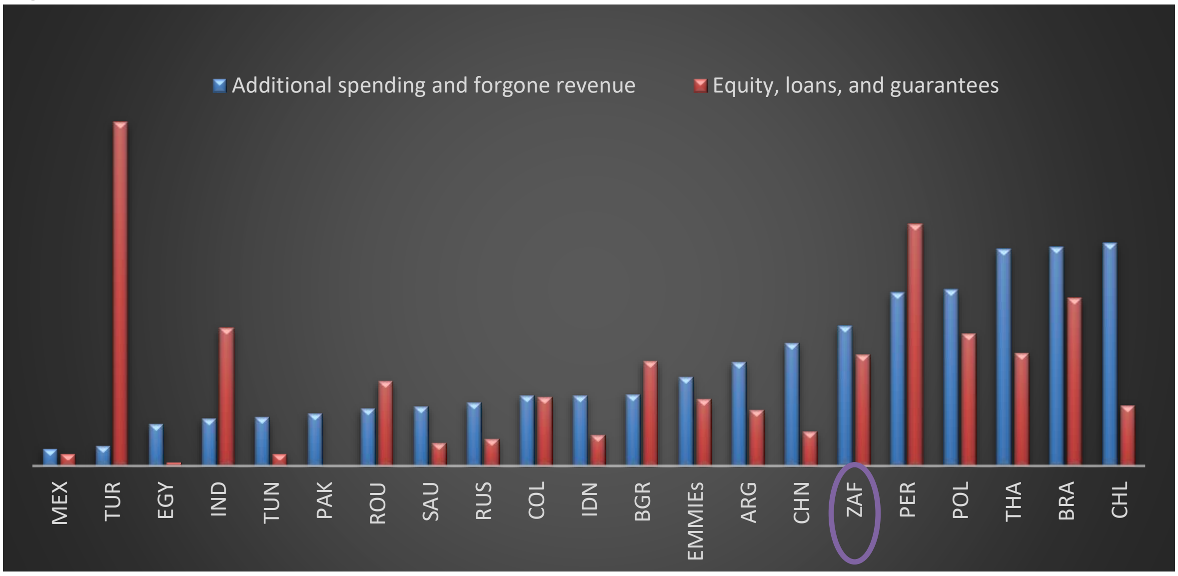
# 4. FISCAL POLICY AND GOVERNANCE

**- Baneng Naape**

### 4.1.A summary of the 2019/20 fiscal year and the impact of covid-19

In the rise of the first wave of the covid-19 pandemic and its devastating impact on health care and the economy, governments across the globe had to respond accordingly through substantial economic relief programs targeted at business, health care and safety nets. To be precise, governments have provided relief in the form of cash payments and food aid to the most vulnerable households, financial support to small and large businesses, payment holidays and zero interest loans to indebted citizens as well as tax relief measures. The figure below illustrates discretionary fiscal response to the covid-19 crisis as of September 2020.

**Figure 4.1. Discretionary Fiscal Response to the COVID-19 Crisis in Selected Economies**

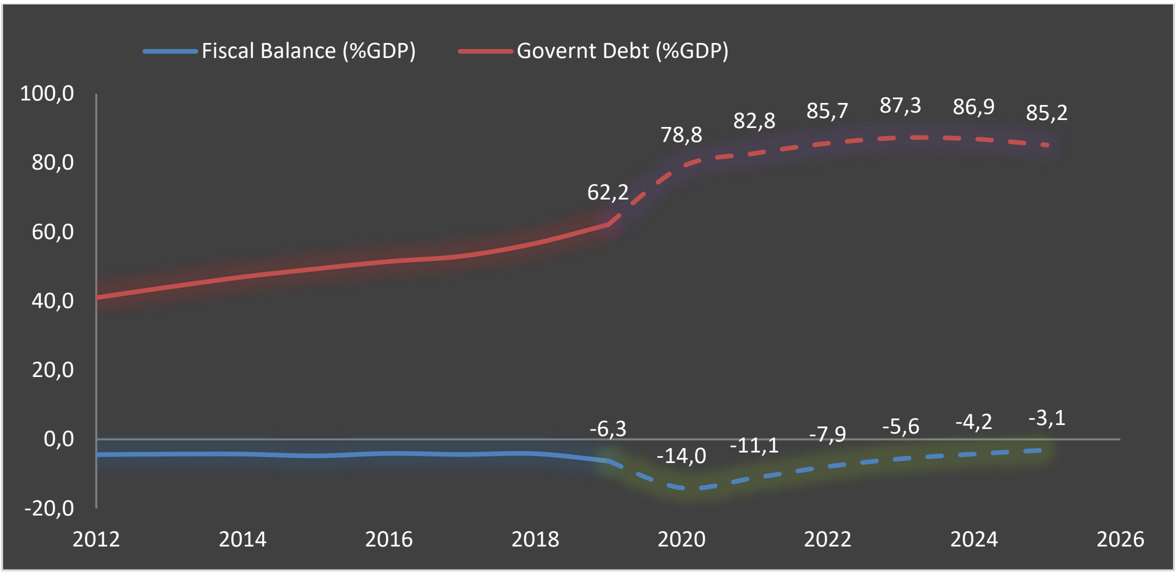



*Source: IMF Fiscal Monitor (Oct 2020)*

The South African government in particular, began by providing funding to numerous sectors of the economy that were heavily affected by the Covid-19 pandemic including hospitality and tourism, agriculture and food, trade and industry as well as health care. This was achieved through various facilities such as the Debt Relief Fund and Business Resilience Facility for Small, Medium and Micro Enterprises (SMMEs) as well as the Unemployment Insurance Fund facility for well-established businesses that were struggling to pay-off employee salaries (Ramalepe, 2020). As the covid-19 pandemic intensified, the South African government responded by a further R500 economic relief package aimed at protecting jobs and livelihoods and providing the much-needed liquidity to struggling businesses. The funds were acquired through budget re-allocation and borrowing from international lenders.

Since the rise of the covid-19 pandemic, the sustainability of public finances has remained questionable. The gap between government revenue and government spending stands at 6.3 per cent of GDP and is expected to widen to 14.0 per cent of GDP in the fiscal year ending March 2021 (Bloomberg, 2020). Meanwhile, government debt is expected to rise from 62.2 per cent of GDP in 2019/20 to 82.8 per cent of GDP in 2021/22. These numbers are however subject to change given the additional R20 billion required to roll-out the vaccine programme and depending on which route the government takes to acquire the additional covid-19 funding. The figure below provides trends in selected fiscal indicators for South Africa.

**Figure 4.2. Selected fiscal indicators**




*Source: author using IMF Database (2021)*

### 4.2.The impact of the second wave of the Covid-19 pandemic on the fiscus

The covid-19 pandemic continues to weigh not only on the country's health system but also on the public purse. While the government has taken extensive measures to alleviate the dire effects of the covid-19 pandemic on the livelihoods of citizens and business operations, the government remains challenged once more to over-stretch the deteriorating public purse. This is in light of the R20 billion ($1.3 billion) required to roll-out the vaccination programme. On the table currently, is the option to shift the burden to taxpayers (as usual) by increasing tax rates or to expand the fiscal deficit to unprecedented levels. The other option, although previously executed, would be to re-allocate public finances, in other words, to cut spending on certain government programmes although this would compromise service delivery.

On the upside however, the South African economy grew by an estimated 13.5 per cent in the third quarter of 2020, recovering from a record 51.7 per cent slump in the second quarter of 2020 due to extensive lockdown measures (StatsSA, 2020). The easing of lockdown restrictions has indeed benefited the economy as seen by the annualised growth rate of 66.1 in the third quarter of 2020 and to a great extent, this has benefited tax revenue collections. Of concern, however, is the lower than expected annual average inflation rate of 3.3 per cent, the lowest annual average since 2004 (1.3%) and second lowest since 1969 (3.0%) (StatsSA). This implies that consumer confidence hasn't recovered to pre-crisis levels owing to a number of factors including that certain citizens were laid-off, others received fractions of their salaries while those in business had to reduce or halt operations.

In line with the above, the government had to re-instate some of the hard lockdown restrictions due to the rise in infection rates during the festive seasons. This included, amongst others, a ban on alcohol sales and a reduction in business trading hours or rather a nationwide curfew from 9pm to 6am. This has had a knock-on effect on food and beverage sales as well as employment in those respective sectors. The ban on alcohol, does not only affect alcohol sales, but also the hospitality and trade industry considering that most of the wine produced in South Africa is exported abroad (for trends in trade please read section 8). Most citizens had to cancel their reservations in numerous lodges and hotels as the fear of the second wave loomed during the festive season. This did not bode well for the hospitality industry considering that it was the most hit industry during the first wave of the covid-19 pandemic. In overall, the ban on alcohol and impact of the second wave of covid-19 on the hospitality industry should translate into a decline in company tax revenue collections in the fourth quarter of 2020.

# 5. BUSINESS AND FINANCE

- Zaziwe Maluleke

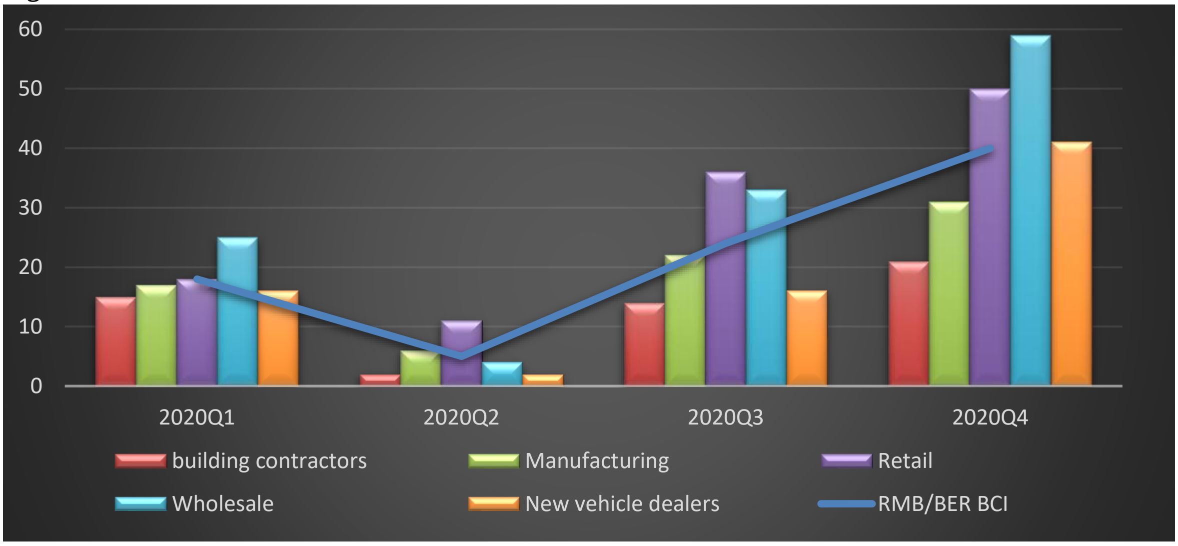
## 5.1.Introduction

South Africa was hit by a Covid-19 shock, which caused permanent damage than expected and reversed economic progress to more than a decade back. This was a unique crisis as it required less human interaction which meant that companies with more labour-intensive work could not continue. Businesses had to adapt to the new normal which required good Information and Communications Technology (ICT) and broadband infrastructure. For almost two months, South Africans were only permitted to purchase essential items, which were basic goods and medical services. This meant that other types of goods and services were not permitted. This led to losses in different sectors, especially those that are labour intensive. Thus far, the working hours lost due to Covid-19 in the second and third quarter of 2020 initially rose by 17.3 and 12.1 percent, which is equivalent to 495 and 345 million full time jobs lost (ILO, 2020). Southern Africa has lost 20.3 and 14.2 percent of work hours accounting 4 and 2 million jobs losses (ILO, 2020). The South African government was able to launch numerous relief measures for South African businesses to keep businesses operating and protect jobs.

## 5.2.The repercussions

The indictor for business activity reflected by the RMB/BER Business Confidence Index (BCI) reached a record low of 5 in the second quarter of 2020 due to tougher restrictions that brought about uncertainty and decreased confidence. Fortunately, the RMB/BER BCI recovered to 40 above pre pandemics levels in the fourth quarter of 2020. The figure below shows how the RMB/BER BCI and its components have been performing in 2020. It is evident that all the various sectors have recovered from the effects of Covid-19.

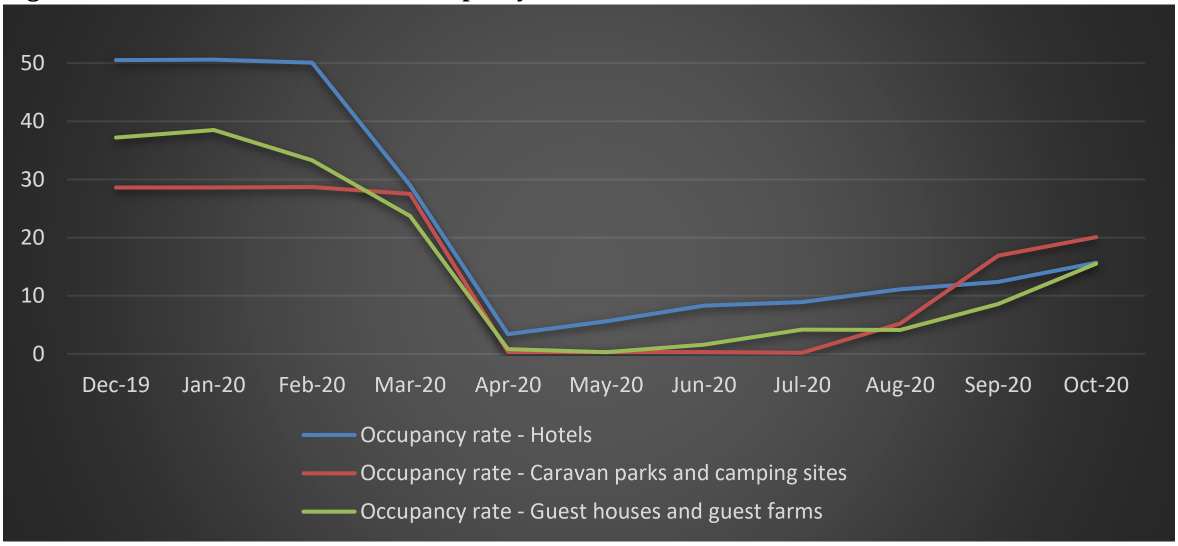
**Figure 5.1. RMB/BER BCI**




*Source: BER, 2020*

Global and domestic demand for most goods fell as people were not permitted to purchase non-essential goods. This meant that businesses providing these goods were not able to make any sales from it. In the retail front, numerous businesses closed down permanently including a luxury store Prada, Edgars stores and various small businesses. The tourism sector was also affected by constrained mobility and the closure of international borders. This led to a drastic drop in the occupancy rates of tourist accommodation as reflected in figure 4 below. In the aviation industry Comair and South African Airways (SAA) were on business rescue, in which Comair was able to resume business activity in November 2020. SAA still requires government funding in order to complete the restructuring of the airline.

**Figure 5.2. Tourist accommodation occupancy rate**




*Source: StatsSA, 2020*

### 5.3.What good came out of it?

**The ability to work from home**

This crisis gave rise to the new normal of working from home which created flexibility for individuals as they did not have to leave their homes to go to work. Productivity has also been reported to have risen, which leads to better business outputs. This also reduced the time spent stuck in traffic and also saved the environment due to less emissions.

**The use of technology**

People have been more reliant on virtual platforms for communication, work and shopping. We have seen the Black Friday online sales accelerate by 18% year on year, with 628 666 online transactions recorded compared to 534 828 in 2019 (BankservAfrica, 2020). This can be attributed to people avoiding physical contact in the actual stores and lessen the risk of contracting the coronavirus.

**Conclusion**

South Africa is currently in the second wave of the coronavirus which has led to the movement to alert level 3 which makes it difficult for businesses to resume to normal business working hours due to the curfew. As much as the crisis has caused significant damage on businesses, it has also provided opportunities for innovation in the field of businesses.

# 6. MONETARY FRAMEWORK

- **Mulalo Sehlako**

## 6.1.Introduction

The mandate of central banks globally has been at the forefront in 2020 as the monetary policy response to Covid-19 pandemic had to be more robust and accommodative. While there are slight differences regarding the aim of monetary policy in various countries, the common goal is mostly to stabilise inflation, ensuring that it is low and/ or within a set target range (SARB, 2020). In South Africa, the rate of inflation remained well within the target range for the entire of 2020 (see more details in section 2). The Monetary Policy Committee (MPC) of the South African Reserve Bank (SARB) indicated the importance of implementing the necessary policy measures earlier, considering that transmission of monetary policy to the real economy does not occur immediately nor within a short period. Hence, the implementation of easing monetary policy seemed to be collective across the world as most countries were dealing with the impact of Covid-19. Therefore, financial markets, businesses and households needed liquidity support. Despite restricted economic activities, the demand for credit purchases increased due to massive job losses and /or reduced earnings. The launch of a unified approach to enable the provision of debt relief to borrowers was announced by government in March 2020 (IMF, 2020). Against this background, South Africa is the main feature in this section of the report, thus providing the key updates concerning monetary policy in the economy.

## 6.2.Policy Interventions

Efforts to insulate the South African economy from the worldwide pandemic saw the South African Reserve Bank (SARB) pursue an aggressive regimen unlike any before. Refer to the table below to observe some of the main SARB policy interventions.

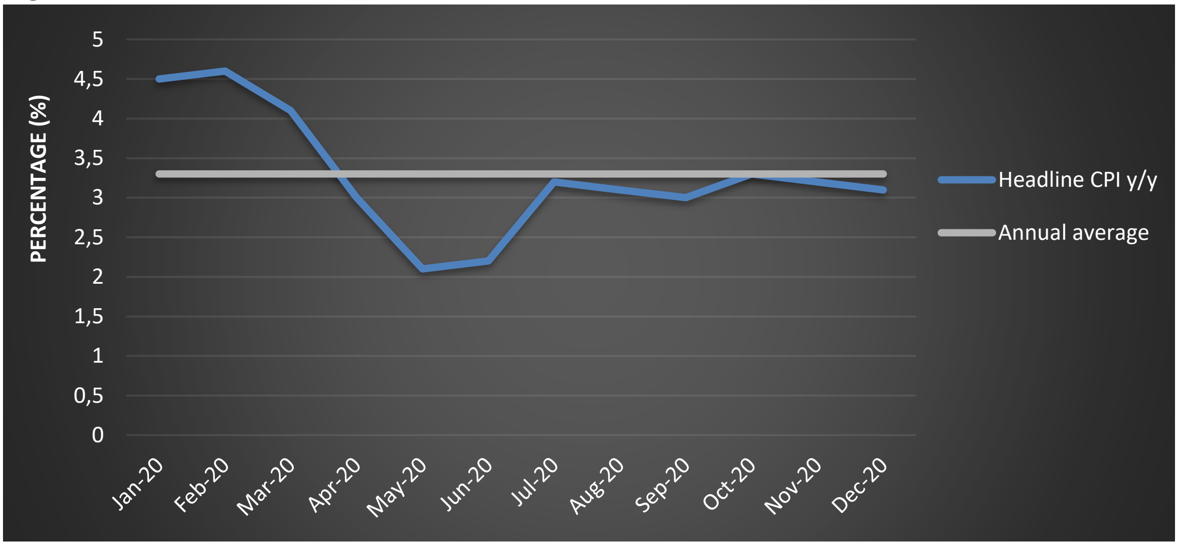
**Table 6.1. SARB Policy Interventions**

| Month | Intervention | Change (basis points) | Amount |
|---|---|---|---|
| January 2020 | Repo rate cut | -25 | |
| March | Repo rate cut | -100 | |
| March | Purchase government bonds | | R1 billion |
| April | Purchase government bonds | | R11 billion |
| April | Repo rate cut | -100 | |
| May | Repo rate cut | -50 | |
| July | Repo rate cut | -25 | |
| January 2021 | Repo rate unchanged | 0 | |

*Source: SARB (2021)*

By the end of the year, the repo rate was effectively reduced by 300 basis points to 3.5%. This is the lowest since the introduction of inflation targeting in 2000. Through lowering the policy rate and purchasing government bonds, the SARB aimed to induce much needed liquidity into financial markets. Consequently, borrowing became cheaper and accessible to the public. Hence, some businesses and households were better insulated from closing or job loss resulting from strict regulations amid economic lockdown (both domestic and global restrictions). Furthermore, financial markets have since stabilised and remained effective despite risks (SARB, 2020).

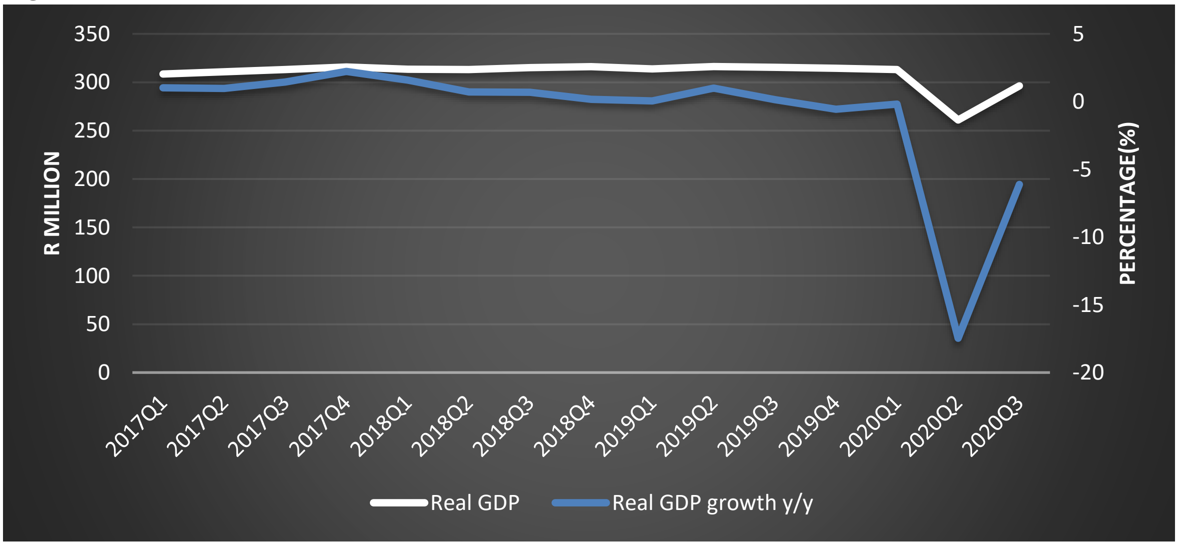
**Figure 6.1. Trends in inflation**




*Source: StatsSA (2021)*

Inflation throughout the year remained low and closer to the 3% lower bound as unemployment soared and consequently incomes lost. Average annual consumer inflation for the year was 3.3% - the lowest rate after 2004 (1.4%) (StatsSA, 2021). In October, the inflation rate was 3.3% which declined slightly to 3.2% in November and 3.3% in December 2020. In the last quarter, inflation seemed to be normalising partly due to the relatively reduced lockdown restrictions announced in November and festive season before tightening of restrictions in mid-December as South Africa approached its second wave of a more contagious Covid-19 variant. The first Monetary Policy Committee (MPC) meeting decision left the repo rate unchanged as expected inflation appears more stable.

**Figure 6.2. trends in real GDP**




*Source: SARB (2021)*

From the graph above, an economic recovery was indeed on the cards in the third quarter. Although, the country is a far-cry from pre-pandemic levels. High frequency data such as manufacturing, and mining production data suggests the following quarter will not be as impressive. Load-shedding is the norm. The economic recovery is further complicated by the second wave and subsequently tightened lockdown regulations. Economies will revive at different speeds given respective vaccination plans and implementation. Without a clear vaccination rollout plan, South Africa will surely not be amongst the leaders of the recovery.

# 7. TRADE & FINANCIAL MARKETS

- Bekithemba Qeqe

### 7.1.Introduction

The year 2020 has been a turbulent one for the global economy. The decline of economic activity in many parts of the world and the consequent shocks to global demand and supply led to severe destructions in the volume of trade and patterns of economic growth across the globe. Global financial markets on the other hand experienced bouts of volatility for most of the time during the year due to the growing health risk, continuous revisions of growth expectations, rising uncertainty and heightened risk aversion associated with the outbreak of the Covid-19 pandemic. This section will provide a review of trends in global trade patterns and financial markets dynamic during 2020.

### 7.2.Trends in global trade

The collapse of demand and supply as well as decline in investments and prices led to significant decline in the volume of global merchandise trade, especially during the first half of the year. Table 7.1 below shows the trends in the monthly trade statistics of some major trading economies between January and November 2020.

**Table 7.1. Year on year changes in the value of exports (January -November 2020)**

| | Jan-20 | Feb-20 | Mar-20 | Apr-20 | May-20 | Jun-20 | Jul-20 | Aug-20 | Sep-20 | Oct-20 | Nov-20 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Brazil | -19.5 | -1.0 | 5.3 | -8.7 | -14.8 | -4.9 | -3.5 | -11.1 | -10.1 | -9.3 | -1.2 |
| Canada | 3.8 | 3.4 | -11.1 | -37.0 | -40.8 | -21.0 | -14.1 | -11.4 | -5.6 | -6.9 | : |
| China | -32.8* | 8.2* | -6.8 | 3.5 | -3.3 | **0.3** | **7.2** | **9.5** | **9.8** | **11.3** | : |
| EU (External Trade) | -2.3 | -2.7 | -7.6 | -30.7 | -31.5 | -10.0 | -8.9 | -8.7 | : | : | : |
| India | -2.1 | 3.1 | -34.5 | -61.0 | -35.7 | -12.4 | -10.0 | -12.5 | **6.0** | : | : |
| Japan | -2.8 | -1.1 | -9.3 | -19.1 | -26.0 | -26.1 | -17.9 | -14.3 | -2.8 | **2.9** | : |
| Russia | 3.5 | -10.9 | -16.3 | -33.3 | -34.8 | -23.3 | -27.6 | -32.6 | -15.2 | : | : |
| South Korea | -6.6 | 3.6 | -1.7 | -25.6 | -23.8 | -10.9 | -7.1 | -10.3 | **7.3** | -3.8 | : |
| United Kingdom | 0.0 | -7.4 | -17.5 | -29.6 | -35.2 | -21.2 | -17.1 | -16.0 | -16.6 | : | : |
| United States | -0.4 | 1.6 | -9.4 | -29.0 | -36.3 | -23.8 | -15.4 | -14.6 | -9.5 | -7.0 | : |

*Source: IHS Markit Global Trade Atlas 2020*

The widespread decline affected both developing and developed countries, leading to a sharp contraction of 12.7% in the volume of trade during the second quarter of 2020 (WTO, 2020). As can be seen on table 7.1 and 7.2, the volume of global trade rebounded in the third quarter amid the lifting of restrictions, return to economic activity and gradual uptick in demand. China for example is shown by the data to have recorded positive year on year export growth between June 2020 and October 2020 while other economies like the USA saw lower reductions to their export volumes during the same period. In line with the decline in global trade, South African merchandise trade was severely affected in the first five months of 2020 leading to a massive trade deficit of R123.7 billion (equivalent to 2.9% of GDP) during the second quarter of 2020 (Stoddard, 2020).

**Table 7.2. Year on Year changes in the value of imports (January 2020-November 2020)**

| Year on year changes in the value of imports, Jan - Nov 2020 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan-20 | Feb-20 | Mar-20 | Apr-20 | May-20 | Jun-20 | Jul-20 | Aug-20 | Sep-20 | Oct-20 | Nov-20 |
| Brazil | -1.3 | 5.0 | 10.5 | -14.8 | -10.5 | -19.8 | -35.2 | -28.5 | -25.5 | -27.3 | -2.6 |
| Canada | -3.6 | -3.6 | -11.6 | -33.5 | -38.7 | -15.7 | -9.1 | -9.2 | -1.6 | -2.8 | : |
| China | -16.1* | 14.2* | -0.5 | -13.8 | -16.4 | 3.3 | -0.9 | -2.0 | **13.6** | **5.2** | : |
| EU (External Trade) | -3.1 | -6.8 | -12.3 | -25.4 | -27.7 | -13.0 | -13.7 | -10.1 | : | : | : |
| India | -0.7 | 3.5 | -28.2 | -59.7 | -51.0 | -48.1 | -29.6 | -26.0 | -19.6 | : | : |
| Japan | -3.8 | -13.6 | -2.4 | -3.5 | -24.0 | -13.7 | -21.0 | -20.5 | -15.9 | -10.7 | : |
| Russia | 1.6 | -2.3 | -4.2 | -22.1 | -15.7 | -4.6 | -13.9 | -10.9 | -2.9 | : | : |
| South Korea | -5.4 | 1.0 | -0.4 | -15.8 | -20.6 | -11.1 | -11.6 | -15.8 | **1.6** | -5.6 | : |
| United Kingdom | -7.6 | -10.8 | -16.2 | -34.5 | -32.8 | -8.5 | -17.2 | -14.2 | **0.4** | : | : |
| United States | -4.0 | -4.0 | -6.5 | -20.9 | -25.7 | -13.2 | -8.2 | -5.6 | -0.2 | **0.0** | : |

*Source: HIS Markit Global Trade Atlas 2020*

The country’s trade numbers improved significantly in the second half of the year, leading to a trade surplus of R33.4  billion and R36.1 billion in September and October, respectively (SARS, 2020). Despite the recent rebound, global trade ended the year still below 2019 levels, with the overall decline for 2020 estimated to range between 13 and 32%(WTO, 2020). Stronger recovery is expected  2021 given the commitment by world governments to undertake massive investments towards the procurement and distribution of Covid-19 vaccines which will see the health risk  reduced and the demand conditions improve further.

### 7.3.Financial Market Trends

The year 2020 saw major repricing and re-positioning in markets across the globe most due to uncertainty about the magnitude and duration of the economic impact of the pandemic which continued to weigh heavily on the behaviour and risk appetite of  investors.

#### 7.3.1. Impact on equity Markets

Equity markets began declining rapidly in late February 2020, losing around 30% of market value in a matter of weeks, with the speed of the selloff exceeding that witnessed during the global financial crisis of 2008-2009 (WEF, 2020). The Chicago Board Options Exchange (CBOE) VIX index, a measure of global market volatility, closed at around 57.08% on 30 March 2020, indicating a significant amount of uncertainty and volatility in the markets during the first quarter of the year. Central banks and governments responded immediately by throwing their policy instruments into the market. These measures coupled with the gradual return to economic activity in different parts of the world, inspired forward-looking optimism and  led to a decline in volatility to below 30% by the 1st of October 2020. The forward-looking optimism in global financial markets was carried through the end of the 2020, fuelled also by the conclusion of the US elections and hopes of a large fiscal stimulus by new USA administration. The confirmation  of Covid-19 vaccination results proving successful inspired more optimism in the markets towards the end of the year by increasing prospects for quick global economic recovery. Local equity markets followed a similar trend as the global markets for most of the time during 2020. Table 7.3 shows the changes in Johannesburg Stock Exchange All Share Index (JSE ALSI) between the first quarter and fourth quarter of 2020.

**Table 7.3. Changes in JSE ALSI between 30 January and 31 December 2020**

| Date | JSE ALSI |
|---|---|
| 30-Jan | 56 590,926 |
| 28-Feb | 51 038,1753 |
| 31-Mar | 44 559,3117 |
| 30-Apr | 50 003,72 |
| 31-May | 50 483,0037 |
| 30-Jun | 54 362, 3628 |
| 31-Jul | 55 721, 8049 |
| 31-Aug | 55 476, 1135 |
| 30-Sep | 54 264, 957 |
| 31-Oct | 51 684, 7035 |
| 30-Nov | 57 091, 8853 |
| 31-Dec | 59 408, 6767 |

*SOURCE: SA SHARES 2020*

Amid rising panic and uncertainty as to the impact of the virus on the economy, more specifically on company earnings, the JSE ALSI index declined significantly by 21,26% from 56 591 in January 2020, to 44 559 points by 31 March 2020. The JSE top 40 index closed at 40 827 points on March 31, 2020, down by 19,66% from the start of the year (Haasbroek, 2020). After recording significant losses in the first half of the year , the stock exchange recovered in line with improved risk sentiments and increasing prospects for global economic recovery, as easing restrictions on economic activity continued . The JSE ended the year up by 0.63%(Planting, 2020) . Some of the top performers on the JSE during 2020 include tech companies Naspers and Prosus , gaining 31.8% and 52% respectively for the year(Planting, 2020). Mining shares also recorded positive gains in 2020, supported partly by the surge in gold prices during the year. DRDGOLD and Pan African Resources were some of the standout performers when it comes to mining, with their share prices surging by 139% and 122%, respectively (Planting, 2020). Some of the most significant losses on the JSE came from the financials stocks with the financial 15 falling by 22.7% over the year. Amongst the biggest losers in this index was Nedbank, losing 39.6%, and Standard Bank which was down by 24.5% in 2020 (Planting, 2020).

### 7.4.Impact on currency movements

Variations in the performance of currencies have been a persistent trend in 2020, especially in emerging markets. The Brazil's real and Turkey's lira, were among the most worst performing emerging market currencies in 2020, each losing more that 20% in value against the US dollar.

The fall in emerging market currencies can be attributed to the strength of the US dollar during the early stages of the virus, as well as investor concerns that the interest and debt payment will increase if their currencies continue to fall. The South African rand outperformed other emerging market currencies but lost close to 4.2% of its value to the US dollar in 2020 (Nayar, 2020) .From R14/$ in the beginning of the year, the rand had weakened significantly to around R19.26/$ by April 2020 amid growing fears about the impact of the country's hard lockdown as well as concerns about the expected outflows of capital after the country lost its last investment grade rating due to downgrade by Moody early in 2020. The rand fell 19% against the dollar in the first six months of the year. The performance of the South rand improved during the second half of the year and closed at R14.62/$ on the 31 of December 2020(South African Reserve Bank, 20200. The weakening of US dollar, attractive bond yields and improving global financial market sentiment are some of the factors supporting the strength of the local currency towards the end of the year.

### 7.4.1. Impact on bond yields

The South African bond market experienced a turbulent start to the year amid sovereign credit downgrades, policy uncertainty and the worst economic crisis in decades. Foreign holding of South African bonds declined from 37.3% in January to 30.1 % in July 2020 with foreigners selling over $60 billion worth of South African government bonds during this period as risk associated with rising bond yields continued to weigh heavily on the market. Investors' appetite for South African government bonds improved during the second half of the year as the confirmation of the success of Covi-19 vaccination results, a stronger rand and the conclusion of US elections gave investors comfort to take on riskier investments like emerging market bonds. South African 10- year government bonds posted an annual gain at the end of 2020, closing with the yield that is 28 points lower than its closing price at the final day of 2019.

### 7.4.2. Commodity markets trends

The slowdown in global economic activity due to the outbreak of the pandemic has delivered a significant shock in commodity markets across the globe. The impact has however varied for different types of commodities (World Bank, 2020).

#### 7.4.2.1.Impact on Oil Prices

In oil markets, crude oil prices declined to record lows during the first quarter and remained significantly lower than their pre-pandemic levels throughout the year. Oil demand drastically declined following lockdowns, travel restrictions and reduced mobility during early stages of the pandemic . Furthermore, initial outlooks and uncertainty surrounding the pandemic led to a disagreement between two of the largest oil producers (Russia and Saudi Arabia) in early March. Negotiations between global oil producers led to an agreement on April 13th, with promises to cut petroleum output and help stabilize the oil prices. Oil prices partially recovered during the second half of the year due to easing of lockdown restrictions and gradual recovery of global demand . Despite the resurgence of a second wave of the virus in many parts of the world, hopes for the quick distribution of promising vaccinations resulted in the Brent crude and OPEC basket climbing above $50/barrel towards the end of December 2020. Some industry experts have estimated that oil demand may take time to return to their pre-pandemic levels as global consumption and demand still fall short of their pre-pandemic levels.

#### 7.4.2.2.Impact on Food price

Global agriculture market was least affected by the outbreak of the pandemic when compared to other sectors. The prices of some main food items however fell by around 9% between January and April 2020 (World bank, 2020). The fall in prices was caused by lower demand for agricultural commodities when compared to industrial commodities. falling oil prices also influenced the initial deterioration of food prices as many alternative fuels, which are made out of food stocks, saw demand fall .Global food prices started to increase again from May 2020 as restrictions were being lifted and concerns about demand started to fall away. The World Bank's Agricultural Price Index which measures the movement in global prices of agricultural products was up by 6 percent in quarter 3 of 2020, reversing the declines recorded earlier in the year (World bank, 2020). The momentum was carried through to the end of the year with global food prices increasing for the 7$^{th}$ consecutive month in December 2020.

#### 7.4.2.3.Impact on Metal prices

A substantial drop was observed in the prices of industrial metal during the year 2020. The largest falls since the start of the year was observed in the prices of zinc and copper. This was mainly caused by the slowdown of worldwide economic activities, specifically in China which is responsible for more than half of global metal demand. The prices of precious metals surged early in the pandemic as uncertainty dominated the global economy. The uncertainty and increased risk triggered significant increase in demand for safe haven assets among investors, leading to a sustained increase in the prices of gold during the first three quarters of 2020. Gold prices increased more than 32% between first and third quarter of the year, breaching the $2,000 mark for the first time ever in August 2020. Gold prices eased during the 4$^{th}$ quarter of 2020 due to decline in demand for safe haven assets and decline in the strength of the US dollar .Silver prices also followed in the same direction, increasing more than 30% between the first and third quarter of the year and slowing down in the fourth quarter of 2020. Platinum which plunged significantly during the first half of the year recovered in the second half of 2020 at the back of a recovery in global auto sales.

### 7.5.Conclusion

While there was significant rebound in global economic activity by end of 2020, international trade and financial markets still fall short of their pre-pandemic levels. It is anticipated that the speed of recovery in 2021 will depend to a large extent on the speed at which vaccines are distributed. The quick distribution of these vaccines is expected to reduce the health risk globally and improve the prospects for faster global economic recovery which may in turn encourage more international trade and more positivity in financial markets going forward. It is also anticipated that the new US administration led by Joe Biden may work on fixing US relations with China and that this will have positive spill over effects on the global economy, global trade and financial markets sentiments.

# 8. ENERGY & TECH

- **Thabang Serobe**

## 8.1.Energy

South Africa's energy sector has been under scrutiny in recent years. This is due to the continued failure to evolve to clean and renewable energy at the global rate, infrastructural inefficiencies at Eskom, barriers to entry to the sector and lack of adequate investment and high operations costs in the sector. These difficulties tend to pose major difficulties on the economy and its ability to grow.

Efforts to restructure Eskom has unfolded at a lower rate than expected. There is a need for further research on the efforts to integrate Independent Power Producers in Eskom's infrastructure as well as monitoring Eskom's relationship with Independent Power Producers. It will require constant engagement between Independent Power Producers and Eskom to decide on which electricity production model would best suit stakeholders and the country. This cannot solemnly be Eskom's decision to decide on the which model would best suit stakeholders in the sector as there should be a clear approach to restructuring and consulted efforts to decide on which market structure would be best if Eskom do get restructured.

Eskom's infrastructure has been years in the making, reaching every part of the country. It requires greater cost of capital to build such infrastructure, and requires more money constantly monitor and maintain it. Therefore, this makes this makes it difficult for new entrants to pose competition to Eskom. Eskom's infrastructural inefficiencies makes it difficult for it to evolve to clean and renewable energy, and to do so at a global rate. In that regard, it must be highlighted that Eskom's problems poses greater damage to the economy. It affects all sectors of the economy, from employment, manufacturing, finance and health sectors. Therefore, solutions to Eskom's problems would have a significant impact on other sectors as well. However, the slow move from traditional energy production to clean and renewable energy does not only occur in electricity production but also covers automotive sector. South Africa produces fewer electric vehicles than other developing nations in its caliber like India and China, with the country having sold 1119 plugin electric vehicles at the end of 2019 (Clean Technica, 2020).

It will require enormous investment and infrastructure development to cater for clean and renewable energy automobiles. Though there is a need to move to from traditional oil vehicles to clean and renewable energy vehicles the demand for these vehicles is still significantly low. Perhaps for 2021 Eskom together with the Department of Energy, Department of National Treasury and the Department of Mineral Resources should work hand in glove to resolve issues surrounding the finance, corruption, lack of resources, lack of innovation, investment opportunities and infrastructure difficulties in the energy sector. The joint effort may lead to major changes at Eskom and may assist the power utility giant to explore cheaper, clean and renewable energy. These efforts may also bring enormous developments on the energy sector and incentivizes innovation in the sector. The partnership between these government's departments and Eskom could see 2021 as the start of new possibilities to the energy sector.

- **Tumelo Matlhako**

### 8.2.Technology

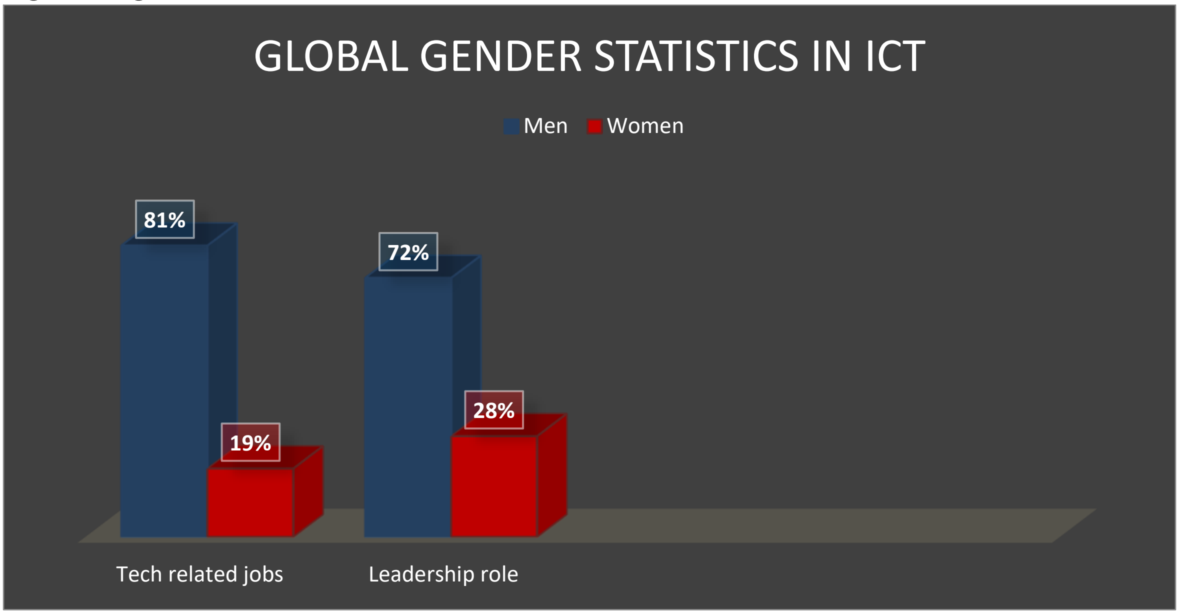
Technology, during this pandemic appears to be an investment and it has the potential to play a major role in curbing the spread of Covid-19. It has the power to distribute information regarding the symptoms, self-testing feature, daily statistics of the active cases and preventative measures to flatten the curve. It also has the power to ensure business as usual remotely, with the collaboration of the Telecommunication industry.

The significant heroes of an economy of a country are both men and women. According to Mariscal et al (2018), productivity and social development can be enhanced, on condition that women are included in the digital space, to overcome significant challenges in the society. Chiweshe (2019) reveals that in specific female-dominated industries, technology will reduce jobs in specific female-dominated industries. This implies that most women are not likely to benefit from technological advances, due to lack of skills that will accommodate them in the digital space. This study will examine the reason for the gender disparity in the Fourth Industrial Revolution for South African economy.

2. Problem Statement

Chiweshe (2019) argues that very little attention is paid to the role of women in the debate of digital space in Africa. This is a severe gap, because the future technological disruption will have an unbalanced impact on women (van Staden & Mpungose, 2018). In view of the empirical research mentioned above, it is clear that women are affected, and this will hamper vast opportunities for both genders in the future, should there be little participation for women. Therefore, the questions are relevant to this study to in order to pay attention to the issue at hand.

**Figure 8.1. gender and work characteristics**




*Source: SmeTechguru, graph complied by author*

### 8.2.1. Policy implications

Van Staden and Mpungose (2018) argues that in preparation for the Fourth Industrial Revolution, BRICS should include approaches to overcome workplace discrimination in the workplace, as well as boosting entry-level employment for women. Now in its $14^{th}$ year, the World Economic Forum's Global Gender Gap Report states that only 21.4% of women sit on Boards in South Africa, and more specifically only 20% of women directors serve on Boards of JSE-listed companies in 2020. In addition, The Jack Hammer Executive Report Volume III shows that women occupy only 17% of top-executive levels across all sectors in South Africa. But what about the ICT sector specifically? Women occupy a mere 23% of the total job roles in South Africa's ICT sector.

The figures are no better globally. Women currently hold only 19% of tech-related jobs at the top 10 global tech companies. Meaning the rest, a total of 81%, is occupied by men. In addition, men occupy 72% of leadership roles in the same top 10 global tech companies while women only occupy 28% of the leadership roles in those companies. It doesn't come as a surprise however, a study by World Wide Web Founder Arthur Goldstuck, reveals that men are assumed to be the better leaders and this assumption is mostly made by other men.

### 8.2.2. Where to from here for women in ICT in South Africa?

It starts with our foundation, the education system. A PWC report shows that the proportion of females to males who graduate with STEM-related degrees is at an imbalance in South Africa, but this is also a global gender problem. World Economic Forum statistics show that in mathematics and statistics studies there are only 4.5% female students. In engineering, manufacturing, and construction there are only 3.10% female students, which in turn shrinks the number of women in STEM, posing further restrictions to our growth as women in the sector.

The answer however is more complex than just our education system. Behavioural design, counter-stereotyping societal norms, upskilling and reskilling, role modelling, de-biasing societal structures, and changing the narrative and images associated with toys to sports to design models to classrooms should all play a role. Even more so because closing the gender gap by just 10% in South Africa would have extremely positive spin-offs for our economy. Economists at PWC estimate that this would give the country a 3.2% GDP growth and a 6.5% reduction in unemployed job seekers, as well as contribute to poverty alleviation in the country.

It is encouraging to see more ICT companies with women leaders in South Africa; namely, Microsoft, Software AG, SAP, Naspers, Project Isizwe, and Siemens in addition to women founders of successful local ICT businesses and NGOs such as Soma-Solutions, Uhuru Spaces, Lindamahle, Imbokodo ICT Consulting, FemTech, Kids in ICT and Girl Code to name a few; but the call to action is far broader than that.

The South African Women in ICT Forum was launched in 2014 as a platform for advocating for the increase of women in South Africa's ICT sector through policy frameworks, programmes that contribute to career acceleration, training, and capacity building. Since then, when the current Board took over in May 2019, the Forum's mandate increased to include not only women but also youth and people living with disabilities and not only the ICT sector exclusively but also ICT-enabled sectors. This has enabled the Forum to reach a much wider portion of marginalized communities whose voices and needs were not represented in the sector. What has also been a turning point for the Forum, is working with the Ministry of Communications and Digital Technologies as well as Industry bodies such as the Black IT Forum, ITA, US Chamber of Commerce, 30% Club amongst others but also business. We have been encouraged by companies such as Microsoft, Gijima, Cisco, Altron, Clearline Protection Systems, RaizCorp, MindShare, Broadband Infraco, Standard Bank, and Accenture to name a few, who have reached out to work with us on this front.

The World Economic Forum believes that it will take 100 years, 99.5 years to be exact, to bridge the gender gap. We shouldn't expect drastic change in the sector in 2020, but on the bright side our collective efforts will be the force that creates real impact.

## Sources

BankServ Africa. (2020). Black Friday and Cyber Monday 2020 were online hits. Available at:https://www.bankservafrica.com/blog/post/black-friday-and-cyber-monday-2020-were-online-hits

Bolowana, A. (2021, January 08). Retrieved from SABC News Web site: https://www.sabcnews.com/sabcnews/170-teachers-due-to-mark-matric-papers-test-positive-for-covid-19/

Chiweshe, M. K. (2019). Fourth Industrial Revolution: What's in it for African Women?

Clean Technica. (2020). Electric Vehicles in South Africa: Where Are We Now? Date accessed: 20 January 2021 www.google.com/amp/s/cleantechnica.com/2020/04/10/electric-vehicles-in-south-africa-where-are-we-now/amp/

Department of Education through ICT. (2003). Draft White Paper on e-Education: Transforming Learning and Teaching. Department of Education. Retrieved from https://www.gov.za/documents/white-paper-e-education-transforming-learning-and-teaching-through-information-and#

Department of Higher Education and Training. (2013). White paper for post school education and training- building an expanded, effective, and integrated post-school system. Pretoria: Department of Higher Education and Training. Retrieved from https://www.gov.za/documents/white-paper-post-school-education-and-training-building-expanded-effective-and-integrated

DNA Economics. (2020). In The 2020 List of Occupations in High Demand: A Technical Report. Produced for the Department of Higher Education and Training(DHET) as part of its Labour Market Intelligence (LMI) research programme.

Dube, B. (2020). Rural Online Learning in the Context of Covid-19 in South Africa: Evoking an Inclusive Education Approach. Multidisciplinary Journal of Educational Research, 10(2), 135-157. doi:10.4471/remie.2020.5607

Duchek, S. (2020). Organizational resilience: a capability-based conceptualization. Business Research 13, 215–246. Retrieved from https://link.springer.com/article/10.1007/s40685-019-0085-7

Hassan, I. (2020, June 23). Retrieved from Anadolu Agency Web site: https://www.aa.com.tr/en/africa/covid-19-spreads-to-schools-in-south-africa/1887226

IMF (2020). Monetary Policy responses to Covid-19 https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-Covid-19#S

International Labour Organisation. (2020). https://www.ilo.org/wcmsp5/groups/public/@dgreports/@dcomm/documents/briefingnote/wcms_755910.pdf

Li, C., & Lalani, F. (2020, April 29). Global World Economic Forum. Retrieved from The Covid-19 pandemic has changed education forever. This is how:

https://www.weforum.org/agenda/2020/04/coronavirus-education-global-covid19-online-digital-learning/

Macupe, B. (2020, June 5). Teachers test Covid-19 positive - coronavirus-essentials: Mail and Guardian website. Retrieved from Mail and Guardian website: https://mg.co.za/coronavirus-essentials/2020-06-05-teachers-test-covid-19-positive/

Mariscal, J., Mayne, G., Aneja, U., & Sorgner, A. (2018). Bridging the gender digital gap. Economics Discussion Papers, No 2018-60. Kiel Institute for the World Economy. http://www. economicsejournal.org/economics/discussion-papers/2018-60.

Mhlanga, D., & Moloi, T. (2020). Covid-19 and the Digital Transformation of Education: What Are We Learning on 4IR in South Africa? Education Sciences, 10(7), 180. Education Sciences, 10(7), 180. doi:https://doi.org/10.3390/educsci10070180

Mkrola, C. (2020). Education and Health. Vindilac Analytics Quarterly Economic Chronicles, 2(2), 5-7. Retrieved from https://www.vindilac-analytics.co.za/publications/

Mukhtar, K., Javed, K., Arooj, M., & Sethi, A. (2020). Advantages, Limitations and Recommendations for Online learning during COVID-19 pandemic era. Pakistan journal of medical sciences, 36(COVID19-S4 (2020): S27), S27. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7306967/

National Planning Commission. (2012). National Development Plan 2030- Our Furure, Make it work. Republic of South Africa: The Presidency. Retrieved from https://www.gov.za/issues/national-development-plan-2030#

Nayar, S. (2020). Emerging Markets-EM currencies, stocks set to end 2020 on high note. Retrieved from https://www.reuters.com/article/emerging-markets/emerging-markets-em-currencies-stocks-set-to-end-2020-on-high-note-idUSL4N2JB1AC

Nations United. (2020). Policy Brief: education during covid19 and beyond. United Nations. Retrieved from https://unsdg.un.org/resources/policy-brief-education-during-covid-19-and-beyond

Pakati, L. (2020, September 28). South African Health Facilities: EyeWitness News Web Site. Retrieved from EyeWitness News Web Site: https://health-e.org.za/2020/09/28/eastern-cape-102-learners-contract-coronavirus/

Parliamentary Monitoring Group. (2020, March 27). Committees/ National Assembly/Basic Education: ICT Roll-Out: Department of Basic Education briefing; Coronavirus measures. Retrieved from Parliamentary Monitoring Group Web Site: https://pmg.org.za/committee-meeting/30052/

Planting, S. (2020). A rocky year for almost every firm on the JSE, except the mining companies. Retrieved from https://www.dailymaverick.co.za/article/2021-01-05-a-rocky-year-for-almost-every-firm-on-the-jse-except-the-mining-companies/

Presidential Infrastructure Coordinating Commission. (2012). Key issues: The South African government Web site. Retrieved from The South African government Web site: https://www.gov.za/issues/national-infrastructure-plan#

Robinson, M. (2020, August 4). The Multifaceted Challenges for South Africa's Educators and Student Teachers During the Pandemic. Retrieved from Global Ed Leadership Web Site: https://globaledleadership.org/2020/08/04/the-multifaceted-challenges-for-south-africas-educators-and-student-teachers-during-the-pandemic/

South African Revenue Service. (2020). South African Trade Statistics for October 2020 (Including BELN). Retrieved January 13, 2021, from https://www.sars.gov.za/AllDocs/Documents/Trade%20stats%20monthly%202020/Oct%202020/Merchandise%20Trade%20Statistics-%20October%202020.pdf

South African Reserve Bank (2020). The Financial Stability Review, 2nd edition. [Online]. Available at: https://www.resbank.co.za/content/dam/sarb/publications/reviews/

Statistics South Africa (2020). Inflation for 2020 was the lowest in 16 years and the second lowest in 51 years. [Online]. Available at: http://www.statssa.gov.za/?p=13930

Stoddard, E. (2020). South Africa's current account surges to record surplus in third quarter. Retrieved December 27, 2020, from https://www.dailymaverick.co.za/article/2020-12-10-south-africas-current-account-surges-to-record-surplus-in-third-quarter/

Statistics South Africa. (2017). Chapter 4: Higher educational attainment. In S. S. Africa, Education Series Volume V: Higher Education and Skills in South Africa, 2017/Statistics South Africa (pp. 53-73). Statistics South Africa. Retrieved from https://www.dhet.gov.za/Research%20Coordination%20Monitoring%20and%20Evaluation/6_DHET%20Stats%20Report_04%20April%202018.pdf

The Department of Telecommunication and Postal Services. (2014). National Integrated ICT Policy Green Paper: ICT policy green paper - chapter 9 - universal access and service

The South African government news agency. (2020, December 17). Basic Education to implement three-year recovery plan. Retrieved from The South African government news agency Web site: https://www.sanews.gov.za/south-africa/basic-education-implement-three-year-recovery-plan

UNICEF. (2020, December 07). Press releases: UNICEF Web site. Retrieved from UNICEF Web site: https://www.unicef.org/press-releases/covid-19-unicef-warns-continued-damage-learning-and-well-being-number-children

Van Staden, C., & Mpungose, L. (2018). BRICS should Adopt Inclusive Approach to Women.

Pwc – women and men

World Bank. (2020). Commodity Market outlook. Retrieved from https://openknowledge.worldbank.org/bitstream/handle/10986/34621/CMO-October-2020.pdf

World Trade Organisation. (2020). Trade set to plunge as Covid-19 pandemic upends global economy. Retrieved December 18, 2020, from https://www.wto.org/english/news_e/pres20_e/pr855_e.htm

World Economic Forum. (2020). Impact of Covid-19 on global financial system. Retrieved from https://www.weforum.org/reports/impact-of-covid-19-on-the-global-financial-system