THE RWANDAN BANKER

COVID-19 AND LABOUR MARKET

REMITTANCES TO RWANDA SHOWED RESILIENCE TO COVID-19 SHOCK

CHANGING FROM COMPLIANCE BASED SUPERVISION TO RISK BASED APPROACH

SENTIMENTS ANALYTICS IN CENTRAL BANKS

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The National Bank of Rwanda strives to be a World class Central Bank contributing to economic growth & development, by using robust monetary policy tools to maintain stable market prices. The Bank ensures financial stability in a free market economy as it embraces innovation, inclusiveness, and economic integration.

VISION

To become a World Class Central Bank

MISSION

To ensure Price Stability and a Sound Financial System

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INTEGRITY

We uphold high moral, ethical and professional standards for our people, systems and data

ACCOUNTABILITY

We are result-focused and transparent, and we reward according to performance

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We keep ourselves in high spirit, committed to each other for success

EXCELLENCE

We passionately strive to deliver quality services in a timely and cost effective manner. We continuously seek improvement by encouraging new ideas and welcoming feedback that adds value to customer services.

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COVID-19 IMPACT ON DOMESTIC LABOR MARKETS AND THE FUTURE OF WORK

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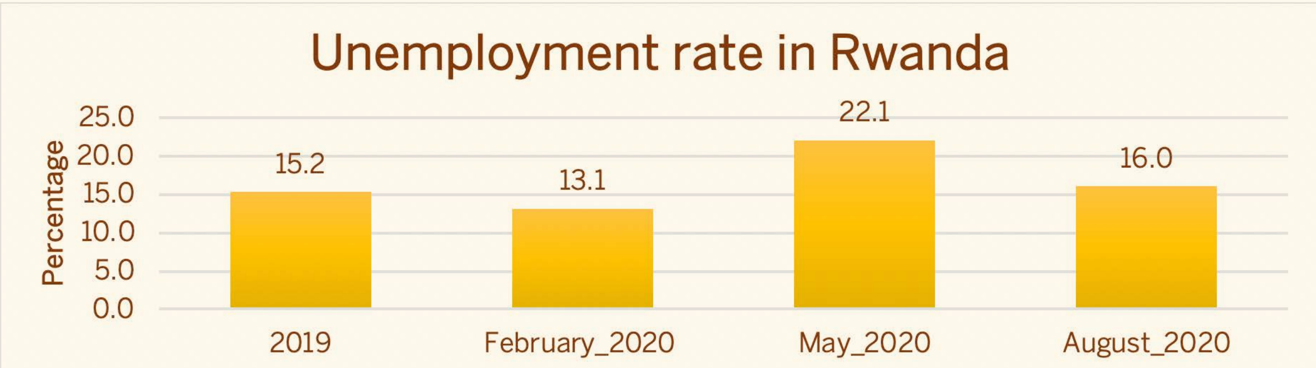
We are facing unprecedented times as the Covid-19 pandemic, which has ravaged the globe from the beginning of 2020, still shows no sign of abating. The outbreak of the worldwide pandemic has led almost all governments across the globe to take restrictive measures to slow the spread of the virus and prevent it from overwhelming health services, while protecting their economies from financial hardships and a potential collapse.

While combatting COVID-19 is indispensable, the lockdowns, confinement, travel restrictions and social distancing measures are putting unparalleled pressures on various segments of our economies, with a significant disruption to local labor markets. Businesses are shutting down, people have lost their employment, hiring of staff seems to have been cancelled or frozen, employed people have reduced their working hours or simply stopped working for a time, all presenting significant impacts in terms of unemployment and underemployment statistics of affected countries. The groups mostly at risk of losing their jobs and incomes are employees working in hardly hit sectors and informal workers, whether wage workers or self-employed.

Prior to the COVID-19 crisis, we observed a decent headway in Rwanda's labor statistics. Unfortunately, the strict measures during the lockdown that commenced on 22nd March 2020 and partially lifted in phases beginning on 4th May 2020 have had a dramatic impact on the labor market. According to the Labour force survey (LFS) of the National Institute of Statistics of Rwanda (NIRS) released in May 2020, the number of unemployed people increased by 368,484 persons corresponding to 68.6 percent increase rate, and employed ones decreased by 369,830 persons corresponding to 11.5 percent of decrease rate. Unemployment rate, which is probably the best-known labor market measure and reflects the inability of an economy to generate employment for those persons who want to work but are not doing so, even though they are available for employment and actively seeking work, substantially increased. As of May 2020, unemployment was estimated at 22.1 percent (905,198 from 536,714), from a 13.1 percent unemployment rate registered in February 2020. Although there has been a recovery in employment starting from May 2020, there is still a high level of uncertainty resulting from new waves of COVID-19 and recent stringent measures to curb the spread of the virus.

The impact of the Covid-19 crisis on workers varies and depends on the nature of employment arrangement and the sector of employment.

With reference to LFS of May 2020, the most affected sectors are "accommodation and food services activities" which lost 75 percent of employment in April, followed by "transportation and storage" with the loss of 65 percent. Those employed in tourism and hospitality, and the conference industry, might be furloughed or lose jobs as a result of the massive decline in tourist arrivals and subsequent decline in activity in the sector, such as reduced restaurant and hotel spending and postponements of large conferences and meetings. Employment in "manufacturing" decreased by 59



Source: National Institute of Statistics of Rwanda percent. Construction sector lost about 49 percent but recognized a quick recovery in May resulted to 30 percent of increase in employment as compared to February 2020. Similarly, wholesale and retail trade, repair of motor vehicle and motor cycle had a loss of 42 percent in April and subsequently a gain of 3 percent in May. For education sector the gap was 22 percent in April and 21 percent in May while for Activities of households as employers, the gap remained at 17 percent in April and May. The impact on agriculture has been relatively minimal, as the sector remained operational during the lockdown. However, for a number of reasons, its employment level decreased by 36 percent in April and 13 percent in May. Agri-food supply chains and markets are inevitably being disrupted due to lockdowns and restrictions of movement. The closure of markets and schools lead to the loss of selling and buying opportunities and decrease the demand for agricultural products, thus reducing the demand for agricultural labor.

Actions taken are commendable but not sufficient

Countries have taken various actions to protect the most affected people. Regarding long term policy response, Government of Rwanda established the Economic Recovery Fund (ERF) to support the recovery of businesses hit hardest by COVID19 so that they can survive, resume operations and safeguard employment, thereby cushioning the economic effects of the pandemic. The eligible sectors for this support include: (1) All businesses highly affected by the restrictions put in place to prevent the spread of the virus, and exposed to consumer discretionary spending, and those with global supply chains that have been disrupted. (2) Micro and Small Enterprises (MSEs)/ Informal sector, with the aim of protecting those business/ jobs and stimulate consumption of households affected by the pandemic. In this regards, the most vulnerable sectors and population groups, especially for populations operating from informal arrangements and own account businesses, should be much targeted for immediate business resuscitation or start up. Along with supporting workers in the informal sector, the Government is also encouraged to bef-up efforts to support formal workers and enterprises to ensure that they do not fall back into informality as a result of the crisis and erode gains made in recent years through innovations in support mechanisms and repurposing supply chains.

Another quick intervention adopted by the government of Rwanda to vulnerable people is the assistance in providing food package along with other essential items such as soap using the lowest administrative entity known as "Isibo" that covers 15 to 20 households. Households could self-report to any committee members in the local level administrative by calling them directly or dialing a dedicated toll-free number to express their need for food. With the continuous situation, there is need for expanding social assistance and public workfare programmes to provide relief and protection to the most vulnerable and disadvantaged.

Remote work: The legacy of COVID-19

COVID-19 is hitting local labor markets at a time when megatrends related to digitalization, automation and artificial intelligence are reshaping the way we live and work. The pandemic has led to renewed interest in remote working, as institutions and businesses face a bleak set of options: continue business as usual but with the risk of virus contamination, shut down the business/ stop operating with some essential services that should be provided on regular basis, or transition to working from home. Governments have instructed public and private institutions to use a very small percentage of workers in offices, and an increasing number of employers expect remote work to become the new normal, with some institutions already adopting the remote work policy for the current situation and in the post-crisis, and will probably see many moving to more flexible workplace models. Schools are encouraged to adopt online teaching models, which would totally minimize the spread of the virus, but may also become a way of reducing expenses on the side of institutions and parents, and benefiting high qualified instructors from abroad.

An overwhelming majority of people currently working from home believe that doing so does not harm their productivity. Depending on the task, one can get things done more efficiently when one is in a noisy office. However, many challenges remain, and institutions/ businesses need to take action to make sure they can support their employees adequately. As far as the technology is concerned, digitalization and automation should be accelerated in many possible sectors. It is more prominent and urgent to address challenges like basic digital skills, re-skilling or up-skilling and access to services online.

Institutions and companies that have previously embraced the future of work practices, with virtual resources and technology support for remote workplaces, are probably well positioned to sustain their operations and respond quickly to the demands of navigating the current crisis. It is therefore vital for institutions/companies to take action and tackle a lack of appropriate technology, such as digital devices, virtual collaboration tools and platforms that will support dynamic work locations. In addition, institutions/ companies and their employees need to find ways of organizing themselves and reimagine how best to guarantee efficient and effective work performance, and make sure the team spirit stays high even in a virtual environment with regular check-ins with each team member.

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REMITTANCES TO RWANDA SHOWED RESILIENCE TO COVID-19 SHOCK.

Transfers of money by foreign migrant workers to their home countries universally known as remittances play a big role in development of many countries. The flow of remittances is largely from high-income countries, where migrant workers reside, to low and medium income countries (LMICs), from which they originate. Remittances provide income support for family members in the country of origin. In addition, they constitute a source of foreign exchange reserves for low income and developing countries, help improve current account balance and expand the gross domestic product via increased consumption. World Bank (WB) predicted remittances in LMICs to fall by USD 110 billion in 2020, a decline justified by a combination of declining global economic growth, and the loss of jobs in host countries.
In October 2020, the WB projected remittances to Rwanda to decrease by 3 percent to USD 244 million, while actual remittances inflows data from the National Bank of Rwanda (NBR) increased by 9 percent from USD 252.3 million to USD 274.26 million. This brings the question, why the increase in remittances contrary to the projected fall by the WB?

After registering the first case in mid-March 2020, Rwanda was the first country in the region to implement a total lockdown and other stringent measures to curb the spread of COVID-19 such as; social distancing, closing universities, schools and churches.

Consequently, Rwanda suffered the most severe COVID-19 outbreak in twofold; health-wise and economically. On the health side, COVID-19 complicated existing weak health system like insufficient human resources, low budget to health, insufficient infrastructure, and many challenges in supply chain and logistic.. On economic side, the pandemic shock slowed economic activity significantly in the first half of 2020. Total lockdown has entailed economic contraction through key sectors like education, transportation, travel, and deterioration of external trade balance. Overall, the measures to contain the spread of the virus led to output contraction by 12.4 percent in Q2 of 2020, the highest quarterly contraction after 1994.

As COVID-19 spread worldwide in the same time, countries put in place protective measures including border closures, which negatively hindered external trade. The combination of a decrease in export revenues and the rise in imports including those of medical equipment and other pharmaceutical products led to the depletion of international reserves amid increased central bank interventions on foreign exchange to support the national currency.

In response to the crisis of COVID-19, Rwanda requested a loan to IMF worth USD 220 million to finance programs aimed at supporting the economic sectors that suffered the most from the shock, through the establishment of the Economic Recovery Fund (ERF). On the other side, the Central Bank adopted an accommodative monetary policy by reducing the reserve requirement ratio from five to four percent, hence providing additional liquidity to the banking sector. Lastly, the Government of Rwanda took measures to mitigate the lockdown consequences including providing foodstuffs to vulnerable households.

Due to COVID-19 shock, most components of current account balance for Rwanda deteriorated except remittances that showed resilience, by comparing Q2 2020 as the lockdown period to other quarters before and after lockdown period.

The table shows that export of goods, services, and income decreased substantially in Q2 2020 compared to the previous quarters. Concerning export of goods, the value of traditional exports composed by coffee, tea, minerals (Tin, Tantalum, and Tungsten), pyrethrum, hides and skin decreased due to global chain disruption. Moreover, other exports made by other minerals, flowers, flour and milling industries, fruits, etc. and re-export value decreased primarily due to the border closure with Democratic Republic of Congo, total lockdown and logistic challenges. On other hand, import of goods decrease originated from the decline of capital goods, especially vehicles from Japan and fall in petroleum products because of low demand during lockdown. The service sector suffered from COVID-19 especially those requiring movement of people like travel, transportation, education, construction, etc. Only telecommunication services and financial services resisted to COVID-19 outbreak.

Why worker remittances showed a positive trend during COVID-19? From the definition, remittances consist of personal monetary transfers that a migrant worker makes to his/her relatives back in their home country. Migrant workers in host countries remit a stable source of income that contributes to the support of their family members back home.
Two channels used in sending remittances are formal and informal. Formal channel includes Money Transfer Operators (MTOs), banks transfers, and Mobile Network Operators (MNOs). On other hand, informal channel consists mostly by cash carried in person or in-kind transfers, like foods, household items, radio, television, etc.

Remittances inflows compiled by NBR include cash transfer from MTOs and MNOs, plus an estimate of personal cash transfer through banks, and cash in hand. As data source, MTOs and MNOs report directly to NBR, while an estimate is made from cash remittances transferred through banks and cash in hand reported on daily basis by Forex bureaus. Like many countries, worldwide, in-kind transfers are not yet included in remittances to Rwanda. Given the role of remittances to small countries like Rwanda, it is crucial to upturn inflows remittances by enabling favorable environment of all key players in remittances industry such as reducing remittances cost, and changing from informal towards formal remittances by digitization, like using mobile money network.

Reducing remittance costs affect migrants' decisions about the amount of money to send home and the frequency of remittance per year. In light of this, bringing costs down through financial competition and mobile money is one goal target of the Sustainable Development Goal (SDG) to reduce remittance prices at 3 percent by 2030.

According to the World Bank's Remittance Prices Worldwide Database, the global average cost of sending $200 was 6.51 percent in the fourth quarter of 2020. By channel for sending remittances, the banks were the most expensive with average of 10.73 percent, MTOs (5.56 percent), and MNOs (3.04 percent), hence the dominance of mobile money network, especially in this hardship time of COVID-19 confinement.

Thus, the positive trend of remittances to Rwanda on monthly basis is attributable to the current move to mobile money from other channels of remittances, albeit a huge decrease in April 2020 was due to total lockdown to stop spreading COVID-19 outbreak.

Rwanda' s remittances inflows represent around 2 percent of annual average of gross domestic product (GDP) and they recorded a compounding annual growth of 6.6 percent, reaching to 274.26 million USD in 2020 from 161.8 million USD in 2013, despite the financial crisis that trembled the world in 2015, 2018, including COVID-19 in 2020.

Importantly, remittances contributed to curb COVID-19 shock to Rwanda current account deficit in 2020 and mobile network played a big role to facilitate remittances receivers and senders, as the cheapest channel, which helped during lockdown.

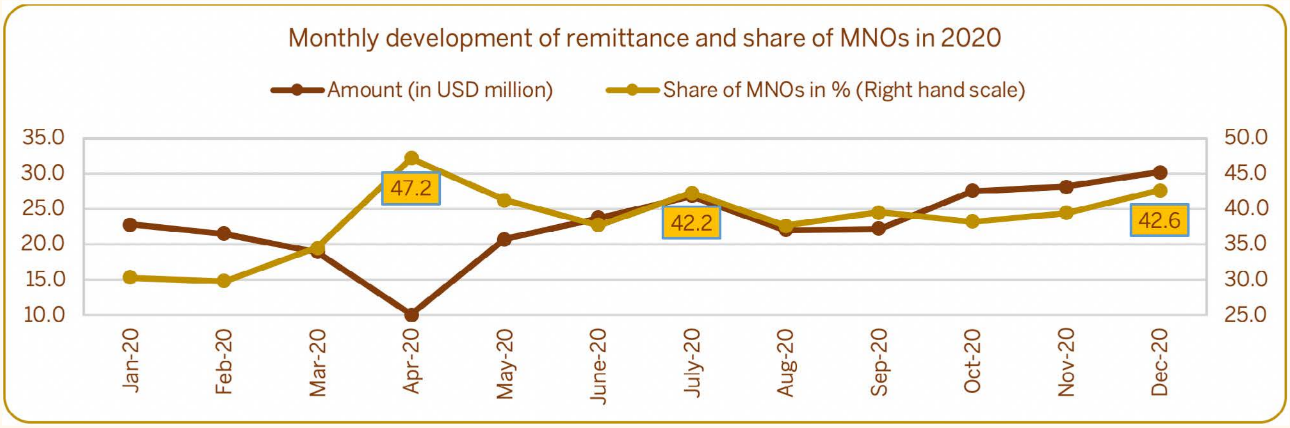
Remittance is a crucial financial service to the whole economy. To keep it increasing even in crisis like COVID-19, policymakers, regulators, and remittances services providers have to work jointly so that sending and receiving money becomes easy and at low cost. Policymakers are required to give all economic support needed and act appropriately to benefit senders, remittance service providers, and receiver of remittances.

Table: Development in some components of current account balance (in USD million)

	Q4 2019	Q1 2020	Q2 2020	Q3 2020
General merchandise				
Export	221.4	210.4	142.3	194.9
Import	624.3	651.4	488.6	646.6
Services				
Export	273.3	180.9	76.9	140.4
Import	256.1	218.1	87.9	138.8
Primary income				
Export	2.2	2.2	1.1	1.7
Import	8.7	8.7	5.2	3.6
Worker remittances				
Export	67.4	63.1	54.4	71.0
Import	9.8	9.2	6.9	10.2

Source: NBR, Rwanda quarterly Balance of Payments

Graph 1: Monthly remittances inflows to Rwanda & share of MNOs in 2020



Source: NBR, Rwanda quarterly Balance of Payments

SENTIMENT ANALYTICS IN THE CENTRAL BANKS

Gisa Murera Jean de Dieu

1. Introduction

Text mining also known as text data mining is a computational process of transforming text information (unstructured data) into a tabular (structured) format to relevantly identify the underlying hidden patterns and insights. By applying big data-driven techniques, such as natural language processing, artificial intelligence, machine learning and other deep learning techniques, central banks can explore and discover insights from their unstructured data. Text is one of the most common unstructured data types within databases. Depending on the database and repository, this data can be organized as:

- Structured data: This data is standardized into a tabular format with rows and columns, making it easier to store and process for analysis. Structured data includes inputs such as date, names, emails, addresses, and phone numbers. The sharing of emails within an organization might be one of the examples of this category of structured text data.

- Unstructured data: This data does not have a predefined data format. It can include text from sources, like social media networks, micro-blogging platforms (Twitter, Instagram, Facebook, etc.), or rich media formats like video and audio files and photos and images.

- Semi-structured data: As the name suggests, this data is a blend of structured and unstructured data formats. While it has some organization, it does not have enough structure to meet the requirements of a relational database. Examples of semi-structured data include XML, JSON and HTML files.

Due to the current technological development and exponential data growth, it is estimated that 80% of data in the world resides in an unstructured format mixed with complicated features such emoticons, emojis, symbols and signs. With this regards, text mining is an extremely valuable practice within organizations. Text mining tools and natural language processing (NLP) techniques, like information extraction and scraping allow researchers and analysts to transform unstructured information into structured data to enable analysis and generation of new insights. This, in turn, improves the decision-making in organizations, leading to better business outcomes.

2. Natural Language Processing and Sentiments Analysis

NLP is a field of linguistics, computer science, and artificial intelligence concerned with the interactions between computers and human language, in particular how to program computers to process and analyze large amounts of human language (natural language) data. NLP involves speech recognition, natural language understanding, and natural-language generation. The NLP output is a computer capability to process and understand the contents of documents, messages, audios and videos and react accordingly. The technology can then accurately extract information and insights contained in the documents and other formats to categorize and organize them. This enables the extraction of information, feelings, expressions, opinions, emotions and sentiments underlying in a set of text data being reviewed and analyzed to determine public sentiment about specific objects or topics.

3. Public Opinion Mining and Sentiments Analysis

Sentiment analysis/opinion mining or emotion AI refers to the combinatory use of NLP, text analysis, computational linguistics, and biometrics to systematically identify, extract, quantify, and study affective states and subjective information from a text. Sentiment analysis is widely applied to public voice from online and social media towards the institutional policies and communique, customer perceptions towards the organizational products and materials, etc.

4. Social Media and Sentiment Analysis – Case on National Bank of Rwanda

Today's internet has become an essential platform for accessing relevant information on various topics and policies; as well as on institutional activities. A myriad of individual users shares their opinions and positions on communicated diverse aspects of life, policies and politics every day using several social media networks including Twitter, Facebook, Instagram, and others over the internet. Among social media platforms, Twitter is the most widely used that offers free data to researchers, giving it a predominance in social media analytics. In 2013, at Twitter's seventh anniversary, Twitter was recorded as one of the top ten most visited websites. In 2018, statistics released by Infographics Labs suggested that Twitter has recorded more than 321 million monthly active users (USA Today, 2017).

In September 2020, StatCounter published a social media market share that shows Twitter platform occupying 13.15% of users in Rwanda. The functioning nature of Twitter is to limit its users to only 140 characters on single text tweets; audio as well as video tweets are set to 140 seconds limit for most accounts. This restriction forces users to be short, brief and concise as well as expressive at the same time. Combining the exponential increase of information sharing over Twitter and its restriction framework, this primarily makes Twitter Network a rich source of data and an ultimate bank of information for opinions mining and sentiment analysis. This enormous data bank contains a critical opinion with regards to the information that can be used to benefit economic agents as well as financial and economic stability. Several economists and researchers consider Twitter as one of the social media channels where the public expresses its opinion, sentiments and feelings towards organizations communication.

Since the central banks improve their online presence on the web and social media, specifically Twitter there are key questions to ask: "What is public opinion, feeling, and sentiment or how does the public feel about central bank policy communication?". To gain insights into the usefulness of such databank, we explore the Twitter account of Central Bank of Rwanda to widely extract the tweet feed for sentiment analysis and extracts the public subjective feelings, emotions and several audience perceptions and opinions about the BNR's policy communications on Twitter platform.

Public Sentiments towards NBR tweets

An economist Masciandro Romelli (2017) argues that the provision of better information to market participants on the monetary policy ongoing activities and future intentions should enhance the point to which central-bank policy decisions can affect public expectations and, thereby, improve the effectiveness of monetary policy stabilization. Therefore, it is of paramount importance for the public to comprehend current and future policies, and one way to identify market expectations is via measuring market sentiment. To measure the market and public sentiments, expressions and opinions towards NBR, we employed the state-of-the-art natural language processing and text mining methodologies for tweet text mining and analytics. Through a developed personal Twitter developer account (API), Twitter has enabled us to extract 3,254 tweet feeds behind the NBR Twitter account dated from January 2016 to January 2021. This helped to understand the current trends, the NBR popularity and influential rate as well to show how the public perceives the BNR twitter communication by understanding their sentiments, opinions and feelings. We constructed a set of sentiment and emotion indicators through the integration of SentiWordNet and NRC Emotion Lexicon dictionaries to classify and categorize sentiments and emotions behind the Bank's tweets. Hence, we present graphically the obtained results which visually indicate the public emotion and sentiment rate behind the BNR policy communication via Twitter; and also we presented how the sentiment polarity is changing with time together with several tweets feeds in BNR Twitter network since January 2016. Furthermore, here below are the results obtained during the analysis.

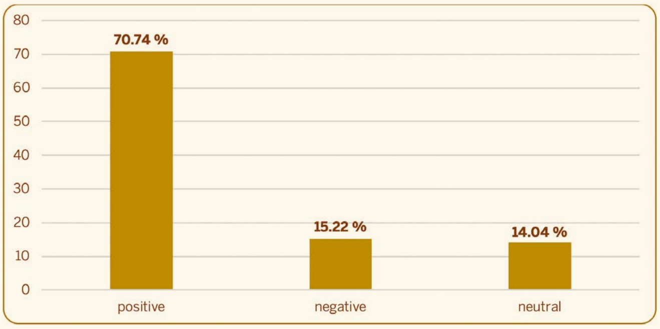


Fig1: Sentiment categories behind BNR tweets.

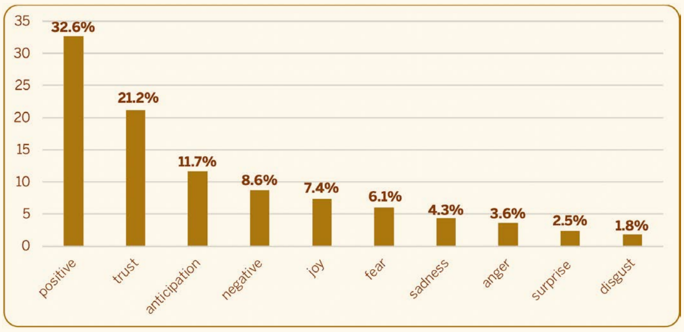
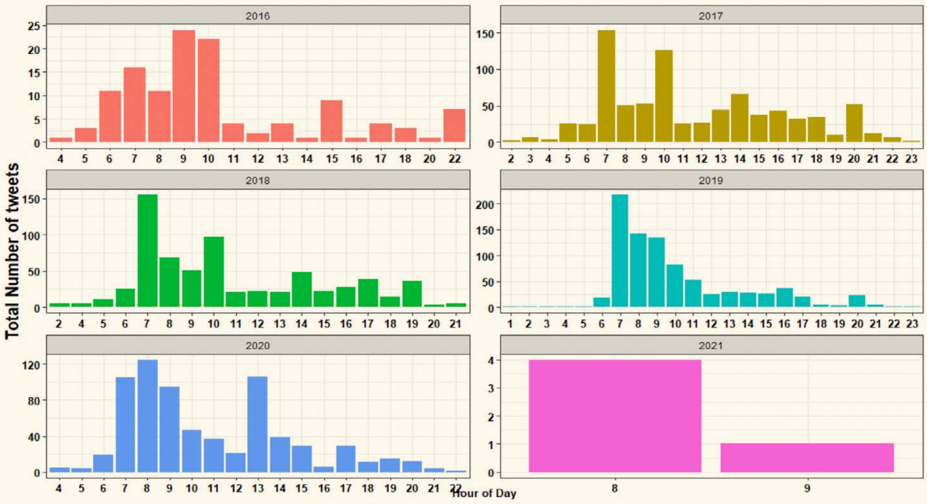


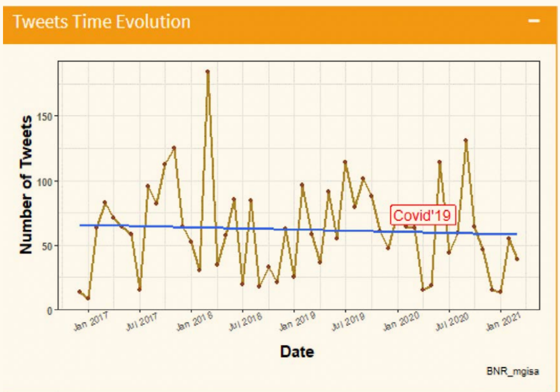
Fig2: Feelings and Emotions behind BNR tweets

The analysis shows that the current public perception and sentiment towards the Bank's tweets are widely positive and trust followed by anticipation.



The audience used to tweet during working hours in the morning time from 6:00 AM to 11:00 AM. As data suggests, for NBR effective communication, it is recommended to make communique/tweets in the evening or very earlier in the morning so that the Twitter audience reacts and expresses itself on in the following morning.

The Historical Trend of NBR Tweets and Associated Sentiments



The analysis shows that the tweets have increased in 2018 and changing gradually in the other consecutive years. The sentiment is changing with the number of tweets in the NBR Twitter network and positive sentiment is prevailing over the years.

INSURANCE SECTOR RESILIENCE AMID COVID-19 PANDEMIC


Havugimana Dieudonne

The COVID-19 pandemic has affected and disrupted the daily operations of different economic actors worldwide due to containment and mitigation measures that were implemented, thus restricting the free movement of people, goods, and services. Rwanda discovered the first case on 14th March 2020 and a week later on 21st March 2020, Rwanda become the first African country to implement a national lockdown to curb the rapid spread of COVID-19. The lockdown measures taken included the suspension of domestic travel, closure schools the ban of public gatherings, and restrictions on non-essential services. At the beginning of the lockdown, the insurance sector was not considered among essential services and insurers were required to work from home but this new working arrangement posed a number of challenges to them since like any other sector the pandemic alternated working dynamics, and the insurers needed to be up to speed with the new norm.

Impact of COVID – 19 on the Insurance sector in Rwanda

The insurance business involves multiple complex processes and stakeholders to maintain existing policies, tie new contracts, renew expiring policies, address customer inquiries, and process their claims. In addition, this sector involves highly intricate interplay between insurers themselves through coinsurance and other risk mitigation and their external interplay, namely insurance brokers and sales agents. Therefore, there is no surprise that COVID-19 posed both operational and financial challenges to insurers. Below are the impacts of COVID 19 on the Rwandan Insurance Sector.

COVID-19 has negatively affected the daily operations of insurance companies leading to challenges like keeping the distribution channels viable, working effectively during lockdowns, obtaining information for renewal, and satisfying customer services, including claims reception and settlement. These unforeseen challenges resulted in a decrease of sales and premium contracts, coupled with an increase in lapses and policy cancellations. These impacts will probably affect the insurance uptake in the long run.

The COVID-19 pandemic has directly affected households' income and opportunities for people engaged in small and medium-sized enterprises (SMEs) and those living on daily wages. Henceforth, people's job losses disrupted SMEs' business operations. Such a situation implies that some policyholders, both at the individual and SMEs' level, have been constrained to undertake timely payment of insurance premiums and requested policy restructurings such as cancellation, suspension, and surrenders for life assurance.

In terms of finances, the outbreak of COVID 19 resulted in moderate growth of insurers' gross written premium, precisely due to insurance policies suspensions and cancellations. Investment income had been affected due to the non-distribution of dividends from invested equities, default on rent in investment properties and decrease in interest income.

Regarding pension, apart from operational disruption due to lockdown and curfews, the pandemic also impacted the pension sector by the reduction of investment income as a result of the risks associated with the outbreak of the pandemic COVID 19, notably interest, dividend, and rental income.

Insurers' resilience amid COVID-19 pandemic

Despite the pandemic's outbreak, the insurance sector remains solvent, profitable and resilient. This resilience is due to adequate measures put in place by the insurance players and regulator's support to mitigate Covid-19 effect. Along being prudent underwriters, the insurers enhanced their IT infrastructure to effectively provide administrative services and manage staff remotely to keep both employees and customers safe and respond well to travel restrictions during lockdowns & curfews. The insurers are also driving towards full automation of their insurance services in a bid to improve and expand their service delivery.

NBR's measures to mitigate COVID-19 effect in the Insurance Sector

Due to the expected extent of adverse effects, the National Bank of Rwanda was among first Insurance Supervisors in the continent to issue a set of measures to cushion the insurance sector from the pandemic's damaging effects. The circular of April 14, 2020, named "Actions to mitigate the impact of the COVID19 Pandemic on the Rwandan Insurance Sector" supplemented by the letter of June 12, 2020, entitled "Proposed resuscitations stimulus package for the Insurance sector (Post COVID 19). These measures include requiring insurers to activate Business continuity Management and disaster recovery plan, take measures to preserve capital and liquidity positions such as non- declaration and payment of the dividends to shareholders, facilitating their customers who want to restructure their policies and allowing premium payment in instalment for a period not exceeding three months. NBR also applied regulatory forbearance such as admitting the premium receivables not overdue for three months in the solvency margin computation and extension of the reporting deadlines.

ENVIRONMENTAL, SOCIAL, GOVERNANCE (ESG) SUSTAINABILITY REPORTING

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All United Nations Member States (2015) adopted the 17 UN Sustainable Development Goals (SDGs) which are at the heart of the 2030 Agenda for sustainable Development. It is widely acknowledged that through public and private partnership, realization is feasible. Private sector is the main contributor of economic development in many economies across the globe and Banks for instance, are the financiers of the various projects and businesses that drive the social economic development thus the due importance of the article.

Sustainability means meeting today's needs, without compromising the ability of future generations to meet their own needs. In this respect, in this article we look at Environmental, Social and Governance (ESGs) aspects as important matters in ensuring sustainability and thus need consideration in decision making by Chief executives and leaders of governments and entities through policies and strategic plans- development while seeking to drive value creation and economic growth. Stakeholders in various capacities are increasingly seeking sustainability stances in relationship establishments while looking at ESG metrics as indicated by entities' reports and economies around the globe.

Aspects of climate change and associated risks on environment are increasingly coming into perspective while looking at sustainability matters. Companies and economies globally are going "green" with stakeholders aligning themselves to sustainable companies while choosing where to invest or who to collaborate with in long-term business relationship and partnerships. For instance, Rwanda's mission to maintain a clean and healthy environment has been going on since 2008 when it banned the use of non-biodegradable plastic bags and packaging materials in quest to preserve productive land for agriculture a big contributor to the GDP. Currently globally there is a drive to manufacture electric vehicles, which are perceived to preserve the environment, as they have no carbon dioxide emissions, and these have seen for instance Tesla's share price reach 781.29 (NASDAQ: TSLA) recently, a price driven majorly by the environmental stance – electric vehicles (zero greenhouse emission). This is a very good example of role-play in sustainability drive through innovation and technology. In this regard, private and public sector is expected to continue putting in place environmental strategies that ensure sustainability. Back in Rwanda, electric motor cycles are being rolled out on the market to curb environmental pollution.

Socially, questions asked are; how companies manage relationships with workforce, the societies where operational activities take place and the political environment. Governance on the other hand considers factors of decision-making in terms of role distribution such as rights and responsibilities within leadership hierarchy of corporations/entities including the Board of Directors, stakeholder engagements and corporate performance. For instance, according to S&P Global research on governance factors, results have indicated that companies that rank well below average on good governance characteristics are prone to mismanagement and risk their ability to capitalize on business opportunities over time. It assesses companies' governance performance on four factors: Structure and oversight; code and values, transparency and reporting and cyber risk and systems. Gender diversity and equity is another high-profile governance aspect, where institutional shareholders demand women representation on corporate boards and in executive roles, and equal compensation for women in quest for increased diversity and inclusivity.

Currently various ESG reporting frameworks in place require measurement and disclosure of metrics relating to environmental, social and governance performance and therefore confirm how entities are establishing policies that ensure sustainability. Through various metrics/ KPIs (key performance indicators) disclosures, the impact on sustainability is measured and results communicated to stakeholders. Key performance indicators include Environmental - energy usage and greenhouse gas emissions; Social – human capital development, health and safety, Governance – responsible Business practices, codes and programs and Board structure.

ESG frameworks include but not limited to Bloomberg Terminal ESG Analysis, Integrated Reporting (IR), Sustainability Accounting Standards Board (SASB) (Nareit) and GRI Standards (www.globalreporting.org). These frameworks avail the opportunity to show case compliance to ESG reporting and effectively demonstrate the due importance given to sustainability matters by stakeholders in the market place around the globe.
This may pose challenges in the implementation due to factors such as lack of capacity to analyze the requirements, time and resource limitations. However, it is important to note that there is investors' growing expectations for companies to disclose ESG matters. For instance, over 73% of investors take Environmental, Social and Governance ("ESG") disclosure and performance metrics into account when evaluating risk and identifying opportunities (CFA Institute on public ESG disclosure trends. November 2017) and this has been on an upward trend around the globe.

With Rwanda's vision to becoming a financial hub, and the current drive to prepare the ground with policy changes and law amendments in progress, foreign direct investment stakeholders are expected to be keen to look for ESG reporting and related disclosures as there is a growing global demand for sustainability. The developing countries and their associated partners will continue to embrace the stance while seeking value creation or rather investment returns through sustainable investment.
While maximizing financial returns for companies' shareholders is traditionally the target for the entities management, it is now imperative to understand that sustainable financial returns will be realized by a shift in perspective from only corporate interest but also consider public interest and other stakeholder benefits that in turn ensure value creation in the long term. Therefore, this calls for financiers (Banks) of businesses and projects to look ahead in line with financing sustainable investments both in private and public partnerships.

One can conclude that the policy makers and drivers of entities and government institutions should prepare to establish policy frameworks that support sustainability reporting, considering that resources optimization is at the heart of the future. Increasingly money is flowing into 'green' investments and entities are pursuing ESG standards implementation in quest to obtain financing from 'green' investors.

WHAT FINANCIAL CRISES & QUANTUM MECHANICS HAVE IN COMMON

$$\hat{H}|\psi_n(t)\rangle = i\hbar\frac{\partial}{\partial t}|\psi_n(t)\rangle$$

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Often times, finance and physics are considered as mutually exclusive fields, with little or no correlation whatsoever. However, if you take a closer look, you can see the glaring similarities between them. For each of these, I will try to touch on some of the material issues that have generated significant interest in each field.

Financial Crises:

The world of finance is not short of overwhelming events that go beyond our wildest expectations, and catch even the best analysts off-guard. From the most recent financial crisis of 2008, to the fifteen-minute flash crash of 2010, to the most recent short-squeeze of video-game company Game Stop; the financial markets have proven that they cannot be mastered. In my opinion, there is mainly one cause of uncertainty in the markets: the markets are fundamentally based on human behavior and psychology, which is largely unpredictable, and cannot be sufficiently modelled.

Traditional finance is based on the assumption that all market participants are rational. However, the reverse is true. In many cases, people are driven more by psychological biases, than common sense itself. This has led to studies that combine neuro-biology with finance and economics – "neuro-economics". It focuses on how the human brain generates chemicals that influence decision-making, and hence is a constraint to fundamental economic theory.

Leading up to the 2008 financial crisis, banks were doing risk assessments that seemed sufficient at the time, had collateral that seemed sufficient, and were very optimistic about the future. However, we were all living in a bubble, which was about to burst, but very few analysts could actually tell.

In hindsight, we realize that banks were not making enough provisions on bad debts, stress tests were not exhaustive enough, investment banks were converting low quality mortgages into high-quality bonds, and selling them to pension funds, etc. Of course, at the time, these bonds seemed to be of high quality, since they were issued by government-backed agencies like Fannie Mae, and had significant collateral. However, these bonds' high credit rating was all based on an incorrect assumption: property value can only increase, and besides, if any client defaulted, they could recover their money plus an abnormal profit. In addition, these were government-backed issuers, which could not default.

However, their models could not simulate all possibilities that could evolve from human behavior, to model them into risk & return scenarios. This was because these risks and returns were so intertwined like a cobweb throughout the entire industry. Commercial banks sold relatively high-yield mortgages to Fannie Mae, and simultaneously invested in Fannie Mae bonds, which were secured by similar mortgages. These same bonds were securitized by an investment bank, and given a high credit rating by a credit rating agency – which also invested in the same bonds. In addition, these bonds were insured by insurance companies through credit default swaps. Effectively, this enabled the biggest funds, which generally have a low risk appetite, to take a significant share of the high yields from mortgages, without having exposure to the default risk of these mortgages.

The relationship became so lucrative to the big funds, since they were receiving yields much higher than normal. However, their available capital outweighed by far, the eligible mortgage applicants, and yet their thirst for yield could not be quenched.

At the source of this relationship was the mortgage borrower. At this point, it was clear that the solution was to significantly increase mortgages – even to applicants who were not eligible, in order to feed the entire chain.

Therefore, when mortgage borrowers started defaulting and the property values dropped, the entire chain of stakeholders were significantly affected, and the financial crisis started to unravel like a burning bush.

As the legendary boxer Mike Tyson put it, "Everybody has a plan until they get punched in the mouth."

Quantum mechanics:

The world of physics is largely predictable and makes perfect sense, until you get to the micro-level of atoms. Quantum mechanics is the study of how atoms behave, and hence it explains how chemistry, biology and physics work. Put simply, it is the explanation to how everything in the universe operates.

Even some of the most mind-boggling discoveries like black-holes, the big bang theory, time-space continuum; are child's-play, when compared to how atoms operate.

At the level of atoms, the famous laws of physics no longer apply; things seem to operate on an almost-mystical or spiritual logic. Albert Einstein died before he could figure out why things happen the way they do at that level – "the theory of everything" as it is called. A few scientists thereafter tried to decode this theory, but with no success.

Therefore, both financial crises and quantum mechanics cannot be modelled. Nonetheless, an attempt may be made at the former, rather than the latter. In addition, the fundamental causes of both mysteries (financial crises and quantum mechanics) lie within the human being – the human brain, and atoms.

FIXING A HOLE: HOW TO SOLVE THE CHRONIC RWANDA'S TRADE DEFICIT

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No country can expect to be totally independent on trade issues. With globalization, world economies are interconnected through trade, financial flows, exchange of technology and information, and movement of people. Rwanda like all other countries has no choice but to trade. Although its economic foundation remains stable, Rwanda's trade balance in goods and services has been in deficit for many years.

As depicted in the figure below, the value of imported goods and services in Rwanda has been higher than the value of exports of the same category over the past years.

Trade deficit, also referred to as negative trade balance is an economic condition that occurs when a country is importing more goods and services than it is exporting. In this situation, the value of imported goods and services exceeds the value of exports.

As depicted in the figure below, the value of imported goods and services in Rwanda has been higher than the value of exports of the same category over the past years.

Source: Balance of payments statistics, 2020

What are the likely reasons?

The origin of trade imbalance is always traced from two distinct sides of exportation and importation. For the case of Rwanda on one hand, exports have generally been dominated by low-valued products, whose prices depend on the international market dynamics. On the other hand, it imports high-valued products composed of capital, intermediate and consumer goods as well as energy products. Consequently, the value of exports fails to offset the high value of imports, hence a trade deficit. Fortunately, Rwanda's trade deficit narrowed in the recent past years thanks to different Government initiatives discussed below.

Why is the trade deficit worrisome?

If the same trend continues or worsens, we may face serious problems in maintaining the prevailing macroeconomic stability and loose other socio-economic benefits.

The current account balance puts pressure on exchange rate. As an economy continues to import more goods and services than it exports, the demand for foreign currency exceeds the available foreign exchange earnings and reserves. As a result, the economy faces a shortage of foreign currency to pay for imports and other foreign obligations, and the domestic currency depreciates versus currencies of trading partners. The depreciation of local currency may have further more disadvantages: The price of imports upsurge, which moves up domestic inflationary pressure from imported goods and cost of production for companies relying on imported raw materials.

It is also believed that the widening trade deficit discourages foreign investors worried about losing their money, hence lowering government revenue and dampening job creation.

Regardless of the negative impacts of the trade deficit on the economy, it is worthy to note that developing countries like Rwanda still need imports of capital and some intermediate goods necessary for investments and development projects.

Some Government's policies in place to address the problem

The Government has embarked on strategies to both increase exports and to increase domestic production for the domestic market. It is quite visible that they have started to bear fruits but we still have a long way to go. The important steps have been on board and there is optimism that with the involvement of all stakeholders including the private sector and the public in general, the point at issue will soon be addressed.

Since 2014, the Ministry of Trade and Industry in partnership with other stakeholders has launched a campaign to market Rwandan made products in an effort to boost local production. The campaign seeks to increase the buying of locally made products by raising awareness, enhancing quality standards and providing clear branding and packaging. By the dint of "Made in Rwanda campaign", buyers are encouraged to consume locally made goods for the sake of supporting local farmers and producers, and finally boosting domestic production, employment and exports.
There are potentials to produce most of the imported commodities locally, which could have a huge potential and positive impact on Rwanda's trade balance. For example, imports of cement, sugar, wheat, rice and second hand clothing exceed coffee and tea exports earnings. If produced locally, they are expected to play a key role in narrowing down the country's trade deficit. Experts believe that boosting local production while encouraging consumption of locally made goods will boost exports and play a key role in trade balance (Robinson, 2010), thus stabilizing the economy going forward.

Meetings, Incentives, Conferences and Exhibitions (MICE) is another strategy by the Government of Rwanda that is already yielding fruits in the service sector. The MICE strategy seeks to make Rwanda a top conference hub and a key revenue contributor to the tourism sector's total returns as well as enhance job creation. Since 2014, the country has hosted thousands of regional and international guests from all parts of the globe. Interestingly, some travelers have opted to visit all other tourism spots in Rwanda such as national parks, local communities, volcanoes and cultural tours among others. Regarding transport services, Rwanda Air has expanded its routes and operations to various continents, hence an encouragement for increased tourist arrivals. The issuing of Rwanda visas to citizens of all countries without any prior application is another strategy Rwanda has set to make it unique and easier to travel from other countries. All of the aforementioned strategies have contributed to narrowing the trade deficit through increased exports of service and foreign exchange revenues.

A number of other policy measures and strategic interventions have been adopted and implemented. These include but not limited to: (i) Creation of the special economic zone for Industries with modern infrastructures. (ii) Incentives to attract big investors to set up industries for domestic production. (iii) Reduction of industrial electricity tariffs with the purpose of addressing what has been consistently been cited as a key constraint to Rwanda's industrial competitiveness (MINICOM, 2011). (iv) Amendment of public procurement law with the aim of promoting local sourcing. (v) Support of local food-processing firms to access certificates of international standards on food quality and safety, hence enabling them to supply in new international hotels operating in Rwanda. (vi) Import duties exemption on capital and intermediate goods needed in the key identified sectors to support the ongoing economic development. (vii) Other various policies have been undertaken to boost and diversify the exports.

What is the role of the public in reversing the trade deficit?
While the Government should take the leading role, the onus is on all stakeholders including the business community and local consumers.

People should adopt a culture of buying local products to promote domestic production. Rwandan's should take the first step to fight the wrong perception that local made products do not maintain international standards. Instead let us keep in mind that our economy cannot develop when we, local consumers, do not buy its output.

Big hotels and supermarket continue to import some foodstuff that are also produced locally. If they give more support to local producers and the country's ambitions, the story would be different. Though they claim that they import food due to quality issues, there should instead empower local farmers to meet their standards. After all, local content is not only about giving jobs to Rwandans but buying what we produce, too.

It is noteworthy that demanding locally produced goods and services does not reverse the existing trade deficit only, but also yields more socio-economic benefits namely: encouraging self-reliance and food security, developing local investment, job creation and safeguarding existing jobs, protecting revenue base, stabilizing our exchange rate, and last but not least contributes towards national pride and patriotism.

THIS IS THE OPPORTUNITY TO SERVE YOUR COUNTRY, **BUY MADE IN RWANDA PRODUCTS.**

NBR CHANGING FROM A COMPLIANCE BASED APPROACH TO A RISK BASED APPROACH (RBA)

Steven Biganiro
Inspector, Insurance & Pension

Across the world, insurance regulators continue to strengthen their regulatory and supervisory framework in line with international standards. Most of supervisors/regulators have embarked on a process to implement a risk-based capital framework as well as to strengthen their risk-based supervision and other supervisory processes. International Association of Insurance Supervisors (IAIS) published its consultation document on Risk-based Global Insurance Capital Standard Version 2.0, which among other things recommends the principle of proportionality. The NBR in this line is also in the process of adopting a risk based supervision approach and is making sure the framework developed for the sector is appropriate, fit for purpose and proportional to the regional and domestic insurance market.

NBR is opting to a risk based approach because of structural weaknesses of the compliance-based rule which among other reasons is the approach not being risk sensitive. This lack of risk sensitivity comes with consequences of inaccurate risk assessment, inaccurate and untimely supervisor's intervention and not entailing optimal allocation of capital.

Today's financial sector is so challenging and therefore institutions are exposed to different economic and financial mishandlings. This therefore makes it necessary for institutions to proactively set preventive measures to curb and decrease risks.

Unlike compliance based approach, which is a one size fits all, the RBA helps individual institutions to deal with their own specific identified risks, which form the basis for the risk based approach.

WHAT IS REQUIRED?

To adopt risk-based approach to capital, the National Bank of Rwanda as an insurance regulator will have to be proactive and importantly be ahead of the industry when it comes to spotting the insurance market emerging industry. As one of the regulator's role is to protect policyholders, NBR also has to put in place enabling legal frameworks and further ensure that there is public trust in the financial systems. For NBR to be successful there is a need to work with fellow regulators and implement the approach and international agencies to teach and learn from each other's experience.

The industry on the other hand has to ensure that there is a high level understanding of risk profile which reflects market movement, existence of actuaries to value policy liabilities and do other valuations, adequate capital for absorbing risks for the industry to be resilient and that there is relevant, reliable and complete data. The board and senior management of insurers' commitment and ownership is also a key driver towards going risk based.

WHY RISK-BASED APPROACHES TO CAPITAL?

With the adoption of RBA, it is anticipated that insurers will incorporate risk management framework into their business practices. The new approach will enhance insurance market development through flexibility and development of technical skills. Insurers will through RBA improve their risk profiling and the approach will act as a link between insurers' regulatory required capital and their risk profile. Establishment of a common risk aware culture and a common framework of capital requirements and prudential standards will be realized, as it will be the case with market disclosure and self-regulation.

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