



ACTUARY

ISSUE 2013

▶ **ACTUARIES IN NON
TRADITIONAL AREAS**

▶ **PUSHING BOUNDARIES:**
Cass Business School

▶ **MONETARY UNION:**
Boon or Bane

▶ **MICRO INSURANCE:**
The Industry's Buzzword

A PUBLICATION OF  NASA NAIROBI UNIVERSITY ACTUARIAL STUDENTS ASSOCIATION

THE ACTUARIES: THE FUTURE IN PERSPECTIVE



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Editorial



To deign to be a leader of others, why, that is the greatest pretension. And yet pretend we must, because to live is to pretend. But it is not such a great pretension to pretend to be a leader to those that one enjoys leading. And maybe the essence of life is to pretend until you are not pretending anymore; to pretend until you begin to enjoy it and to learn from it and to make friends off it. If to live is to pretend, then I have this year learnt and grown from it.

The best thing about being the 2012-2103 editor of the NU Actuary magazine has been the opportunity to tell a story, my story, and our story; the chance to express our perspective of the profession, of what the future holds.

This issue tells the story of the opportunities that there are for graduates of Actuarial Science. We have stories of the way the industry is changing and of new roles that are emerging for the actuary: micro insurance and crop insurance. We also explore global and regional markets.

We also have the stories of a few graduates of Actuarial Science from the University of Nairobi who followed their dreams out of the confines of the traditional Actuarial Science fields. As JRR Tolkien wrought, not all who wander are lost. Indeed, the people we cover wandered to find where their true passions lay.

German philosopher Friedrich Nietzsche said that profundity of thought is for the young; clarity for the old. In this issue of the NU Actuary, we feature profound thoughts and clear thoughts. Profound thoughts of young people for whom the future is a wide open space, full of hope and promise; clear thoughts of older, wiser professionals who know what the world holds.

To tell this story would have been impossible without the contributions of everyone who took time to submit an article. I would also like to thank our sponsors and the N'ASA committee for their support.

Njeri Njuguna

**Throw off the bowlines,
Sail away from the safe harbor,
Catch the tradewinds in your sails.
Explore. Dream. Discover.**

~Mark Twain~

New Frontiers

by James Ngatia



Over the past year, the country has witnessed fundamental breakthroughs in the areas of insurance and finance that portend a greater appreciation of the actuarial profession by industry regulators.

In this article, we delve deeper into one of the policies that will shape the actuarial discipline's growth in the coming days and analyze its implications on both the actuarial fraternity and the country at large.

Gone are the days when insurance companies going under as a result of liquidity challenges and high loss ratios was the norm. The Insurance Regulatory Authority finally turned to actuaries in a bid to stem this worrying trend that has long bedeviled the industry's attempts to improve insurance penetration in the country.

Indeed, a general lack of confidence in insurers' ability to pay claims has continually been cited as one of the major impediments to uptake of insurance cover by prospective policyholders. While part of this skepticism may be blamed on a lack of understanding of insurance by the ordinary 'mwananchi', the succession of underwriters put under statutory management by the Authority due to malpractices has not enhanced the credibility of the industry in the public eye.

It is with this in mind that the Regulator identified the need for actuaries to play a bigger role in the sector by evaluating and advising insurers in matters pertaining to technical provisions, premium and pricing activities, scenario and sensitivity testing and compliance with related statutory and regulatory requirements.

Under the new guidelines issued by the Regulatory Authority and that took effect on 1st January 2013, all insurance companies are required to have a fully staffed actuarial unit. These actuaries will evaluate and provide advice on the insurer's actuarial and financial risks; the insurer's investment policies; the valuation of assets; and the insurer's solvency position, including a calculation of minimum capital required for regulatory purposes and liability and loss provisions.

The Actuarial Function of Insurance Companies

"The authority requires all insurers to have a robust actuarial function that is well positioned, resourced and properly staffed, essential for the proper operation of the insurer."

~The Insurance Act (Cap 487)

Actuaries will also handle issues relating to re-insurance, underwriting, distribution of policy dividends, risk modeling, product development and design, among others.

These changes are envisaged to effectively institute risk-based supervision by utilizing actuaries' expertise in risk management. They will also inject some much needed talent to an industry that has long been plagued by an acute shortage of personnel with the requisite skills necessary for insurance companies to realize their long term strategic objectives.

Understandably, insurers are not too enthusiastic about the directive especially considering the high cost of maintaining fully staffed actuarial departments in their respective establishments. Yet slating the new measures based on this challenge would be to ignore the bigger picture. In the long run, insurers stand to benefit from increased insurance penetration based on their ability to offer affordable, relevant and creative products to consumers and the increased level of confidence in the insurance sector due to the stability offered by taking these professionals under their employ.

Arguably, the biggest beneficiaries of the directive are actuarial students around the country since the Act requires that the head of the actuarial staff engaged by each insurer be a Fellow of the Actuarial Society of Kenya. With the present shortage of professionals holding this accreditation, the 47 licensed insurers will have to invest in actuarial students aspiring, and working towards, achieving professional qualification as this will prove more prudent in the long run as opposed to hiring expatriates.

A lot remains to be seen regarding the actual implementation of the new policy with insurers having until June 30th to regularize their status in accordance with the new provisions.

What is certain however is that the new law

will play a pivotal role going forward as the insurance industry readies itself to take full advantage of the country's transition to middle income status and the resultant surge for insurance cover that will come with it.



ASK: The Future Unveiled

Actuarial Students of Kenya is an umbrella body for currently six actuarial associations. They include N`ASA, JKUASA Juja, Karen and Nairobi campuses, KUAISA and Strathmore University. We expect Maseno, Bondo, Eldoret and Mt Kenya universities to join before its official launch in July.

As the heads of the different student associations, it came to our attention that there was disconnect between what we were doing and achieving in the various campuses. We decided that it was important to coordinate all the actuarial student affairs in Kenya and ensure that all students regardless of their learning institutions and location are accorded the same opportunities and privileges.

On my election as the first chairman of the association in March, it gives me great pride to wear the chairperson's hat and to represent student actuaries in Kenya.

"Every man is a debtor to his profession," is the oft-quoted phrase from Elizabethan author Sir Francis, and no one feels more indebted to his profession than I do. I see my role as an opportunity to give back to my fellow students.

Business and political policies are frequently muddled by new managers who believe, often erroneously, that the best way of making an immediate impact is to try and change much of what has gone before. I do not believe this is the way forward for the strategy of ASK as we plan not to dilute what individual associations have been doing but just improve and make sure we have one large voice and unity as we approach corporates.

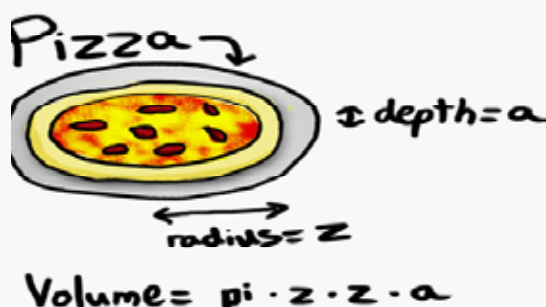
Our aim is to continue the excellent work done so far by various associations and we aim to maintain that momentum so that we can deliver our objectives. I appreciate the importance of continuity and assure you that having this association doesn't mean starting over again. We want to build on the sound foundations and clear aims that have been laid out by individual associations.

My executive committee consists of nine energetic and dedicated people, who are ready to deliver in meeting the objectives of the association. Our main objective is to serve the interest of all student actuaries be it in school or working.

We aim at engaging our members through social networks and through a website. We also aim to inspire people through seminars and the promoting of the profession through our own national publication.

I therefore have a blooming vision for the student actuaries through engagement with ASK. Having watched the seeds being planted in various campuses using their own associations, I want now to see the actuarial profession blossom and grow starting with students. I am sure that over the next one year we shall be seeing more 'fruits' from our investments and that the vital elements of trustworthiness and professionalism that have always been the actuarial profession hallmarks will be retained.

*By Nabutola Ernest Cyrille
Chairperson,
Actuarial Students of Kenya.*



Cyprus:

The new new deal

By Mbogo Joakim

The euro crisis made its latest landfall in Cyprus and did so with a bang. Although the euro zone is rife with financial upheavals, this one is different. Cyprus is a small country outside mainland Europe (with it being closer to Beirut than Paris) and has a small population of just 1.1m. In addition to this, it is a tax haven with bank deposits 8 times the size of its GDP- this figure comprising mostly of deposits from Russian billionaires who use Cyprus as a parking lot for their money.



deal. Faced with a bleak future, the Cypriot Prime Minister finally played ball and accepted a new deal with minor adjustments from the initial one; disregarding the recalcitrant Cypriot parliament in the process. The new deal advocates for a split between the good bank for sound deposits and the bad bank for uninsured deposits which will finally be wound down with depositors with more than £100,000

Cypriot banks used their funds to invest heavily in Greek Debt. With the subsequent devaluation of Greek debt, the banks found themselves grappling with heavy losses; especially its two leading banks which were heavily exposed to the Greek debt crisis. The EU had to step in to rescue the country from financial collapse albeit with a rather unique bailout package caused by the nation's peculiar traits.

The first bailout package required depositors with more than £100,000 to take a 9.9% hair cut with those with less than £100,000 taking a 6.73% hair cut. The IMF argued that without a hair cut on the debt, the bailout money would have been roughly equivalent to the country's annual economic output; a figure that would have piled up on the country's debt rather than helping it put its financial affairs in order. This plan however faced strong opposition and was voted out.

In a case of tough love, the European Union gave Cyprus an ultimatum and warned that it would cut off funds and leave the country to fend for itself if it did not assent to a new

taking a 9.9% haircut.

This unprecedented move has had a ripple effect on the financial sector with investors looking for alternative measures to transfer cash such as bit coins and gold bars. Critics to this plan argue that making depositors take a hair cut will lead to excessive liquidity and capital flight from countries grappling with the euro crisis. However, given the uniqueness of the crisis there was no better solution.

Cyprus has to hit rock bottom before the situation improves. Already, it is facing a 7-15% contraction of the economy this year and these are only conservative estimates. With a risk of capital flight looming in the horizon, the Cypriot Government has imposed one of the strictest capital controls anywhere in the world to try and get a grip on the economy and steer it through the rough tides it is facing now.

A lot can be said about the future prospects of Cyprus but, given the uniqueness of the bailout deal, only time will tell whether it was a good call or whether it was just designed to punish Russian oligarchs for overheating the economy of this tiny island.



TANGERINE? HERE!!

$$\frac{\sin(\text{gerine})}{\cos(\text{gerine})} = \text{tangerine}$$

...to foreign shores

By Njeri Njuguna

If actuaries were aliens, then the United Kingdom would be the mother ship. It is befitting, therefore, that the industry regulator in Kenya sends its chosen few there to be inducted in the ways of the industry.

Through a partnership with the Cass Business School, the Insurance Regulatory Authority has been offering masters degree scholarships to qualifying students for the past few years.

The inspiration for this program was the discovery by the IRA that there was a skills gap in the industry when it came to qualified actuaries. The regulator has been striving to raise the standards of insurance in Kenya. This it has done by requiring that all insurance firms have an actuarial department. As the players in the industry try to conform to this, they have discovered that there is a shortage of fully qualified actuaries to take up the newly created positions.

The IRA has taken it upon itself to bridge this gap. Every year, six students are recruited into the program. The requirements of the program are lofty indeed: mean grade A in KCSE, at least an upper second class degree and at least five CT papers. Clearly, the IRA intends on working with the best and brightest.

The Cass Business School is one of London's pre eminent business schools, respected by professionals and highly sought after by students. It is a mark of the value the IRA places on the program that they chose to send the beneficiaries to Cass.

The IRA has done well to recognize that a masters degree offers training that studying for the actuarial professional papers does not. In the masters setting, students are required to not only pass exams but also undertake a project. This results in



graduates who have a well grounded understanding of the actuarial field, both in theory and practically. The classroom experience when studying for a master's degree also bolsters one's understanding; it comes with the opportunity to interact with fellow students and tutors. Developing the ability to present one's ideas to people and to have those ideas critiqued can go a long way in creating actuarial professionals who add value to the Kenyan industry.

The program runs for two years. One of the benefits of the program is that upon graduation, the beneficiaries are exempted from most of the CT, CA and ST papers from the Institute and Faculty of Actuaries. The consensus among current and graduated beneficiaries seems to be that the program has helped them acquire a firmer grasp of the tenets of actuarial work. Being based in the UK, they say, has

helped them appreciate the workings of a mature industry and see what they would like to see, as we all would, the Kenyan industry grow into.

The terms of the contract require that the graduates work for the IRA for a year, after which they are free to join the industry. So far, the first group of students has graduated and are working for the IRA.

It remains to be seen what impact, if any, the program will have on the state of the industry in Kenya in general.

With the actuarial profession still being in its infancy in Kenya, it is an exciting time to be training to be an actuary. Opportunities abound, and this scholarship is one of them. To paraphrase Neil Armstrong, One small step for a few young people, a giant leap for Kenya's actuarial profession.

RISK: Opportunities for Actuaries

By Damian Nasenya

“Everything that is counted does not necessarily count; everything that counts is not necessarily counted” - Albert Einstein.

Risk mismanagement was arguably the main reason behind the global financial crisis of 2008. Before Bear Stearns and Lehman fell, before Merrill Lynch was sold and before multibillion dollar bailout bills were rushed into law in America, the fact that the largest financial institutions in the world had taken risks that were so foolhardy to the extent of possibly bringing down the entire financial system was in oblivion. Risk managers had confidence in complex mathematical models for measuring risk that could generally be applied to any asset class- top of the list, the VaR (Value-at-Risk) model. Although the models were functional, indeed sniffing out some risks, risk managers were not vigilant for the risks that these models could not sniff out; the extremes, the dragons. Consequently, nothing was going to save the financial world from the imminent crisis.

Lessons from the credit crunch are invaluable for professionals in the financial services industry. Perhaps the credit crunch would have been inevitable even with better risk management processes, but risk managers would have been better prepared for such an occurrence, and sound mitigating actions could have been taken. There is a new focus on risk management globally for the sake of a secure financial future. After all, the best time to mend a roof is when the sun is shining and not when a storm is occurring.

World economies and financial markets have been recovering over the past few years but financial institutions are not returning to the same playing field. Companies are increasingly actively involving their board of directors in overseeing risk management

policies, and reassessing their risk management methodologies regarding the capacity to measure rare but catastrophic events. Deloitte and Touche's Global Risk Management Survey (2011) revealed that out of 131 financial institutions globally, 90 percent had a defined risk governance model and approach. The position of Chief Risk Officer (CRO) has increasingly become prevalent in financial institutions: 86% percent of institutions had a CRO in 2010, up from 73% in 2008. Over 70% of institutions are far along in Basel III and Solvency II implementation as required by regulatory authorities. Many financial institutions have made progress in using stress tests to supplement risk models such as the VaR, and risk technology systems have been improved in accordance with the main risks that financial institutions face today.

Kenyan institutions have also recognized the importance of proper risk management. In November 2010, the Central Bank of Kenya conducted a survey in order to assess the impact and adequacy of its Risk Management Guidelines that aim at fostering liquidity, solvency and the stability of the market based financial system. The survey revealed that 95% of institutions had improved efficiency and effectiveness of risk management. Recently, the Insurance Regulatory Authority (IRA) introduced new guidelines regarding risk management and actuarial functions.

Risk has evolved, and so has the professional best suited to manage it- The Actuary. As the tagline for actuaries goes, “Risk is opportunity”. Actuaries are uniquely qualified to identify risks and develop strategies that not only mitigate it but exploit the potential opportunity. Actuaries measure and assess the qualitative and quantitative impact of risk. Many professions identify risk but do not adequately establish the value proposition of risk to determine strategic direction for organizations. The all-encompassing approach that actuaries take underpins Enterprise Risk Management (ERM) frameworks, which aim to safeguard and build shareholder value in organizations by reducing or eliminating risk, differentiating actuaries from other

professionals. Active involvement in risk measurement, analysis and reporting enables actuaries to place a value on risk, develop and price new products, and handle appraisals on mergers and acquisitions. Companies are increasingly becoming interested in harnessing the opportunity that lies within risks in order to have a competitive edge in the marketplace. As such, opportunities for actuaries to work in ERM are continually increasing. After all, actuaries are best placed to establish bounds for risk appetite, lest companies eat at their own profits.

Actuaries are already proving their worth in the risk space. IRA guidelines effective from 1st January 2013 with a 6-months transition period require every insurance company to have a



written Risk Management Strategy (RMS), which includes a firm's risk appetites, policies and controls. The RMS must be applicable with regard to the company's size, business mix and complexity of operations; tenets that make the involvement of actuaries inevitable. Stakeholders have recently termed the new directives by IRA as well intended. However, insurers have expressed concerns that the new guidelines will impact heavily on their costs as they will be required to work closely with actuaries. It has also been noted that the directive is impractical as the Kenyan market currently lacks adequate actuarial capacity. There are very few fully qualified actuaries in the country. Nevertheless, stakeholders remain hopeful that the market will develop adequate actuarial capacity to meet demand in the next five years. Take that challenge.



"Analysis Incarnate" – Swiss mathematician Euler

Swiss born Leonhard Euler is widely regarded the most influential mathematical brain that ever lived. Euler delivered modern day trigonometry, derived the Newton-Giraud formulae, invented generating functions and pioneered the calculus of variations.

While this sounds too much to ask of most other great mathematicians, Euler still proceeded to advance number theory by proving the sum of reciprocals of prime numbers smaller than x is approximately $(\ln(\ln x))$, months after illustrating e is indeed irrational. For a man who introduced many of the symbols we use to date – e , i , π – it is no coincidence that the only nickname fellow geniuses could conjure for him was "Analysis Incarnate".

MONETARY UNION:

Boon or bane?

By Ng'ang'a Matiri

job creation remained buoyant in the period leading up to the global economic meltdown.



Which then begs the question: why has the Eurozone model not been adopted on a much wider scale given the economic benefits outlined above?

Well, a monetary union is not the cure-all to remedy global economic challenges it first seems but in practice is much more a quid pro quo economic trade-off between perceived benefits and hazards of joining. Therefore, rather than expedite the process of unification and hope to deal with the problems that will inevitably crop up post-unification, regional players should instead be appraising their economic fortunes and limitations given the status quo vis-à-vis those offered by a monetary unification.

By the close of the year, the East African region will conceivably be in the runway stage towards achieving monetary union status with key heads of state expected to ratify the protocol that will oversee its inception. Yet the hurdles encountered by other currency unions must act as a reminder to stakeholders of the myriad of challenges that lie ahead if the region does indeed forge on with her quest for unification.

For starters, a monetary union entails multiple countries ceding control over the supply of money to a common authority. In essence, it would bolster intra-area trade on the back of reduced exchange rate risks, price transparency and lower cross-border transaction costs. Inter alia, an economic and monetary union would also give rise to lower inflation volatility, higher labour productivity, greater resilience to external economic shocks and improved growth performance.

Indeed, during the first decade of operation of the Euro, member states recorded sharp declines in growth volatility and inflation volatility as compared to the turbulent 70's, 80's and early 90's. Further, smaller countries in the union achieved more rapid output growth and per capita output growth than the larger countries while

For instance, ceding monetary control to the proposed East African Central Bank may lead to greater monetary discipline among partner states but it would also impinge on the respective countries' ability to use nominal exchange rates as a tool to counter swings in demand and other country specific shocks. The proposed Central Bank would also be much more inclined to set interest rates aimed at achieving average stability across the region rather than responding to a particular country's specific economic woes.

In the case of the Euro, monetary control is the prerogative of the European Central Bank (ECB). When the European sovereign debt crisis hit in the latter part of 2009 spurred on by the global recession and the bursting of real estate bubbles, peripheral countries were hit much more severely than core countries and their inability to choose between short term inflation versus unemployment trade-offs led to drastic employment cuts. Since the problems were asymmetric and not all of the member states were hit as severely as, say, Greece, the ECB would not budge on its Growth and Stability pact meaning these nations were left to ride out the storm very much on their own with occasional bailouts as the only sort of reprieve- never mind the accompanying austerity measures!

To evade this scenario of different countries in a monetary



union having asymmetric monetary needs, the economist Robert Mundell theorized certain conditions that had to be met for a region to be regarded as an Optimal Currency Area and thus ideal for unification. He noted that such countries should have similar shocks and business cycles, high trade integration, fiscal flexibility and internal labour flexibility. The East African region worryingly scores dismally in majority of these prerequisites.

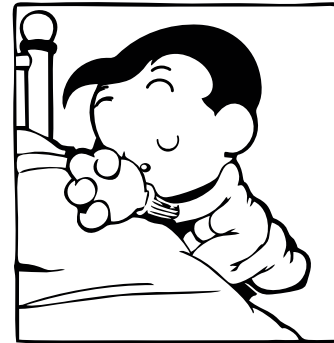
In addition, it may also be worth noting at this point the prevalent macro-economic conditions of the various countries in the proposed union as these will have a direct bearing on convergence leading up to unification.

For the Eurozone, the convergence criteria for countries wishing to join the Euro in the first wave were laid out in the Maastricht Treaty (1992). These criteria included respective countries putting a cap on public debt, public sector deficit, inflation, long term interest rate and exchange rate fluctuations. These measures were seen as crucial in achieving macro-economic stability on a national level prior to the countries joining the monetary union.

Back home, a similar set of rules would be much harder to enforce.

Economic growth in Kenya has been robust over the last decade but can mostly be attributed to the non-tradable sector such as the huge capital investments in infrastructure development (e.g. the various Vision 2030 projects) and the construction boom. This has led to a gradual widening of the current account deficit and a sharp rise in government borrowing. While this is necessary in the transition of the country to middle income status, it does create potential conflict points in the larger context of an East African union, that is: would Kenya's industrial push pose a risk to the region's macro-economic stability?

As the past year underlined, financial markets in developing countries remain susceptible to the rigors of inflationary pressures and other emerging challenges of a developing economy. This should therefore be a clarion call for stronger institutional framework on a national level to deal with these concerns. A one-size-fits-all monetary policy is not only over-ambitious but is also ill-equipped to cater to the current needs of members. A monetary union at this point in time is thus ill advised. Until the member countries resolve fundamental issues touching on inflation, current account deficits and debt-to-GDP ratios, any possible gains from the union would be ultimately short lived.



The ACTUARY'S PRAYER

Our model, which art in nowhere.

Guessing be thy name.

Thy assumptions come,

Thy will be done in future as it was in the past.

Give us this day our premium rates,

and forgive us our lousy estimates,

as we forgive those who supply us with crappy data.

Lead us not into insolvencies,

and deliver us from auditors.

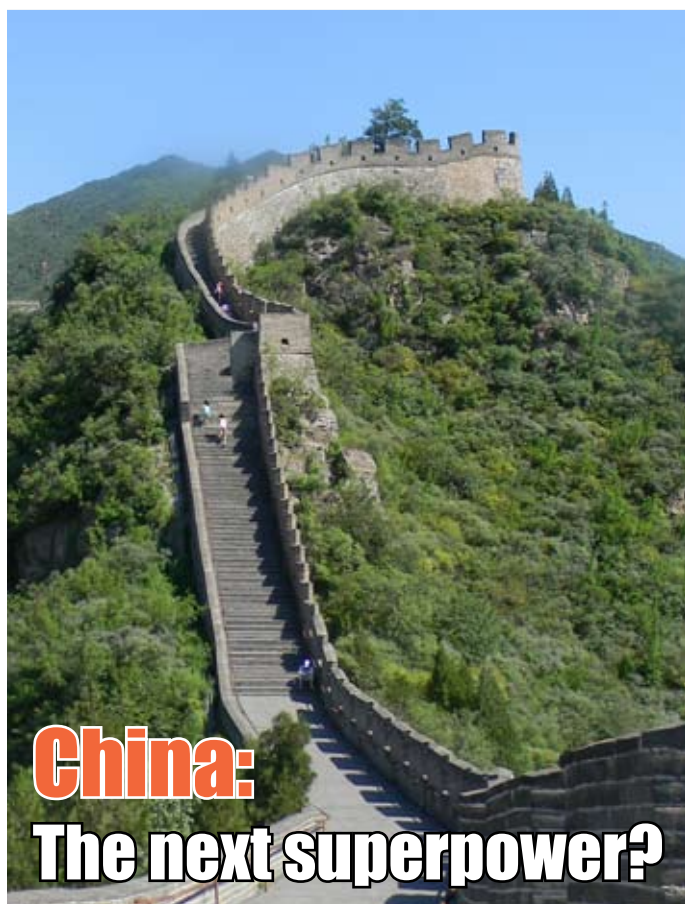
For thine is the #NAME?, #DIV/0!, and #VALUE!,

forever and ever. Amen.

All the functions of x are at a party.

They are all having fun, dancing and mingling except $\text{Exp}(x)$ who is standing alone in the corner looking miserable.

The other functions notice this and approach him. They ask him, " $\text{Exp}(x)$ why don't you integrate with us?" and he replied "because it makes no difference!"



China: The next superpower?

By Joakim Mbogo

Everyone is talking about China these days- from the sun-scorched streets of Nairobi to the most respected academic circles all over the world. As usual when something becomes the topic of the day, it's bound to contain a torrent of rumours, urban legends and a dose of truth skewed out of proportion by personal opinions. In the midst of all this kerfuffle, it is prudent to distinguish trend from noise, fact from fiction and deem what is relevant to us.

If you are wondering why everyone is talking about China here are some tidbits to bring you up to speed. From 2001-2010 China experienced an average economic growth of 10.5% per annum which was way higher than the world average at that time. IMF predicts it will become the world's largest economy on purchasing power parity basis by 2016 and in 2020 by market exchange rates. It is the largest exporter surpassing Germany and the US. I trust by now I have ruffled your feathers and it's time for you the indifferent person to consider this contemporary question. If you have already formed an opinion I only ask you to hear my take on the matter.

China possesses all the traits of a superpower in waiting. It is the world's most populous country and the second largest country by land area. To ice the cake on this strength of numbers, it has the world's largest standing army. Well, these facts may wow a naive observer but for the observer of above pedestrian knowledge, numbers don't always mean strength and this was demonstrated by Leonidas and the 300 Spartans at Thermopylae. But although numbers don't mean strength sometimes, they are strength most of the time and China has

numbers. It has expanded its trade with various parts of the world and continues to do so.

Many have wondered what precipitated this period of economic boom in China. The answer lies with plan of the father of modern China, Deng Xiaoping. After succeeding the notorious Mao Zedong, he aimed at strengthening and stabilizing China through the communist rule. He allowed economic advancement and partial free market policies but kept a tight hold of the political leadership under the Chinese Communist Party. The result is what is now commonly known as "The Chinese Model", rapid economic growth but a wanting political system. The latter trait mainly arises from the widely accepted tenet that democracy is the best political system. Critics have often pummeled the Chinese government with a barrage of accusations regarding its hybrid communism but they seem to be answered by results rather than academic papers.

While China's achievement is admirable, some pundits believe that it's a passing phase and we need not get alarmed. They cite Japan which had a boom in exports and investment along with bubbly property markets followed by many years of stagnation. What is also wanting is the fact that most of this growth in China has been as a result of mainly exports and investment in infrastructure, with the latter accounting for a staggering 50% of the GDP in 2010. Further poking holes in this impressive growth is the fact that for all these years, China has been reaping demographic dividends from its cheap labour but that's about to change. The population of China aged above 60 will increase from 12.8% in 2010 to about 20% in 2020 which is bound to put considerable strain on the economy as the dependency ratio goes up. Decline in domestic consumption and exports constrained by depressed western markets pour more cold water to the growth. In addition to all these, its political system is creaking. The empowered middle class is demanding for more. Riots have been common place in China although the actual frequency can only be estimated.

Amidst all these challenges, the politburo has policies in place to counter them and they are emphasized in the government's 5 year plan. Whether China will be a force to reckon with or whether its system will overheat and crash lies with the Chinese people. As Will Durant famously put it, "An empire is not conquered from without until it has destroyed itself from within."



"and in business news, it's now official Everything is made in China. Citizens are encouraged to learn Mandarin, as well as how to March".



The Future of MICRO INSURANCE IN KENYA

By Priscilla Muli

Kenya has grown in great strides over the past decades, case in point the growth of the microfinance sector. Equity Bank, a commercial bank targeted at low income earners, is now a leading bank and a household name. Presently controlling approximately 50% of the bank accounts in the country, Equity boasts several achievements such as Forbes Africa Person of the Year 2012 and the Most Innovative Bank in Africa Award 2012. It has truly revolutionized the face of finance in the country.

Its distinctiveness lies in its endeavour to offer services to the 'unbankable'. It allows low income earners to open accounts with a 'no-deposit' requirement and makes loans readily available to them, from as little as Ksh 500. Equity is open to different kinds of collateral and waives property-ownership requirements. Benefiting greatly from success in numbers, Equity also attributes its victory to an organization culture that values people, enhances performance and supports the business.

The accomplishments of Equity Bank inevitably raise the question: Is this transferrable to the insurance world? Recent studies carried out by Cenfri, The Centre for Financial Regulation and

Inclusion based in South Africa, discover a sizable untapped market for microinsurance in Kenya, citing a potential target market of 10.8 million adults while giving conservative estimates of 150,000 – 200,000 voluntary microinsurance policyholders. This figure could increase to 650,000 – 700,000

users if formal credit life insurance policies are added, forming 3% of the Kenyan adult population. The market size could grow even further if only 1 million M-PESA users and 1 million Kenyans with bank accounts who are currently uninsured buy insurance through these channels. Possible? I think so.

The Retirement Benefits Authority and CIC Insurance Group have already rolled out micro insurance products, namely the Mbao Pension Plan Scheme and M-Bima Jijenge Savings Plan respectively. These schemes, catering for informal sector workers, allow savings as little as Ksh 20 a day easily payable through cell phone services. The Mbao Pension plan also allows members to assign their savings to owning a home aside from saving for their retirement while the M-Bima Jijenge plan is a savings plan that comes with a life and disability cover. The former, around November last year, had 40,000 members who have saved about 32 million shillings since its inception in 2011.

Mr. Sammy Mavoke, CEO of the Insurance Regulatory Authority, announced plans are underway to develop a micro insurance policy within the year. Only recently did the Insurance Act recognize micro insurance as a class of business. It is notable that insurance penetration into the informal sector will greatly contribute to the achievement of the Millenium Development Goals; bringing down extreme poverty and hunger and advancing gender equality by empowering women.

Of **POLITICS** and The **INSURANCE** **INDUSTRY**



By Sylvia Wamaitha

Africa has some of the fastest-growing economies in the world. While other world economies are rapidly declining, we are on the rise. On the flip side, African politics has over the years been synonymous with bungled elections, civil unrest and utter mayhem at times. 2007 is a year that will be forever etched in the minds of many Kenyans, not only because of the staggering loss of lives that resulted from a flawed election but the negative impact that the post-election violence had on the business community. It caused the stock market to plummet, the shilling to weaken and millions of shillings to go down the drain. In light of these events, the Kenyan-based Africa Trade Insurance Agency (ATI) launched a new product in 2008: political violence and terrorism insurance.

Political Risk Insurance (PRI) is a type of insurance that can be taken by businesses of any size against political risk, which is usually caused by politically-motivated violence, insurrections, business interruption, inconvertibility of foreign currency and the inability to repatriate funds among other prevailing political conditions.

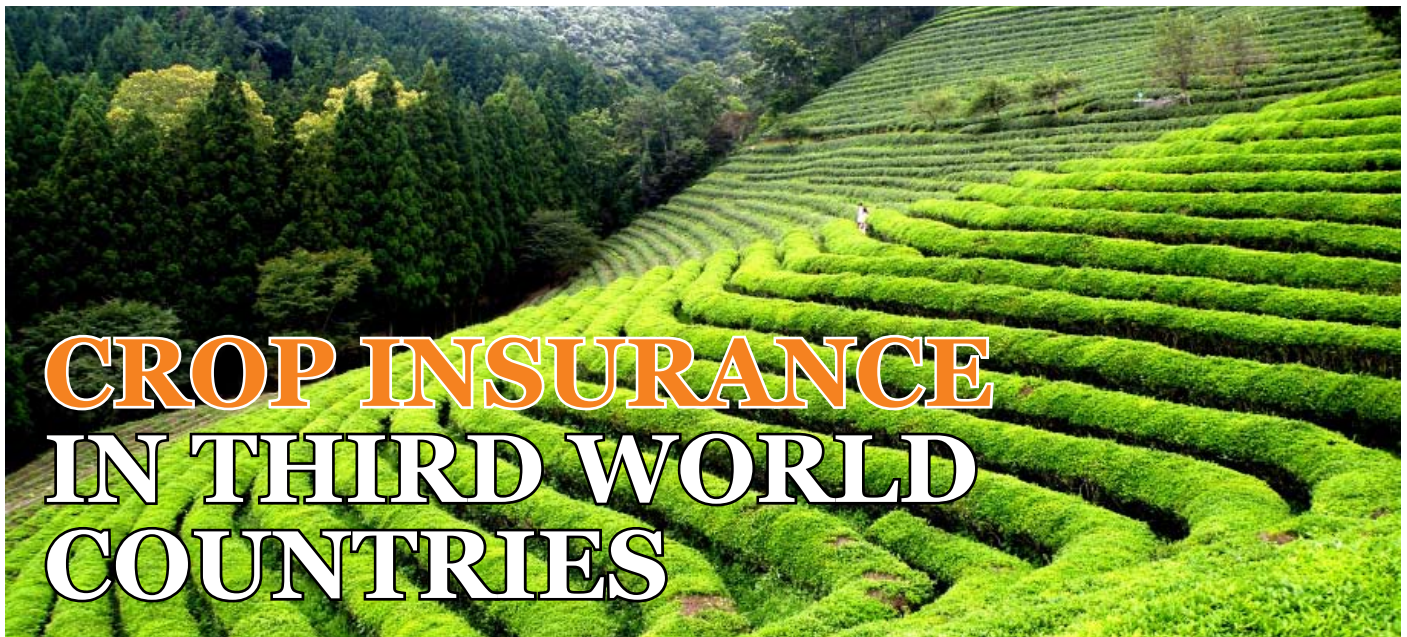
This type of insurance cover is a well-established product globally since its launch in the 1980s. PRI has enabled many overseas companies to take advantage of commercially attractive opportunities in emerging markets while safeguarding their investment. Most of the businesses that invest in this type of insurance cover include banks, telecommunication firms and contractors handling big infrastructure projects.

In Kenya, UAP was the first insurance company to roll out the product in 2008. This was followed by Jubilee Insurance

Company which signed a \$384.6 million deal with ATI in 2009 to provide the cover to businesses in Kenya, Uganda and Burundi among other countries. APA Insurance followed suit investing \$434 million with ATI to provide the political insurance cover. However, Cannon's cover was the first stand-alone political cover in the market. Soon enough, a risk pool of 20 insurance companies in Kenya had been formed to provide PRI. This risk pool was meant to shield insurance companies against risks of paying huge claims at once in case of another outbreak of violence. In addition, it would provide affordable political insurance covers to customers.

The demand for the product has grown steadily since its launch, with sales rising by 30% in 2012 to cover \$500 million worth of assets. In 2013, many business operators rushed to cover their ventures against risk fearing another cycle of election violence. Although those rushing for cover were mainly multinationals and companies owned by foreigners, small businesses and individuals in Kenya were also quite receptive to the product. After all, those who fail to learn from history are doomed to repeat it.

The sums involved in Kenya's PRI market may not be much compared with other overseas countries, but the development of the product indicates an increasing sophistication of the country's financial services. According to data compiled by the credit rating organisation, AM Best, the value of premiums in Kenya's domestic insurance market was \$1bn in 2011, making it the second-largest insurance market in Africa, just behind South Africa. If this data is anything to go by, PRI may just be the first in a long line of innovative new products that will boost insurance penetration figures in this part of the world.



By Kevin L. Onderi

Many countries (or third world countries as the case may be) are prone to natural disasters such as storms and drought. These disasters leave behind a mass of destruction in their wake, especially with regard to crop farming.

As we are well aware, agriculture serves as the backbone of the economy in many developing countries and many inhabitants rely on it for their livelihood. Since time immemorial, natural disasters have sown fear and dismay among farmers- probably more than what farmers have sown in their fields. When they hit, they cause a lot of damage to the crops and hence result in humongous losses to the farmers.

Due to the uncertain nature of this risk that we are burdened with, it is necessary to take precautionary steps as a matter of disaster preparedness. We all agree this assists to mitigate the loss or even reimburse the value depending on the given case. Thus, in regard to these steps, let me bring forth the concept of crop insurance.

For ages, there was an existing stereotype that insurance only dealt with two aspects, that is, general insurance and life assurance. The issue of crops was not really looked into much as a prospective area of insurance. Yet crops are just as valuable as vehicles and houses. Insurance assists in managing these losses and crop insurance is that mechanism that is specially designed to cover losses arising from adverse weather and similar events which are beyond the control of farmers.

So that we are on the same page, it is important for me at this juncture to dispel some of the fallacies regarding crop insurance. Contrary to common belief, the insurance cover does not really annihilate the risk of perverse weather conditions nor does it increase the farmer's income but simply safeguards against the risk and spreads it.

Taking a look at the international scene, many developing countries have tried to implement crop insurance with varying degrees of success. These countries include Argentina, Malaysia, Mauritius, Brazil and most notably India.

India has for a while now been at the forefront of developing

cutting edge micro-insurance products and it should therefore come as no surprise that they are already reaping the gains of successful implementation of crop insurance. The product has been well received by farmers there who- after awareness, education and sensitization- deemed it fit to adopt this system.

Entities such as the General Insurance Corporation of India and the Agricultural Insurance Corporation have been heavily involved in the success of the product and the private sector has also made a telling contribution. For instance, the private sector in collaboration with the World Bank started offering an insurance product covering the non-irrigated farmers against insufficient rainfall. This is just one of the many innovative products available to farmers in the diaspora. I would have liked to highlight more examples but that would be another discussion altogether.

Bringing the nub on crop insurance back home, various programs have been launched to safeguard the farmers' crops against the ravages of weather and disease. Some of these low cost insurance covers include 'Kilimo Salama' (or Safe farming) which is provided by UAP in partnership with Safaricom and the Syngenta Foundation, an initiative of the Swiss-agricultural chemical maker.

A brief description of how it works: farmers receive policy numbers through their mobile phones after registering their businesses with this program. Whenever the farmer buys farm inputs, they also pay five percent of the price which goes to the premium account. The farmers subsequently qualify for compensation when their crops suffer a disaster.

It is vividly evident that farmers are saved from the tedious, stringent procedures that would accrue to them if they were to approach the insurance company at, say, their major headquarters. It is hence clear that apart from the program being effective and efficient for the farmers in mitigating risk, it also provides them with the luxury of convenience as it would not require them to leave the comfort of their locale.

This program earned global recognition when it was awarded the prestigious Financial Times' award for Technology in

Sustainable Finance, recognizing their trailblazing work to provide small-scale farmers with access to insurance cover. The award seeks to recognize innovativeness in addressing scarce goods and/or services.

Moreover, other insurance companies have also joined the fray by offering crop insurance as one of their products. These include APA, BlueShield and Britam, which safeguards against damage caused by floods, bush fires et cetera, just to name but a few.

In conclusion therefore, it is in order to state that the crop insurance market has clearly not been completely exhausted in Kenya and some of the other developing nations too. However, in Kenya, with the emerging trends and persistent awareness drive, it is safe to say that in future we will see more insurance companies indulging in this market as demand rises.

Let us do this again in future if time will accord us that opportunity.

Reality Check

By Ephantus Kagunda

Over the years, insurance and the actuarial profession have been much more misunderstood than appreciated in Kenya. For instance, the low income earners in our society view insurance as out to fleece them of their hard-earned cash. Actuarial work meanwhile remains synonymous with complex calculations and models leading the general populace to question its relevance in their daily lives. In light of this, how do we demystify Actuarial Science among the common folk? And how can the insurance industry break into the bottom of the income pyramid and sell its products to those most in need of insurance?

The most likely starting point would be to eliminate the notion that insurance and actuarial modeling are entirely alien concepts. Rather, they have played and continue to play significant roles in our day-to-day lives. From chamas where funds are pooled and invested; to farmers in Kitale who speculate on maize prices; to employers at the Embakasi go downs who have come up with innovative employee benefit schemes; insurance and actuarial concepts have been very much at work despite the seemingly small scale of these projects.

The challenge therefore lies in convincing a Mama Mboga that, basically, insurance business operates a lot like her ordinary chama except that it is on a much larger scale and is managed by experts. Once she acknowledges this, she will be more receptive to the products the industry has to offer.

Insurance companies thus have their work cut out for them in terms of creating awareness. A shift from the usual marketing is crucial. So far, the TV advertisements of the various insurance companies fail to resonate with the lower income classes. This

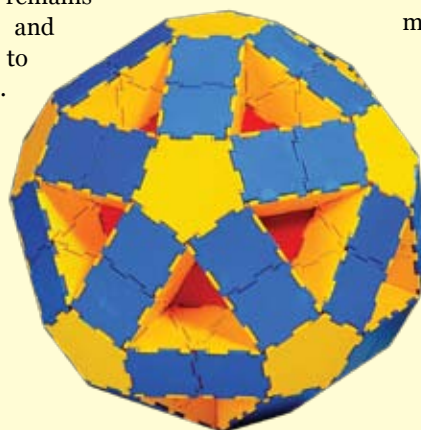
seems to convey a message that insurance is a preserve of the middle class. Ironically, the low income earners are the ones most in need of an insurance cover.

The lack of consumer awareness in the intended market segment has led to poor uptake of the exciting new micro-insurance products offered by the industry. This in turn leaves a huge portion of the population untapped by insurance. If the industry is to increase its penetration beyond the current 3%, the lower-income classes have to be roped in and consumer awareness is crucial to that.

As for the actuarial profession, we cannot overestimate the importance of models and calculations to actuarial work. Nevertheless, we need to underscore that the models are a representation of the real life problems we encounter. For it is the real life problems that inform what model to use and not the other way round. The models simply simplify the problem at hand and offer a solution to it.

Risk is a universal phenomenon and is not restricted to high end users of the information. In this regard, actuarial techniques can be applied in nearly all aspects of life. For instance: an entrepreneur can pick a loan repayment schedule that suits his requirements; or an employer can come up with an employee benefit scheme to motivate his workers; or an exporter can apply probability theorem with regards to exchange rate risks; all with the aid of actuarial concepts. Suffice to say the skills can be cast far and wide.

It is the simplicity of its applications that should inform society's view of Actuarial Science and not the complexity of its models. If we bear this in mind, we will finally be able to seize the full range of opportunities offered by the discipline.



Tête à tête



Since its inception in 2003, the Bsc Actuarial Science program has no doubt seen its fair share of smart people. It draws its membership from a certain pedigree. Some of the graduates of the program have gone on to become actuaries, excelling in the field and becoming trailblazers in the Kenyan industry. A lot more are on their way there, being midway through the journey of becoming fully qualified actuaries. There are, however, those who changed course midway; those who found that there were other paths whose call was irresistible. It seems that in this world, every person's siren call is to to them alone. Where the, are these people? What are they doing today? We examine the paths taken by three former N'ASA members.

Entrepreneurship (Wangu Wachira)

What do you do?

I am the Chief Executive Officer of UnlimitedProfitOpportunities, UPO. UPO offers business consultancy for small and medium enterprises. We analyse their financial statements and advise them about how they can improve their strategies and how they can eliminate operational inefficiencies for better profits.



What prompted you to start UPO?

UPO developed from the audit firm Wachira and Irungu Associates. From there, it was discovered that most of the small and medium enterprises that were being audited were not growing very much over the years. We decided to start UPO to help them grow.

Over the past one year, we've worked with companies in industries as far apart as horticulture, security, auto mechanics, healthcare and communications. We have seen the difference that the analysis makes; we have watched them become more efficient and more profitable.

What path did your career take until you ended up at UPO?

I started out as an intern at RBA. Eventually I got a management traineeship there. I worked for RBA in different departments from 2006 to 2012.

What is your educational background?

Other than my Bsc Actuarial Science degree, I did an MBA in 2010 at Eden Business School in France on a scholarship. I knew that I wanted to run my own business at some point so I valued the broader perspective than an MBA gives.

How important is it to work prior to starting your own business?

Working in formal employment teaches you important skills that are vital to anyone starting their own business. It teaches you how to delegate and how to be accountable. It teaches you how to have effective structures and systems.

Having been the N'ASA chair, would you say student leadership is important?

Definitely; student leadership tests you before the market does. It gives you an edge because you learn to communicate and to work with a team.

What would you say is your lifelong professional ambition?

I would like to go back to school and teach.

IT (Horace Abenga)

What do you do?

I work at Actuarial Services (EA) Limited (ACTSERVE). I do a lot of software development work. I'm involved in IT admin work, application development and database administration. Sometimes we need to analyze large data sets that cannot be handled by normal spreadsheet programs. In such cases, we write special scripts that analyze the data and yield more tractable summaries that are then handled by spreadsheets.

Do you have any formal programming training?

No, I don't have any particular formal training in programming. It's a field you can learn by tinkering and maybe reading a couple of books.

Have you done any actuarial professional papers?

No...not yet.

Financial Analysis (Gregory Martin Waweru)

What do you do?

I am a financial analyst with the SBG (Standard Bank Group) securities. I basically deal with research coverage, mostly in equity. I go to a company and get to know what it is about, analyse its financial statements and advise investors accordingly. That is called primary research. I also deal with macroeconomic research where I basically analyse the macroeconomic environment for foreign investors who are looking to invest locally.



What are the most important tools in your job?

You need to be a very good communicator, because you are competing with other research providers for the opportunity to influence investors' decisions. You also need to be someone who understands the business environment very well. Investors are increasingly sophisticated, especially after the credit crisis, so you need to be on your toes when it comes to business awareness.

What trajectory has your career path followed so far?

I was an intern at Alexander Forbes Financial Services, after which I moved to Actuarial Services (EA) Limited (ACTSERVE). I then moved to Kestrel Capital, after which I moved to Standard Bank Group. It was at Kestrel that I first moved towards financial analysis and I realized that this was what I wanted to do.

What is your educational background?

Other than my degree, I've done a couple of CTs, but I realized that I didn't really want to go into the Actuarial field. I am currently pursuing the CFA qualification.

Were you an official in N'ASA?

Yes. I was in charge of corporate affairs in the 2006-2007 year.

So, would you say your experience in student leadership has been beneficial to you?

Yes. The time spent in leadership definitely pays off. You learn how to communicate in the corporate world and the interaction you have and the connections made are priceless.

What is your biggest professional dream?

I want to be in a position of influence in the investment field. I want to take part in the development of new investment products. I would like to own or co-own an investment bank or a private equity company. I would like to help small and medium enterprises move to the next level. Most SMEs fail to grow because the cost of capital is prohibitive. It is exciting to identify an idea and to help make it a big thing.

Are there opportunities in the finance and investment fields for Actuarial Science graduates?

There are many opportunities in finance and investment for Actuarial Science graduates. Very many of the people I work with or have worked with have an actuarial science background. The training the Actuarial Science course gives is very good and prepares one to be a thinker. Being able to think through complex concepts is one of the most important skills for an investment or finance professional.

THE VIABILITY OF A DERIVATIVES MARKET IN KENYA

Kuria Kamau, Kestrel Capital

Derivatives are securities that derive their value from other assets (the underlying assets).

Derivatives are used for a variety of purposes. First, they are used to hedge against risk. The primary function of derivatives was to allow farmers to lock in a price for the crop before the harvest in case prices changed by the time it got to the market.

Investors can therefore reduce/hedge their exposure to certain assets by taking short positions in the respective derivative.

Secondly, investors can gain exposure to certain underlying assets through derivatives. An investor who doesn't have any exposure to the underlying asset can gain exposure by buying or selling derivatives. Third, derivatives can help increase leverage by taking long positions in derivatives and underlying assets concurrently. This increase in exposure to the underlying asset at relatively low costs increases the investor's leverage. Finally, like all securities that may be mispriced by the market, investors may speculate to try and generate abnormal gains.

There are various types of derivatives. They may include options, futures, swaps, forwards etc. Options give investors who pay a premium the right but not the obligation to buy or sell an underlying asset at a prespecified price. For futures and forward contracts, investors are obliged to buy or sell i.e they must buy or sell at the prespecified price. Swaps, on the other hand, involve the exchange of cash flows from the underlying assets. Derivatives may be classified into two major groups: exchange traded and over-the-counter. Exchange traded derivatives are standardized derivatives that can be bought and sold on an exchange while over-the-counter derivatives are customized derivatives that are between two parties that cannot be traded.

Over-the-counter

These are customizable derivatives that are created and exchanged between two parties. As a result, their prices are not determined by the market and they suffer from significant counterparty risk. Counterparty risk is the risk that the other party in the trade will not be able to meet their obligation when it is due.



Viability of Derivative over-the-counter markets

A method of knowing whether there are over-the-counter derivative products is by seeing if there are companies in Kenya that use derivatives despite the fact that there isn't any derivatives market. From their annual reports, we note

that some multinational companies that operate in Kenya have positions

in foreign exchange derivatives that allow them to buy and sell foreign currency for their operations. Kenya Airways uses derivative products to hedge its fuel prices. Some Kenyan companies that have foreign denominated debt use currency swaps to make loan repayments

Consequently, it's safe to say that there is already an over-the-counter market for derivatives in Kenya. Most of the times, these companies use banks as counterparties for financial derivatives and international derivatives dealers (e.g. investment banks) for non-financial derivatives.

Exchange Traded

The most common derivatives traded on exchanges are options and futures.

The exchange takes place via the clearinghouse which acts as the counterparty for all futures transactions. This means that for any position an investor takes in a futures contract, the clearinghouse will take the opposite side thus reducing/eliminating counterparty risk.

Most futures and options markets around the world were formed by farmers and traders who would lock in a price for their produce before they even harvested.

Viability of Derivative Exchanges in Kenya

1. Demand and Supply for the Underlying assets

Increased demand and supply of the underlying assets will directly lead to increased demand and supply of derivatives. Therefore, regions with companies that do a lot of spot trading in commodities are likely to demand for futures to hedge against operation risk.

As East Africa's manufacturing hub, Kenya requires various commodities to drive industrial growth. Companies operating in key industries will require more inputs to drive demand. Kenya is a major producer of various agricultural produce and could be on its way to become a producer of hard commodities such as oil, titanium and coal. Trading in these commodities could drive the creation of a futures market.

2. Clearinghouse and Systems

As the counterparty to all transactions that occur in the futures market, the clearinghouse has to be very well capitalized. The systems and personnel involved with the clearinghouse also have to be very well managed to avoid all the various risks.

If Kenya can generate enough interest in terms of demand and supply for the products, it will attract the requisite skills and capital for the formation of the clearinghouse.

3. Education

While derivatives have a lot of benefits to their users, they may be difficult to understand. Also, they could lead to a significant rise in leverage that may be harmful to investors. Consequently, investors may shy away from using them. In order to prevent this from happening, investors should be educated in the effective use of derivatives.

Investors in a Kenyan derivative market must be prepared to invest in investor educations in order to promote the effective use of derivatives.

Conclusion

While there is a knowledge gap that suggests that a derivatives exchange will not do well initially, the expression of "which came first; the chicken or the egg?" can be used. Instead of going out to see if it will be viable to set up a derivatives market, one could set up the market and then generate the interest by educating the public. Following the formation of a derivatives exchange, we could see the requisite skills, demand and capital come in to support an already functioning market. This argument is strengthened by the fact that we already know that there is demand for the underlying assets.

SIMPLY MONEY MATTERS

By Kaburu K. Kinoti

Love of it may be the root of all evil. It wins wars, actualizes revolutions and it has made and broken its fair share of individuals. Simply put, MONEY MATTERS.

Just like the Medici in medieval Italy, what most of us think about more often than not is how to apply our knowledge of mathematics and statistics to make money- to be the next Ken Griffin or George Soros if you may. We wish to form our own funds rather than just manage them; own the next Bridgewater rather than simply work for them, but is it all a pipe dream, especially here in Kenya?



Of late there's been a lot of speculation about the establishment of a derivatives market and why not? We pride ourselves in being the economic hub of East and Central Africa. The Nairobi Securities Exchange is also one of the oldest in Africa established in 1954, with only The Egyptian Exchange (1883), The Johannesburg Stock Exchange (1887) and The

Casablanca Stock Exchange (1929) being older. But is our market really ready for the liquidity and volumes that come along with such advancements? Can the CMA as the market regulator reign in on traders and fund managers? And do we have the legal and political backing we need?



Being in the Tropics, weather derivatives are likely to be one of the first derivatives to go on offer as most of our products are weather sensitive. Take the soft drinks business in Kenya for instance with the key players Coca-Cola and its wide range of brands, EABL (Novida), and the recently re-launched Pepsi. Since we all can't own stakes in these brands, I am pretty sure we would love to make money out of their performances as their sales are highly dependent on weather. They would also give a huge boost to Kenya's meteorological department.

Commodity derivatives, especially on cereals would also be highly received and maybe help regulate the perennial shortages we experience (though on the flipside they would probably result in hoarding). And who knows, with our recent discovery of oil and natural gas energy derivatives are on the table too. The resultant speculation from trade in derivatives would also serve to greatly increase the competitiveness of our securities and the market as a whole, not forgetting the primary objective of managing risk. Options would give investors the chance to control their future undertakings by having a back-up, that is, one can choose an interest rate that best serves their financing needs. Picture having a choice on the rate of interest to get a mortgage for at a future date in these times of spiraling rates. Banks could hedge their returns against inflationary pressures like those we experienced in 2012. Forwards and futures would be a godsend especially to the import and export business, sort of modern alchemy, transforming uncertainty and risk to certainty.

Let's face the facts though: Kenya is not a free and unfettered market. Derivatives betting on stock trades would also require high volumes of trade with fast and up-to-date information on trades. However, online trading is yet to be implemented which would enable instant and fast trading to take advantage of any slight opportunity arising. Stocks in the market also rarely change much in daily trading with rare unexpected changes to trends.

I also believe that successful hedging would require a large market capitalization which we don't have in comparison to world market levels. One entering into derivatives trade would wish to be the next Ray Dalio (manages Bridgewater associates with the largest asset base for hedge funds) and this would require bets on a wide range of securities for even in music the higher tones are finer.

However, with current developments like FTSE launching an index on the NSE things could be changing up. Of late, Kenya's star seems to be shining bright. As per the Ernst & Young Africa Attractiveness survey 2012 Kenya receives 4.0% foreign direct investment. It's classified as a low-risk, high opportunity and high reward market with ranking of No. 12 in ease of doing business in Africa (109 overall) and No. 11 in the competitiveness index (102 overall). These all serve to show that Kenya is a strong bet to take. We may have our shortcomings but we just don't stop driving cars because of the occasional accident.

In the end, the wheel turns and we must turn with it, so maybe the earlier we joined the fray the better. And where's a better way for those with a knack for investments to cast their names in stone? In the history of money, it always seems to serve those who bring something fresh to the table. Take the Medici who brought banking; the Rothschild and their bets on bonds; John Law who was probably responsible for the first boom and bust; John Davison Rockefeller for recognizing the true power of a monopoly (standard oil); or all the real estate moguls and the current crop of fund and tech managers. And since the ingenuity of man knows no bounds, let's take a bet on ourselves. Better to play the game and walk away with the loot. After all: Bulls make money; bears make money; pigs get slaughtered.

HIGH BANKING PROFITS IN KENYA

Are they sustainable?

By Victor Tollo

The financial markets in Kenya have witnessed an unprecedented growth in the banking sector in the last few years as mirrored in the waxing profits and their widespread expansion plans in the East African region. In effect, the major shareholders of these banks have earned millions of shillings in dividends that have inspired other investors at the Nairobi Securities Exchange to rush to hold bank stocks. As a result, there has been an impressive price growth of respective shares with massive capital gains adding to the net worth of these shareholders, particularly for Equity Bank and KCB.

Since early 2000, the banks' profits have increased tenfold to a total of KES 89.5bn for the industry from a paltry KES 8.95bn in 2001. For the year ended 2012, the most profitable Kenyan banks were Equity, KCB, Barclays, Standard Chartered and Co-operative Bank, with Equity leading the pack with record profits of KES 17.4bn. A stellar performance indeed!

The latest figures represent a rise in profits of up to 60 percent in some cases despite the escalating interest rates, currency volatility and inflation. Most of the profits emanated from growth in the loans book and customer activity, a position that was reiterated by Richard Etemesi, the CEO of Stanchart Bank. Other analysts have pegged the growth to higher margins on interest rates as banks distribute little interest returns to depositors compared to the massive gains from the same cash.

As the profit party continues, we must speculate on the sustainability of this growth in the long run.

In my opinion, we shall soon witness a drop in the growth rate or stagnation in the banking sector in the wake of decreased inflation and lending rates. For starters, although the just concluded general election was quite peaceful, there is still the small matter of history – Kenya's GDP falling to less than 3 percent in any election year

for
the
last 3

decades.

In addition, the previous growth rate experienced in the banking sector was

fueled by an increased penetration of banking business to the previously unbanked - boosted by agency banking, pioneered by Equity. This expansion is increasingly expensive at a time when the penetration level is becoming saturated. Furthermore, the default on business and retail loans which is on the rise indicates that banks have to set up more reserves for these bad debts in a bid to protect the capital invested. After all, interest on loans and advances make up to 60 percent of bank profits in Kenya followed by fees or commissions and government securities at roughly 25 and 10 percent respectively.

This position has been highlighted by Citibank analysts, the research department of the American commercial bank. They opine that though banks may still witness growth in loan uptake and business volumes, falling interest rates will result in the interest margins declining as costs of mobilizing the deposits increase. The capital markets regulator also reported that the banking profits in Kenya may have been slightly overstated by under provision for bad debts and in effect even banned sell-buy-back, a form of bond trading. However, any bold predictions may prove controversial in the end. Take a case of early last year, when Kenyan banking industry recorded reduced profits in the first quarter followed by some profit warnings. Nonetheless, the year turned out to be their best so far.

There are, however, conflicting opinions from different experts and stakeholders in the same industry. On one hand, Bloomberg financial analysts have predicted another double digit growth in





2013 while Citibank analysts have predicted double digit decline. Bloomberg are of the opinion that the falling interest rates will mean even higher lending and potential rise in profits by up to 17 percent.

An email conversation with Kenya Bankers Association indicated that there will still be growth this year even at a reduced rate. However, loss provisions will have to be increased to reflect the true profits. In essence, no opinion is ultimate and the growth in profits or business will certainly boil down to investment situations and specific decisions by each bank. As the renowned financial analyst, Aly Khan Satchu put it, though banks are posting impressive results, there is little common source as every banking institution has different configuration and profile. Nevertheless, we are better off optimistic as the banking sector is still poised to be one of the best performers in both the economy and the financial markets.



*James Were
in full flight*



PERSONAL FINANCE:

Odds and Ends

By Ng'ang'a Matiri

Stock MARKETS:

When is the right time to sell?

The hardest bit about owning an asset is deciding when to cash in on it.

Whether it be a piece of real estate or a financial instrument, the primary reason for purchase is always the capital gain occasioned by its sale. Yet most investment advisors seem to overlook this half of the trading process, choosing instead to focus almost entirely on offering advice regarding which stocks to buy and how to create the optimum portfolio.

Therefore, for a first time investor, the whole business of share trading can be quite daunting- what with the random price fluctuations, limited information on companies' performance et al. But it is still possible for you to make prudent investment decisions without literally crossing your fingers and hoping for the best. Actually, past windfalls in the Capital Markets have had less to do with serendipity and much more to do with shrewd judgment of the market.

So when is the right time to sell?

Ultimately, as far as selling shares is concerned, the Rule of

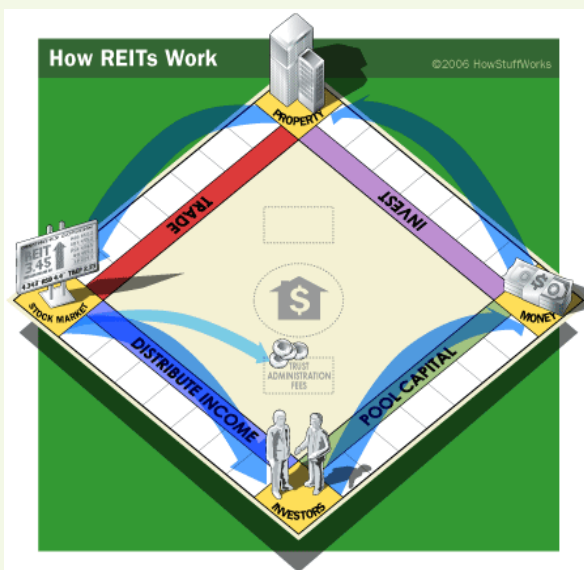
Thumb is not to base your decision on the prevailing market prices but rather on the prospects of the company's underlying business.

Put simply, as long as the fundamentals are right- that is, there exists sound corporate governance, prudent use of capital and the company retains a reasonable competitive edge- any fall in share price is temporary and an astute investor should be looking to buy more of these shares when their prices are depressed rather than sell in a bid to cut losses.

When prices are up, a need to diversify, thus reducing your risk of exposure to holding only one company's shares is a strong case for you to sell. The other potential motivator would be if the shares are fully valued such that it is unlikely their price will appreciate any further in the foreseeable future.

Of course, rather than rely on personal discretion, you could opt to engage the services of an expert. Unit fund managers are particularly well versed in this area and once you purchase a unit, it is up to the managers to decide on the balance of shares in your portfolio and adjust the mix regularly to guarantee you maximum returns on your investment.

Remember though that the stock market is most appropriate for long term investors who are patient enough to wait for their money to grow: short term windfalls are often the exception rather than the norm. The market can also be quite turbulent and is most suited to the more intrepid in nature. So, if you have a panic attack every time your finances experience a blip, keep away from the rollercoaster!!



REITS:

Introducing the newest kid on the block

It is an open secret that Real Estate Development has been one of the most profitable business undertakings of the last decade. And, contrary to what you may think, the profits are not expected to wane any time soon. What with a bulging middle class and favorable demographics, housing units, especially those in the low and middle cost bracket, will remain the hottest item in town for the foreseeable future. Throw in the demand for office space elicited by the proliferation of new businesses and you can see why developers are smiling all the way to the bank.

Given the strong cultural bias towards property investments, you would expect a lot of new investors to have homed in on this financial goldmine by now but this has not been the case. The prohibitive cost of purchasing property caused partly by its unavailability and partly by the high cost of capital has left many would-be investors as mere spectators as the big boys in the trade dole out all the profits.

Until now, that is.

The country's Real Estate sector is about to experience a major shake-up with the introduction of Real Estate Investment

Trusts (or simply REITS) onto the scene. REITS are regulated investment vehicles that enable collective investment in Real Estate. They allow investors to pool their funds under the umbrella of the REIT and subsequently engage in various Real Estate projects.

They achieve this by breaking down Real Estate assets into small divisible units of, say, KES 100 each and these units can then be traded on the Nairobi Securities Exchange just like the more traditional financial instruments such as ordinary shares.

What this means is that savvy investors who opt for this investment avenue will have an opportunity to own part of the housing development projects that are transforming the City's landscape (fancy owning a share of Tatu City or Longonot Gate for instance) without necessarily breaking the bank. But it is more than just a matter of pride at stake. Unit holders also stand to gain from having a diversified portfolio and guaranteed future income streams in the way of dividend distributions as well. The dividends are guaranteed since REITS qualify for corporate tax exemption provided they distribute 80% of their income to unit holders- a far cry from the paltry sums received by ordinary shareholders!

On the part of developers, REITS come as a welcome reprieve as they finally offer a cheap viable alternative source of finance to mortgages which are highly prone to interest rate fluctuations. Unlike mortgages, developers will also only be required to distribute income to REITS when they do record profits. REITS also allow for more flexibility than an ordinary mortgage. In the long run, banks will have no choice but to revise their interest rates downwards or risk being overrun by the REITS.

The Capital Markets Authority is currently finalizing the REITS framework and is expected to gazette the new guidelines by the end of the month ahead of REITS listing on the NSE. Smart money would be on you buying the REITS as soon as they are floated as opposed to deferring purchase to a later date because unit holders will not be in any rush to offload their units making for a bullish run on the markets.

Any investor worth their salt knows a big opportunity when they see one and this is the big one. Forget about blue chips; as far as investment goes, a REIT is the Holy Grail for your portfolio. Don't be left out.

Old actuaries never die; they just lose some of their functions.

Mortgages:

beware the industry's pariah

At the height of the financial crisis experienced last year, amidst spiraling inflation and a rapidly depreciating shilling, the Central Bank finally opted in favor of exercising one of the weapons in its monetary policy arsenal when it raised its base lending rate to unprecedented highs of 16%. Other commercial banks followed suit much to the chagrin of an already financially-destitute public. In the ensuing furor, you would be forgiven for missing out on the particular plight faced by a select group of persons, the mortgage holders.

Mortgages have long been viewed as the ugly duckling when it comes to sourcing finance to construct a home with national records indicating only 20,000 active mortgage accounts in the country. This despite the crippling shortage of housing units highlighted by the incessant demand for rentals even when the rental charges are out of reach for most Kenyans.

The lofty mortgage rates offered by lenders dwarf the rental charges in comparison. For instance, for you to buy a house worth KES 6.6 million, you would have to part with monthly charges of KES 90,000 for the next 20 years! Considering most Kenyans earn between KES 20,000 to KES 120,000 a month, these mortgages are more than a bit overpriced.

To further derail the Government's efforts to promote mortgage uptake in the country, there has been a gradual shift by lenders towards variable rate mortgages to cushion themselves from the all-too-frequent interest rate spikes such as the one experienced last year. These Faustian pacts

therefore come with a clause allowing the lender to review the monthly charges upwards in case of any extraordinary interest rate fluctuations. For mortgage holders who are already financially overburdened by the existing charges, any further increases would likely result in default and, inevitably, foreclosure.



So what options are there for a prospective home-owner who wants to avoid the encumbrances of a mortgage? Quite a wide variety really. For example, the growth of the country's micro-finance sector means that you can easily access a short term home-buyer loan whose terms are often much more palatable than those of a mortgage. You would then employ a stop-start method of construction where you build the house in phases and service the loan during the intervening periods.

Or you could also choose the tried and tested option of borrowing from family and friends. In this regard, 'chamas' have acquired increased prominence in recent days due to their modest terms of lending and flexibility of payment. SACCOS also come in handy as they have more funds than the 'chamas' to advance to members and, though their interest terms are higher than those of 'chamas', they are still markedly less than those of larger financial institutions.

For investors wishing to put up a large housing project, the Sigona Valley success story is a prime example of sourcing finance from non-traditional areas. In this case, the entrepreneurs approached Shelter Afrique which readily provided them with KES 200 million capital at a reduced interest rate to fund the project.

Ultimately, when it comes to building a home, do not shy away from exploring the alternatives available on the market and picking the option that's best suited for your particular financial position. Do not be duped into going down the mortgage cul-de-sac because at the end of the day owning a home should be a rewarding experience- not one that ends in disillusion

Find words to fit the clues. Each group of crosses should be replaced with the same three letter word. What are the words?

X X X _ _ _ _ _	Tall building
_ _ X X X	Hoarse voice
_ _ _ X X X	Energetic and playful

There is a reason why Statistics forms a fundamental part of the Actuarial field and particularly its curriculum in many universities. As much as Statistics is a viable branch of science, the majority of modern actuarial theories were derived from the mathematical theories of statistical inference and probability. Statisticians and mathematicians alike focus on researching, developing and applying statistical or mathematical theories and techniques in science, social science, engineering and business. Actuaries also rely on application of mathematics, statistics, risk theories and probabilities in assessing economic situations that involve risk. In a way, the three disciplines are inseparable.

Before Actuarial Science became a fully fledged discipline, institutions of higher learning offered Actuarial Statistics. The main subject matter of Actuarial Statistics was the various kinds of risk that could be dealt with pertaining to social security systems and most importantly insurance. How statistically they could be assessed, quantitatively defined and controlled within insurance arrangements.

Indeed, the development of the modern actuarial discipline emerged from demand within insurance circles. Yet, it is the same insurance companies which could have contributed to slow emergence of the actuarial discipline from statistical and mathematical disciplines. Possibly because for long, life and pension insurers in the pioneer countries like Britain were only required by statutes to employ insurance mathematicians. Unlike other industries relying on professional know-how which invested heavily in research infrastructures, insurance companies have been reluctant in investing in welfare societies for the industry. Also, the regulatory bodies have for long only been concerned with

solvency of the companies in a bid to protect the investor and the insured.

The situation is mirrored in Kenya. Only recently have legislations specifically mandated insurance companies to involve actuaries and other professionals in their business practices. Amid complaints of high cost of employing actuaries

and scarcity of qualified individuals, big insurance entities in the country, notably Insurance Regulatory Authority and Jubilee Insurance have initiated scholarship opportunities, mostly to British institutions of higher learning.

With time, the significance of actuarial treatment of risk has been recognized and many institutions of finance worldwide are recognizing the need to work with professionals with high and diversified competence. And the often rigorous actuarial and statistical training provides them with these skills. This explains why the number of statisticians and actuaries both in the field and also enrolling at the universities and professional organizations that offer training has registered a significant increase. The picture is clearer in countries like Britain, United States and Republic of South Africa where detailed assessment of the profession's trends is available.

Even though a number of actuaries, statisticians and mathematicians work in specific fields, their scope of operation

has not been limited and they have ended up in a wide range of industries. In the said countries, up to 26 percent worked in actuarial consultancies, 28 percent in public administration, 33 percent in professional, scientific and technical services and almost 20 percent in purely insurance services. As Kenya adopts the British system and seeks to form its own actuarial body in the future, I envision a similar trend being witnessed.

OFFSHOOT: From Statistics to Actuarial Science

By Victor Tollo



DEMYSTIFYING PENSION FUNDS IN KENYA

By Dennis Mutugi

A pension fund is a special arrangement by the government and some private organizations which aims at pooling retirement income. This contract pays a fixed or a continuous amount to the beneficiaries following a specified period of service. Planning for retirement is of great importance as it ensures that even after the salaried have retired from active service, they still continue earning a certain amount of money. The income streams from the retirement schemes enable the retired to support themselves and their dependents in old age.

In Kenya, the Retirement Benefits Authority (RBA) is entrusted with the role of regulating all the schemes established by the public and private companies. It develops various insurance products aimed at enhancing the pooling of funds. The RBA also safeguards all the pooled resources under the retirement schemes. The contributions are then invested in various portfolios to provide the insurance companies with some returns. These are then periodically channeled into the accounts of the beneficiaries in form of benefits.

The RBA has established different classes of the pension fund pools. These are mainly run by the fund managers and the special fund directors elected by the RBA. The firms under these special schemes have to provide the RBA with the annual reports at the end of each accounting period. The reports form a basis of evaluating the growth of the firms and the growth of the asset pool before further investments are made. Once the schemes have been established, the employers enjoy a number of benefits. It aids the employer in recruitment and retention of cutting edge in human resources. Since the asset pool offers a way of providing the employees with retirement benefits, they end up being motivated. The provision of a stream of income after retirement ensures that the retirees continue enjoying the fruit of their labor in old age.

The National Social Security Fund (NSSF) is a friendly service organization which exists for the public good. The core objective of the NSSF is to offer social security to the Kenyan people. Social security offers services to all the workers both in the formal and the informal sector. It registers members, receive their contributions, manage funds of the scheme and process the contributions. It also goes ahead to pay out benefits to eligible members or in some cases the dependents.

The National Hospital Insurance Fund (NHIF) forms the core of sound health services offered to the salaried and the unsalaried population in Kenya. The monthly contributions are paid into the beneficiary's account and then accumulated over a specified

period of time. With the main aim of providing a world class social health insurance scheme, the program has expanded over time to provide accessible, affordable and sustainable social health insurance.

The retirement benefits industry assets pool has been growing over the years. It has increased by 20.7 percent in the first half of 2012 rising from Kshs.432.8 billion reported in December 2011 to Kshs.522.6 billion as at June 30, 2012. The amount was composed of Kshs. 381.6 billion that was held by the 16 registered fund managers, Kshs.110.9 billion held by National Social Security Fund(NSSF) and an additional Kshs.30.0 billion of property investments held by schemes but not under the control of the fund managers.

These schemes have continued to invest heavily in traditional investments with government securities and quoted equities constituting the largest share of the industry assets with Kshs.184.1 and Kshs.128.3 billion invested in each of the asset classes respectively. Another asset class with a considerable percentage investment was immovable property which accounted for Kshs.94.8 billion of the total assets under management. The Guaranteed Fund category was the only asset category to experience a decline, falling to Kshs.45.9 billion in June 2012 compared to Kshs.48.0 billion recorded in December 2011.

The retirement schemes have their own share of challenges. For instance, the accounting systems within the scheme are very complicated since they are developed by the insurance professionals. The dynamics of these systems are very complicated for the ordinary Kenyans to understand. This means that the public rarely undertake the process of verifying the insurance accounts after the filling of the accounting documents. The verification and validation process before they receive their benefits therefore becomes even more complicated.

The general growth in pension schemes in recent years can be attributed to increased public awareness of RBA. The body has been carrying out public awareness for quite some time. The schemes have also slowly solidified the principle of interdependency. The rich should support the poor, the healthy support the sick and the young offer support to the old. This makes for a much more inclusive system.



A CUT ABOVE THE REST

A tale of one year at the helm of N'ASA



Anyone who tells you that serving in the N'ASA committee is an easy task is just about as truthful as the kid whose homework – or recently, laptop – the dog ate. Having said that, if I was to be given a second term as Chairperson of this prestigious association, I would take it without thinking twice. After the past dozen of months at the helm, the tenacity, resilience and commitment of each and everyone has no doubt been tested and improved.

Serving as chairperson of N'ASA over the past year was both a humbling and a learning experience. Despite the countless hurdles we had to overcome as a committee, nothing compares to the thrill that came with seeing efforts invested in events come to fruition. That is what kept me and the rest of the committee laboring tirelessly towards the next objective.

Taking over from one of the best committees we have had in our twelve years of existence was never going to be easy. The bar had been set very high by our predecessors. This only meant that keeping it there, let alone raising it, was going to be no mean feat. But as we bow out of office, there's not one thing I wish we'd done differently.

The success N'ASA has enjoyed over the past year speaks for itself. With the unforgettable trips to Mtwapa, Mt. Long'onot and Naivasha, insightful professional talks, Crazy Olympics, charity visit to Tunza Children's Home and finally dinner at the Tribe, it is safe to say we have done our part. All this wouldn't have been possible without the contribution of each and every member. I take this chance to thank all of you for your zeal and passion for N'ASA. My special gratitude to model members Ashley Mghanga and Maxwell Muturi: I'd need another page to underline your contribution this year.

Despite the innumerable successful events that we managed to plan and execute, nothing gave me greater joy than the first year class. The compelling orientation campaign we ran at the outset

notwithstanding, the response caught all of us by surprise. Their commanding presence at all our events this year, a feat unseen in the past, convinced me that N'ASA has finally become a cohesive association where no one member feels incongruent.

It is impossible to forget all our partners and sponsors that have literally personalized N'ASA's affairs. The warm welcome we always received at your offices is testament to the concern about our perpetuity. As a committee we also thank the school's administration for their support, especially the office of school of mathematics' director – Dr. Were. As for our patron, Prof. Weke, may you be blessed for always having your door open to us. To the incoming N'ASA leadership, this is a chance not only to learn but also serve the rest of the student actuaries. Make the most of it and ensure you don't emerge at the other end of the tunnel the same person. With a name like no other now bequeathed to you, you definitely have your work cut out.

EUGENE AWORI,
Chairperson 2012/13



Dinner at Ole Sereni



The Year that was.....

It has been an absolutely awesome year for N'ASA, totally action packed in every sense... from the informative academic talks to scaling the heights of Mt. Longonot; from crayfish camping to the sports day thrills; not forgetting the Tunza charity event.....

What can I say? It has been fun organizing the events, overcoming the numerous logistical challenges, working with the totally awesome people behind the N'ASA success in the 2012-2013 year..... special mention to the officials who have worked tirelessly to bring the body to what it is: Eugene, Kevo, Sarah, Anami, Patience, Sylvia, Brian, Olive, Ted, Edwin, Ephantus....

Cheers guys!! To all N'ASA members, thank you, profoundly, for the support and the fun all of you brought to our events.... Here's a collection of the best pics from what has been a truly remarkable year....



N'ASA Sports Day

Crayfish Camp Naivasha





Longonot Team Building Event



2013 N'ASA Committee



**Tunza
Children's
Home**



Class of 2014



Max Ehrmann~ The Desiderata. What is perhaps one of the most famous poems, sort of a blueprint for virtuous living....."speak your truth quietly and clearly; and listen to the dull and the ignorant; they too have their story...." That line literally came to life during the annual N'ASA December charity event, for the Tunza trip in mid-December was all that, and then some.....

That little baby miraculously saved from a dumpsite, barely a day old.....to three little brothers, orphans from the streets, saved from the savages of the slums, given a new lease of life, hope, the home they never knew.....to the older generation, some in high school, upper primary, listening to their stories... those of hardship, pain, immense suffering; those kids who hitherto found the bare living necessities a rather posh commodity; those to whom family sounded alien, rejected at birth; to some, the grim reaper seeming to hold some sort of a twisted vendetta.....there was no shortage of stories to tell, no shortage of experiences that elevate some of our lives to fairytale status...guess still waters do run deep. To some of the kids, there was solitude in silence, though unable to conceal the mystery mirrored in their eyes, the portal into what lay beneath; to some, the memories water boarding them into the painful past....

The joy on arrival obliterated the struggle that we had gone through in piecing together the plans, for there was immense satisfaction in seeing the little smiles, the way the kids jumped in joy while showing everyone around, asking those innocent questions about life, and being a "grown up".....serving them lunch, the impromptu games with the kids, guess it had been a minute since some of us last did skipping ropes.....working with the cooks to prepare the evening meal for the kids, and my personal favorite, the totally awesome "mchongoano" session, some of those kids have total finesse at the art..... it was definitely worth every cent that went towards buying the foodstuff to donate, the clothes generously given, and for those of us who availed ourselves....it was a learning

THE TUNZA EXPERIENCE

By Max Muturi



experience. A toast to the spirit of giving, the satisfaction of knowing that scores had their holidays made brighter courtesy of that little gesture.....a toast to appreciating our position in life, for there will always be greater and lesser people....and most of all, a toast to Hope. Some of those kids have gone through stuff that would shatter grown men, yet their little hearts still held on to hope...hats off to Mama Tunza for making her mark in society, destiny will have every reason to beam at the scores of kids whose lives were changed courtesy of the heroic acts of a former housemaid- a modest lady who quit her job to save the young and in the process shaping the destinies of many a soul.....

At sunset we left, that inner glow awash with what we had seen, heard, experienced...guess I do speak for many when I say that there is joy in giving. There is a world beyond the math and, for me, charity constitutes a sizeable portion of it. It should for you too.

"You are a child of the universe, no less than the trees and the stars, you have a right to be here."



FREE FALL

by Carol Karanu

It was about sixty metres to the river. I should put it out there that I suffer from Acrophobia; which has on numerous occasions been described as an irrational fear of heights. I was refraining from staring down into the river because I knew that that would have been all it took to change my mind. I also suffer from motion sickness. Therefore, taking a 60-metre jump would have been challenging. I actually think the right word to describe this would be: torturous.

The security instructor, a young energetic man in a black overall, was strapping my ankles together as well as giving me safety instructions. At this point in time, all I could hear was my heart beat drowning what seemed to me like a rehearsed speech. My whole body had frozen up. However, at the back of my mind I knew that I would have to make the jump just to save face in the eyes of my peers who were loudly cheering me on.

After saying a short prayer to the heavens asking for God to prepare a party awaiting my arrival, I leapt out as far as possible. After all, I would prefer that people remember me as a daredevil rather than a coward. I fell so fast!! Next thing I knew, I was being yanked back up and falling back down again. This continued for what seemed like an eternity. My head felt as if it was twice its size due to all the blood rushing to it. I felt somewhat nauseous. This whole time, as I oscillated in a rather uncomfortable position, I never once opened my eyes.

The actual jump was not as satisfying as the feeling I got after I was back on the ground. It was a sense of pride in the

fact that I had faced my worst fear and emerged victorious. The unpleasant feeling had passed by quite quickly and I had started enjoying the oscillation. Don't get me wrong, my motion sickness and fear of heights did not automatically end at that point. However, I believe I could overcome it if I were to bungee jump a few more times.

To the final year students, I would like to applaud those who decide to pursue the Fellowship status. Much like bungee jumping, it requires determination and courage. There are also those who are not particularly sure on what life entails after completion of the undergraduate course. The uncertainty of what to expect in the corporate world could be overwhelming. Decisions have to be made on when and where to apply for jobs, whether to further their education immediately on leaving school; whether to undertake C.F.A., F.R.M, et cetera.

I would like to encourage the graduating class of 2013 by stating that there are enough opportunities out there for each one of them. Take a step back to decide which way to go. Once that is set, take a giant leap. Things will turn out just fine. Congratulations on the far that you have come. I wish you the best moving forward.

Mixing Water and Oil:

Actuaries & Music

Oil and water do not mix- the mantra is familiar to every school child. A futile act, many will say. This has however been proven possible by a professor-Pashley, University of Bristol in England, creating a whole new world of ideas in the field of chemistry.

So, can oil and water really mix in perfect harmony?

While Actuarial Science uses mathematical models to solve financial problems, Music is considered lighter and combines different aspects of rhythm, texture, harmony and tonal variation to create sounds pleasing to the ear.

Despite their evident differences, the two are constantly being mixed. We see them arising more and more, purely refined in both areas.

By day they are student actuaries/actuaries and by night they're musicians offering their talents to communities, travelling shows and theatre.

Musical endeavours have increasingly gained popularity among actuaries. An article asking actuaries for their musical stories ('Music and Actuaries', The Actuary, Sept 1999) brought more than 50 responses from SOA members.

Many actuaries have found that interest in music eases the pressure of studying for actuarial exams. Funny enough, some musicians found Actuarial Science as a let off after practising hours and hours for gigs and music exams. A perfect mix; a perfect union; perfectly complementing each other.

David Holland, 1996-1997 SOA President, found Bach's music to be an actual study aid. "The great organ fugues helped me organize and study exam material", recalls Holland. After finishing exams, he joined Emory University's collegium Musicum, which performed one of Bach's "Passions". "The music world is better off now that I'm just listening," he jokes.

Mary Olive Mungai, formerly at NHIF, and a recent graduate, has sung for Nairobi Musical Society Choir, performed several

concerts at the Kenya Conservatoire of Music and is a gifted actor/singer doing opera shows and musical plays.

"I used to do music in the evening and weekends but whenever I had exams or projects, all my time went to books," says the jovial Mary Olive. After graduating and working briefly at NHIF, she enrolled at Kenya Conservatoire of Music where she does guitar and voice.

"I've always loved music but I loved the challenge Actuarial gave me," she adds. She, however, recently decided to go all music as she felt it gave her more happiness and it was her passion. "After months of thinking and consulting my mentors, I left and pursued music full time. It's not easy but I'm happy." She concludes.



Actuaries' musical interests have a wide span.

John King'ang'i, a student actuary in his third year and a pianist has always had a thing for music. "I remember doing my first gigs as a campus freshman at the Fairview Hotel. This helped me get away from the world of mathematics I was being introduced to." He says jokingly. He has played with the Kenya Conservatoire of Music Orchestra and is a member of the National Youth Orchestra. "Playing piano is like oxygen and Actuarial Science is more like food," he says in deep thought. "I find playing the piano mentally rejuvenating between hours of assignments and projects. It is my first love and I will definitely do it professionally after school," the jazz enthusiast finishes.

Pearl Kwamboka, KPMG, a recent graduate began singing in her second semester of sophomore year by joining SALT worship team. "There began my tug-of-war, or should I call it love affair, with music and Actuarial." She says. Pearl who has been part of several successful concerts at Mamlaka Hill Chapel says that commitment is required to strike the balance between singing well and calculating zillmerised reserves. "In as much as we are endowed with talent that may be unrelated to our field of study, we must learn to nurture both as they will open future opportunities.

Discipline and Commitment is the key." The first class honours graduate finishes.

Mercy Katanu Mule, another recent graduate and sensational singer with 7 years professional experience shares the same thoughts.

"Doing music and Actuarial Science was easy for me as my school timetable was very flexible," she says. "It was also the perfect release after hours of assignments and projects," the spirited Mercy adds.

Mercy has sung with SALT worship team, Mamlaka worship team, Grace Unplugged with which she did a recording after graduating. The jovial Mercy also came together with a group of friends to form Exalted Band, a gospel band, which she now works with.

"Music has taken me places: Nigeria, Burundi and I know Actuarial Science will take me further." Mercy is also the founder of an annual worship project, Standing Unashamed that brings together students from all campuses countrywide.

The talented Mercy expresses deep gratitude to God for blessing her with the gifts.

Clearly, it is time teachers rewrite the lesson on mixing water and oil.

Editorial Team 2013



What the world needs is more geniuses with humility, there are so few of us left.'

~ Oscar Levant

THE PARTING SHOT

by Keldine Malit

Giving advice is one of the hardest things one can be asked to do. If it's based on your past mistakes, chances are it will be difficult to convince people how it's possible not to make those mistakes and if anything, they'll mostly wonder, "You had all the fun, so why can't they?". If you simply give free abstract advice chances are high that they've heard it somewhere before and recapping it will have little or no effect. You have a higher chance of reaching out if you actually preach what you have been seen to practise. This is what you have felt and undergone and what others have seen and so can comprehend.

So I was approached a week ago with the news that I was voted the most active N'ASA member (I blame that trip to Longonot for that) and it didn't come as a shock that what followed was a request to write a piece for the N'ASA magazine on my experiences with the club. Now, this would probably take a whole novel and I think it will be smarter (read: of more financial gain) for me to leave the details for a biography, if I ever get to write one. But since we have more or less agreed that experience is the best way to pass on advice, I will summarize mine in three.

The greatest lesson for me has been passion. You will agree with me that a great deal of valuable time is wasted on things that one has no interest in, be it in school work or in your personal endeavours. It's saddening that it has become a common experience that most people nowadays lack passion. This I blame on the fact that we never give our minds enough time to be bored! Puzzled? Think about it this way, boredom is not guaranteed to bring out the creativity in you; but it helps! If you are entertained all the time: music, movies, gossip, chit chat or mobile phones, your mind will never require finding something to do. So my first piece of advice, "sit bored", let your mind show you what creativity you have within you. Trust me, it will definitely make you try out something you have never tried in your life and that just might be the thing you are good at.

I'm certain you have at some point in time come across the 2 rules of the 'African Dictator'; Rule 1: the chief is always right. Rule 2: If in the odd occasion that the chief is wrong, please refer to rule 1. Not to over emphasize but as for my second piece of advice, refer to advice number 1. This is a route guaranteed of adventure and that is where I gained most of my life's lessons.

Onto the third and final one: do not only accept but also embrace and positively exploit diversity. As Einstein put it, "Everybody is a genius". But if you judge a fish by its ability to climb a tree, it will live its whole life believing that it is stupid.

I therefore urge you to help and support your friends. This stems from the fact that not all of you will be gifted actuaries. Amongst us exists comedians, politicians, grafters (for them that enjoy the program 'Hustle'), business persons, marketers but no sports persons. The common denominator is that we are all gifted with intelligence and so would be able to thrive easily in whatever field we are passionate about. Simply put, if you are not interested, a great contribution will be not to be a hindrance to others.

This is what I wanted to leave you with. I hope you've been able to grasp it. So enjoy your college life. As a parting shot, I sincerely say that I could never have asked for a better bunch of 'uni' mates. To the class of 2013, you guys have given me the strength and courage to face life's challenges. I'm not going to forget any of you guys in a hurry. So keep rocking and all the best.

Cheers guys!



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