

FINAFRIQUE RESEARCH

ASSET-LIABILITY MANAGEMENT

A TOOL TO BOOST THE INSURANCE SECTOR IN SUB-SAHARAN AFRICA

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SUMMARY

THE INSURANCE MARKET, AN UNDEREXPLOITED NICHE

- The necessary protection of own funds
- ALM as a growth engine and strategic tool
- A regulatory framework in full transformation
- Toward a necessary transformation of business models

REFERENCES

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THE INSURANCE MARKET, AN UNDEREXPLOITED NICHE

Life insurance products allow economic agents to transfer the risks they are subject to, on an individual basis, to a pool of insured individuals, in order to limit the financial consequences of uncertainties related to human life.

In the so-called developed countries, life insurance, particularly through savings products, plays a major role in the financing of the real economy and the financial protection of policyholders. The captured premiums allow states and local companies to refinance themselves, thus ensuring an effective transfer of wealth between the savings of the insured and the financing needs of these economic actors on the one hand, and the redistribution of profits from companies to savers on other sides. This simple process has allowed life insurance to establish itself as an essential link in socio-economic development as a driver of endogenous growth.

Even tho the first life insurance companies on the African continent date back to the colonial period, they have not been able to establish a robust model sufficiently adapted to the African context. Even today, they are unable to fully support the evolution of society due to a product offering that is insufficiently inspired by local realities, and a lack of trust among the various agents in the chain (insurers, distributors, insured).

However, in the specific case of African societies, the life insurance market has considerable assets for its development. Indeed, households have a high savings capacity, local economies have a real need for financing, and societal transformations, particularly with the advent of digital technology, are bringing forth a class of consumers - the BoP (base of pyramid to be defined) - long forgotten in traditional business models. For the 4 most advanced countries in the CIMA zone, the data shows that GDP growth is accompanied by a favorable evolution of gross income per capita (in purchasing power parity).

RNB / hab (en \$ PPA)	2009	2010	2011	2012	2013	2014	Average annual growth
Ivory Coast	2 540	2 570	2 450	2 710	2 890	3 150	4%
Cameroon	2 460	2 490	2 580	2 670	2 780	2 940	4%
Senegal	2 060	2 110	2 130	2 180	2 220	2 270	2%
Gabon	13 630	13 950	14 670	15 440	15 970	16 730	4%
RNB / Hab en \$ PPA	20 690	21 120	21 830	23 000	23 860	25 090	4%

RNB / hab (en \$ PPA)	2009	2010	2011	2012	2013	2014	Croissance moyenne annuelle
Ivory Coast	3.3%	2.0%	-4.4%	10.7%	9.2%	9.0%	6%
Cameroon	1.9%	3.3%	4.1%	4.6%	5.6%	5.9%	5%
Senegal	2.4%	4.3%	2.1%	3.5%	3.5%	3.9%	4%
Gabon	-1.2%	7.4%	6.3%	6.5%	4.3%	4.3%	6%
RNB / Hab en \$ PPA	1.6%	4.2%	2.0%	6.3%	5.7%	5.8%	5%

Source : Données Banque Mondiale

Significant progress can be noted in recent years. The framework of the profession has significantly refined itself by equipping itself with bodies that help regulate the market's development. Indeed, whether from a regulatory standpoint with the increased presence of regulatory bodies like CIMA, or from a professional standpoint with organizations such as FANAF or national associations of insurance companies, we are witnessing a market cleansing that leaves no room for amateurism.

Faced with growing challenges and with the stated ambition of the African market to assert itself in this universe dominated by the major European and American markets, it is necessary to equip ourselves with efficient and modern tools without which any growth is precarious.

Asset-liability risk management (ALM) is an essential element in the development of an insurance company, particularly in life insurance. Beyond tools and models, it is a whole risk management process aimed at optimal resource utilization. For the African market, it is both a necessity and an opportunity that must be seized to build a sustainable and profitable economic model with peace of mind. ALM risk materializes thru a mismatch between all the commitments made by the company (liabilities) and the resources it has (assets) to honor them. In property and casualty insurance (Fire, Accidents, Various Risks, and Transportation) or in health insurance, contracts generally have a duration of one year and premiums are automatically renewed. Here, ALM risk materializes for contracts with potentially long realization periods (such as ten-year insurance, medical civil liability) or for risks generating long-term payments (such as a pension following an accident). In life insurance, long-term management is at the heart of the activity. The source of the risk can be related to differences in nature (short-term assets versus long-term liabilities, assets with lump-sum payments versus liabilities with regular payments...), in level between assets and liabilities, in volatility, etc. ALM management therefore aims to maintain the alignment between assets and liabilities in order to limit the impacts of an asset or liability shock on equity.

THE NECESSARY PROTECTION OF OWN FUNDS

The insurance industry is particularly sensitive to ALM risks due to the inversion of the production cycle. Indeed, unlike other goods, the price of an insurance policy is set before the insurer knows its cost price. The insurer sets the selling price of contracts (and related guaranties) based on the probability of the risk they cover materializing. The expected profitability for an insurer is therefore highly dependent on their assessment of the risk of the guaranty being realized. For example, the savings products marketed almost all guaranty a minimum annual revaluation rate. In the CIMA zone, this rate is capped at 3.5%, and the competition means that most companies contractually guaranty this maximum lifetime rate of 3.5%.

If in the past, the economic situation and the size of the outstanding amounts made contractual guaranties relatively easy to honor, the current context makes things a bit more delicate. Indeed, the decline in market performance, the evolution of the regulatory framework, particularly regarding revaluation allocation policies, shareholder pressure on margins, and the growth of outstanding amounts are all factors that necessitate a

modernization in companies' development strategy concerning future collections, as well as a real analysis and management of risks related to contracts in the portfolio. In life insurance in particular, the covered risk can have a relatively long realization period, hence the need to adopt a long-term vision for all operations. In the previous example, the company would be forced to draw from its own funds to honor guaranties at 3.5% in case of a decline in investment returns.

ALM HAS A GROWTH ENGINE AND STRATEGIC TOOL

If the companies in the CIMA zone are still not very receptive to the virtues of ALM tools for capital protection, they are however very inclined to explore solutions allowing them to increase their performance. It is common knowledge that insurance companies, particularly life insurance companies, have difficulty capturing the savings of households in the markets in which they operate. The analysis of the income statements demonstrates that they spend fortunes to win and retain prospects and that the returns on contracts are poorly competitive compared to other investment solutions (tontines, bank booklets..).

(Billion CFA)	2009	2010	2011	2012	2013
Overhead + commission	44,7	50,2	55,0	61,9	69,5
%CA	26%	25%	25%	26%	27%

Source : Rapport FANAF - Insurance Markets in Africa,
data 2009-2013

(Billion CFA)	2009	2010	2011	2012	2013
Placements	539,1	629,3	718,1	786,5	883,2
Obligations	32%	27%	27%	29%	26%
Actions	10%	18%	16%	17%	18%
IMMO	9%	11%	11%	12%	12%
Cash	37%	36%	39%	37%	39%
Other	12%	9%	7%	6%	5%
Financial products	18,2	20,3	30,0	30,3	31,5
performance	3,52%	3,47%	4,45%	4,03%	3,78%

Source : Rapports FANAF de 2011 à 2015

While it is true that the target populations are relatively unaware of life insurance solutions to protect themselves against risks, certain irresponsible behavior by companies reinforces the distrust of prospects. Moreover, the collection is kept permanently low due to a mismatch between the marketed products and the socio-economic characteristics of potential customers. Life insurance thus suffers from its inability to reinvent itself outside of its traditional circuit inherited from the colonial period.

HOWEVER, TODAY WE ARE WITNESSING THE EMERGENCE OF A VERY STRONG MIDDLE CLASS THAT WILL DEMAND SOLUTIONS TO PROTECT THEMSELVES FROM RISKS PRECISELY MANAGED WITHIN LIFE INSURANCE CONTRACTS.

Actuarial science and ALM tools can enable companies to capture this mass by equipping them with simple, effective products tailored to their reality. Indeed, contractual guaranties, when they exist, are currently worded in terms that only aim to protect the company. If companies want to capture household savings, they should provide contracts with sufficiently incentivizing and clear guaranties.



On the other hand, ALM models are committed to supporting decision makers in the daily management of activity. They allow in particular to identify, calculate and manage the various elements allowing value to be generated. Thus informed decision-makers make decisions that, in the long term, allow for the sustainability of the activity while effectively contributing to risk management.

ALM TOOL ARE THEREFORE BOTH A DRIVER FOR CONQUERING MARKET SHARES AND FOR APPRECIATING THE VALUES CREATED.

A REGULATORY FRAMEWORK IN FULL TRANSFORMATION

In its desire to clean up the insurance market, the African regulator CIMA is leading on all fronts projects aimed at restoring the balance between the stakeholders around a contract: insurers, insured, insurance distributors. Some projects are well advanced, and the market is beginning to feel the positive effects of their implementation, while others are the subject of extensive exchanges between the regulator and professionals. Some projects will have a significant impact on the companies' activities from an ALM perspective.

S Projet 1 : Creation of CIMA H and CIMA F tables

Among the projects that highlighted the predominant role of ALM tools, there was the 2012 overhaul of mortality tables used to provision and price mortality/longevity risks. Since 2012, when the tables came into effect, companies wishing to maintain their approvals have integrated the various consequences on technical results, on solvency margin requirements, on production rates. For example, for contracts subject to longevity risk, the change in tables leads to a decrease in mortality and thus exacerbates the longevity risk. The mathematical provisions must therefore be reviewed to comply with the new regulatory framework. The regulatory authority has given companies 5 years to get up to speed, and the executive bodies of the companies must produce a detailed argument for the actions taken. Companies can largely rely on the results provided by ALM tools to support their long-term strategy, enabling them to comply with regulatory requirements.

S Projet 2 (current) : Regulation of the beneficiary participation

Other projects under development also promote the development of a true ALM culture. Indeed, a draft decree from the CIMA aimed at regulating the mechanism of beneficiary participation in life insurance contracts strongly animates the profession. Articles 81 to 86 of the CIMA Code define the formulas for calculating the minimum share of profits made by companies to be distributed to policyholders. On the strength of the observation that management costs hinder the profitability of life insurance contracts for policyholders, discussions are underway within CIMA to redefine the distributable financial products base in order to boost the rate of return served to policyholders. Three avenues are under study, but the one that clearly receives the favor of the regulator will have a backlash on the business model of life companies. Indeed, this method advocates excluding management charges from the base of distributable products. The companies in the CIMA area, whose management costs represent a considerable part of their operating costs, would thus find themselves with a heavy slate that had hitherto been absorbed by the policyholders and which will now have to be converted into income. But beyond this first observation, this measure creates an opportunity effect whose profitability can be assessed through ALM tools. Indeed, even if companies must now bear a new burden, the increase in the rate of profit participation leads to an increase in managed outflows and therefore an increase in the margins generated, but also an increase in the need for solvency margin. It is therefore necessary to have a global approach to the performance of such a measure, which overall has a very positive effect for policyholders and for the image of life insurance.

TOWARDS A NECESSARY TRANSFORMATION OF BUSINESS MODELS

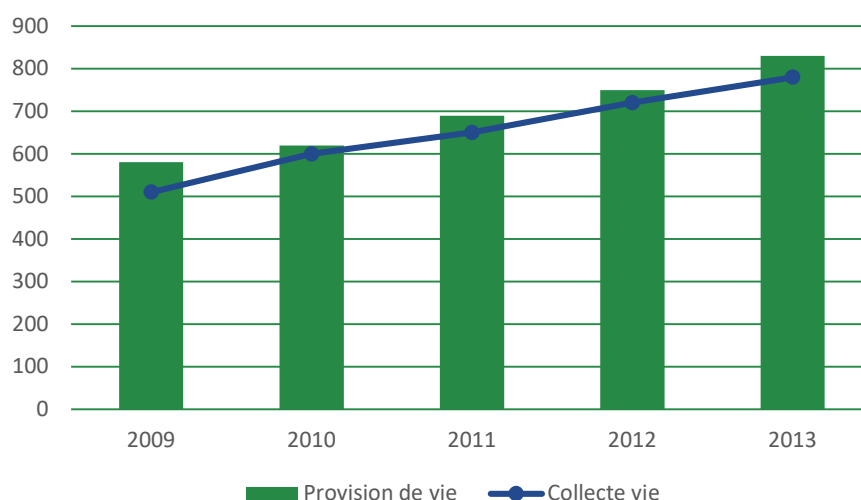
The volumes drained by life insurance today continue to grow and the market should reach a critical size in the coming years.

(Billion CFA)	2009	2010	2011	2012	2013	Average annual growth
Life provisions % growth	566,8	640,6 13%	688 7%	767,3 12%	838,1 9%	10%
Life collection % growth	172,2	201,8 17%	216,6 7%	240,7 11%	258,9 8%	11%

Source : Rapport FANAF – Insurance Markets in Africa,
data 2009-2013



Stock and turnover in billions of FCFA



While penetration rates in sub-Saharan Africa (calculated as the ratio between collection and GDP) remain very low compared to other regions of the world, growth prospects are very encouraging. Companies must therefore carry out a necessary revolution in order to rise to the level of the stakes in terms of volumes and impact on the real economy.

	World	Europe	CIMA
Part des primes dans le PB	4%	7%	0.3%
Part du CA vie dans l'assurance	57%	57%	28%
Prime moyenne vie par habitant (\$)	373	956	~ 1.5

Source : Rapports FANAF données de 2009 - 2013

The market has been hampered by a flawed regulatory framework and insufficient investment from companies to support its development.

IN FACT THERE IS A SKILLS SHORTAGE IN KEY COMPAGNY POSITIONS, RESULTING FROM A LACK OF GUIDANCE ON HOW TO CONDUCT BUSINESS

Certain key functions in the insurance sector (actuarial, risk management, ALM) are sometimes absent from companies' organizational charts. Other structural obstacles, such as the immaturity of local financial markets, have also often been cited to justify the embryonic state of risk management chains within companies. With the rapid growth in assets under management and the influx of capital from investors seeking opportunities, African companies have their destiny in their own hands more than ever before. It is up to them to make the necessary changes to attract talent and make more effective use of the financial tools already at their disposal, which are currently underutilized



At the CIMA level, the general states of life insurance have issued a number of principles aimed at revitalizing the sector. At the regulatory level, change is underway, as evidenced by several cleanup projects: the change in mortality tables in 2012, the reform of Article 13 in 2011 aimed at eliminating credit insurance, complemented by the prohibition for insurance intermediaries to collect premiums, the draft regulation targeting profit-sharing policy, the draft regulation targeting acquisition over-commissions...

At the professional level, associations such as FANAF or national associations like ASAC (Cameroon), ASACI (Côte d'Ivoire), FSSA (Senegal), FGCA (Gabon) are working toward the professionalization of the insurance sector by federating expertise and ensuring exchanges with other stakeholders (CIMA, brokers, and other insurance intermediaries). Some large companies have already taken stock of the changes that will be necessary to assert themselves in this era where the African market is attracting all the attention, but in general, these are only marginal improvements to a business model that is still suboptimal. Indeed, distribution costs remain high, portfolios remain predominantly dominated by insured individuals from the so-called formal sector, and profitability levels remain below those of life insurance competitors (bank book, tontines.). Even tho some structural difficulties such as the lack of tax incentives or widespread illiteracy, or even societal elements like religion or corruption, hinder the development of the market, the success of other sectors such as telecommunications or microinsurance demonstrates that these are mostly epiphenomena that can be overcome thru innovation and the tropicalization of the business model. The market mainly suffers from a lack of suitable tools and skills. ALM tools and models allow for better risk management in line with a long-term development strategy. They therefore constitute a first step toward filling the technical gaps in the practice of life insurance in the CIMA zone.

Identifying, measuring, and managing risks are necessary steps for sustainable and controlled development, which African insurance companies should accommodate.



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