

FINANCIAL SECTOR ASSESSMENT PROGRAM – DEVELOPMENT
MODULE

MALI

THE INSURANCE SECTOR

TECHNICAL NOTE

DECEMBER 2015

This Technical Note was prepared in the context of a World Bank Financial Sector Assessment Program mission in Mali during March 2015 led by Mehnaz Safavian, World Bank, and overseen by Finance & Markets Global Practice, World Bank. The note contains technical analysis and detailed information underpinning the FSAP assessment's findings and recommendations. Further information on the FSAP program can be found at www.worldbank.org/fsap.



THE WORLD BANK GROUP
FINANCE & MARKETS GLOBAL PRACTICE

Contents

I.	Introduction and Summary	1
II.	The insurance market in Mali today	4
A.	Environment and Framework.....	4
B.	Market Size, Development, Composition and Dynamics	9
III.	Industry Performance	17
IV.	Microinsurance	21
V.	Agriculture Insurance.....	27
VI.	Recommendations.....	34

Figures

Figure 1:	Economic and Insurance Market Development	11
Figure 2:	Insurance premium composition 2013	12
Figure 3:	Insurance Advertising by one Microfinance Institution.....	27
Figure 4:	Diagram of a 3 phase rainfall deficit index insurance.....	29
Figure 5:	Overview of DiD/FADQDI Agriculture Finance and Insurance project	33

Tables

Table 1:	Insurance Market Sizes, Penetration and Density (earned premium).....	9
Table 2:	Insurance Market Composition and Development in XOF (written premium).....	10
Table 3:	Development of market shares (written premium in million XOF)	12
Table 4:	Taxes on Insurance Premium in UEMOA Countries	17
Table 5:	Claims ratios in Mali compared to other CIMA countries	18
Table 6:	Composition of market portfolio and claims ratios by line of business	19
Table 7:	Key 2012 indicators of insurers in Mali	20
Table 8:	Comparison of traditional and index based agriculture insurance.....	29
Table 9:	Drivers of premium for agriculture insurance	34

GLOSSARY

CCAM	Comité des Compagnies d'Assurance de Mali
CIMA	Conférence Interafricaine des Marchés d'Assurances
CRCA	Commission Régionale de Contrôle des Assurances
FSAP	Financial Sector Assessment Program
GIIF	Global Index Insurance Facility
ICP	Insurance Core Principles
MFI	Microfinance Institution
MI	Microinsurance
MoF	Ministry of Finance (Ministère de l'Économie et des Finances)
MTPL	Motor Third Party Liability Insurance

I. INTRODUCTION AND SUMMARY

1. **This note summarizes the findings and conclusions of the review of the insurance sector in Mali.** The review was conducted as part of the 2015 Financial Sector Assessment Program (FSAP) in Mali. The main objectives of the review are to assess the structure, performance and outlook of the insurance sector with respect to the potential for the sector to develop; and to contribute to the overall long term growth and development of the economy and the well-being of the country's population. The review was carried out, and this technical note was prepared, by Peter Wrede, Senior Insurance Specialist in the World Bank's Finance and Markets Global Practice. It is based on and was informed by:

- i. discussions with the head of the insurance supervisory function (Division Assurance), the insurance association (Comité des Compagnies d'Assurance de Mali) as well as the management of various insurance companies, the association of microfinance institutions and several banks and MFIs, the association of insurance brokers, the Ministry of Finance, the Ministry of Rural Development, PlaNet Guarantee, Développement international Desjardins, the Union Technique de la Mutualité, the Fonds de Garantie Hypothécaire du Mali, ADA Microfinance, the chamber of commerce, and BCEAO, as well as World Bank Group experts;
- ii. insurance industry statistics provided by the insurance association and downloaded from the website of the Fédération des Sociétés d'Assurances de Droit National Africaines (FANAF)¹, reports provided to the World Bank by FANAF in previous occasions², studies, reports and informative documents provided by the insurance association, and other publicly available, forthcoming or confidential reports;
- iii. feedback from the Ministry of Finance on the insurance section of the Aide Memoire³;
- iv. reports and statistics prepared by AXCO Insurance Services;
- v. the relevant laws, decrees, and other supervisory requirements and practices that were in place in March 2015⁴.

2. **Insurance is important.** A strong insurance sector with broad penetration has numerous benefits for countries like Mali, and plays a critical role in alleviating poverty and sharing prosperity. To those who receive a claims payment from insurance, this payment contributes to compensate a financial loss that could otherwise throw them into poverty, or at least force them to use stressful coping strategies such as reducing consumption, selling productive assets, and taking children out of school. For those who have it, insurance is good also when they do not receive claim payment because it can:

¹ <http://www.fanaf.com/>

² Including „Chiffres clu00E9s du marchu00E9 CIMA.pdf“ and „Pru00E9sentation banque mondiale 2014.docx“.

³ « Mission BM-Observations DNTCP.docx ».

⁴ Including circular 001/CIMA/PCMA/PCE/2011, REGLEMENT N° 0003/CIMA/PCMA/PCE/2012, and the CIMA Code des Assurances, Loi n° 96-022 Régissant la mutualité en République du Mali.

- i) enhance the security of collateral and/or the creditworthiness of borrowers, thus facilitate access to credit and investment;
- ii) enable greater savings, investment and consumption, as households and firms no longer need to hold as much liquid financial buffers to cope with unexpected shocks that can be insured instead;
- iii) allow more productive strategies, promoting specialization in areas of greatest expertise and benefit instead of the low risk low productivity diversification strategies that risk aware individuals and enterprises adopt without insurance, for example in small scale agriculture.

Even the uninsured benefit: insurance helps the economy to develop, sharing prosperity. Functioning insurance markets enhance savings and capital accumulation in the economy, thereby improving liquidity in capital markets and contributing to finance infrastructure and other long-time horizon projects. By putting a price on risk in the economy, incentives for better risk management and for risk mitigation encourage improvements. Many economic transactions require insurance, from major projects to trade, which thereby benefit from reliable and professional insurance markets. And governments can make more efficient use of fiscal resources by transferring some risks such as longevity, health, and disaster recovery, to the insurance (and capital) markets.

3. **Insurance can be considerably more than risk transfer.** The core value proposition of insurance is risk transfer, but insurance has various other – if less obvious - beneficial functions that governments are increasingly appreciating in the context of their disaster risk management strategies. For example,

- **insurance is a commitment device:** that denominates a mechanism that supports the discipline to pursue the decisions taken: it protects the money set aside to benefit the future from today's temptations;
- **insurance quantifies risk:** actuarially calculated insurance (net) premium reflects riskiness that can be compared, for example by crop or region in the case of agriculture related insurance. It can thereby contribute to reward risk reducing measures and behavior, and can also show the way to activities with more favorable risk/reward relation;
- **insurance indemnification is rules based:** conventional insurance indemnifies individuals or companies for financial losses they suffered from insured hazards, and the indemnity usually is proportional to the damage suffered. Despite occasional attempts of fraud, this is well understood and accepted. It is through this transparent predictability of entitlement that formal professional insurance allows individuals and firms to make investments and take other calculated risks necessary for the progress of households and societies. Rules for indemnification from disaster funds or other post disaster relief mechanisms are not as clear and known, thereby not achieving the same predictability of beneficiaries' entitlement and their ability to engage in activities that reward higher risk with higher returns;
- **insurance is rigorously audited and has a solid track record of providing individuals and firms with money quickly and cost effectively** – because of that advantage over other cash transfer mechanisms, governments are increasingly

considering insurance as complement or alternative to traditional cash transfers and ex post disaster relief mechanisms.

4. **The insurance market in Mali falls short of its potential today; however, its outlook is promising.** Measured by the most common indicators – premium volume in itself, in relation to GDP, and in relation to population size – it is small not only by international standards but also compared to its neighbors and other countries in the region. But a growing number of well-equipped insurers and increasing degrees of innovation project a growing outreach to the population and an increasing importance for the economy. Insurance regulation and supervision in Mali is determined by the Conference Inter-africaine des Marchés d'Assurances at regional level, limiting Mali's degree of sovereignty in this respect but greatly reducing the risk of unsustainable competition and insurance failures. Mali's insurers are generally in good financial conditions. Client value, as measured by insurance payout ratios, has been low, but can be expected to improve with growing competition. Premium growth has recently been affected by the situation of political instability, and should pick up again.

5. **Current premium volume does not adequately measure the volume and potential of risk transfer in Mali.** Considerable amounts of risk transfer services are offered by entities outside of the insurance sector, such as banks, microfinance institutions, mutuelles de santé, or the Fonds de Garantie Hypothécaire du Mali. There are reasons for this development, but if all this informal “insurance” would be transferred to formal insurance companies, the insurance market would grow noticeably, and other advantages can also be expected.

6. **This technical note looks at two questions: “what role does the insurance sector play in Mali today?”, and “how could it play a more significant role?”.** It highlights the potential of microinsurance and agriculture insurance in particular, and concludes with a number of recommendations.

7. **The information made available does not allow thorough analysis of the systemic risk that the insurance industry may pose to the country's financial sector and economy.** Given that insurers account for less than 3% of the financial sector's combined assets and on average have an investment portfolio balanced between short term liquidity and real estate longer term investment, and given that the industry serves a small proportion of the population, the risk that the failure of one or more insurance companies cause major damage to the country beyond reputational harm is very limited. Customers of course would suffer from insurance insolvencies, but the regulatory framework is equipped to reduce the likelihood of that event.

II. THE INSURANCE MARKET IN MALI TODAY

A. Environment and Framework

Several conditions come together in Mali that create a supportive environment for insurance

8. **Mali is a member of the Conference Interafricaine des Marchés d'Assurances (CIMA).** The 14 member countries⁵ of CIMA share the same insurance legislation and supervision since 1992.

The objectives of CIMA are to

- Strengthen and consolidate close cooperation in the field of insurance
- Encourage the development of national insurance markets to increase retention at national and regional level
- Contribute to ideal investment conditions so that insurance and reinsurance reserves can be invested with safety, liquidity, profitability and diversity to benefit their countries
- Implement a training policy for insurance managers and technical specialists
- Contribute to efficient human resources management with continuous education
- Set up shared structures for the research and guidance of policy decisions aiming at stable and healthy development of insurance companies and markets, including the development of new investment vehicles for insurance assets
- Continue the harmonization and convergence of insurance legal and regulatory frameworks in all member countries
- Provide resources to institutions jointly created to promote cooperation in the field of insurance.

CIMA is organized as:

- A Council of Finance Ministers (the governing body);
- The Regional Commission of Insurance Control (CRCA - the regional regulatory body);
- The General Secretariat of the Conference (an executive body which provides technical and administrative support to the Council of Ministers and the Commission);
- The Insurance Supervisors of the member countries.

Common legislation for insurance regulation and supervision is developed and adopted by the Council under the treaty. It is then administered by CRCA and to a lesser extent the National Insurance Departments. Requirements are established in the CIMA Code and subordinate regulations.

9. **Being member of CIMA brings a number of advantages to Mali.**

Firstly, there are economies of scale: the development and maintenance of an effective insurance regulation requires specialized expertise that is not available to the same extent in all markets. Countries with insurance markets of comparable size but who are not affiliated to a supranational body such as CIMA face more challenges in establishing a

⁵ Bénin, Burkina Faso, Cameroon, Centrafrique, Congo, Côte d'Ivoire, Gabon, Guinée-Bissau, Guinée Equatoriale, Mali, Niger, Sénégal, Tchad, Togo.

functioning regulatory framework. In a region where actuaries are scarce⁶, clearly prescribed rules for the calculation of reserves and solvency margins contribute to the industry's stability.

Secondly, insurance supervision needs to be independent and immune to influences from the private sector (the insurance industry) and the public sector (ministries who may worry about job losses resulting from insurance license withdrawals for example). It needs to be able to implement measures necessary for the health of the industry even if they are unpopular, and the CIMA structures are designed to achieve that. For example, circular 001/CIMA/PCMA/PCE/2011 (known as "Article 13") requires that premium is paid before insurance cover begins, and does not allow premium arrears in insurers' profit and loss accounts since 2014. It thereby enforces a degree of discipline to insureds and insurers that had not been widely observed in the past, when significant premium arrears (especially for motor insurance) often threatened the liquidity of insurers in the region and contributed to delays in claims payment that tarnished the reputation of the whole industry. The same circular also limits and regulates the premium collection practices of insurance intermediaries, who in the past have been known to delay submission of premiums to insurers, again contributing to liquidity issues for insurers. Measures like these are harder to implement by a country's insurance regulation without external pressure, and this is one of the main reasons why CIMA was created.

Thirdly, CIMA provides capacity building to the insurance industry not only in French language but also tailored to the needs and regulatory framework of the member countries. This is a considerable advantage in a region where language barriers prevent access to training modules and facilities, as well as to lessons learnt and documented, that are provided in English or Spanish.

10. **But being member of CIMA also brings some disadvantages to Mali.** It limits Mali's autonomy to regulate and supervise its insurance industry considerably. Local insurance supervisors can only conduct on-site inspections together with commissaires-contrôleurs from CRCA, and there are only 10 for all the CIMA member countries; so on-site inspections of insurers in Mali happen every four years unless extraordinary circumstances requires more frequent inspection. There has been no assessment of the current CIMA Code concerning its compliance with the latest version of the Insurance Core Principles (ICPs) of the International Association of Insurance Supervisors (IAIS) which provide a globally accepted framework for the regulation and supervision of the insurance sector. They help countries arrive at and maintain a fair, safe and stable insurance sector for the benefit and protection of the interests of policyholders, beneficiaries and claimants, and they contribute to the stability of the financial system. But such an ICP assessment – and implementation of the findings – is beyond the influence of Mali or any other CIMA member state. Based on the ICPs, the IAIS has also issued an Application Paper on Regulation and Supervision supporting Inclusive Insurance Markets which aims to help regulators overcome barriers to access insurance and thus support the development of microinsurance. A self-assessment methodology is provided to countries who want to evaluate how

⁶ According to the International Actuarial Association, there is not a single actuary in Mali, but one insurer reportedly brought an expat actuary from a neighboring country.

supportive their regulatory framework is for insurance that serves all populations, and this evaluation provides indications of what to improve. But as CIMA countries cannot change their regulation by themselves, such an assessment and possible subsequent amendments cannot be done at country level but only at CIMA level. This also applies to microinsurance, which was regulated for all member countries by CIMA in 2012.

11. **While being part of CIMA, Mali differs in a number of important aspects from other CIMA countries, primarily around insurance supervision.** Insurance supervision in Mali is not provided by a Direction d'Assurances like in the other countries, but by a Division d'Assurances which is part of the Treasury. This implies that every communication –within the Ministry of Finance, within CIMA and with the insurance industry – has to go through the director of Treasury, slowing and diluting the decision-making process. This structure also seems to be at odds with the ICP 2 that requires that the supervisor is operationally independent, which includes being free from undue political and governmental influence. ICP 2 also recommends a governance structure that enables prompt escalation and resolution of issues. Compliance of the current structure with ICP 1 (Objectives, Powers and Responsibilities of the Supervisor) would also be advisable, as this principle requires that primary legislation provides adequate powers to the supervisor to conduct supervision.

Furthermore, the fact that the insurance supervisor is not a directorate negatively affects how the supervisory role is viewed by the general public and the institutions the supervisor oversees. It is an obstacle to the developmental role that the supervisor wants to play and that could manifest itself in support of industry-wide efforts to increase quality (for example through strengthening of accounting rules for intermediaries and capacity building of ancillary functions such as auditing, tax collection and arbitration), and in support mass communication and insurance literacy campaigns (for example the establishment on an annual (micro)insurance awareness day). Experience from other countries shows that systematic national initiatives for the development of microinsurance are most successful to increase the outreach of insurance to previously unserved sectors; experience shows – and the International Association of Insurance Supervisors recommends – that such an initiative is best championed by an insurance supervisor perceived as strong and independent.

12. **Mali also differs in respect of the cost of supervision.** The 2% of revenue that that insurers in Mali have to pay to fund supervision are higher than in other CIMA countries, where they are typically 1.5% for non-life insurers and 1% for life insurers, and sometimes even less⁷. It is not clear that this cost to customers translates into sufficient resources for the supervisor, as required by ICP 2.

13. **A number of international insurance groups are present in Mali.** Of the 11 insurance companies licensed in Mali today, 4 belong to international insurance groups: Saham Mali is part of the Moroccan group formerly known as Colina, present in 22 African countries; Allianz Mali is part of the German Allianz Group, present in 11 African countries and 70 countries world-wide; NSIA Mali is part of the Ivorian Nouvelle Société

⁷ Examples of supervision fees for other countries: Burkina Faso (CIMA member): 1% for life insurers, 1.5% for non-life insurers; Benin (CIMA member): 0.75% for life insurers, 1.5% for non-life insurers; Togo (CIMA member): 0.5% for life insurers, 2% for non-life insurers; Tunisia: 0.3%; Morocco: 0.275%.

Interafricaine d'Assurance, present in 11 African countries; and SUNU Mali is part of the French SUNU Assurance Holding, present in 11 African countries. This relatively large presence of international insurance groups is important for two reasons. On the one hand, it shows that Mali is an attractive insurance market for insurance experts who know the continent well. On the other hand, these foreign insurers bring not only international expertise with products and processes, and economies of scale⁸, but also high standards of customer service imposed by their owners to protect their strong international brands. This is important in view of the small number of people working in insurance in Mali: excluding intermediaries, the sector employs little more than 300 staff.

Some of these international groups include banks as well as insurers, and while bancassurance is in its infancy in Mali, these groups may change that and help the industry cross the threshold towards a new chapter of distribution and penetration that has transformed insurance and banking in many other countries.

While such a strong presence of international insurance groups in such a small market could threaten to crowd out local insurance enterprise, there are no signs of that in Mali yet, and although some foreigners who have been present in the country for many years have considerable market shares, the market is not overly concentrated. The market share of the top 3 non-life insurers (two of which are foreign) was 67% in 2011, compared to 81% in Benin and 73% in Gabon. (The higher concentration in life insurance is explained by the fact that there was only one life insurer until 2010.)

14. Various donors and francophone consultancy firms have supported and continue to support the development of the insurance market in Mali. Insurance is changing across the world. While its core principle of organized solidarity that transforms uncertainty into predictability remains unchanged, insurance companies everywhere are adapting their products, delivery mechanisms and service processes to serve new populations and needs more cost effectively. That requires expertise that is often not found in small insurance markets. To the extent that they access the growing body of lessons documented in English language – for example on microinsurance - insurers can benefit from experience elsewhere. Where English is a barrier, experience from elsewhere is less readily accessible. But in both cases, specialized consultants with scarce but crucial expertise can contribute substantially to the development of better insurance markets. Many countries have little access to these experts – Tajikistan for example because of language barriers, or Yemen because of security issues – but the insurance market in Mali receives support from various international consultant groups that are francophone, well experienced in international and inclusive insurance, and familiar with the region. PlaNet Guarantee, part of the PlaNet Finance group, has helped design and launch very innovative insurance products that enable access to previously excluded populations such as low income households and smallholder farmers. Support for the development and implementation of index based weather insurance for small scale maize farmers was provided by the Global Index Insurance Facility of the World Bank Group, which allowed the creation of an alliance that includes the reinsurers Swiss Re, CICA Re and Africa Re, the insurer Allianz, the provider satellite data EARS, OXFAM, farmer associations, cooperatives and microfinance institutions. Développement international Desjardins has

⁸ For example, by deploying actuarial expertise across the group in various countries.

initiated a well-funded project aimed to increase agriculture finance and productivity which will include insurance components that address loan default and crop losses. ADA, backed by the Luxembourg Development Cooperation, will help a consortium of microfinance institutions to set up an insurance company focusing on the needs of their clients. This access to international expertise help compensate the lack of actuaries and microinsurance specialists for example.

15. The insurance sector in Mali also has supportive professional associations and good access to reinsurance. Both the Fédération des Sociétés d'Assurances de Droit National Africaines (FANAF), a supra-national association of insurance companies representing 186 insurers in 26 countries, and the Comité des Compagnies d'Assurance de Mali (CCAM) are effective advocates for the interests of the industry. For example, CCAM has prepared studies about how neighboring insurance markets have addressed issues such as tax incentives for company pensions and uninsured motor vehicles. Appropriate provision of reinsurance by the regional CICA Re and Africa Re as well as by European reinsurers contribute to effective risk management of insurers in Mali. Rules aimed to prevent fronting – that is the practice that risk is entirely passed on to foreign reinsurers while local insurers only receive a fee to facilitate this pass-through - require that a reasonable minimum of risk is retained in the country, so that enough supervisory control and a fair share of profits remain in the country.

16. There is a lot to insure in Mali. Being a landlocked country that depends on imports, there is considerable transport activity. The value of imported goods and services stood at 38% of GDP in 2012, compared to 24% in Benin, 26% in Cameroon and 32% in Gabon⁹. Since 1981, law n°81-78/AN-RM makes transport insurance mandatory for all goods imported into Mali, and that insurance has to be with an insurance company licensed in Mali. There is also considerable mining activity in Mali. Total natural resource rents amounted to 16% of GDP in 2012, compared to 5% in Benin, 11% in Cameroon, and 9% in Cote d'Ivoire. Extractive industries usually require considerable insurance for machinery and equipment, business interruption, environmental, professional and other liability, natural disasters, and transport. Agriculture contributes substantially to the economy in Mali, its value added making up 42% of GDP, and the sector provides between 65% and 70% of all employment. Most agriculture activity is rain fed, making it very vulnerable to climatic variations that have been successfully insured in many countries; climate related insurance for farmers is being piloted already in Mali, but so far on a small scale.

17. Although income is generally low in Mali, income distribution is less unequal than in other countries of the region. GDP per capita is 572 USD in Mali, compared to 403 in Togo, 521 USD in Burkina Faso, 665 USD in Benin, 709 USD in Chad, 890 USD in Senegal and 1,075 USD in Cote d'Ivoire¹⁰. The income share held by highest 20% in Mali is 41%, compared to 52% in Togo, 49% in Chad and 47% in Senegal¹¹. The income share of the bottom 40% in Mali is 20%, compared to 14% in Togo, 15% in Chad, and 16% in Senegal. So while there is income inequality and the majority of Malians have very low

⁹ Source: World Bank Open Data.

¹⁰ Source: World Bank Open Data; 2012 adjusted net national income per capita in current US\$.

¹¹ Source: World Bank Open Data, most recent figures for each country (Mali 2010, others 2011).

incomes, this inequality is not worse than in other countries where the insurance market is better developed, and does not constitute an unsurmountable barrier to for insurance to serve larger populations with suitable products and services, for example microinsurance.

But despite the positive circumstances, the insurance market in Mali is currently small.

B. Market Size, Development, Composition and Dynamics

18. **The insurance market in Mali is smaller than the size of its economy and population would suggest.** Out of 181 insurance markets analyzed by the Axco Insurance Information Services, Mali ranked 153rd by premium volume in 2013. Insurance penetration (premium to GDP) and insurance density (premium per person), which take into consideration the size of a country's economy and population, are also low by international standards and in comparison to other markets in the region.

Table 1: Insurance Market Sizes, Penetration and Density (earned premium)

	2013 Insurance Premium in million FCFA			Share in CIMA	Growth in 2013	Insurance Penetration	Insurance Density in FCFA
	Life	Non life	Total				
Côte d'Ivoire	103,785	133,535	237,320	26.5%	13.1%	1.67%	11,605
Cameroun	41,046	120,330	161,376	18.0%	4.6%	1.09%	7,020
Gabon	17,826	97,098	114,924	12.8%	15.4%	0.97%	67,960
Sénégal	19,256	70,678	89,934	10.0%	-2.5%	1.14%	6,037
Congo	4,424	68,450	72,874	8.1%	25.7%	1.13%	15,409
Burkina	15,309	31,759	47,068	5.3%	9.9%	0.76%	2,683
Bénin	11,087	32,245	43,332	4.8%	21.8%	1.01%	4,071
Togo	16,615	24,868	41,483	4.6%	8.1%	1.89%	5,889
Mali	5,209	24,395	29,604	3.3%	2.1%	0.54%	1,882
Niger	4,198	21,693	25,891	2.9%	16.7%	0.70%	1,433
Guinée Equatoriale	-	17,179	17,179	1.9%	22.3%	0.11%	16,440
Tchad	828	11,643	12,471	1.4%	22.3%	0.20%	968
Centrafrique	-	2,618	2,618	0.3%	-35.0%	0.22%	568
CEMAC	64,125	317,318	381,443	42.6%	12.2%		
UEMOA	175,457	339,173	514,630	57.4%	9.5%		
CIMA	239,582	656,492	896,074	100.0%	10.6%	1.00%	6,229

Source: FANAF, AXCO Insurance Services, Staff Analysis

**Table 2: Insurance Market Composition and Development in XOF
(written premium)**

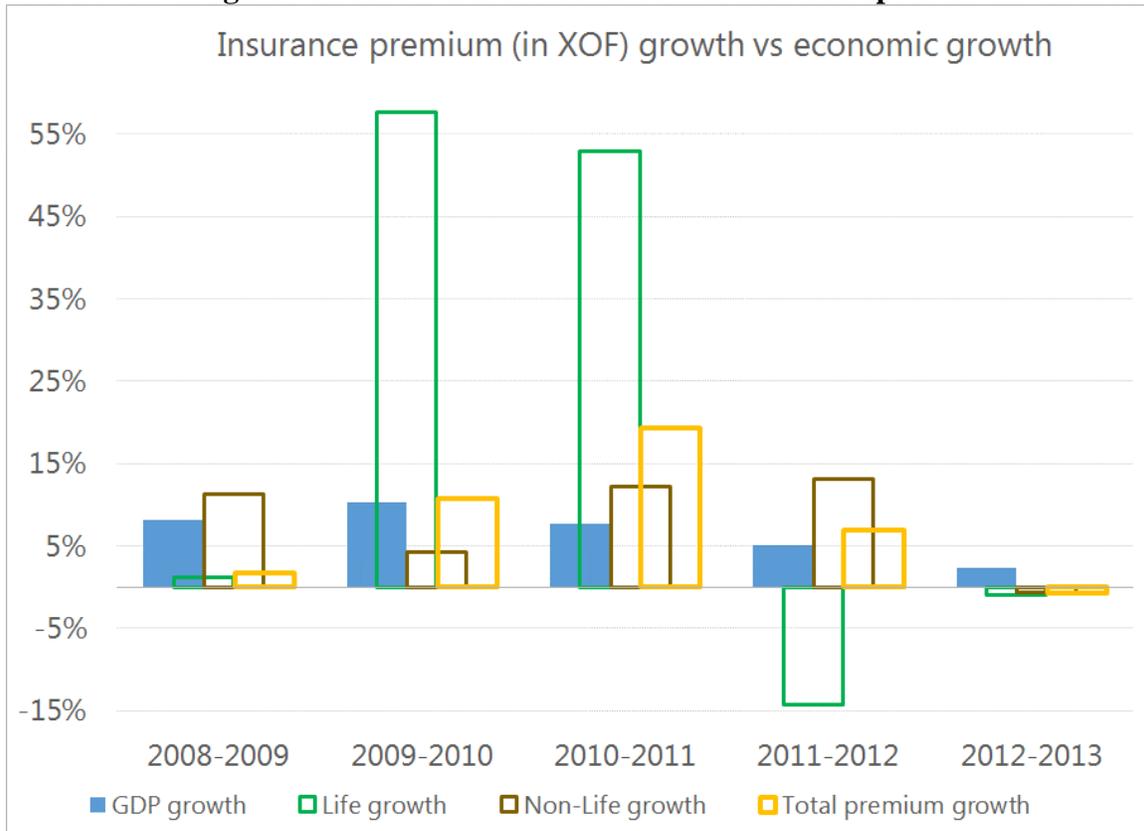
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
GDP (bn)	2,632	2,798	3,201	3,425	3,913	4,233	4,667	5,024	5,279	5,406
Population (mn)	11.57	11.94	12.33	12.73	13.14	13.56	13.99	14.42	14.85	15.30
Life - premium (mn)	1,369	1,453	1,762	2,255	2,512	2,540	4,005	6,125	5,255	5,209
thereof: individual	801	863	1,075	1,418	1,209	1,758	1,609	3,216	1,246	2,352
thereof: group	568	590	687	837	1,303	782	2,396	2,909	3,971	2,822
Life - density	118	122	143	177	191	187	286	425	354	340
Life - penetration	0.05%	0.05%	0.06%	0.07%	0.06%	0.06%	0.09%	0.12%	0.10%	0.10%
Non-Life - premium (mn)	11,100	12,157	13,436	14,062	16,393	18,255	19,021	21,357	24,150	23,999
thereof: motor	4,815	5,423	5,791	6,193	6,547	7,516	7,555	8,525	8,342	9,026
thereof: property	3,383	3,410	3,940	3,854	5,396	5,214	4,274	5,465	6,478	6,205
Non-Life - density	959	1,018	1,090	1,105	1,248	1,346	1,360	1,481	1,626	1,569
Non-Life - penetration	0.42%	0.42%	0.42%	0.41%	0.42%	0.43%	0.41%	0.43%	0.46%	0.44%
TOTAL premium (mn)	13,287	14,847	16,199	17,479	20,433	20,796	23,026	27,481	29,405	29,208
TOTAL density	1,148	1,243	1,314	1,374	1,555	1,534	1,646	1,906	1,980	1,909
TOTAL penetration	0.50%	0.51%	0.51%	0.51%	0.52%	0.49%	0.49%	0.55%	0.56%	0.54%

Source: World Bank, AXCO Insurance Services until 2008, FANAF thereafter, Staff Analysis

19. **Growth of the insurance market has been modest in recent years, especially when compared to most local neighbors in the CIMA regions.** Compound annual growth of insurance premium in Mali was 9% between 2004 and 2013, but it has shown surprising volatility: from a growth rate of 17% between 2007 and 2008, it fell to 2% the next year, recovering to 11% (2009/10) and 19% (2010/11) only to fall again to 7% in 2012 and below 0% in 2013. Official 2014 figures are not available yet, but press reports speak of 11.4% premium growth for that year¹², outperforming the GDP growth of 7%¹³. The fact that insurance premium growth does not correlate noticeably with economic growth shows that a considerable proportion of economic activity does not involve insurance.

¹² <http://maliactu.net/mali-assurances-1-un-secteur-en-plein-essor/>

¹³ Source: World Bank Open Data.

Figure 1: Economic and Insurance Market Development

Source: AXCO Insurance Services, FANAF, Staff Analysis

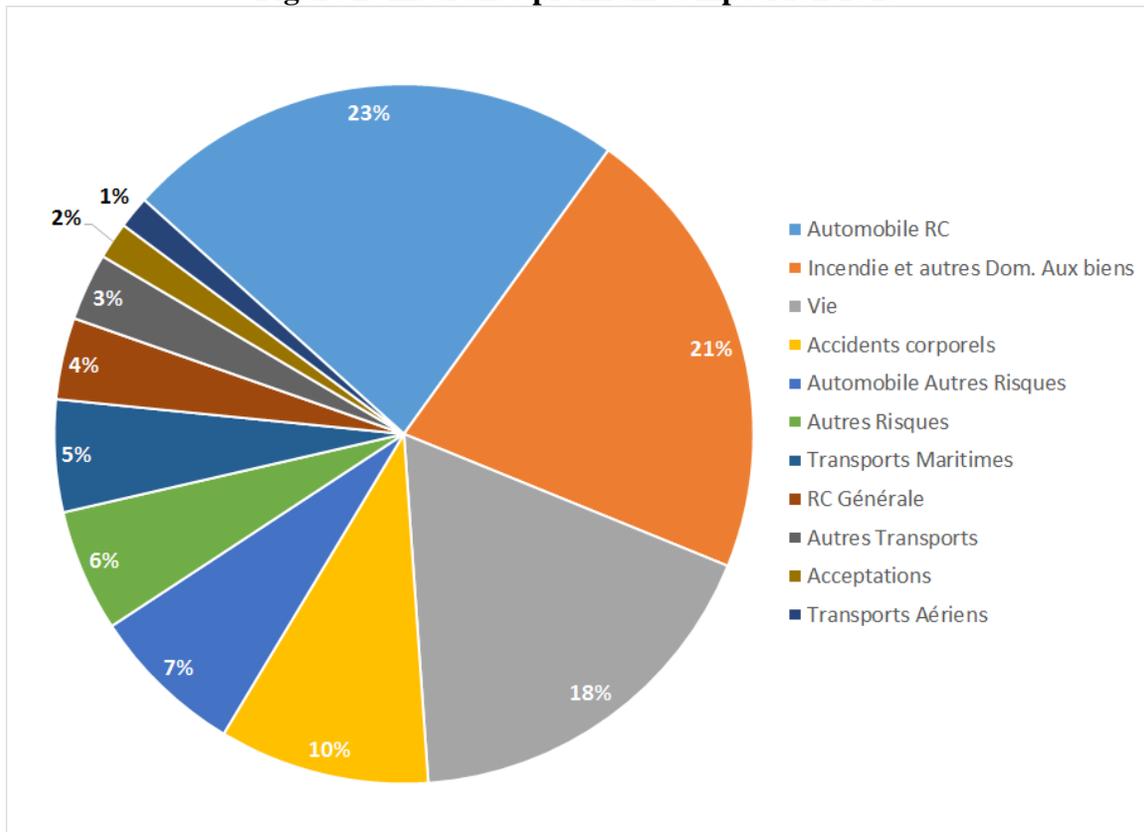
20. **Development of market shares has been stable.** Statistics published by FANAF¹⁴ show that while life insurance has long been a monopoly, there has been a stable number of non-life insurance companies which is growing slowly. Market shares for the large insurers have not changed substantially, while the relatively new company Nallias, set up with national capital in 2008, has grown its market share quickly, showing that there is room to prosper for new insurers. Since 2013, another life insurance and another non-life insurance have entered the market, and at least one further entrant is expected in 2015.

¹⁴ Le marché de l'assurance en Afrique Données 2008 à 2012, <http://www.fanaf.com/file/upload/Donnees-societes-12.pdf>.

Table 3: Development of market shares (written premium in million XOF)

		2008		2009		2010		2011		2012		2013	
		premium	share										
LIFE	SONAVIE	2,512	100%	2,540	100%	2,938	73%	3,052	50%	3,129	60%	3,002	62%
	NSIA VIE					1,067	27%	3,073	50%	2,126	40%	1,835	38%
NON-LIFE													
	Allianz Mali Assurances	3,913	22%	3,151	17%	3,918	20%	4,264	20%	3,960	18%	3,834	19%
	Les Assurances Bleues CNAR	1,656	9%	1,902	10%	2,292	12%	2,482	12%	2,213	10%		
	Saham	6,404	35%	6,451	36%	6,366	33%	6,565	31%	8,403	38%	7,814	38%
	LAFIA-Assurances SA	3,264	18%	3,146	17%	3,057	16%	3,144	15%	3,108	14%	3,520	17%
	SABU NYUMAN	2,653	15%	2,891	16%	2,679	14%	2,774	13%	2,504	11%	2,586	12%
	NALLIAS	190	1%	612	3%	1,115	6%	1,669	8%	2,017	9%	2,408	12%
	SUNU											527	3%

Source: FANAF, Staff Analysis

Figure 2: Insurance premium composition 2013

Source: FANAF, Staff Analysis

21. **Despite the longtime monopoly, life insurance has a growing share in the market.** While its share is below the CIMA average of 25%, its increase from 12% in 2009 to 18% today has been steady, and like the CIMA average almost half of life insurance premium in Mali is for individual insurance (as opposed to group insurance which is usually sold to employers). This shows that the insurance industry serves households as well as the corporate and industrial clients that often account for almost all insurance in developing markets. Furthermore, individual life insurance is almost entirely made up of

products with savings components, indicating that many people in Mali entrust their savings to insurers.

22. **The relatively small size of Mali’s insurance market also reflects the relatively large amount of risk transfer that happens outside of it.** Although the CIMA insurance regulatory framework applies “to all enterprises who make contractual commitments whose performance depends on the duration of a person’s life, as well as to insurance enterprises of any nature”¹⁵, insurance-like services are provided by a number of institutions in Mali which are not supervised by the Malian insurance supervisor.

23. **Banks and microfinance institutions provide risk transfer.** To reduce the risk of credit default due to death or disability of the borrower, it is common that lenders require that the life of the borrower be insured, the sum insured matching the (initial or outstanding) loan amount and the duration matching the loan duration. This is the most widespread and best developed form of microinsurance in most countries. But while some lenders (in Mali as elsewhere) partner with regulated insurance companies to facilitate purchase of this mandatory insurance by their clients, others establish internal mechanisms that mimic the function of insurance. They charge an additional fee from their borrowers (frequently 1% of the loan amount) to establish an internal fund (generally called “solidarity fund” or something similar) from which outstanding loan amounts will be reimbursed if the borrower dies (sometimes other events are also included, most often some form of disability but occasionally also property damage). It is understandable that they prefer this informal “self-insurance” over formal insurance provided by the insurance market, because they often experienced insurance companies as unable to provide procedures and conditions suitable to their clients, and because this additional fee tends to be the source of additional profit. But this behavior has a number of disadvantages: (a) as lenders have no insurance expertise, they don’t know what fee to charge and what reserves to establish in order to make sure that the internal fund is able to compensate even in the rare but possible cases of unexpectedly high accumulations of borrower deaths; (b) as they are not linked to formal insurance, they do not allow market discovery¹⁶ to the “insured” borrowers, who do not learn anything about what insurance is and could do for their families; (c) borrowers and their families rarely have a contractual right to such loan forgiveness but depend on the generosity of the lender, and no consumer protection or dispute resolution is available to them. For these reasons, it is preferable that such “credit life” protection is provided by regulated and supervised insurance companies, as is stipulated in the CIMA insurance code.

24. **The Fonds de Garantie Hypotecaire du Mali (FGHM) provides risk transfer.** Comparable to the lenders described under (i) but supervised by the Comission Bancaire, the FGHM provides life insurance related to housing finance to currently 3,500 borrowers. Product design, pricing and a business plan (that projects an insurance pool of 10,000 lives) was provided by Canadian experts, and in case the funds available are not sufficient to meet the liabilities, the Government of Mali is committed to cover the shortfall; so the risks are controlled. But this venture is not likely either to contribute towards market discovery and

¹⁵ Art. 300 of the CIMA Insurance Code, translation by the author.

¹⁶ That is: the familiarization of first time customers with the previously unknown insurance without the need of an active purchase decision.

the development of formal insurance in Mali. The FGHM already acts as agent to regulated insurance companies, so it might be worthwhile to consider transferring all the FGHM provided life insurance to the insurance industry. That would emphasize the Government's and CIMA's intention that only licensed insurance companies are allowed to provide insurance, an intention that should be bolstered by clear communication to the public.

25. **Mali's health mutuals provide risk transfer.** Around 50,000 Malians are members of mutuals¹⁷, who provide around 35,000 of their members with some form of health care financing which is equivalent to health insurance¹⁸. While the mutuals are well regulated through the Loi n° 96-022 Régissant la mutualité en République du Mali, they are not supervised by the insurance supervisor and not subject to insurance regulation. Furthermore, they lack the technical expertise required to sustainably provide quality health insurance. The Union Technique de la Mutualité (which reports to the Ministère de la Solidarité, de l'Action Humanitaire et de la Reconstruction du Nord) provides capacity building, technical assistance, product design and pricing support for its members, and risk pooling for urban mutuals – rural mutuals operate their own local health risk pools of between 750 and 3,000 members. Despite this attempt to benefit from economies of scale in respect of expertise and risk pool size, the health care financing provided by the mutual sector is vulnerable, and there have been cases of failure. And although West Africa's health mutual model attracted considerable national and international attention and support in the past, the mutual movement in itself is in crisis in Mali, with member numbers stagnating and confidence declining. Considering the mutual spirit at the origin of all insurance, and the traditional prevalence of local solidarity in Mali, the initial promise of health mutuals for low income earners in the informal sector and rural populations is understandable. In addition, well run mutuals of appropriate size convey a much stronger sense of ownership and participation among their members – compared to clients of insurance companies – which can be expected to reduce fraud, overutilization and moral hazard. But sustainable provision of insurance requires scale, in respect of the initial investments required, in respect of the expertise required, and in respect of the risk pool size required to rely on the law of large numbers to make risk predictable. Mutuals rarely achieve enough scale. But while they serve certain populations in Mali with insurance-like products, they undermine the outlook for economies of scale that the insurance industry needs to justify the initial investment in product and process development. Convergence between insurers and mutuals for the distribution of formal supervised health insurance products is nascent, but should be encouraged.

26. **The relatively small size of Mali's insurance market furthermore also reflects the amount of unmet risk transfer opportunities that does not reach the insurance industry.** In addition to the life of the borrower, lenders in other countries generally also demand that the property that is given in collateral for a loan is insured. Someone buying a car on credit would be required not only to have the legally compulsory Motor Third Party Liability (MTPL) cover in place but also theft and damage insurance to protect the car itself; similarly for agriculture machinery, livestock, boats and the like. In Mali, however, lenders don't generally require any such insurance, and few persons take them

¹⁷ According to the Union Technique de la Mutualité – other sources estimate a higher number.

¹⁸ The number has been higher in the past: the Microinsurance Landscapes show that 48,500 Malians had such health microinsurance in 2011.

out of their own initiative. Lenders don't usually require insurance coverage for construction work they finance either. While the insurance industry suggests more mandatory types of insurance should be demanded from the public or certain professions, there are still considerable opportunities to increase insurance outreach in the context of lending. And even where insurance is mandatory, it also has to be enforced. That is not always the case in Mali so far. For example, all merchandise imported to Mali has to be insured by an insurer domiciled in Mali, but this law from 1981 has seen little enforcement, denying considerable volume of insurance to Mali's insurers. Similarly, the requirement that at least 25% of insured risk remains in Mali is not always enforced with the mining sector, where multinational consortiums tend to pass sizeable insurance to their international insurance partners leaving minimal amounts to the local insurance industry.

27. **The low degree of compliance with the mandatory MTPL insurance offers another explanation for the size of the insurance market, and an obvious opportunity to increase penetration.** The last thorough and widely accepted attempt to quantify the number of uninsured cars dates from 2004, when 60% of cars were found to be uninsured. Opinions about what percentage of cars is insured today vary, but there is consensus that a considerable number is still uninsured, and that most motorcycles are uninsured as well. The proportion of MTPL insurance premium to total non-life premium shows a consistently negative trend over the last 10 years, falling from a high of 45% in 2005 to 38% in 2013, despite continuous increase in the number of cars per 1,000 inhabitants¹⁹. The reasons for the low rate of coverage include less than vigorous enforcement, the possibility to bribe policemen, occasional fake insurance certificates, and premium arrears when intermediaries didn't deliver premium to the insurer. This results not only in considerable premium volumes withheld from the insurance industry, but also in considerable risk to anyone using public roads in Mali.

28. **MTPL is important for a number of reasons; the industry has already taken some measures to strengthen it, but other important measures are outstanding.** From a societal point of view, MTPL is important because it compensates damages and loss of income (due to death, accidents and disability) to people harmed by someone else's motor vehicle; this insurance thereby has considerable potential to prevent poverty. If implemented well, MTPL also punishes risky driving and rewards cautious driving and thereby contributes to road safety, further preventing poverty and misery. MTPL is also of paramount importance in the relation between the insurance industry and the population, with significant impact on insurance demand. Like in many insurance markets, car insurance is the "face" of Mali's insurance industry. It is the most prevalent type of insurance among individuals and households, and even those who don't have cars often form their opinion of the insurance industry's reliability based on others' experience with this line of business: anecdotal evidence of perceived poor service is widespread. That perception is not always justified, for example when customers misunderstand policy conditions or overestimate the cover they will get for the minimum premium. But very often, customers' discontent with the service they receive from their MTPL provider is justified. The insurance industry is cognizant of that, and together with CIMA corrective measures have been implemented. On the one hand, Article 13 banned the premium arrears

¹⁹ The latest statistics from 2009 indicate 14 motor vehicles per 1,000 people, up from 9 two years earlier (source <http://www.tradingeconomics.com/mali/motor-vehicles-per-1-000-people-wb-data.html>).

that in the past often caused liquidity problems to insurers that they addressed by delaying claims payments. On the other hand, the insurance – which is now obliged to pay MTPL claims within 30 days - has put in place a number of measures to expedite claims settlement. The Commission Nationale d'Arbitrage, for example, strengthens customers' dispute resolution avenues, and the Convention d'Indemnisation Rapide des Assurés establishes mechanisms for fast settlement of material damage claims. But other important elements of a strong and supportive environment for MTPL are still outstanding, most notably a guarantee fund to compensate the victims of uninsured or unidentified motorists. The implementation of such a fund is required in the CIMA regulation for all member countries, and it is well advanced in Mali, where the necessary financial resources have been mobilized by the insurance industry and the government, and the legal framework has been drafted and awaits ratification by congress. Once it is implemented, it will give the insurance industry a unique opportunity to demonstrate how it cares for the people's well-being. But further measures are required if MTPL is to also reduce road traffic accidents, most notably a pricing structure that rewards good driving and punishes bad driving, and that makes this reward and punishment portable from one insurer to the other. That requires market wide databases of accidents and claims, linked to motor vehicle registries and police registries; this, in turn, will also reduce insurance fraud and thus allow more attractive premium.

29. **Taxes on insurance premium are higher in Mali than in most CIMA (or other) countries, depressing demand from price-sensitive customers.** While numerous factors that shape the environment for insurance are determined at CIMA level and hence are beyond the control of Mali, taxes are set by the Government and are comparatively high for non-life insurance. The corresponding law has not been reviewed since it came into force in 1992. There is no tax on life insurance premium, but the demand for company pension (indemnité de fin de carrière) products offered by life insurers is lower than in other countries because employers cannot deduct contributions from their tax burden. A systematic study²⁰ prepared in 2013 by Cabinet CHT for the Comité des Compagnies d'Assurance de Mali argues that such a deduction would be consistent with the country's tax regime, and that it would be beneficial for the economy, for employers and for employees. It gives examples of neighboring countries - Côte d'Ivoire, Burkina Faso, Senegal – where such tax deduction is possible and has contributed to the strong growth of insurance-administered company pensions. The association submitted the study to the Ministry of Finance with the request to revisit the tax treatment of company pensions, but have received no answer so far. High tax burden also affects health insurance, which is virtually inexistent in the market, despite manifest demand met by the Mutuelles de Santé which provide cover to 48,000 Malians²¹ even though they are not regulated nor supervised as insurers²². (While not a tax, the relatively high supervision fee further adds to the cost of insurance to the population.)

²⁰ Etude pour la déductibilité fiscale des primes versées par l'employeur dans le cadre d'un contrat « Indemnité de Fin de Carrière » au Mali.

²¹ <http://www.microinsurancecentre.org/landscape-studies.html>, 2011 figures.

²² The Universal Health Cover scheme in Mali appears to function well, but does not preempt the demand for private health insurance by those who wish for faster and more convenient treatment than that provided by public facilities.

Reducing taxes on insurance premium will lead to reduced government revenue in the short term, but can be expected to lead to increased insurance demand; in the long term, that will result in higher tax revenue. In 2007, the year that Burkina Faso made employer contributions to pension products tax deductible, the volume of life insurance premium grew by 65%; in 2013, it was three times the volume of 2006. Especially in the very price sensitive segment of emerging customers of microinsurance and agriculture insurance, all measures to reduce the cost of premium should be explored.

Table 4: Taxes on Insurance Premium in UEMOA Countries

PAYS	AUTO	INCENDIE	TRANSPORTS	MALADIE ET ACCIDENT	RC ET RISQUES DIVERS
Mali	20%	20%	4%	20%	20%
Bénin	10%	20%	5%	5%(maladie) 0% (accident)	20%
Burkina Faso	10%-12%	20%	8%	8%(maladie) 12%(accident)	12%
Côte d'Ivoire	14,5%	25%	7%	3%(maladie) 14,5%(accident)	14.50%
Niger	12%	36%	8%	12%	14%-19%
Sénégal	10%	20%	10%	3%	10%
Togo	6%	25%	5%	6%	6%

Source: Comité des Compagnies d'Assurance de Mali

III. INDUSTRY PERFORMANCE

30. **Claims ratios are comparatively low in Mali, both for life and for in non-life insurance.** Roughly speaking, the claims ratio of a non-life insurance company or line of business is calculated by dividing the total amount of claims by the total amount of premiums corresponding to the same period, usually one year²³. This is important because it gives an indication of how much of their premium revenue insurers return to their customers in form of claims payments. If the claims ratio is very low, it generally signals poor value for money for customers; if it is too high, it can signal unsustainable levels of competition that threaten insurers' financial stability. Only two insurance markets in the CIMA region had lower non-life claims ratios in 2013 and on average since 2011, indicating that customers get better value in most other insurance markets. For every 100 XOF of insurance premium paid in 2013, the insured got back 31 XOF in claims in Mali

²³ Strictly speaking, reserve increases or decreases also need to be taken into consideration, but not enough information is available to analyze this in more detail.

and 62 XOF in Cote d'Ivoire. The most plausible explanation is that competition in the lines of business that drive the overall market claims ratios is considerably lower in Mali than in Cote d'Ivoire and most other CIMA markets, or that the operational efficiency of insurers is considerably lower in Mali than in Cote d'Ivoire and other markets; or both. This argument does not apply to catastrophic lines of insurance business related to natural disaster such as earthquakes and hurricanes (that do not occur in Mali) or to some lines of transport insurance (that represent a small share of the market in Mali) which don't expect to pay any claims in most years but need the premium to set up reserves for the infrequent years of high severity claims. Table 5 shows that claims ratios for all lines of non-life insurance vary considerably from one year to the next in Mali, which does not usually indicate the stability that the law of large numbers predicts for risk pools of adequate size²⁴. Furthermore, table 5 shows that also for life insurance – where reserve movements have been taken into consideration – clients in Mali get lower value than anywhere else in CIMA.

Table 5: Claims ratios in Mali compared to other CIMA countries

	Non-Life (in % of earned premium)				Life (in % of written premium)			
	2011	2012	2013	average	2011	2012	2013	average
Côte d'Ivoire	38.2%	39.7%	62.1%	46.7%	84.0%	77.1%	84.4%	81.8%
Sénégal	56.8%	41.1%	39.5%	45.8%	72.1%	74.8%	76.8%	74.6%
Burkina	42.3%	46.0%	47.7%	45.3%	77.7%	82.0%	85.5%	81.7%
Togo	45.0%	40.5%	47.2%	44.2%	66.5%	68.7%	71.6%	68.9%
Bénin	45.3%	43.9%	42.2%	43.8%	69.5%	68.9%	73.0%	70.5%
Centrafrique	40.4%	41.7%	41.1%	41.1%				
Niger	30.3%	41.0%	51.0%	40.8%	92.6%	91.2%	60.8%	81.5%
Tchad	38.0%	30.2%	50.9%	39.7%	52.5%	163.4%	57.5%	91.1%
Cameroun	34.0%	35.6%	37.3%	35.6%	70.9%	70.5%	81.6%	74.3%
Gabon	30.8%	31.8%	34.8%	32.5%	73.8%	67.6%	79.6%	73.7%
Mali	26.9%	36.2%	31.4%	31.5%	41.9%	35.6%	34.5%	37.3%
Congo	20.5%	30.3%	16.7%	22.5%	57.6%	60.4%	61.9%	60.0%
Guinée Equatoriale	21.0%	17.7%	11.9%	16.9%				
CEMAC	30.5%	32.5%	31.3%	31.4%	70.7%	70.1%	79.4%	73.4%
UEMOA	42.9%	40.8%	50.1%	44.6%	77.2%	74.9%	79.7%	77.3%
CIMA	37.2%	36.9%	41.2%	38.4%	75.4%	73.6%	79.6%	76.2%

Source: FANAF, AXCO Insurance Services, Staff Analysis

31. **The most recent information on individual insurer's claims ratios show considerable variance.** The most recent Annuaire des sociétés membres (22^{ème} édition) provided on the website of FANAF includes premium and claims figures for 2 life insurers and 6 non-life insurers in Mali up to 2013. It shows that insurance companies' claims ratios for automobile third party liability, the single most important line of insurance in Mali, varied between 11% and 47%, and that there is variation not only across companies but also from one year to the next. The events of 2012 alone do not explain this, as claims

²⁴ The mathematical "law of large numbers" explains how the outcome of a collection of large enough numbers of comparable units exposed to the same risk is more predictable than the outcome of each one of the units. It makes it possible to move from gambling to the statistical management of risk that allows insurance companies to sustainably offer risk transfer in exchange for a commensurate premium and thereby transform future uncertainty into predictability.

ratios that year were not consistently higher than in 2011 or 2013 for all insurers. The same data shows that this variance is also found for all lines of non-life insurance and for the overall claims ratios of non-life insurers, raising questions about the stability of each insurer's risk pools and the quality of the companies' underwriting. Such wide swings in claims ratios are easier to explain in property insurance, where single risks can be large and have substantial impact on the annual results of any insurer lacking appropriate reinsurance arrangements and enough diversification of his retained portfolio. But in automobile insurance, normally the largest and most homogeneous portfolio of non-life insurers, single large claims don't explain the variance in underwriting results of insurers in Mali.

To avoid that overly competitive pricing threatens insurers' ability to honor claims, the insurance supervisor sets and regularly adjusts minimum premium levels for motor third party liability insurance commensurate to the minimum guarantee levels set by CIMA for all countries; this contributes to explain why claims ratios in this line of business have not exceeded 70% for any insurer since 2010 (and are mostly much lower). However, competition is said to be fierce in this line, supposedly tempting some insurers to find ways around the minimum premium requirement.

Table 6: Composition of market portfolio and claims ratios by line of business

	Premium as % of total		Claims ratio Mali		
	CIMA	Mali	2011	2012	2013
Accidents corporels et maladie	22.6%	11.8%	48.4%	45.5%	67.2%
Automobile	33.5%	37.0%	22.1%	42.0%	35.4%
Incendie et autres dommages aux biens	14.7%	25.8%	25.9%	11.6%	14.1%
Responsabilité civile générale	3.8%	4.6%	32.2%	25.4%	38.0%
Transports aériens	2.1%	1.8%	5.2%	84.0%	-8.8%
Transports maritimes	7.4%	6.3%	33.2%	1.7%	13.1%
Autres transports	3.7%	3.8%	36.5%	111.9%	5.1%
Autres risques directs dommage	9.5%	6.9%	-2.6%	25.7%	19.4%
Acceptations dommage	2.7%	2.1%	163.4%	81.6%	122.8%

Source: FANAF, Staff Analysis

32. **Key indicators show a picture of mixed health for Mali's insurers in 2012.** Data published by FANAF (Table 7) indicate that all insurers comfortably exceed the solvency capital amounts required – likely because of minimum capitalization of insurance companies, set at 1 billion FCFA at CIMA level, is relatively high for a market of the size of Mali. But the reserve coverage of some insurers is seriously challenged. No additional information has been made available to analyze the reasons in detail, but Sabu Nyuman is said to be under temporary administration by the supervisor since 2014; the company's reserve coverage dropped further to 76% in 2013 (and NSIA's fell to 70%). Table 7 also shows considerable variance in commission levels and administration expenses, which do not correlate with claims ratios. Unfortunately, the figures made public by FANAF do not allow a thorough analysis, leaving for example large amounts unexplained between premium and investment income minus claims and expenses on the one hand, and net profit on the other hand. The reasons for the low claims ratios remain unclear, they do not translate into high profit margins. No data of premium arrears is available, but if they have been substantial before the Article 13 banned them from accounting in 2014, that could

explain the low reserve coverage as well as the difference between operational result and profits as shown in Table 7.

33. **The available information does not allow to analyze the investment strategies of Malian insurers, which may hold the potential for improved resilience and client value.** Overall, the investment income is low for the consolidated market, with 4% for life insurers and 3% for non-life insurers. This reflects the fact that insurers' investments are overly concentrated in liquidity (54% of life insurance assets and 41% of non-life insurance assets) and real estate (18% of life insurance assets and 22% of non-life insurance assets). In South Africa for example, the continent's most developed insurance market, the insurance industry invests 32% in government bonds and 15% in shares, but only 6% in debentures and mortgages and 16% in cash and deposits. In Mali, by contrast, the high share of liquid assets results in low investment returns and sub-optimal asset-liability matching, while the high share of investment in real estate implies vulnerabilities to real estate market fluctuations (in the worst case: bubbles and their abrupt correction) and challenges in valuation. But professional asset-liability management requires considerable (actuarial) expertise that is scarce in Mali, and insurers don't often embrace it until competition for client value becomes noticeable, especially while shallow capital markets offer limited investment opportunities. Additional data would also be required to better understand each insurer's investment income and draw conclusions and recommendations.

Table 7: Key 2012 indicators of insurers in Mali

	NSIA VIE	SONAVIE	Allianz	Lafia	SABU NYU	NALLIAS	Saham	CNAR
Written premium (in million FCFA)	2,126	3,129	3,960	3,108	2,504	2,017	8,403	2,213
Net investment income (in million FCFA)	35	293	146	128	15	23	120	7
Commission in % of premium	6.3%	9.7%	14.5%	21.5%	15.8%	17.4%	8.7%	13.0%
Administration expenses in % of premium	60.7%	28.8%	27.2%	64.7%	33.9%	22.5%	16.3%	38.3%
net operating profits (in million FCFA)	223	227	147	223	61	(147)	795	150
Solvency capital required (in million FCFA)	60	300	872	1,646	474	202	930	434
Solvency capital available (in million FCFA)	1,196	1,763	1,345	1,957	2,034	913	1,995	2,197
Reserves (in million FCFA)	1,603	6,336	3,028	4,524	3,117	2,159	5,344	3,775
Admitted assets (in million FCFA)	1,308	6,434	4,602	5,883	2,525	2,461	5,943	4,321
Reserve coverage (assets as % of reserves)	81.6%	101.5%	152.0%	130.0%	81.0%	114.0%	111.2%	114.5%

Source: FANAF, Staff Analysis

34. **Competition for client value is not pronounced in Mali so far, because consumers have not been the main focus of the insurance industry's attention.** The majority of premium is generated from commercial and industrial business, and the industry's principal interaction with households has focused on MTPL because it is mandatory. While not mandatory by law, formal or informal insurance is often required as a condition for a loan. But the reputation of insurance is not good, and people in Mali generally prefer not to buy insurance (mandatory or voluntary) if they can avoid it. Unlocking the retail market and providing insurance to a more substantial number of households and MSMEs offers considerable growth and penetration potential for the insurance industry. It can also contribute to stabilize portfolios: households tend to be more loyal to insurers that serve them well, unlike commercial accounts that are frequently re-brokered in search for the lowest premium and most generous conditions. In a country like Mali, where a large part of the population lives on low levels of income, retail insurance will have to embrace the principles of microinsurance if it wants to reach scale and be inclusive.

35. **Bancassurance is not developed in Mali.** “Bancassurance” is the systematic effort to increase insurance sales through strategic alliances between insurers and banks. These alliances use the assets of both, most prominently underwriting expertise, brand recognition, communication channels, and customer touch points. Bancassurance recognizes that insurance is a core value proposition of financial services, and that many customers prefer to get their financial products from one supplier, especially if their loyalty is rewarded. Bancassurance has had profound impact on many insurance markets, and will continue to fuel disruptive change²⁵ in developing markets. But in Mali, such partnerships are not yet systematically exploited to increase retail insurance penetration and to serve households. Moreover, distribution is conventional and done by brokers, agents and directly in the insurer’s offices, and the insurance industry is yet to discover the potential of non-traditional distribution channels that the microinsurance regulation allows, such as cooperatives, funeral associations, NGOs and mobile network operators. Microinsurance may well lead the way and provide success stories of innovative distribution partnerships that will stimulate insurers, banks and other service providers to discuss partnerships also for the current core insurance markets and other non-poor customers.

IV. MICROINSURANCE

36. **Microinsurance is the vision to overcome market access barriers and make insurance inclusive.** Microinsurance is most commonly defined as *“insurance that is accessed by the low-income population, provided by a variety of different entities, but run in accordance with generally accepted insurance practices (which should include the IAIS Insurance Core Principles). Importantly, this means that the risk insured under a microinsurance policy is managed based on insurance principles and funded by premiums”*²⁶. More generally, microinsurance denominates the effort to make insurance accessible, useful and used by low income people, who are not served by today’s insurance industry. In Mali, as in most other developing countries, insurers serve a very small subset of the country’s population, while most households and businesses are excluded from the insurance market. The reasons for this exclusion are barriers usually found on both the supply side and the demand side, and sometimes also in the regulatory framework. Microinsurance is sometimes referred to as inclusive insurance, because it wants to overcome these barriers and achieve financial inclusion also in respect of insurance²⁷.

37. **Microinsurance is not a product, and is not limited to particular products.** Some products are easier to adapt to -and more widespread among - low-income markets than others. Life insurance is generally the most frequent, especially Credit Life which is often mandatory with microfinance loans and pays the outstanding loan amount in case of death. If provided by licensed insurance companies, it is a good starting point to familiarize first-time insurance customers with the concept and gradually offer them more - voluntary - insurance such as payment of cash in case of death, inclusion of family members (payment

²⁵ Disruptive means presenting the possibility of relatively fast relatively substantial changes in market share of insurers and products, achieved by new business models and processes.

²⁶ Issues in the regulation and supervision of microinsurance, IAIS-CGAP Working Group on Microinsurance 2007.

²⁷ The term “inclusive insurance” is sometimes used to indicate that access to insurance is desirable not only for low-income populations but also for other segments of population currently excluded from insurance markets, such as emerging (lower) middle classes or wealthy but remote farmers.

of cash in case of death to cover funeral expenses for example), and inclusion of additional risks such as accidents. The most demanded microinsurance tends to be the cover of medical expenses, but this is one of the more difficult products, as its success depends not only on the availability of affordable quality health care but also on the behavior of health care providers with possibly conflicting objectives. The general criteria of insurability apply also to microinsurance (most notably: that the event has not already occurred, that it is random, and that can be verified) but some forms of insurance are difficult to adapt for low-income people: if there are no land titles, for example, ownership of a house that is to be insured is difficult to prove. This contributes to explain why asset insurance has been less frequent.

38. **Microinsurance can be voluntary or compulsory, or “automatic”.** Compulsory microinsurance is usually attached to microloans: the borrower is forced to take the insurance along with the loan. It can also be made mandatory to all members of a cooperative or other well defined group. Mandatory insurance can have the advantages of group insurance, but can generate resistance, and in some markets, there may be no such thing as mandatory insurance: unless there is only one lender or unless all lenders impose the same insurance, borrowers who reject the insurance tend to change the lender. In such circumstances, even mandatory insurance has to be explained and “sold”, especially if its price is noticeable.

Automatic insurance is also included in some other service package, such as mobile phone airtime use or bank deposits. But it appears to be free of cost to the insured, as the sponsor (the mobile phone operator or bank) pays the premium out of its own surplus, hoping to increase customer loyalty or attract higher and more stable deposits by offering insurance. These schemes have seen substantial growth in some African countries recently, and can be a good way to familiarize large segments of insurance-illiterate populations with the concept of insurance and encourage them to eventually buy more insurance on a voluntary basis.

Voluntary insurance is generally offered when there is no other service to package the insurance with, and to people who are not members of any group or otherwise accessible to mandatory or automatic insurance. It is also used for more expensive insurance - typically medical expenses insurance - as it is difficult to force high premiums on poor people. Voluntary microinsurance schemes have usually struggled to achieve sustainable scale, unless subsidized by donors or governments with reliable long term commitment. But few people like mandatory insurance.

39. **Microinsurance is about high volumes with low margins, and processes are as important as products.** What matters to emerging customers and especially to first-time buyers is the service experience, and that goes beyond the insurance policy to include all aspects of the client relationship. While this is true also for conventional insurance (except, perhaps, when it is mandatory and competition is low), the main difference in process is the length of the value chain. In order to reduce cost and make premiums affordable, microinsurance providers tend to delegate functions to a party that can perform them at lower cost. Almost always that includes distribution, and in markets where suitably specialized parties exist it can furthermore include enrolment and claims handling. Given the low premium per insured, microinsurance can only be viable if large numbers of persons or assets are insured, usually considerably more than 50,000. Reaching these large

numbers of customers with the existing distribution mechanisms of conventional insurance - mostly agents and brokers - has seldom been sustainable in low income countries. Microinsurance therefore depends on distribution partnerships, where insurers partner with aggregators who are already in contact - and ideally in frequent financial transactions - with the target market who knows and trusts them.

Distribution entails various tasks, most notably:

- Communication: tell the target market what they are being offered, and explain
- Sale: convince the target market to buy
- Logistics: bring the insurance to the target market (insurance certificates, policy conditions, etc.)
- Enrolment: record who bought insurance (relevant personal data) and what he is entitled to (relevant policy data such as begin and end, cover limits, etc.) and transmit this information to insurer or intermediary
- Premium collection: collect premium and transmit to insurer or intermediary
- Trust: provide confidence to target market that the insurance is no scam

A substantial determinant to success in conducting these functions in an effective and cost efficient way is the appropriate technology, which ideally supports the whole value chain. The choice of the right distribution partner, and a reliable architecture of the partnership, are among the most decisive factors for the success of a microinsurance venture. Classes of distribution partners that have contributed to successful MI ventures elsewhere and that are promising for Mali as well include microfinance institutions, mobile network operators, and cooperatives, which all are already being tested in the country.

40. Most barriers to inclusive insurance in Mali are similar to those of other countries.

On the supply side, insurance companies often don't know why they should offer microinsurance: considerable effort may be required to re-engineer products and processes but the commercial outlook is uncertain. Neither do they know how they should offer microinsurance: simply downsizing existing products and applying the established processes usually fails, as the needs and the circumstances of the target market differ so much from the currently served markets

On the demand side, the target market knows little about insurance, considers it a luxury for the rich, and often distrusts insurance companies. This is a chicken-and-egg situation: insurers rarely invest in new products for new markets if they don't have evidence of demand that justifies that investment, while microinsurance target customers show little demand for insurance in general until products have been tailored and are serviced in a way that is relevant to them. The low discretionary purchasing power of the target market and mostly irregular income flows are particularly challenging for insurers – in Mali, this is exacerbated by relatively high premium tax rates which add 20% to personal accident and health insurance, two of the most demanded lines of microinsurance world-wide.

On the regulatory side, existing insurance regulation in many countries hinders the necessary re-engineering of processes, for example by restricting who is allowed to sell insurance and by limiting commission and expense margins. Being part of CIMA, which

was among the first jurisdictions to adopt a regulation for microinsurance²⁸, Mali has a reasonably enabling regulatory environment for insurance with premium of less than 70 USD²⁹. But an enabling environment is not enough to stimulate microinsurance: although one centerpiece of the regulation is the possibility to set up microinsurers (i.e. insurance companies that only sell microinsurance) with lower capital requirements, no such company has been set up in all of CIMA in the two years that the regulation has been in place.

41. **The CIMA microinsurance regulation is well intentioned and specific.** With the support of international experts, this regulation (known as Livre VII) was designed to facilitate market entry to insurers willing to venture into microinsurance. Its key elements are

- i. Establishment of micro-only insurers, specifying the lines of business they are allowed to offer, and their capital requirement (300 million FCFA for mutuals and 500 million FCFA for others, as opposed to 800 million FCFA for conventional mutuals and 1,000 FCFA for conventional insurers)
- ii. A 50% increase of the solvency capital requirement (calculated like for conventional insurance) for micro-only insurers
- iii. Permission to use non-traditional distribution channels, and the corresponding licensing requirements for them
- iv. Permission for micro-only insurers to offer some life insurance along with non-life insurance products
- v. Maximum premium amounts are limited by subordinate regulation to currently 42,000 FCFA³⁰
- vi. Separate reporting requirements - also for conventional insurers who underwrite microinsurance - including a number of key performance indicators specific to microinsurance
- vii. Transparency of policy conditions and limited exclusions
- viii. Stricter requirements for surrender values
- ix. Claims adjudication within 7 days, and settlement within 10 days, of request.

42. **The CIMA microinsurance regulation is yet to have a noticeable impact.** With the intention to balance consumer protection with encouragements for insurers to provide microinsurance (and for providers of informal microinsurance to formalize), the regulation offers some incentives but also imposes some requirements. It is not widely understood by insurers across the region. Furthermore, it contains some areas that are perceived to be confusing, most notably the question of whether insurance with premium below 42,000 FCFA is microinsurance by default, thereby triggering the corresponding new requirements, or if this limit only means that insurance with higher premium cannot qualify as microinsurance. In any case, the additional requirements seem to outweigh the incentives for many insurers, because the regulation has not lead to an increase in microinsurance products or providers. It is telling that CIF Vie, the insurance company set

²⁸ The Reglement N° 0003/CIMA/PCMA/PCE/2012 portant reglementation des operations de microassurance dans les etats membres de la CIMA, which added a Livre VII to the previous six books that make up the CIMA insurance law.

²⁹ 42,000 FCFA which is the stipulated limit for microinsurance.

³⁰ Microfinance loans can go up to 10 million FCFA in Mali, and amount that is difficult to insure at this premium.

up by the Réseau des Caisses Populaires du Burkina with the stated objective to serve the poor³¹, did not choose to obtain a microinsurance license but established a conventional insurance company instead. The Malian members of the Confédérations des Institutions Financières, who also intend to establish an insurance company to serve their members, will not create a microinsurer under Livre VII either. Although innovative microinsurance products have arrived in Mali in recent years, there is no evidence that they were motivated by the Livre VII nor that microinsurance in Mali (or in CIMA in general) is more dynamic than in other countries that have not passed MI regulation. Most non-life insurance companies in Mali are only mildly interested in microinsurance at this point, and have no specific plans to enter this market; that also relates to the fact that they cannot underwrite life insurance which is easier to provide to low income households than property insurance. And unlike in other countries of the region such as Senegal or Cameroon, neither CIMA nor donors have launched dedicated projects to stimulate microinsurance in Mali.

43. Promising microinsurance products show the interest and innovation of some insurers and distribution partners in Mali, where development has been driven by the private sector.

“**Sini Tonon**” is a product launched by the life insurer NSIA in partnership with Orange Mali. It is based on a mobile wallet which allows clients to make small contributions towards their savings, and provides life and disability insurance as well as insurance of medical expenses related to child birth complications as soon as the savings reach 40,000 FCFA. To further incentivize clients to reach and keep the savings objective, a free lottery for 1 million FCFA is also included. The product follows concepts from elsewhere: in Ghana for example, MTN used microinsurance to increase utilization of its mobile money platform, and the National Microfinance Bank in Tanzania gave clients free insurance when their deposits reached a certain level; but adding a lottery is innovative. Such lotteries are a substantial driver of life insurance demand in Brazil, where almost every individual life insurance policy includes them, but have not been tested outside of Brazil, let alone in microinsurance.

Orange mobile phone based payment systems are also used for premium collection by some mutuelles de santé, showing how the insurance industry can overcome geographic exclusion and the cost of collecting small premium amounts.

“**Lakana**” is a life insurance by Sonavie for premium as low as 10,000 FCFA per year that also covers total and permanent disability and accidental medical expenses, which is rare in microinsurance.

“**Jigitutu**” by Nallias is distributed by MicroCred and provides insurance against fire and water damage to the stock of traders with premium starting at 6,000 FCFA yearly. MicroCred is one of the few microfinance institutions worldwide to proudly advertise insurance among their offerings (see Figure 3).

MicroCred also offers voluntary accidental death and disability microinsurance to its clients, which includes **hospital cash cover**, for a premium of 5,000 FCFA per year.

³¹ “L’assurance au service des plus démunis” <http://www.cif-ao.org/spip.php?article74> .

Hospital cash insurance pays a fixed amount for every day the insured spends in hospital, to contribute either towards the medical bill or to compensate for lost income. Of all types of health related insurance, it is the least difficult to implement and operate, but it is still rare in microinsurance.

Index based agriculture insurance is one of the most impactful innovations of the recent years. By overcoming crucial barriers, it has allowed to provide agriculture insurance also to small scale farmers, and is doing so in Mali.

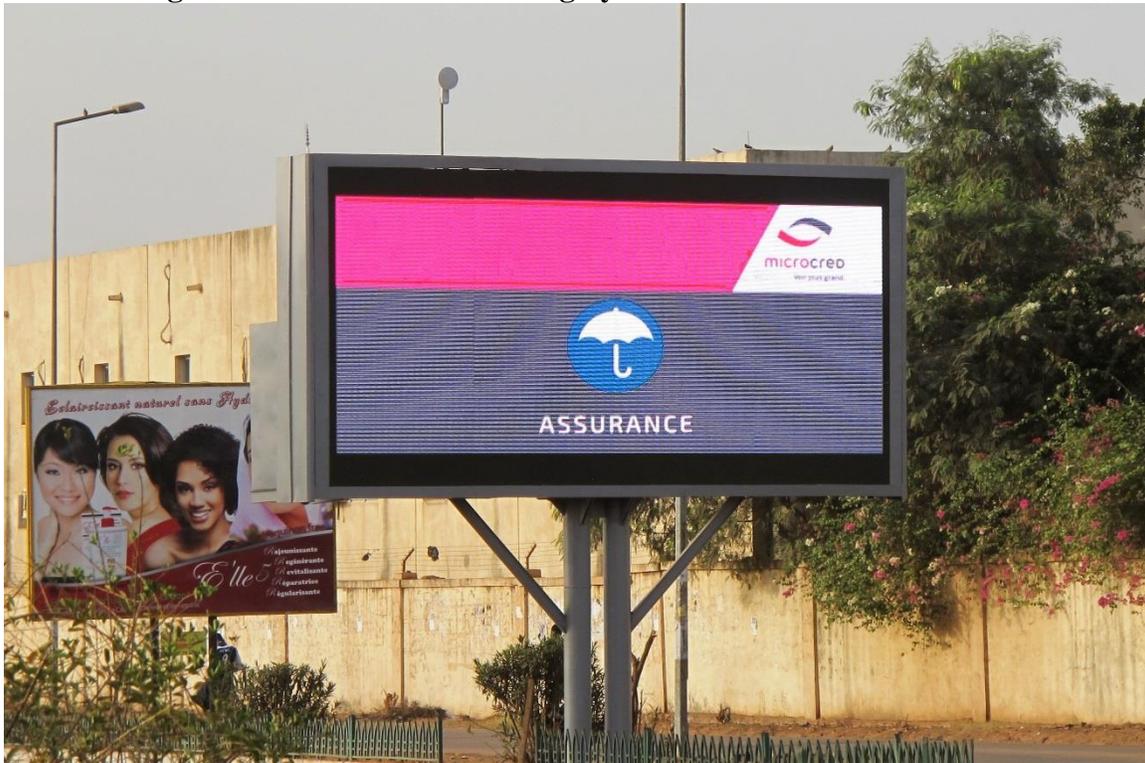
44. **Microinsurance requires more stimulus to flourish in Mali; a coordinated strategic national approach has been most impactful in other countries.** A regulatory environment presenting no obstacles to microinsurance is important, but it is not sufficient. Because microinsurance is the endeavor to overcome barriers that have excluded large populations from the insurance market so far, it requires substantial reengineering of all aspects of insurance, from market research and product development to underwriting, communication, distribution, and servicing. In some countries, individual insurers make the necessary investments in these public goods (and sometimes fail to achieve their business plan objectives and abandon the interest in MI), but increasingly the development of microinsurance is driven by industry wide coordinated efforts that involve the insurance supervisor as well as the insurance industry including its potential partners along the new value chains. This approach offers economies of scale on the supply side, for example when capacity building measures benefit the entire industry. It offers even more economies of scale in respect of the demand side, when awareness and understanding campaigns can be crafted and financed by all who expect to benefit from them. Furthermore, such a coordinated approach reduces the risk that ill-fated microinsurance attempts of any one player affect the reputation of the entire industry. There are a number of examples for the systematic approach countries like Zambia, the Philippines and Ghana have taken to develop inclusive insurance markets. In Senegal, the ILO's Impact Insurance Facility has started to support such a market development program³²; the Agence Française de Développement is supporting the development of microinsurance in CIMA markets³³ other than Mali. The development of inclusive / microinsurance in Mali will benefit considerably from an effective national initiative, especially if funding can be mobilized. In many countries, the development of microinsurance has been characterized by trial and error, often at considerable cost. Fortunately, this evolution has produced many valuable lessons that can help other countries avoid mistakes and speed the progress on the learning curve; but most of these lessons are not documented in French. The experience gained in a variety of countries over the last 10 years has also resulted in numerous modules for capacity building, again mostly in English and Spanish language. It would be most ineffective for Mali to go through the same learning process again by itself. But translations, capacity building and foreign experts will be required to allow Mali to benefit from the considerable body of international expertise, and to enable the insurance industry to offer products that will see demand. On the demand side, funds and expertise will be required to grow not only the awareness and trust of the target population, but also its competence: the

³² <http://www.impactinsurance.org/country/senegal> (the Impact Insurance Facility was formerly known as Microinsurance Innovation Facility).

³³ <http://www.agenceecofin.com/assurance/1710-23621-l-afd-veut-accompagner-les-societes-d-assurance-africaines-dans-le-developpement-de-la-micro-assurance> .

conviction to understand this offer well enough to consider using it.

Figure 3: Insurance Advertising by one Microfinance Institution



Source: the author

V. AGRICULTURE INSURANCE

45. **Insurance makes considerable sense for agriculture.** World Bank research shows that there is some form of agriculture insurance protecting crops and / or livestock in around 100 countries worldwide³⁴. In agriculture, risk transfer can and should complement risk mitigation and risk coping as the third fundamental pillar to manage risk. In addition to reducing vulnerability and protecting investment in more productive farming and livestock technology, the availability and use of insurance products can i) enhance the security of collateral and/or the creditworthiness of borrowers, thus facilitate access to credit and investment; ii) enable greater savings, investment and consumption, as rural households no longer need to hold as much liquid financial buffers to cope with unexpected shocks that can be insured instead; iii) allow more productive strategies, promoting specialization in areas of greatest expertise and benefit, instead of the low risk low productivity diversification strategies that risk aware farmers adopt in the absence of insurance.

46. **Agriculture insurance is scarce in Africa due to considerable challenges; index based insurance is helping to overcome them.** In Africa, most agriculture production comes from small-scale farmers. Crop and livestock insurance has not been available to

³⁴ Mahul, O., and C. Stutley 2010. Government Support to Agricultural Insurance - Challenges and Options for Developing Countries. The World Bank, Washington D.C.

them until very recently, the principal obstacle being information asymmetry - that is, farmers knowledge about the insured crops or animals is much better than insurers'. Insurers need to overcome this asymmetry when deciding whether to insure a farm and whether to pay a claim; traditionally, that requires farm visits by highly specialized experts, to decide on what conditions to offer insurance and to determine whether claims payments are justified. That is feasible for large farms, and agriculture insurance is often available for them also in Africa (though not in Mali). It is not financially viable for small farmers spread across vast geographies. Fortunately, this obstacle is being overcome in recent years with the spread of index based agriculture insurance. The fundamental innovation of index based insurance is that payment to the insured farmer is not based on the assessment of that farmer's actual loss, but on an objective and independent index that can readily be measured at reasonable cost and that is known to correlate well with crop losses. Typical examples are climatic variables – rainfall quantities and timing, temperatures or windspeed³⁵ – and the average crop yield in an area /see Figure 4 for a simplified example). The payment of an index based insurance contract is triggered when the index crosses the defined threshold; payment then is the same for each farmer who has the same insurance, regardless of the actual losses suffered by that farmer. This radical simplification substantially lowers the cost of providing the insurance, because no on-site farm inspection is required. The lower cost also addresses a key problem of any insurance for low income populations: operational expenses that are high compared to the size of the premium and often make the premium unaffordable to the target market.

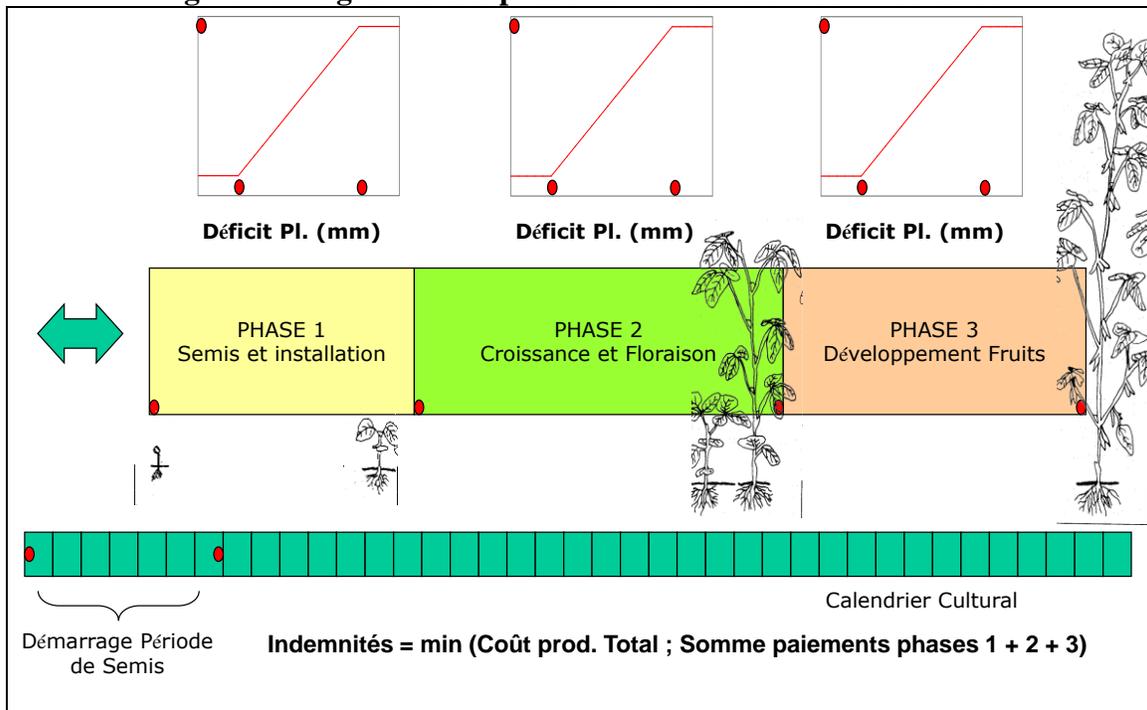
³⁵ Weather risks are normally the main insurable risks which are outside the farmer's control; price fluctuations of inputs and produce are another substantial risk but insurance is virtually nonexistent for that. In addition to these risks, farmers face constraints which are usually not insurable. Examples include access to adequate infrastructure, to agricultural credit, to services, to markets and to input supplies, all of which impact their ability to farm profitably. Constraints are not the same as risks and are not insurable. The role of agricultural insurance is usually limited where, in addition to climatic and other risks, farmers face major constraints related to inputs and output marketing.

Table 8: Comparison of traditional and index based agriculture insurance

	PRODUCT	SUMMARY	PERILS	BENEFITS	CHALLENGES
TRADITIONAL PRODUCTS	Named peril crop insurance	<ul style="list-style-type: none"> • Specific perils • Damage-based policy • Measure % damage in field • Agreed sums insured • Operated in private sector • Generally unsubsidized • Experience in private sector 	<ul style="list-style-type: none"> • Main: hail, fire • Other: frost, freeze, wind • Suited to localized, independently occurring, sudden perils • May include quality loss 	<ul style="list-style-type: none"> • Simple policy • Limited farmer details needed at point of sale • Transparent loss assessment • Product experience • Manageable adverse selection and moral hazard (especially for hail) 	<ul style="list-style-type: none"> • Individual farmer loss assessment • Loss assessment cost in small farmer systems • Not suited to complex perils, especially drought and pest
	Multiple Peril Crop Insurance (MPCI)	<ul style="list-style-type: none"> • All perils, few exclusions • Yield-based policy • Measure harvested yield • Compare to a % of average yield • High cost, often requires subsidy • Problematic for small farms • Concentrated in a few countries (USA, Canada, South Africa, Argentina) • Many failed attempts 	<ul style="list-style-type: none"> • A wide list of perils • Difficult to exclude perils, as causes of loss cannot be identified • Includes management influences • May include quality loss • Occasionally includes some price risk 	<ul style="list-style-type: none"> • More easily made into a "universal" product type • Limited technical adaptation required for different crops • Guarantees farmer production and income • Type of insurance farmers typically want and understand • Indemnifies each farmer according to yield 	<ul style="list-style-type: none"> • Individual farmer loss assessment, major loss adjustment task, impartial loss adjustment difficult • Adverse selection (worst farmers benefit) • Moral hazard (exploitation of policy) • Major work to set up yield history for each farmer, poor data • High premium and administrative cost • Not suited where farms are small
INDEX-BASED PRODUCTS	Area yield index insurance	<ul style="list-style-type: none"> • Farmers grouped into assigned areas (e.g., district, county) • MPCI but on area average yield • All farmers in area treated equally • Effective where similar exposures affect whole districts • Largest program is NAIS (India) 	<ul style="list-style-type: none"> • A wide list of perils • Difficult to exclude perils, as causes of loss cannot be identified • Includes management influences • May include quality loss • Occasionally includes some price risk 	<ul style="list-style-type: none"> • No adverse selection, moral hazard, individual farmer loss adjustment • Low administrative costs • Can address catastrophe perils affecting group • Enrollment of farmers is easy • Captures all causes of yield loss 	<ul style="list-style-type: none"> • Local perils (e.g., hail) will not result in payout • Yield history at local district level often not available or reliable • Basis risk at local level depending on district area and peril
	Weather Index Insurance (WII)	<ul style="list-style-type: none"> • Payouts based on weather station measurement • Index trigger, exit, increments set to expected loss of yield • Can be complex to design • Limited experience to date 	<ul style="list-style-type: none"> • Main: rainfall deficit and excess; high, low, or prolonged temperatures • Other: high wind, sun • Combinations of above • Basis risk minimized for gradual events 	<ul style="list-style-type: none"> • No adverse selection, moral hazard, individual farmer loss adjustment • Can address catastrophe perils affecting group • Transparent, objective Meteorological Service Data (MET) • Easier to reinsure 	<ul style="list-style-type: none"> • Basis risk is key challenge • Setting up the index parameters is technically complex • Need good meteorological and agronomic data, crop modeling • Difficult to correlate damage for sudden-impact weather

Source: World Bank Agricultural Risk Management Training Materials

Figure 4: Diagram of a 3 phase rainfall deficit index insurance



Source: World Bank Weather Risk Management Course

47. **Unlike all other jurisdictions, CIMA has already cleared regulatory obstacles to index insurance.** Since the link between insurance payment and damage to the insured interest is only statistical in index insurance, it violates the regulatory definition of

insurance in many jurisdictions, and while supervisors in many countries have granted permission to pilot test index insurance, the regulatory uncertainty has been an obstacle to crowd in more commercial interest. CIMA, however, is the first jurisdiction that has addressed index insurance in the context of microinsurance, specifying that agriculture insurance can be underwritten on an index base, where claims payments will be made on the basis of the level of the index and the sums insured. Livre VII also includes instructions concerning the reliability of eligible indices. Non-agriculture related property microinsurance can also be index based. One reason why not more jurisdictions have regulated index insurance so far is that considerable specialized expertise is required not only to design and operate a product but also to regulate and supervise it; here is an example of the regulatory and supervisory economies of scale that benefit Mali through its CIMA membership.

48. **In addition to supportive regulation, index insurance needs very specialized expertise and initial investments to overcome very particular challenges, in areas such as data.** Like for any type of insurance, sustainable premiums are derived from past experience, and given the novel nature of index insurance and agriculture insurance in Africa, such experience is not readily available. Instead, it has to be constructed from historical records of suitable indices such as weather station and satellite data, and from historical crop yield data. This data is often difficult to obtain in good quality and sufficient granularity, and shows gaps that are difficult to close even after thorough cleaning. Correlation between available indices and crop losses can only be assessed once sufficient data is available, and often that assessment is not encouraging but indicates that the index will not reflect crop losses well enough to allow for a valuable insurance product; the analysis has to be repeated with changed parameters or for other indices or crops. This process is very costly, and since the insurance product has to be ready before the beginning of the season, it is usually conducted under considerable time pressure. Sometimes this process finds that additional investment such as in weather stations or crop yield sampling procedures is required, which further adds to cost.

49. **The operation of agriculture index insurance for smallholder farmers presents additional challenges.** As agriculture index insurance usually targets smallholder farmers, it faces all the challenges of microinsurance: the low available income of the target market; the low insurance awareness, understanding and trust of the target market; and the considerable scale required for premiums to exceed claims and expenses. But in agriculture index insurance, the communication of the value proposition and the organization of the logistics happen along extended value chains that go from international reinsurers and research firms through local insurers and brokers on to agriculture lenders, farmer associations, cooperatives and NGOs that all play a role which needs to be carefully coordinated and synchronized. Agriculture insurance has to be sold before the planting season is so advanced that farmers would base purchase decisions on predictions of this year's harvest. Given the seasonality of agriculture, this implies that there is a narrow window of opportunity that closes inexorably, and all the necessary steps – product design, pricing (re)calibration, putting in place infrastructure such as weather stations, all the explaining and marketing along the value chain, printing and distributing enrolment forms, collecting premium and enrolment data and transmitting it to the insurer and reinsurer – have to be accomplished before; else, a year may pass before the insurance can be sold again, and the fixed cost of maintaining the operation until then can topple projects. But

even if the insurance logistics works impeccably, the farming logistics have to work as flawlessly. If farmers plant late, for example, because they get the necessary seeds only after the ideal planting window (possibly because they got the necessary credit too late), then their harvest will be low even under ideal climatic conditions, and insurance based on weather related indices will not compensate for that shortfall.

50. Product quality is challenge particularly to index insurance. Another particularity of index insurance is that the level of granularity – i.e. the size of the area where insurance will have the same parameters – needs to balance available time and resources (more granular products take longer and are more expensive to develop) with accuracy (correlation between insurance payment and insured damage is lower for less granular products). And while the claims process does not require to visit individual farms, it does require the expertise to transform data from satellites, weather stations or crop yield statistics to index triggers. In every line of insurance there will be customers who disagree with insurers' claims decisions, but this takes a new dimension in index insurance where claims payments to one farmer are not determined by the actual damage that farmer suffered. The possibility that farmers receive no insurance payment despite the fact that they suffered a loss is known as basis risk; despite the significant research and product calibration that all index insurance projects have to do, some level of basis risk always remains, and can lead to considerable discontent of the target market and threaten the future of the project. This is one reason why agriculture index insurance has moved from pilot project to industrial scale in very few countries. And while good uptake indicates product acceptance, index insurance is often challenged at the claims stage. The parametric nature of index insurance is more difficult to understand for the insured and everyone else along the value chain, and that makes disappointments at claims stage more frequent.

51. The considerable upfront effort for an innovation with uncertain commercial outlook prevents most insurance companies to engage in index insurance without external support. Donors who see the potential of index insurance and are aware of this obstacle have mobilized considerable resources for example through the Global Index Insurance Facility (GIIF) of the World Bank Group.

52. Agriculture index insurance has been piloted in Mali for some time, with mixed experience. Supported by the GIIF, the Africa Enterprise Challenge Fund and ILO's Microinsurance Innovation Facility, a partnership between:

- Allianz,
- Swiss Re,
- Africa Re,
- CICA Re,
- PlaNet Guarantee (an internationally experienced microinsurance facilitator and the project manager for index insurance in Mali),
- the remote sensing company EARS,
- various microfinance institutions,
- and a considerable number of cooperatives

has resulted in three different insurance products that cover maize against drought. The products are based on satellite data with a granularity of 2 by 2 km which is available for

more than 7,000 villages, and have been calibrated to pay on average every 5 years. Compared to the experience with similar pilots in similar countries, uptake was encouraging during the first years, and the number of insured farmers grew from 361 in 2011 to 13,282 in 2013³⁶ and 17,481 in 2014³⁷, reportedly improving farmers' access to credit already. In Senegal, for example, similar products reached 2,200 farmers in 2014, and in Benin less than 200, both under projects that are comparable in timeframe and resources. However, because major aggregating distributors missed the deadline to submit premiums due to the insurer (and the insurer therefore missed the deadline with the reinsurers), the number of insured farmers fell under 300 in 2015. This highlights the logistical challenges faced by agriculture index insurance, and puts some doubts on the growth target of 50,000 farmers anticipated by PlaNet Guarantee for 2015.

53. In addition to pilot projects by insurance practitioners, there have also been feasibility studies and experiments by researchers dedicated to agriculture insurance in Mali. A 2011 project of the USAID supported Index Insurance Innovation Initiative (I4) resulted in the proposal of a double trigger, a unique and very innovative way to address basis risk, and made specific policy proposals³⁸. Prior to that, USAID and Save the Children had commissioned a study on the feasibility of index-based weather risk transfer in Mali from GlobalAgRisk Inc.³⁹, and the ILO's Microinsurance Innovation Facility funded PlaNet Guarantee to produce a report on the possibilities of microinsurance for cotton farmers in Mali⁴⁰. Considerable insights have been produced to guide the expansion of index based agriculture insurance in Mali going forward.

54. With substantial funding from Canada, a new venture that includes agriculture credit and insurance wants to contribute to agriculture productivity and food security. The project "Financement agricole et rural au Mali" of Développement international Desjardins (DiD) and Financière agricole du Québec - Développement international (FADQDI) aims to replicate the core architecture of the "Système de financement et d'assurance agricole à Haïti" (SYFAAH), suitably adapted to the circumstances of Mali. This has the potential to be transformative to agriculture finance and also to agriculture insurance, where it can provide another powerful proof of concept to further attract commercial interest. While DiD and FADQDI are aware that the insurance market in Mali is very different from the insurance market in Haiti, most notably concerning the regulation of index- and micro-insurance and the engagement of the respective governments, the core concept of the SYFAAH is of such universal appeal that transferring it to other countries such as Mali (and Colombia, where it is also being implemented) is promising. The concept hinges on a number of interventions aimed to increase comfort of lenders with agriculture credit, which has suffered from the recent microfinance crisis. A line of credit will give access to refinancing to lenders who want to engage in agriculture finance. A guarantee fund will provide protection against loan

³⁶ <http://www.indexinsuranceforum.org/project/planet-guarantee-mali>

³⁷ https://www.indexinsuranceforum.org/sites/default/files/1505755-CountryProfiles_Mali.pdf

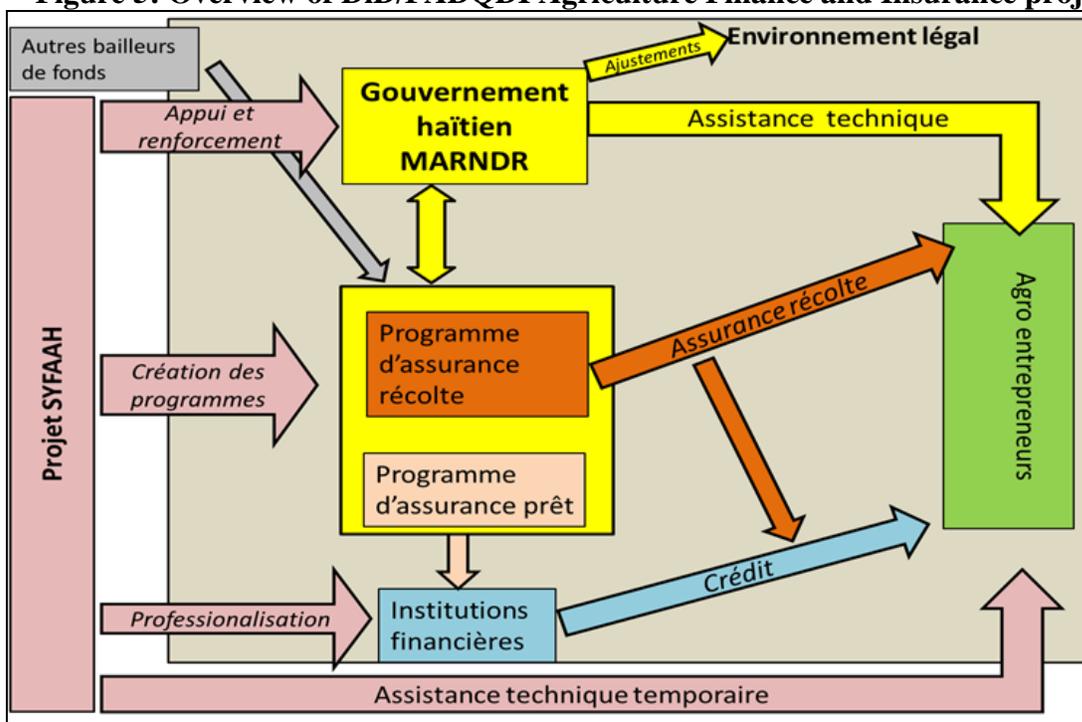
³⁸ http://basis.ucdavis.edu/wp-content/uploads/2014/08/Elabed-Paper_TwoTriggers.pdf

³⁹ <https://agriskmanagementforum.org/sites/agriskmanagementforum.org/files/Documents/USAID%20Pre-Feasibility%20Analysis%20Index%20Based%20Weather%20RiskTransfer%20in%20Mali.pdf>

⁴⁰ https://agriskmanagementforum.org/sites/agriskmanagementforum.org/files/Documents/planet_guarantee_etude%20faisabilite_4.pdf

default⁴¹ while maintaining the motivation of the lenders to diligently manage their loan books. A crop insurance, to be provided by local insurance companies, will encourage farmers to take out loans and invest in higher yield production even if that comes with higher risk. And various forms of technical assistance will contribute to the professionalization of agriculture lending as well as to a more systematic farm management, commercialization and value chain optimization that will help farmers access financing. Figure 5 gives an overview of the structure in Haiti, showing how the various components relate to each other. Due to the challenging political situation in Mali since 2012, the project is just about to start, so many aspects still need to be specified, for example if the index based crop insurance will be based on weather station data, satellite data or area yield data. So far, the project plans to employ a local team of 15 and draw on the international teams of DiD and FADQDI for (agriculture) insurance expertise that is scarce in Mali⁴². Considerable resources have been mobilized. Focus will be on smallholder farmers (with particular initiatives for women and youth), and crops considered so far include rice, maize, potatoes, millet, sorghum, vegetables and small ruminants, favoring a holistic farm level approach over a crop centric one; cotton will not be addressed. Likely areas include Koulikoro, Sikasso, Segou and periurban Bamako.

Figure 5: Overview of DiD/FADQDI Agriculture Finance and Insurance project



Source: DID/FADQDI/IICA consortium in Haiti

55. International research shows that agriculture insurance programs conducted by either the public sector or the private sector alone struggle considerably to succeed; moreover, Public Private Partnerships tend to be a necessary condition for

⁴¹ This will not be a formal insurance but will be under the banking supervision.

⁴² DiD has played important roles in the development of insurance in the CIMA region in the past, for example in relation to the regulation of microinsurance and index insurance, and by supporting the creation of insurance companies focused on microfinance clients in other CIMA countries.

successful scale-up of agriculture insurance. On a global basis, only 7% of agricultural insurance transaction volume is purely private. Market and regulatory impediments are often invoked to justify public intervention; they include the systemic nature of agriculture risk, information asymmetries, and the low motivation of any private sector company to invest in the public good of the data infrastructure necessary for functioning agriculture insurance. Private insurers offered agriculture insurance in more than half of the 65 countries surveyed by the World Bank in 2008; in one out of three of these countries, they did so in partnership with the public sector.

56. **One obstacle to the growth of agriculture insurance is that it is expensive.** Depending on circumstances, it can cost 10% or more of the sum insured (that is, the maximal expected payout amounts), compared to less than 1% for life insurance, for example. This is not necessarily an obstacle for prosperous producers but usually is a challenge for the majority of low income farmers and herders.

57. **The costs of insurance premiums – and hence the affordability of insurance – is driven by various factors and can be influenced by the public as well as the private sector.** Table 9 gives a simplified overview. Each cost driver can be addressed in order to make premiums more affordable, and each corresponds to one of the various roles and interventions that the public and the private sector can assume. The relatively high tax rate of 20% on agriculture insurance in Mali is a particular obstacle to affordability - and thus to scale and sustainability.

Table 9: Drivers of premium for agriculture insurance

Premium component	Function	Potential reduction
Actuarial premium	quantifies the statistically expected claims payments	Focus on infrequent severe events
Loading for deviations	Honor payment liabilities in years when claims exceed the actuarial premium	Larger pool size to reduce statistical variance
Loading for reinsurance	Sharing risk with larger pools to protect insurer against statistical outliers Reduce capital requirements Benefit from specialized expertise of reinsurers	Larger pool size to reduce statistical variance and the need for reinsurance, to reduce statistical variance of cessions to reinsurers, and to offer more attractive business proposition to reinsurers Government financing of reinsurance layers
Loading for amortization of upfront cost	Recover initial investment in product and process development, IT, etc.	Donor funding of startup expenses
Loading for data cost	Fund payment to providers of recurrent data needs	Public good data access
Other administration expense loading	Fund ongoing variable operation cost	Outsource administrative tasks to those who can perform them at lower cost
Distribution expense loading	Fund ongoing distribution cost	Partner with lower cost distribution channels
Profit margin	Justify the effort and build reserves	Increase business volume and outlook for future market growth
Taxes	Contribute to Government revenue	(Temporary) tax reductions

VI. RECOMMENDATIONS

58. **Recommendation 1: strengthen insurance supervision and effective consumer protection.** Establishing a Direction d'Assurance instead of a Division d'Assurance will allow the supervisor to interact more directly with the insurance market. It will also be more consistent with ICP 1 and 2. Furthermore, it will support the supervisor's desire to

contribute to market development (in addition to prudential supervision), and can lead to a stronger mandate for market conduct regulation and supervision. When suitably communicated, a strong mandate for market development and consumer protection will increase public awareness for insurance and consumer confidence. Such an empowered supervisor should further encourage the industry to improve its service quality, for example by asking insurers to commit to a client-centric code of conduct. Such an empowered supervisor may also want to publish information that provides guidance to consumers, relating for example to financial stability and growth of each insurer. And it should also consider stronger incentives to insurers to compete for excellence, for example with the publication of each insurer's claims ratios and claims turnaround times. That would incentivize insurers to make an effort towards service excellence; it would reward those who show the greatest achievements, and motivate those who fall behind to make a greater effort. Consumers will get the information they need for well-informed insurance purchase decisions based on greater trust, and they will realize that the insurance supervisor is also an advocate for their fair treatment.

59. **Recommendation 2: procure technical assistance and funding to the insurance supervisor, in order to increase consumer protection and information, and insurance awareness and understanding.** While the mandate to a suitably empowered insurance supervisor is a necessary condition to improve the service quality and public appreciation of insurance in Mali, it requires funds to implement the appropriate systems (for example to collect, edit and publish relevant information). Initiatives to strengthen market conduct, for example the use Key Fact Statements and Codes of Conduct, should be guided by the supervisor who will benefit from technical assistance for this. To be effectively adopted, new regulations coming to Mali from CIMA need to be suitably communicated and explained to all players. Support will also be welcome to strengthen the (tax) accounting expertise of the supervisor's staff, and allow them to work with the Conseil National de la Comptabilité towards more consistent accounting of insurance intermediaries. Various ambitious ventures (such as the creation of a new insurer by the microfinance industry, or Desjardin's Financement agricole et rural au Mali) are counting on external expertise and/or funding, and there may be donors interested to support the strengthening of insurance supervision, especially in the context of microinsurance development. While the regulatory framework for MI has been provided by CIMA, the supervision of this new field requires new approaches from supervisors, who in other countries are welcoming technical assistance to meet the new demands.

60. **Recommendation 3: formalize borrower death and disability insurance.** Although it is historically understandable that lenders have preferred to constitute informal internal "guarantee funds" to hedge the risk of loan default due to death and disability of their borrowers, this practice clearly violates existing regulation. Other CIMA countries such as Senegal provide examples of vigorous action against this practice. The insurance market in Mali is competent to meet the needs of lenders; as the number of life insurers is expected to grow, the market will also become diversified enough to offer competitive choice. Initially, collaboration between lenders and insurers will require efforts on both sides. Insurers may require additional capacity building, especially concerning the clients of microfinance institutions which demand different documentation, underwriting and claims procedures; and in view of the situation of the microfinance industry, insurers will need to know which MFIs could be reliable partners. Banks and MFIs may ask for

additional transparency and information to better assess insurers and their offerings, and will have to develop an understanding of the core functions that distinguish insurance from banking, such as underwriting and claims adjudication. But the rewards of this initial effort can be huge, as microfinance institutions provide access to segments of the population which have largely been excluded from the insurance market and who are not easy to reach by other means. Credit life insurance is only the first product that results from this partnership; it is often followed by other easy to implement covers such as (family) funeral insurance and market fire property insurance, and in the longer term by more complex insurances addressing for example health needs. A functioning partnership between the insurance and the microfinance sectors has often been gateway to considerable financial inclusion.

61. **Recommendation 4: strengthen motor insurance.** Addressing the current weaknesses of car insurance in Mali offers considerable promise to improve the public perception of insurance. The principal deficits in Mali are well known: the low coverage of mandatory MTPL and the absence of a motor guarantee fund. While the implementation of such a fund is well advanced and needs political attention more than anything else, increasing the coverage of MTPL will require more effort. Guidance from other (CIMA) countries could help Mali, for example experiences with a market wide motor vehicle database that is linked to a market wide insurance database and to police registries. In other countries, such an architecture has not only increased insurance coverage and reduced fraud, but also allowed to develop insurance products with bonus/malus features that reduce it for good drivers and increase the cost of insurance for bad drivers – even when they change insurer. Such products have strong behavior change effects and have improved road safety in many countries. Increasing the coverage of mandatory MTPL will provide considerable additional premium revenue to the insurance market, stabilizing results, improving economies of scale, and allowing further investment in processes and systems as well as in human resources and product development. It will also give insurers an opportunity to demonstrate excellence to an increasing number of households, and motivate them to reduce their vulnerability with more types of insurance.

62. **Recommendation 5: develop microinsurance systematically, ideally in the context of a national strategy for financial inclusion or a national strategy for financial sector / insurance development.** The regulation of microinsurance at CIMA level has not achieved a vibrant and sizeable microinsurance market in Mali. Increasing numbers of example show that noticeable development of microinsurance needs to be catalyzed by national coordinated efforts that involve the insurance supervisor as well as the insurance industry (together with its potential partners along the new value chains). Mali may want to consider this option, and seek guidance from initiatives underway, lessons learnt, and expertise gained in other CIMA countries and around the world. Among others, such an initiative should help insurers and potential alternative distribution channels to meet with a better common understanding (at “eye level”) that will help them develop partnership to overcome the limited scale of insurance distribution to emerging customers.

63. **Recommendation 6: Review insurance taxation.** Reducing the tax rate to levels more commensurate with other CIMA countries - for example for agriculture, health and motor insurance - will reduce fiscal revenue in the short term. To the extent that it can be expected to increase the overall volume of insurance, a smaller share of a larger pie can

eventually result in bigger direct fiscal contribution (from taxes on insurance premium and income tax from insurers) as well as in indirect fiscal contributions: as insurance allows households to progress to greater prosperity while avoiding poverty traps, it grows the economy as a whole. More widespread use of the indemnité de fin de carrière products offered by the insurance industry will further contribute to that when stimulated by a more attractive taxation.

64. **Recommendation 7: explore paperless insurance.** The distribution of insurance through mobile network operators has grown insurance markets impressively in other countries, allowing millions of Africans to discover that insurance is not a privilege of the wealthy but can make their lives better as well. This innovation has arrived in Mali as well, and the growing outreach of mobile phone based banking services will contribute to reduce operating cost and make insurance more accessible to geographies and social sectors that are currently excluded. However, the requirement for paper based policy conditions still requires physical encounters with clients. Furthermore, the insurance association argues that such a "dematerialization" is essential also to effectively enforce the mandatory insurance on imported goods, and has developed a proposal to achieve that.

65. **Recommendation 8: review the CIMA code.** 23 years after the common regulatory framework for insurance was adopted by the CIMA member countries is an opportune moment to document and discuss the lessons learnt, in particular in respect of the respective powers of national insurance supervisors versus CRCA. Insurance has changed in the last 20 years, West Africa has changed, and the CIMA member countries have changed, and even a formidable jurisdiction such as CIMA needs to keep abreast of international developments. The international standards for insurance regulation were substantially strengthened in 2011 and 2012, in response to issues raised by the global financial crisis. In CIMA countries as elsewhere, there is potential to strengthen the knowledge about the ICPs, and about how to improve supervisory capacity in a manner that is consistent with them (including a plan by which to gauge progress towards updated regulatory and supervisory goals). A self-assessment against the IAIS' Application Paper on Regulation and Supervision supporting Inclusive Insurance Markets could help fine tune microinsurance regulation. Similar suggestions have been put forward from various sides in Mali (for example the desire for more diligent licensing of new insurers), but the country cannot address the matter by itself. It should be encouraged, however, to bring this suggestion to the attention of the CIMA Council of Ministers. Considerable international expertise is available to assist in this evaluation if funding can be mobilized.