

The Critical Role of Insurance Sector in Algerian Economy during period 2014-2021

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Abstract :

Insurance is essential for the proper functioning of the economy, Its importance lies in the share of the latter in the constitution of the gross domestic product. Indeed, if this share is very important, it will contribute massively to the economic growth; The latter then makes it possible to improve the economic situation of a country and to evolve the standard of living of the company and make it more efficient in the long term. Insurance has the potential to provide vital support to emerging economies, whereas, its advantages often tend to be overlooked. This paper aims to shed light on the positive contributions insurance offers economically with a special focus in Algeria; Promoting awareness of these benefits may help to create the conditions necessary for insurance to support economic development region; however, it will therefore be needed to adopt new reforms to integrate new measures to develop the sector and to stimulate demand for insurance.

Keywords: Insurance Sector, Covid 19, Algerian Economy

Jel Classification Codes O55, I10, L99

Introduction :

Insurance has appeared in the world since the Middle Ages. It has developed gradually and known as one of the best processes whose purpose is to ensure

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the protection of the individual, his family, or his property, which can be very often exposed to certain risks of daily life. Today, insurance has become a highly developed sector and makes it possible to cover extremely varied risks, such as health insurance, car insurance, and work...ect

In addition to the guarantees it offers, the insurance sector is an integral part of the financial sector. For developed countries, a strong insurance sector is an essential feature for a well-functioning economic system. Moreover, the economic literature has demonstrated that economic growth and insurance development were that an economy without insurance services would be much less developed and stable.

In addition, financial intermediation can be achieved by insurers through collecting relative premiums from many small individuals in the economy, which constitutes a large pool of funds that could be invested in both short- and long-term periods (Akinlo & Apanisile, 2014)

It is also mentioned that life insurance reduces the demand for liquidity in the form of money and durable goods, and shifts the composition of individuals' portfolios of savings to more productive assets. On the other hand property/liability insurers reduce the likelihood of distress liquidation of firms in the face of catastrophic losses. As an example, risk-neutral shareholders have an interest in insuring against losses to avoid bankruptcy costs (Webb, Grace, & Harold, 2002).

Another aspect, provided by Ward and Zurbruegg, assert that risk transfer and indemnification. Which offers risk transfer and indemnification services aids risk-averse individuals in purchasing large-expense items, such as automobiles and real estate as indemnification encourages their innovation (Ward & Zurbruegg, 2000).

In light of this remarkable development of insurance activity in Algeria, From statistics, that there is a need to shed light, in order to know, the effect of insurance sector development on economic growth in Algeria.

1- Theoretical and Literature Review

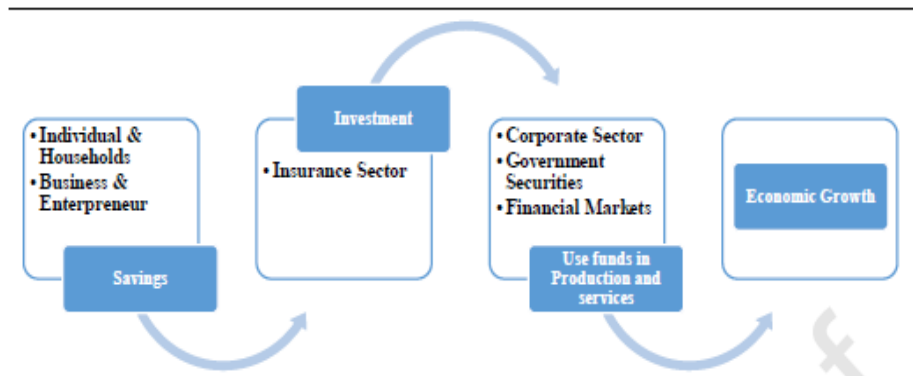
1-1 Theoretical Framework

The insurance sector plays an important role in the development of an economy (Skipper, 1997) stated that insurance contributes to an economy via financial stability, reduced anxiety, substitution of government security programs, trade and commerce facilitation, savings mobilization, efficient risk management, loss mitigation and efficient capital allocation.

The theory of financial intermediation reveals that the real-world market is characterized by frictions that include transaction costs and asymmetric information ; The reduction in transaction costs, as the main function of financial intermediaries, was first introduced by (Gurly, Show, & Enthoven, 1960), individuals and households make domestic savings and to safeguard themselves from unfortunate events and to make future savings they invest their funds in life insurance products, commercial businesses and entrepreneurs also buy life insurance products for their employees; apart from life insurance they also buy other insurance coverage to safeguard their

business trades. Accumulating funds from these sources' insurer act as institutional investor by investing their funds in the shares, private equity and corporate bonds, Thus contributing towards financial development, since financial development promotes economic growth through channels of marginal productivity of capital, efficiency of channeling savings to investments, saving rate and technological innovation (Levine, 1997) Thus, insurer provides long term finance to corporate sector for investment in economy which contributes to economic growth. (Fig. 01)

Fig.1. Channels of Insurance Sector Activity to Contribute to Economic Growth



Source: (Mehmood, Shahbaz, & Jiao, 2021)

2.2 Literature Review

The trend of the empirical research in insurance-growth nexus has been introduced since the past few decades. One of the initial studies is of (Beenstock, Dickinson, & Khajuria, 1988) who applied OLS technique on pooled time series data from 1970-1981 and on cross-sectional data for year 1981 comprising mainly of 12 countries. They used data pertaining to premiums for property liability insurance (PLI) and regressed it on interest rate development, gross national product (GNP) and income. Their findings indicate correlation of premiums to GNP and interest rate, short-run and long-run marginal propensity to ensure increases with increase in income per capita and the trend remains higher in long-run.

(Browne & Kim, 1993) Investigated per capita life insurance consumption on cross-sectional data for the years 1980 and 1987 comprising of 45 countries. Using OLS technique of estimation results show that income, social security expenses and dependency are positively. Inflation is negatively correlated and significant in both of the analyzed years.)

(Outreville, 1994) conducted a cross-sectional study for 45 developing countries for the year 1986. The empirical results from the applied technique of OLS show that development of life insurance significantly relates to level of personal disposable income and level of financial development. Furthermore, life insurance also appears to be considerably affected by the anticipated inflation level.

(Ward & Zurbruegg, 2000) argued that insurance market activity may contribute to economic growth, mobilizing savings from savers to borrowers by act as financial intermediary and also manages risks through diversification. (Kugler & Ofoghi, 2005) noted that risk indemnification and transformation function is captured via non-life insurance business and financial intermediation function of insurance is captured by its life insurance component. (Adams, Andersson, Andersson, & Lindmark, 2006) empirically investigated the long run relationship amongst banking, insurance and economic growth from 1830-1898 using time-series data pertaining to Sweden by using cointegration and Granger causality tests. They found that pace of economic expansion appears as a driver of insurance market activity and banking as the major factor influencing economic expansion and demand for insurance.

(Arena, 2008) examined the existence of causal relationship between insurance market activity and economic growth. He used the Generalized Method of Moments (GMM) for dynamic models of panel data for 55 countries between 1976 and 2004. The study concluded that there is a robust evidence of causal relationship between insurance market activity and economic growth where life and non-life insurance activity were found to have positive and significant causal effect on economic growth. For life-insurance branch, only high-income countries drive the result unlike non-life insurance where both high-income and developing countries are drive the results.

(Han, Li, Moshirian, & Tian, 2010) Investigated the relationship between insurance development and economic growth. They used dynamic panel data set of 77 economies for the period of 1994-2005, they divide the sample into developed and developing economies. Findings indicate that the overall insurance development, life and non-life insurance development play a greater role in developing economies as compared to that in developed economies. In terms of magnitude, non-life insurance has significant impact on economic growth than life insurance.

(Njegomir & Stojić, 2010) examined the effect of insurance sector on economic growth and nexus of insurance and banking sectors in economic growth in ex-Yugoslavian region. Their findings show that insurance sector brings positive effect on economic growth via its risk management function and as an institutional investor, Whereas, impact of banking and capital markets was observed as insignificant, government expenditures had a positive effect and impact of physical capital was found as negative.

(Millo & Carmeci, 2011) analyzed the determinants of non-life insurance in 103 Italian provinces during the period 1998–2002. The authors conclude the

presence of positive effects of wealth, population density, and income and negative impact of the legal system inefficiency on the insurance demand.

(Alhassan & Fiador, 2014) conducted a study on the case of Ghana in an attempt to determine the causal link between insurance penetration rate and economic growth between 1990 and 2010 using Autoregressive Distributed Lags models ARDL. Per capita real GDP is the dependent variable representing economic growth, while the independent variables are as follows: foreign trade volume, life insurance penetration rate, non-life insurance penetration rate, consumer price index to express inflation and capital represented by Gross fixed capital formation. The study concluded that there is a positive causal relationship in the long term between insurance penetration rate and economic growth, which means that funds mobilized by insurance institutions positively affect long-term economic growth. The study also found a unidirectional causal relationship from insurance activity towards economic growth which is consistent with the Supply-Leading Hypothesis.

(Pradhan, Arvin, & Norman, 2015) examined causal relationship between insurance market development, financial development, and economic growth in 34 OECD countries for the period of 1988-2012. Using panel Granger causality, they found insurance market development, in addition to financial market development contributes to economic growth in the long run whereas, short run is characterized by feedback effect. (Alhassan, A.L, 2016) examined the causal relationship between insurance penetration and economic growth in selected African countries, used ARDL approach to cointegration on data from 1990 to 2010 for Algeria, Gabon, Kenya, Madagascar, Mauritius, Morocco, Nigeria and South Africa. (Pradhan, ARVIN, Hall, & Norman, 2016) investigated causality between insurance market penetration, broad money, stock-market capitalization, and economic growth for ASEAN region for time span of 1988-2012. They found the presence of cointegration and a network of causal connections, characterized by short-run bidirectional causal relationship between insurance market penetration and economic growth.

(Pradhan, Dash, Maradana, Jayakumar, & Gaurav, 2017) conducted Granger causality analysis for 19 eurozone countries for a period from 1980 to 2014. They used three proxies for insurance density and found unidirectional and bidirectional causality using these proxies. (Asongu & Odhiambo, 2019) found the threshold level of insurance penetration that positively affected economic growth in Africa. Using a panel of 48 countries in Africa for the period 2004–2014, they employed generalized method of moments technique. (Apergis & Poufinas, 2020) evaluated the impact of insurance growth to economic growth, by employing the benefit side of the insurance activity. They found evidence that gross claims payments and gross operating expenses are significantly and positively related to economic growth.

(Gaganis, Hasan, & Pasiouras, 2020) evaluated the influence of insurance rules on the life insurance sector in 44 developed and developing nations. The findings reveal a close link between insurance premiums on the one

hand, and supervisory control over policy conditions, as well as pensions products on the other.

In a separate study, (Lee, Chong, Yap, Sia, & Chen, 2021) examined the factors that influenced insurance sector development in China and five ASEAN nations from 1995 to 2015. The empirical analysis used the pooled OLS, fixed effects, and random effects approach. The data imply that greater commerce has a positive impact on the non-life insurance industry's development, whereas inflation and interest rates have negative and significant effects.

(Nebbache, 2021) investigate the impact of the double crisis associated with the exceptional economic situation as well as the pandemic on the Algerian insurance sector. The findings reveal that the sector's employment is shrinking, along with a decline in insurance company recruitments. Furthermore, the overall market output is down, notably in the automotive insurance and assistance branches.

(Mehmood, Shahbaz, & Jiao, 2021) examine the relationship of insurance sector with income per capita in Muslim countries. The countries selected for this analysis are 41 and the time span covered is from 1995 to 2019. The selection of cross-sections and time span is dictated by the availability of data. A number of estimators are used to rigorously analyze the hypothesized relationship, including a couple of the most contemporary macro-panel estimators such as pooled mean group (PMG), common correlated effects mean group (CCEMG), and augmented mean group (AMG). Neutral effect is found for life and nonlife insurance penetration on income per capita, which can be attributed to beliefs in Muslim countries. However, we found positive long-run relationship between total insurance activity and income per capita, which can be due to complementarity between life and nonlife insurance activity. The results are found robust after applying robustness checks; (Ben Dhiab & Dkhili, 2022) examine the impact of numerous factors on the development of the insurance business in 15 Middle East and North African (MENA) countries from 2000 to 2017. The study looks at macroeconomic, demographic, and institutional factors as potential drivers of the insurance industry's growth, with the insurance premium as a percentage of GDP as the dependent variable. All variables are stationary at the first difference, according to the IPS panel unit root test.

The Pedroni residual cointegration test, Kao residual cointegration test, and Johansen-Fisher panel cointegration tests are then used to look for long-run associations, the cointegration tests strongly suggest that the insurance premium and the various variables have long-run correlations. Findings from the Fully-Modified OLS imply that GDP per capita, gross capital formation, and the KOF economic globalization index have a positive long-term impact on the insurance business. The insurance business is also driven by combating corruption and the rule of law. The population and regulatory quality, on the other hand, have no significant impact.

2. The structure of the Algerian insurance sector

The Algerian insurance market is structured by institutions that are in charge of insurance and insurance and reinsurance companies.

The Algerian insurance sector can be presented in two segments, namely: segment of institutions regulating the insurance business and the operating procedures of the various insurance stakeholders; and, segment of insurance and reinsurance companies, which themselves can be segmented into several sub-segments.

2.1 Insurance institutions

As it happens, the various institutions were set up with the objectives of both protecting the interests of policyholders and developing the insurance sector. That said, these institutions play a regulatory role in insurance activities (Benarbia, 2011) these institutions that frame the market are:

The Insurance Supervisory Commission (S.C.A) as supervisory authority

The National Insurance Council (C.N.A) which is considered as the consultation body between the various market participants (insurers, policyholders, central bank, experts and public authorities);

The risk center playing the role of collecting and centralizing information on insurance contracts taken out with insurance and reinsurance companies as well as foreign insurance branches. These must provide the risk center with the information necessary for the performance of its tasks;

The automobile guarantee fund (F.G.A, created on 04/04/2004) playing the role of a guarantor of compensation for the victims of traffic accidents when those responsible for these accidents are unknown or insolvent;

The guarantee fund for insured persons (F.G.A.S), which was created on 07/04/2009, is the guarantor of compensation for the beneficiaries of insurance policies when the assets of the insurance companies concerned prove insufficient after liquidation;

The Special Pricing Office (BST), created on 11/08/2011, takes charge of the pricing of mandatory risks. Indeed, its role is to study and update the tariffs in force in order to develop draft tariffs;

The association of Algerian insurers and reinsurers (UAR) playing the role of representative of insurance and reinsurance companies and defending their interests.

2.2 Insurance and reinsurance companies

There are twenty-three (23) insurance companies in Algeria. These are composed of public companies, private companies, mutual insurance companies and specialized companies. It is important to note that after the decision of the Ministry of Finance to separate non-life, personal insurance, public and private companies were obliged to separate their life, and non-life insurance activities by creating, inter alia, subsidiaries (see Table 1). However, there is only one public reinsurance company, three mutual direct insurance companies and two specialized public companies (KPMG, 2015).

1. The reinsurance company: the only authorized reinsurance company is the Central Reinsurance Company (CCR), was created in 1975, 16 MLRD DA is its share capital;
2. The public companies specializing in credit risk insurance are CAGEX (share capital of 2 billion dinars) in terms of export credit insurance and SGCI (created in 1997) for mortgage insurance, its share capital is 2 billion dinars;
3. The mutual direct insurance companies are the CNMA (the national agricultural mutual fund) for the agricultural sector; The Mutualist, created in 2012 with a share capital of 6 billion dinars, for personal insurance.

Table 1. Division of insurance companies in Algeria

Public Companies	Private companies	Specialized companies	Mutual
Damage insurance companies: - Algerian Insurance and Reinsurance Company (CAAR). - Algerian Insurance Company (SAA). - Algerian Insurance Company (CAAT). - Fuel Insurance Company (CASH).	Damage insurance companies: - Trust Algérie. - Algerian Insurance Company (2a). - Insurance and Reinsurance Company (CIAR). - Alliance Insurance. - General Mediterranean Insurance Company (GAM). - Salama Insurance Company (SALAMA). - AXA Dommages.	Damage insurance companies: - Algerian Export Insurance and Guarantee Company (CAGEX). - Mortgage Guarantee Company (SGCI).	Damage insurance mutual: - Algerian solidarity to secure education and culture workers (MAATEC). - National Fund for Agricultural Cooperation (CNMA).
People's insurance companies: - Karama Insurance Company (CAARAMA). - Life Insurance Company (TALA).	People's insurance companies: - Cardiff Algeria (CARDIF EL DJAZAIR). - Destiny for Life Company (MACIR Vie). - Reserve and Health Insurance Company (SAPS). - AXA Algeria Life Insurance Company (AXA Vie). - Algerian Gulf Insurance Company (AGLIC).	Reinsurance companies: - Central Reinsurance Company (CCR)	Insurance cooperatives for persons: - Mutual Insurance Company (MUTUALIST)

Source: Established by authors from data of (CNA, 2015) & (KPMG, 2015)

2.3 The development of the sector in figures

2.3.1 Insurance sector contribution to GDP for 2014-2021

Although there are good growth prospects for the Algerian insurance sector, it remains dominated by state-owned companies. This market is essentially characterized by its relative weakness. Indeed, the analysis of penetration

rates⁵ shows that Algeria compared to neighbouring countries is lagging remarkably behind. Algeria is in the third place position after Tunisia, which occupies an intermediate position between Algeria and Morocco (Nebbache, 2021).

In addition, the Algerian insurance sector is almost oriented towards car insurance, almost 60% of the turnover of the insurance sector comes from car insurance (CNA, 2015). The share of the automotive sector in property and casualty insurance represents 52.5% (CNA, 2019). Life and health insurance, still underdeveloped, is expected to grow with the subsidiary that has occurred since 2011 and with the development of bancassurance.

The activity of the insurance sector is closely linked to the economic activity of the state, through the penetration rate, which is used in analyzing the contribution of the insurance sector to the growth of the national economy.

Years	2014	2015	2016	2017	2018	2019	2020	2021
Revenue	126508	129370	130973	135760	138262	146179	105613	112669
Gross domestic product	213800	166000	160000	167400	173800	172780	381525	555830
GDP								
Penetration rate	0.59%	0.78%	0.82%	0.81%	0.80%	0.85%	0.27%	0.20%

Table 2. Penetration rate

Source Established by authors from data of (CNA, 2014), (CNA, 2015), (CNA, 2016), (CNA, 2017), (CNA, 2018), (CNA, 2019), (CNA, 2020), (CNA, 2021), (ONS, 2022)

The contribution of the insurance sector to the national economy for the period 2014-2021 is constantly rising until 2016, where the penetration rate reached 0.82%, to remain in a state of decline and stagnation until 2018 and then recorded The penetration rate increased significantly in 2019 to 0.85% as the best recorded during the study period, but despite the development of insurance sector production, it did not make a significant contribution to the national economy, where the penetration rate did not reach 01% throughout the study period.

The national insurance market for all activities combined accumulated, as 2021, a production of 112.7 billion DA, an increase of 6.7% compared to the same period of 2020. Property and casualty insurance continues to dominate the market by 87%. International acceptances recorded a negative deviation of 110.8 million DA, a decrease of 2.2% compared to 2020.

Insurance companies have not been spared by the health crisis and the effects induced by the measures to prevent and combat the coronavirus epidemic. It is a sector that is witnessing a decline in its revenues. A decline that affected virtually all branches.

At the end of the 2020, the insurance market recorded a decline of 6.1%, thus recording a turnover (excluding international acceptances) of nearly 137.5 billion DA, against 146.3 billion DA in the same period of the 2019. As for international acceptances, they mark an increase of 64.8%, compared to 2019, representing an additional revenue of 3.8 billion DA.

Table 3. Insurance Market Production during COVID19

EN DA	CHIFFRE D'AFFAIRES		STRUCTURE DU MARCHÉ		ÉVOLUTION	
	31/12/2019	31/12/2020	2019	2020	En %	En valeur
Assurances de dommages	132 239 190 311	125 509 890 228	86,9%	85,28%	-5,1%	-6 729 300 083
Assurances de personnes*	14 101 889 300	11 957 011 743	9,3%	8,12%	-15,2%	-2 144 877 557
Marché direct	146 341 079 611	137 466 901 971	96,1%	93,4%	-6,1%	-8 874 177 640
Acceptations internationales	5 888 465 865	9 701 807 498	3,9%	6,6%	64,8%	3 813 341 633
Total	152 229 545 476	147 168 709 469	100%	100%	-3,3%	-5 060 836 007

Source: (CNA, 2020)

2.3.2 The production of the various branches

The total production in revenue of the insurance sector in 2014, according to the National Insurance Council, was 125,472 million dinars, up 9% compared to 2013 (115107 million DA). The table 4 below summarizes the output of the insurance market since 2014.

Table 4. Evolution of the amount of compensation paid for 2014-2021

Years	2014	2015	2016	2017	2018	2019	2020	2021
Damage	110533	118802	119192	121717	126198	132141	125499	97985
insuran								

ce								
People's	8361	10316	11461	13253	12629	14118	12316	9661
insuran								
ce								
Total	118894	129118	130653	134970	138827	146259	137815	107636

Source Established by authors from data of CNA, from 2014 to 2021

In the first half of 2021, damage insurance recorded an increase of 4.3% compared to the same period of the 2020, a revenue of just over DA 37 billion, representing an additional premium volume of more than DA 1.5 billion (CNA, 2021); This increase was reflected in an increase, in particular, in the output of the credit insurance (+22.7%), transport insurance (+17.4%) and fire and miscellaneous risks (+13.6%) branches. On the other hand, the automotive insurance branch, which remains predominant, with a rate of 52% of the total property and casualty insurance portfolio, is experiencing a decline of 3.2% accompanied by a decrease in the number of contracts subscribed of 3.7% (CNA, 2021) , According to the National Insurance Council, the decline in this branch is explained, on the one hand, by the consequences of the health crisis which has led to a decline in subscriptions; and, on the other hand, by the delay in the registration of important contracts at the level of certain companies. In addition, life and health insurance companies generated revenue of more than DA 3.6 billion compared to DA 3.9 billion in the first quarter of fiscal 2020, a decrease of 5.9% for the first quarter of 2021. This decline is mainly due to the significant decline in the assistance branch (-86.8%) in the first quarter of 2021. The decline in this branch seems to be recorded at the level of all companies and is generated by all sub-branches, due to the health situation related to the COVID-19 pandemic. However, production is maintained for a category of insured persons with authorizations (CNA, 2021).

CONCLUSION

The insurance sector's contribution to the economic growth is a no-brainer for the majority of countries, especially for developed countries; Indeed the sector of insurance, by collecting premiums from policyholders, drains considerable funds constituting an important source of funding, which it allows it to play. Thus, a role very important in the financial market. Moreover, the results of empirical studies that analyze the impact of insurance on economic growth, are very positive. However, this reality is not always realized in developing countries.

Also, Insurance can play a crucial role in addressing key challenges of the MENA region. By making financial markets more efficient and fostering foreign direct investments and trade.

Insurance spurs the necessary transformation and modernization of local economies, which helps to create employment opportunities and promotes sustainable economic growth. Insurance also has the potential to prevent people from falling into poverty if they are hit by adverse events, and to support the growth.

In relative terms, the reforms undertaken by the Algerian state have not had the results and the contribution of its insurance sector to the national economy is insignificant. With low GDP penetration rates and low per capita densities. The causes of this delay can be explained by historical reasons such as the absence of regulation specific to the Algerian State until 1988, political and economic disorder between 1962 and 1965, the State monopoly on all insurance operations until 1995. After the liberalization of this sector in 1995, other specific factors can be explained. this delay, such as the late privatization that rushed with specialization misunderstood, the absence of a relevant financial market to place premiums, the bad quality of service offered by the companies, lack of qualified personnel, the factor religious, lack of a motivation policy for policyholders and insurers... etc.

Statistical results show that the overall production of the national insurance market is reduced by 5.8% in 2020, (the production of non-life insurance marks a decrease of 5%; the production of personal insurance marks a decrease of 12.8%). In addition, production by branch of insurance shows that the sector is oriented towards motor insurance (almost 60% of the sector's turnover comes from motor insurance). The share of the automotive branch in non-life insurance represents 52.5%. In the first half of 2021, the car insurance branch experienced a decline of 3.2% accompanied by a decrease in the number of contracts subscribed of 3.7%. This decline is explained, on the one hand, by the consequences of the health crisis, which led to a decline in subscriptions; and, on the other hand, by the delay in the registration of important contracts at the level of certain companies.

Indeed, insurance can be an important source of funding for The Algerian economy, which can have a positive impact on the country's economic growth. It remains irrelevant and lagging far behind the rest of the world and considerably during COVID19. It will therefore be needed to adopt new reforms and to integrate new measures to develop the sector and to stimulate demand for insurance.

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