Allameh Tabataba'i University (ATU) Holds the 1st Winter School in Political Economy in Partnership with Universities from Iran and Russia

Insurance Industry and the Coronavirus Lockdowns

The Impacts of Covid-19 on Iran's Insurance Sector

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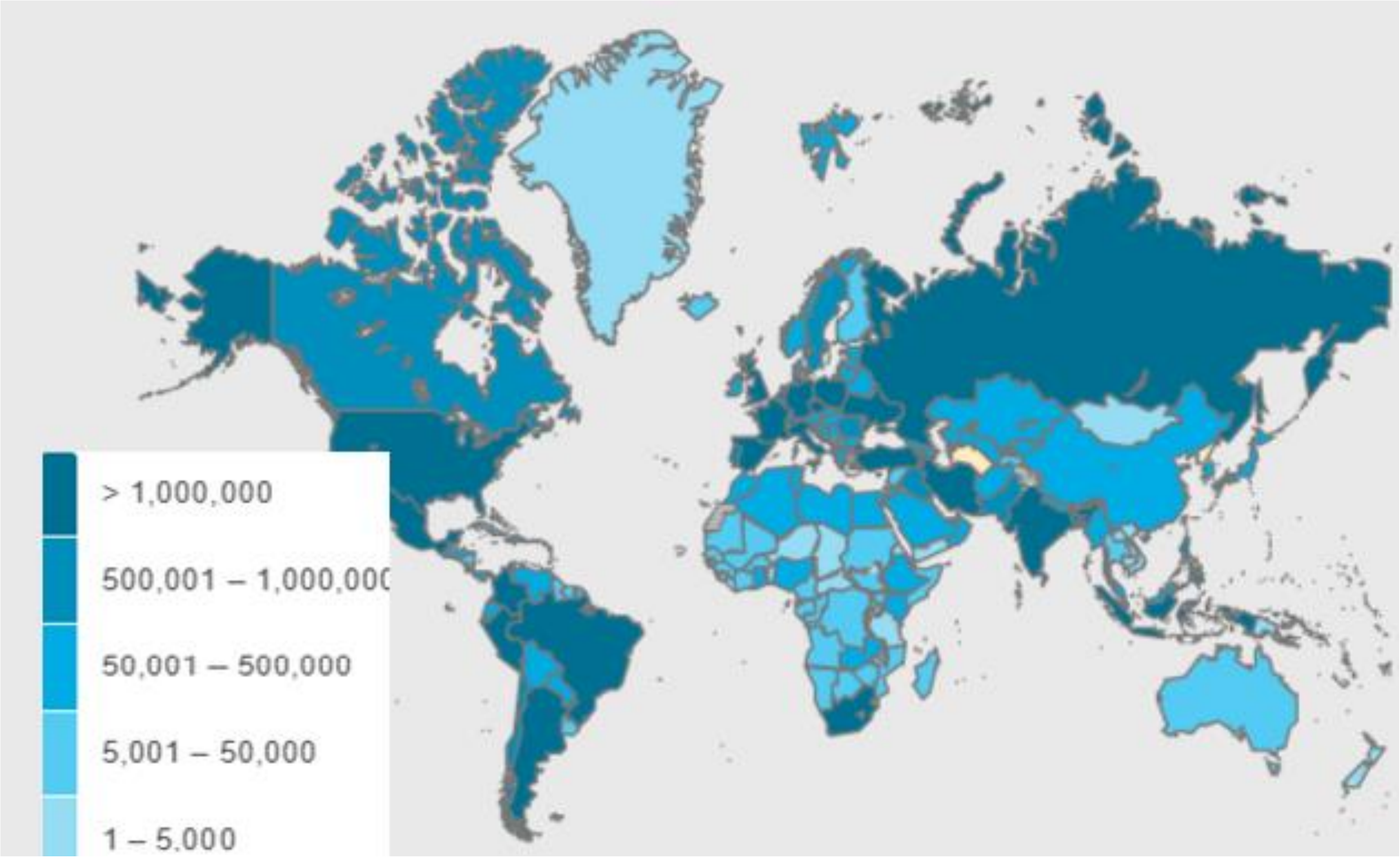
- **The global economic impacts of Covid-19**

- **The global impacts of Covid-19 on insurance sector**

- **The impacts of Covid-19 on Iran’s insurance sector**

The global economic impacts of Covid-19

The Outbreak of Covid-19
Global Overview of Confirmed Cases

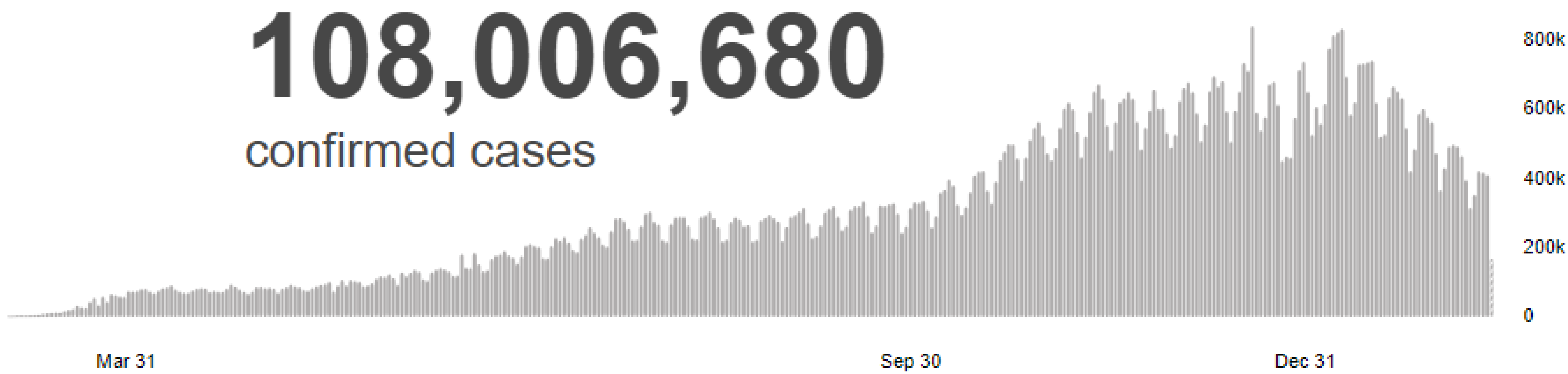


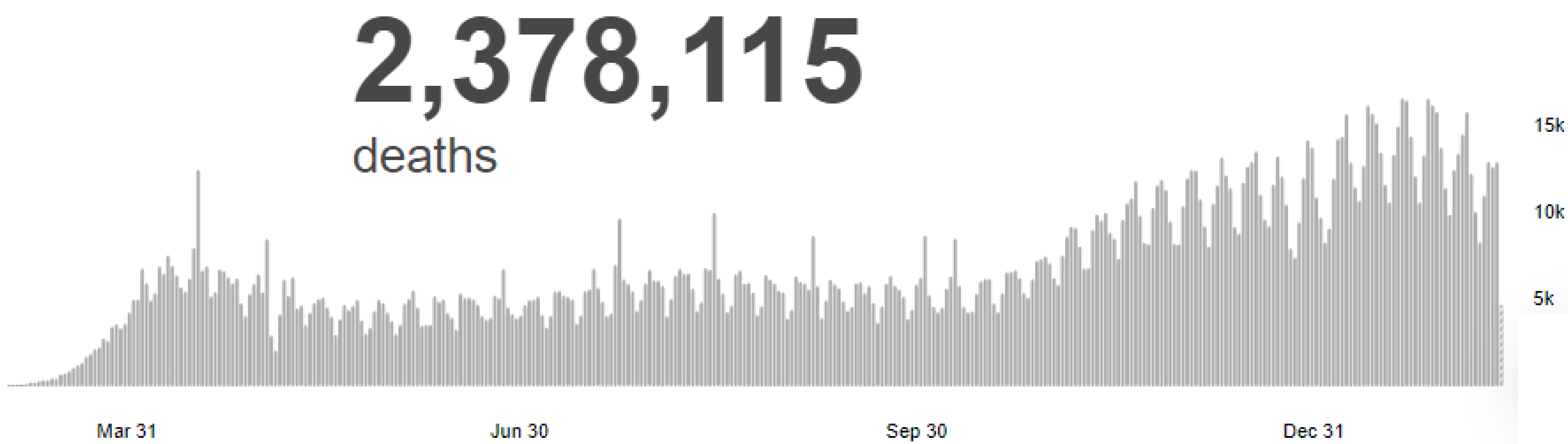
•**Globally**, as of **11:02am CET, 14 February 2021**, there have been **108,006,680 confirmed cases** of COVID-19, including **2,378,115 deaths**,

Source: World Health Organization

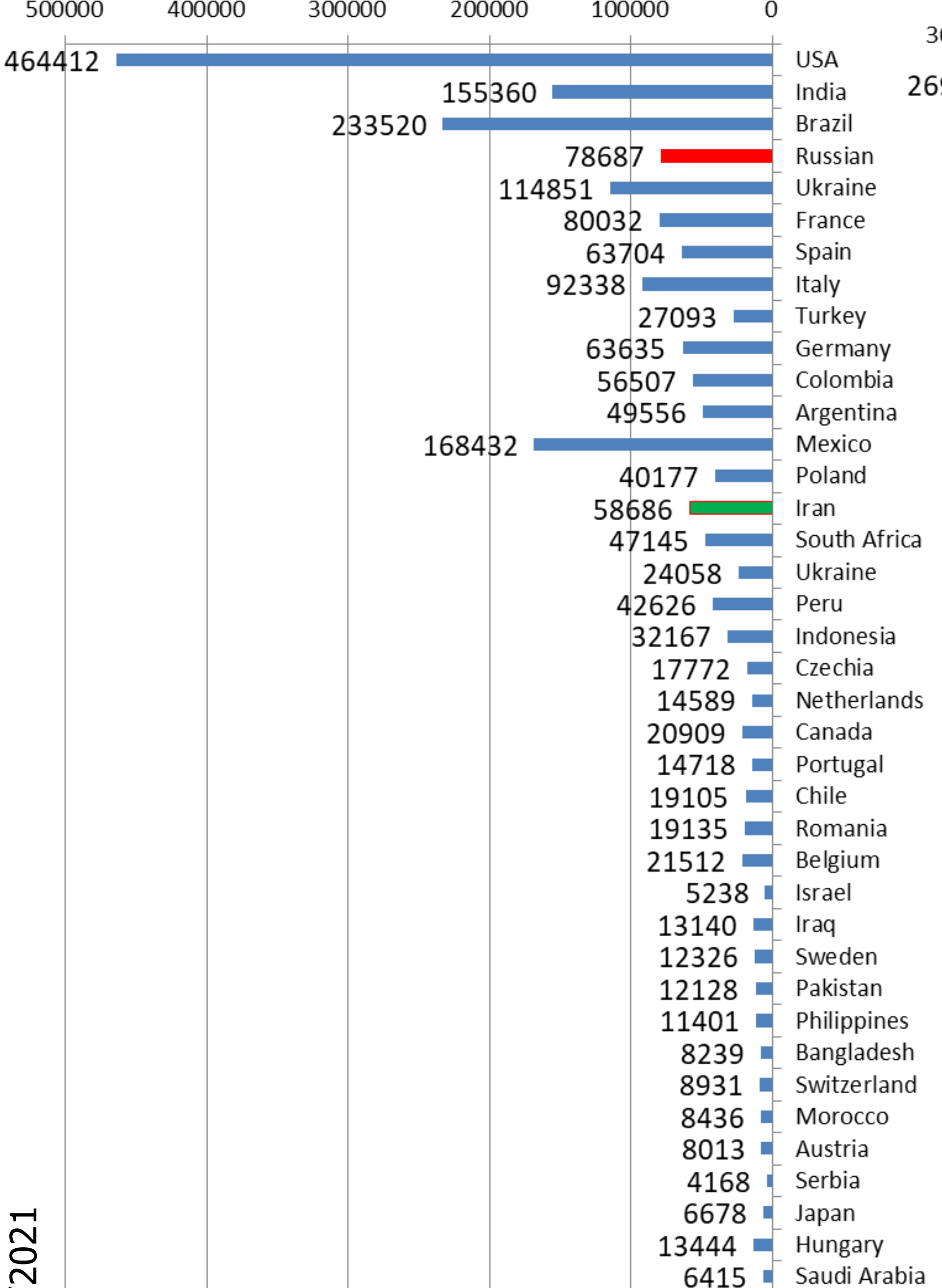
The Outbreak of Covid-19
Global Overview of Confirmed Cases and deaths

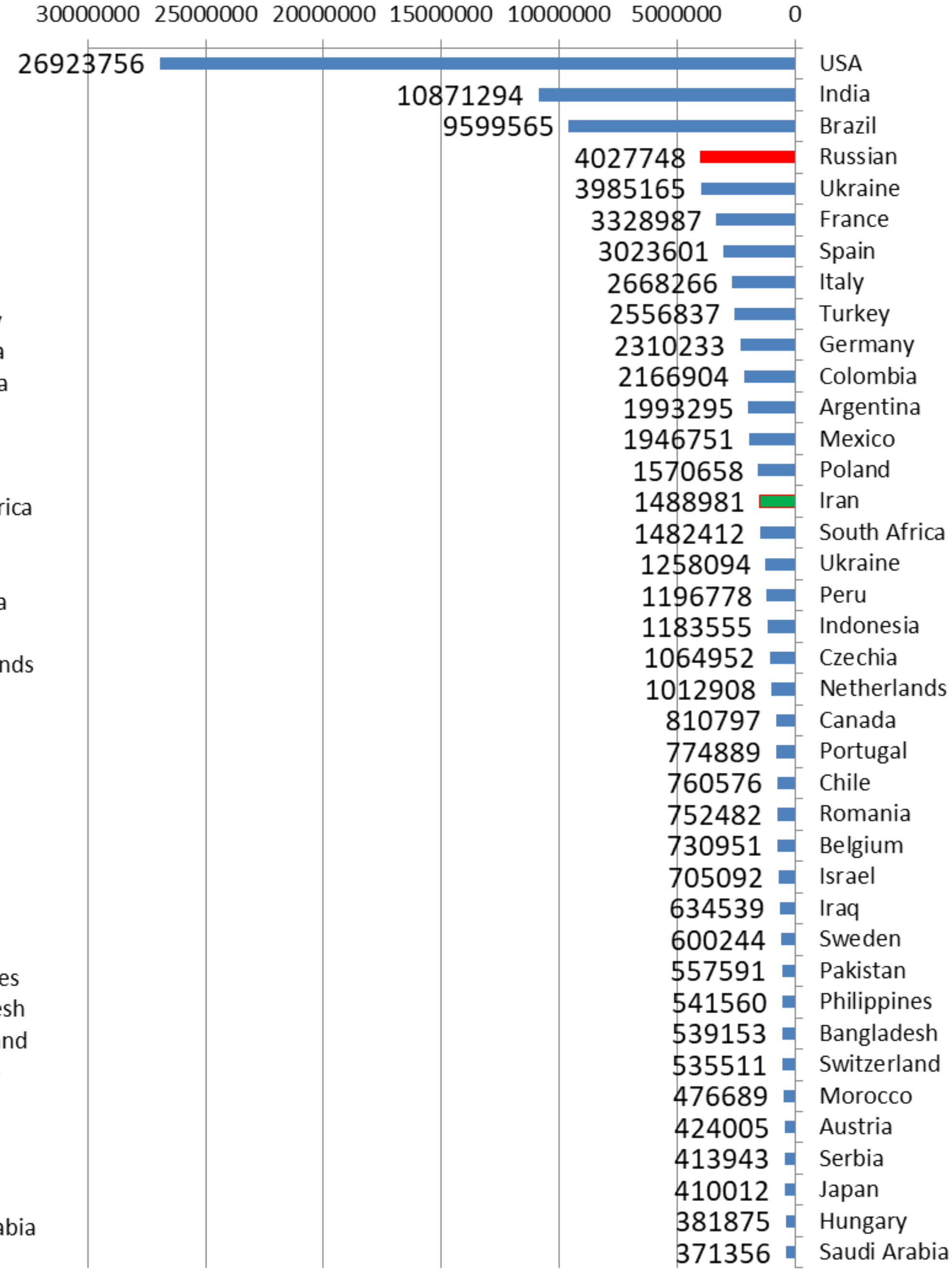
Daily: Feb 1 2020 to Feb. 14, 2021





Source: World Health Organization





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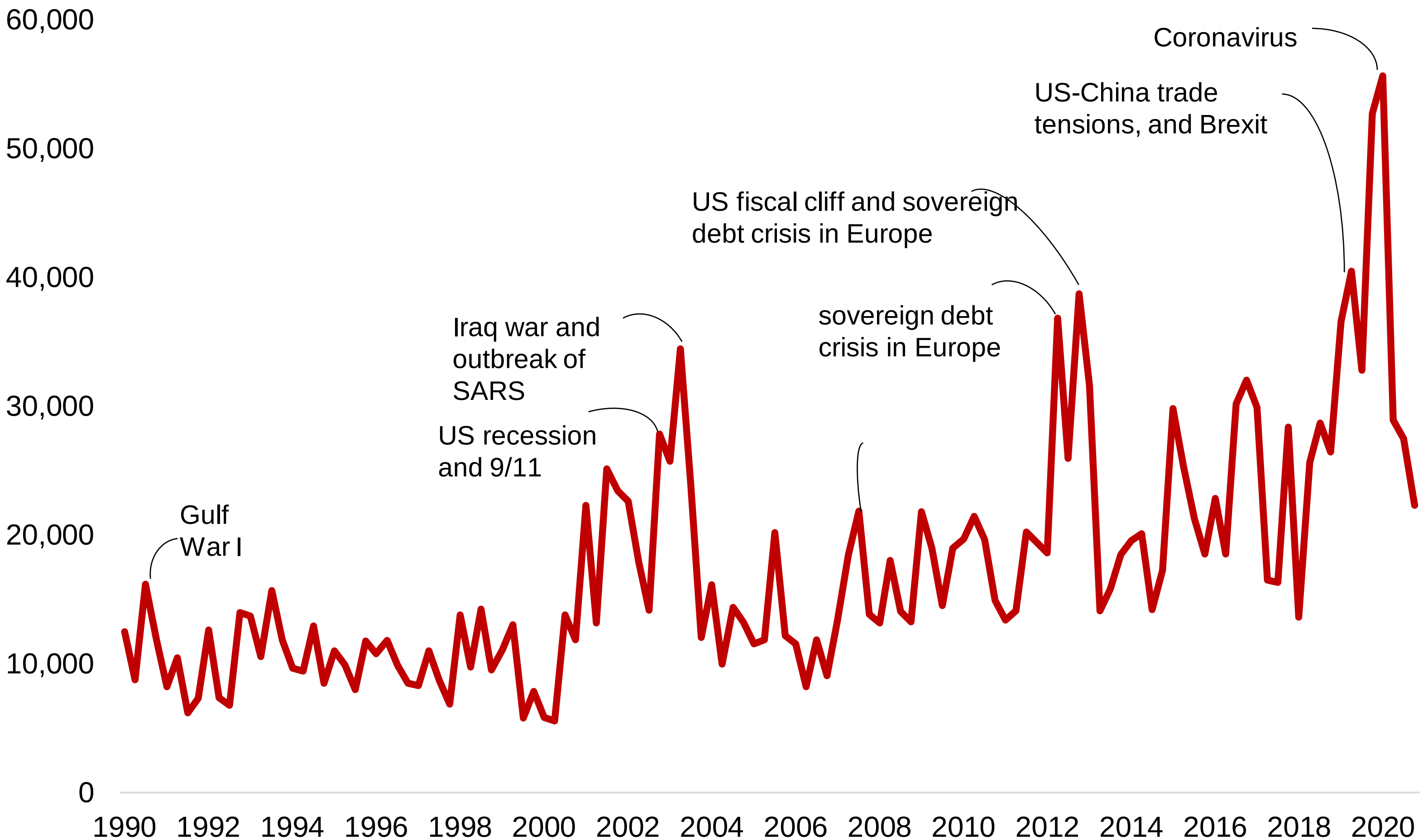
Source: World Health Organization,

The Impact of Covid-19 on Uncertainty

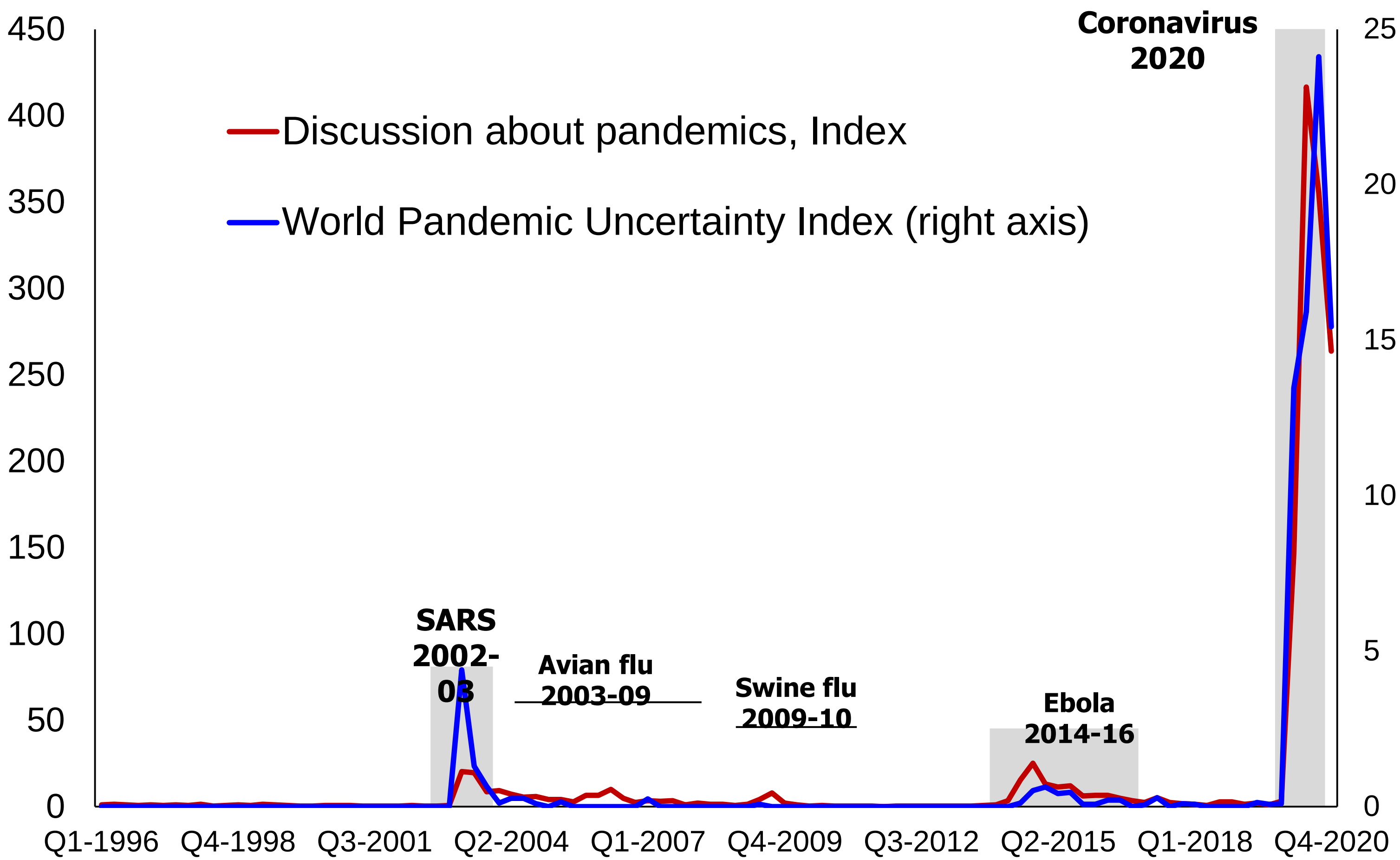
World Uncertainty Index
1990Q1 to 2020Q4



[Ahir, H, N Bloom, and D Furceri (2018), "World Uncertainty Index", Stanford mimeo.]

The Impact of Covid-19 on uncertainty

Pandemics and Uncertainty
1996Q1 to 2020Q4



Ahir, H, N Bloom, and D Furceri (2018), "World Uncertainty Index", Stanford mimeo.

The Impact of Covid-19 on World economy
The Impact of COVID-19 on real GDP growth

	World		Advanced economies		Developing economies		United States	
	2020	2021	2020	2021	2020	2021	2020	2021
International Monetary Fund								
October 2019	3.4%	3.6%	1.7%	1.6%	4.6%	4.8%	2.1%	1.7%
April 2020	–3.0	5.8	–6.1	4.5	–1.0	6.6	–5.9	4.7
June 2020	-4.9	5.4	-8.0	4.8	-3.0	5.9	-8.0	4.5
October 2020	–4.4	5.2	–5.8	3.9	–3.3	6.0	–4.3	3.1
Organization for Economic Cooperation and Development								
Nov 2019	2.9	3.0	1.6	1.7	4.0	4.0	2.0	2.0
March 2020	2.4	3.3	0.8	1.2	NA	NA	1.9	2.1
June 2020 single	-6.0	5.2	-7.5	4.8	-4.6	5.6	-7.3	4.1
June 2020 double	-7.6	2.8	-9.3	2.2	-6.1	3.2	-8.5	1.9
Sept. 2020	-7.6	2.8	-9.3	2,2	-6.1	3.2	-8.5	1.9
Dec. 2020	-4.2	4.2	-5.5	3,2	-3.0	5.1	-3.7	3.2
World Bank								
January 2020	2.5	2.6	1.4	1.5	4.1	4.3	1.8	1.7
June 2020	-5.2	4.2	-7.0	3.9	-2.5	4.6	-6.1	4.0

Source: https://crsreports.congress.gov. Global Economic Effects of COVID-19

The Impact of Covid-19 on World economy

The Impact of COVID-19 on real GDP growth

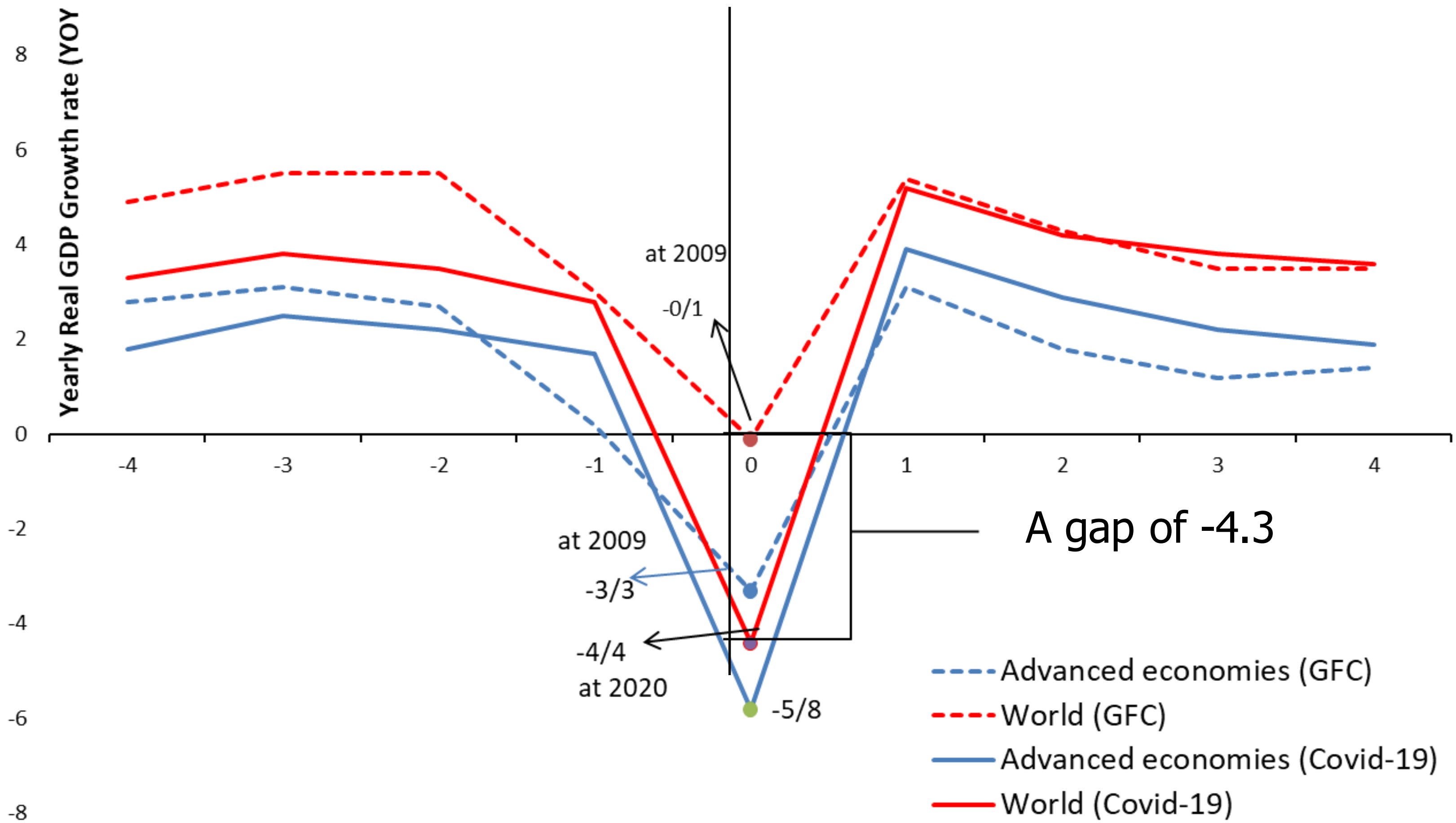
	2008	2009	2010	2019	2020	2021
China, People's Republic of	9/7	9/4	10/6	6/1	1/9	8/2
Iran	-0/1	0	5/7	-6/5	-5	3/2
Russian Federation	5/2	-7/8	4/5	1/3	-4/1	2/8
United States	-0/1	-2/5	2/6	2/2	-4/3	3/1
Advanced Economies	0/2	-3/3	3/1	1/7	-5/8	3/9
Developing Economies	0/4	-4/5	2/1	1/3	-8/3	5/2
World	3	-0/1	5/4	2/8	-4/4	5/2

IMF: World Economic Outlook, 2020

The Impact of Covid-19 on World economy

The Impact of COVID-19 on real GDP growth

Year-Over-Year (YOY) comparison

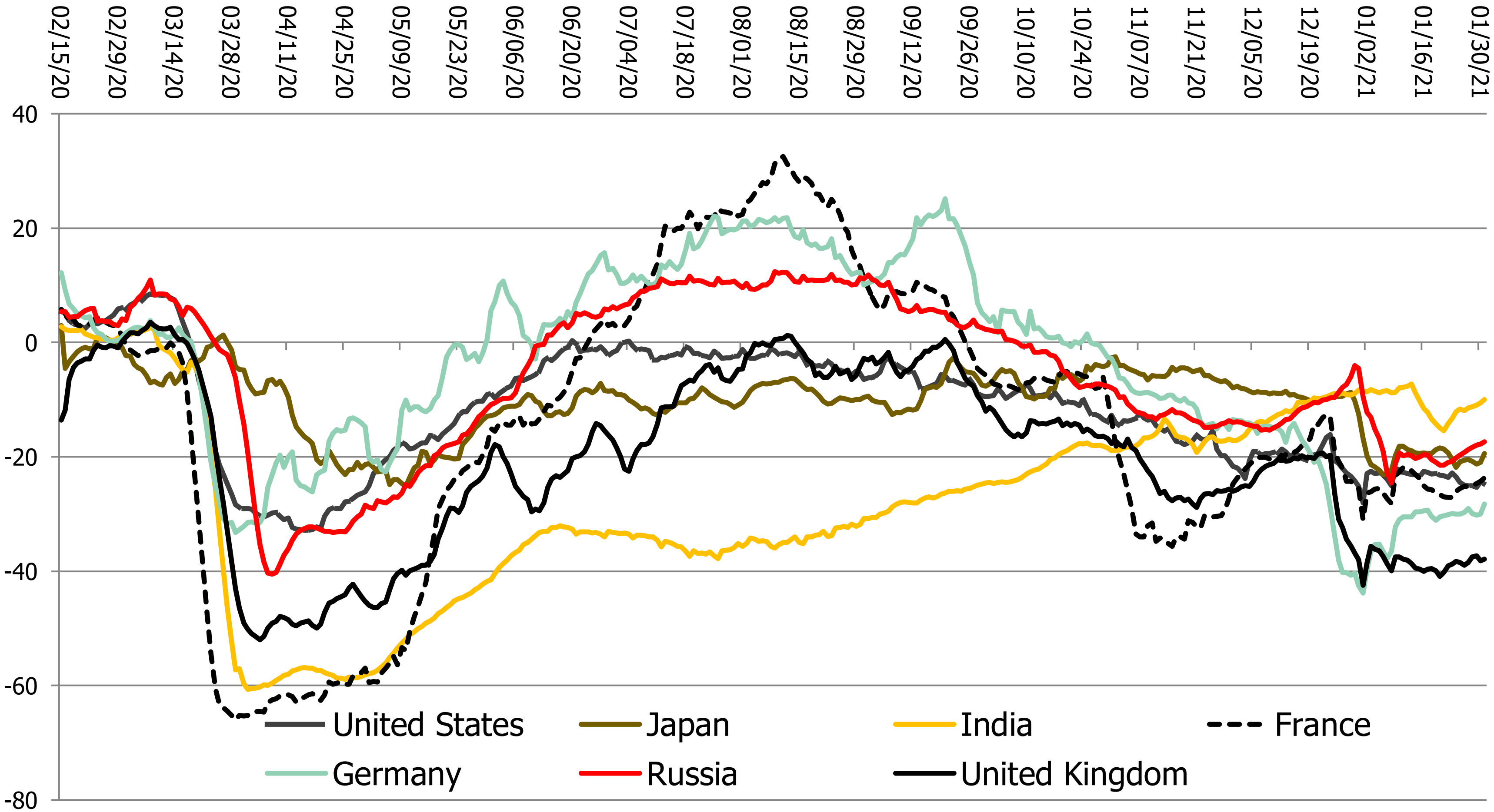


IMF: World Economic Outlook, 2020

The Impact of Covid-19 on World economy

The Impact of COVID-19 on real GDP growth

GDP Growth- Proxy Index



Source: google mobility index,

The Impact of Covid-19 on World economy

The Impact of COVID-19 on real GDP growth

DOW JONES 30 INDUSTRIAL

Source: Market insider

Source: https://crsreports.congress.gov. Global Economic Effects of COVID-19

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The Impact of Covid-19 on World economy

The Impact of COVID-19 on real GDP growth

Brent Crude Oil Price Per Barrel in Dollars

Source: Market insider

Source: https://crsreports.congress.gov. Global Economic Effects of COVID-19

The Impact of Covid-19 on World economy

The Impact of COVID-19 on real GDP growth

Gold Price

Source: Market insider

Source: https://crsreports.congress.gov. Global Economic Effects of COVID-19

The global impacts of Covid-19 on insurance sector

The Global Impacts on Insurance Sector
IAIS' Report 2020

IAIS Global Monitoring Exercise (GME) 2020

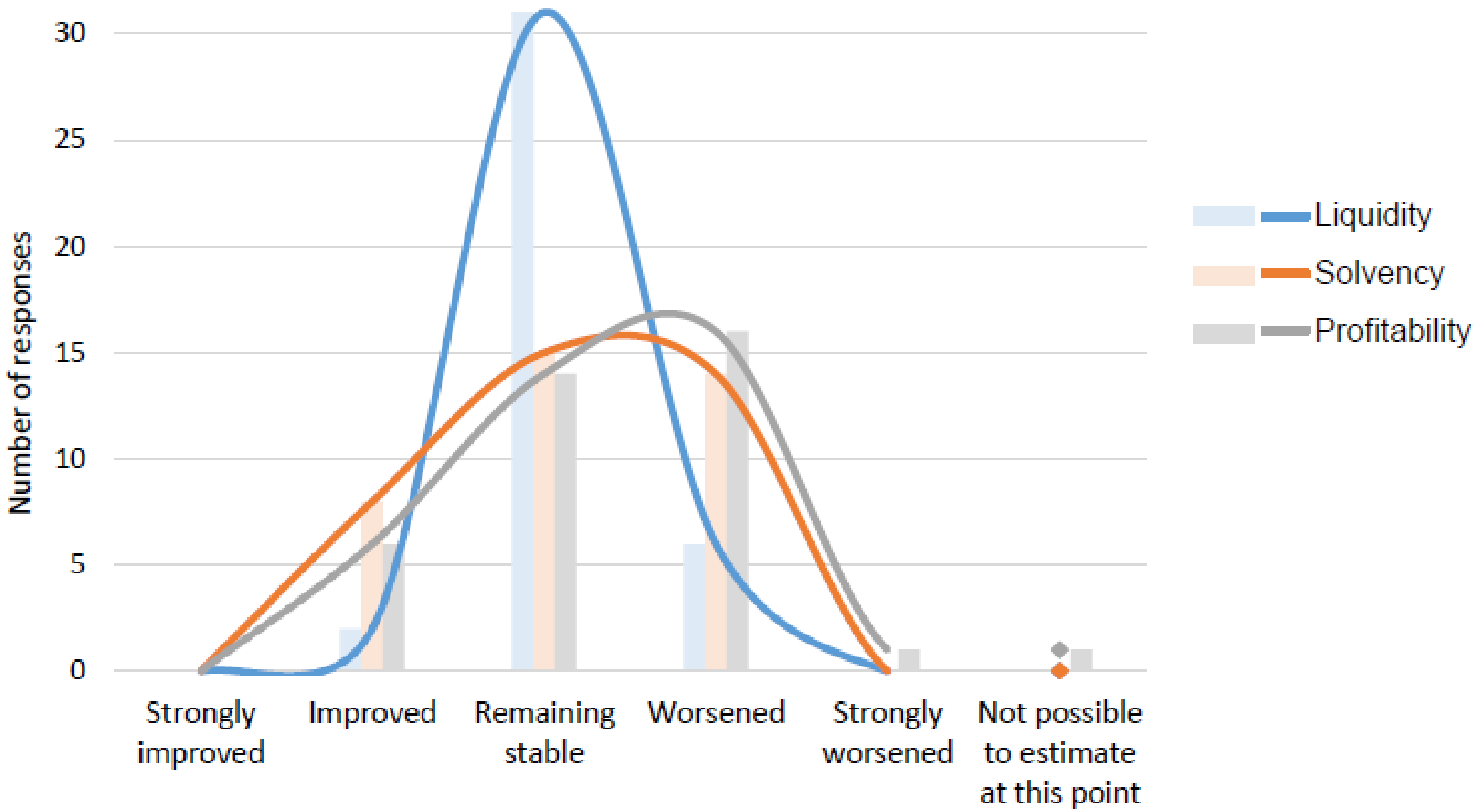
- The solvency ratios of insurers have declined slightly
- The sector's capitalization has remained resilient
- The profitability, mainly for life and composite insurers have declined slightly
- insurers' liabilities and underwriting Certain lines of business are significantly affected
- The liquidity has not significantly been affected
- The liquidity and funding risk has been increased

Source: IAIS: IAIS Global Monitoring Exercise (GME) 2020

The Global Impacts on Insurance Sector

IAIS' Report 2020

Qualitative supervisory assessment of the impact of Covid-19

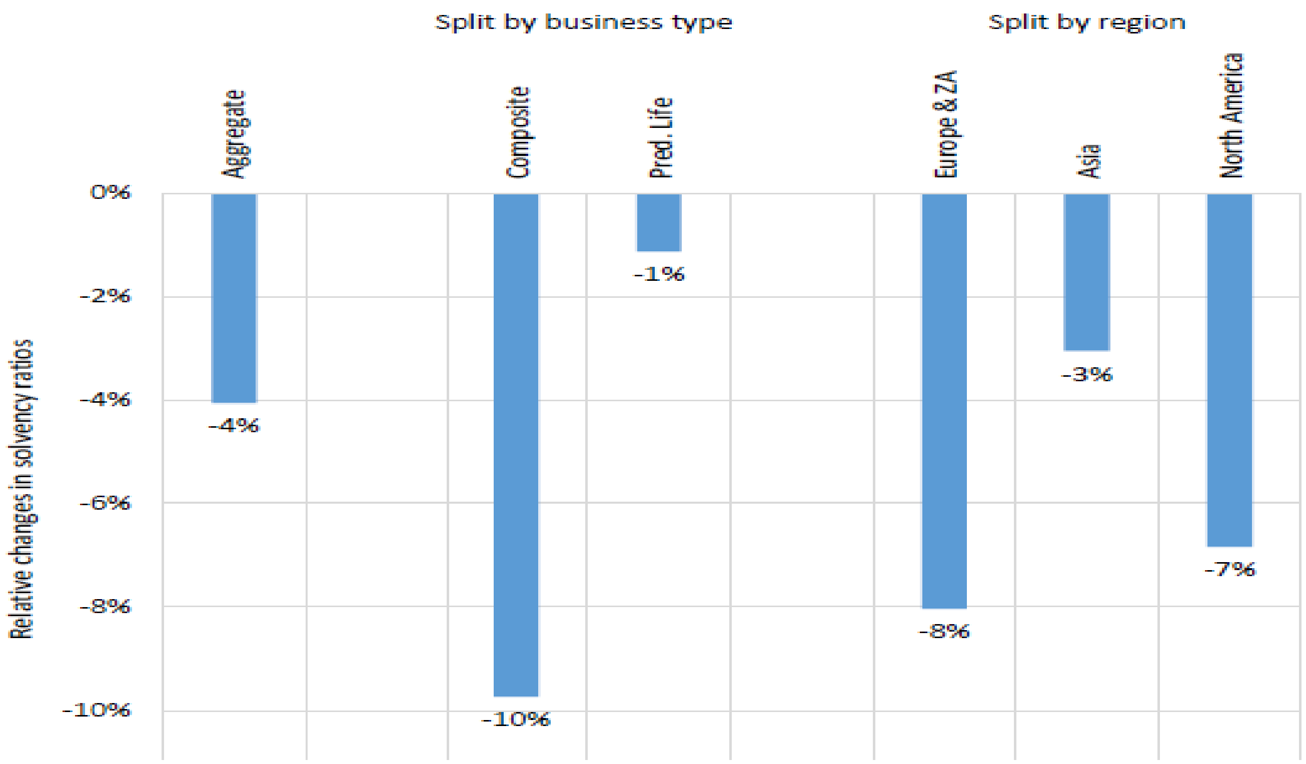


Source: IAIS: IAIS Global Monitoring Exercise (GME) 2020

The Global Impacts on Insurance Sector

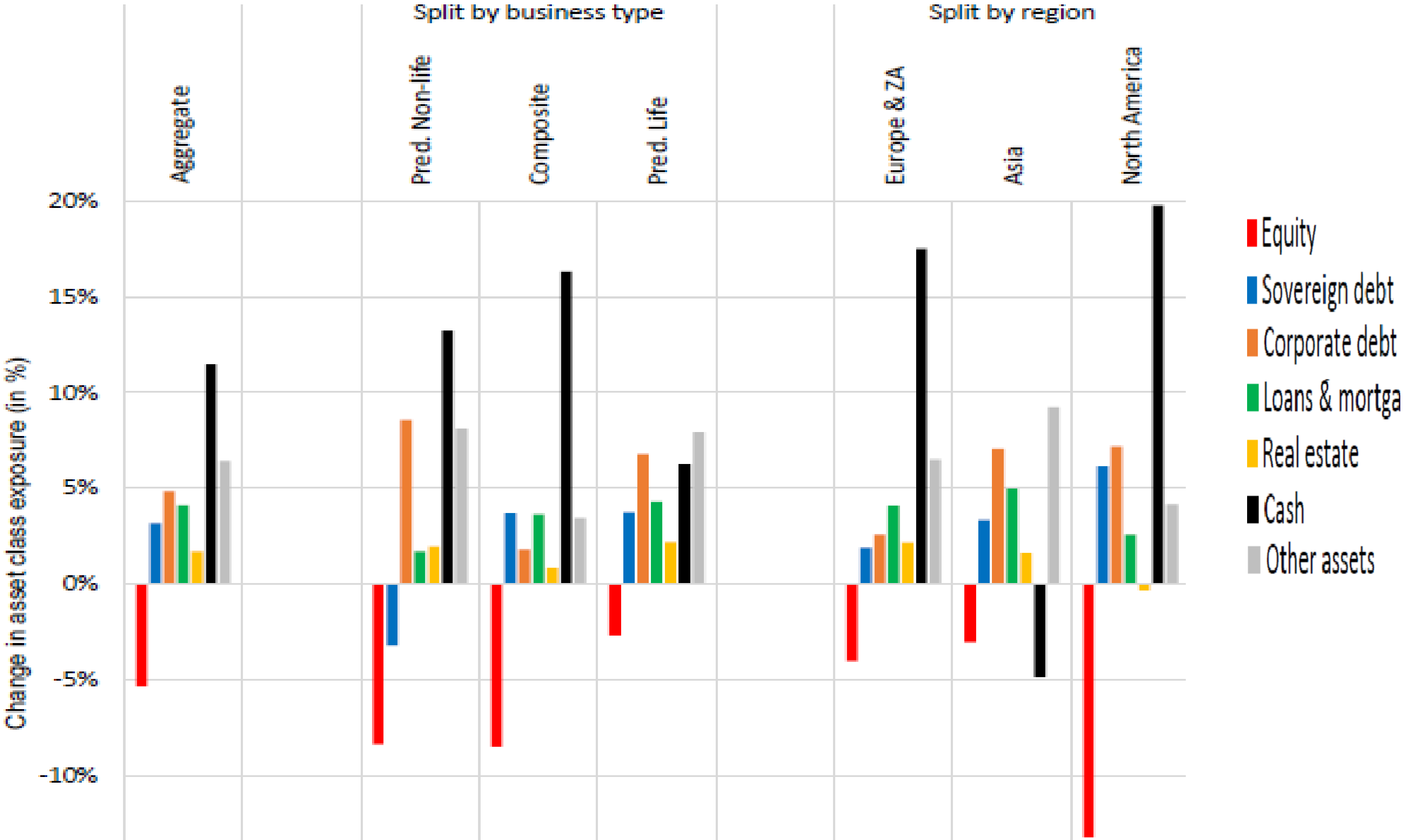
IAIS' Report 2020

Relative Change in Solvency Ration



Source: IAIS: IAIS Global Monitoring Exercise (GME) 2020

The Global Impacts on Insurance Sector
IAIS' Report 2020
Assets, Liquidity and Profitability

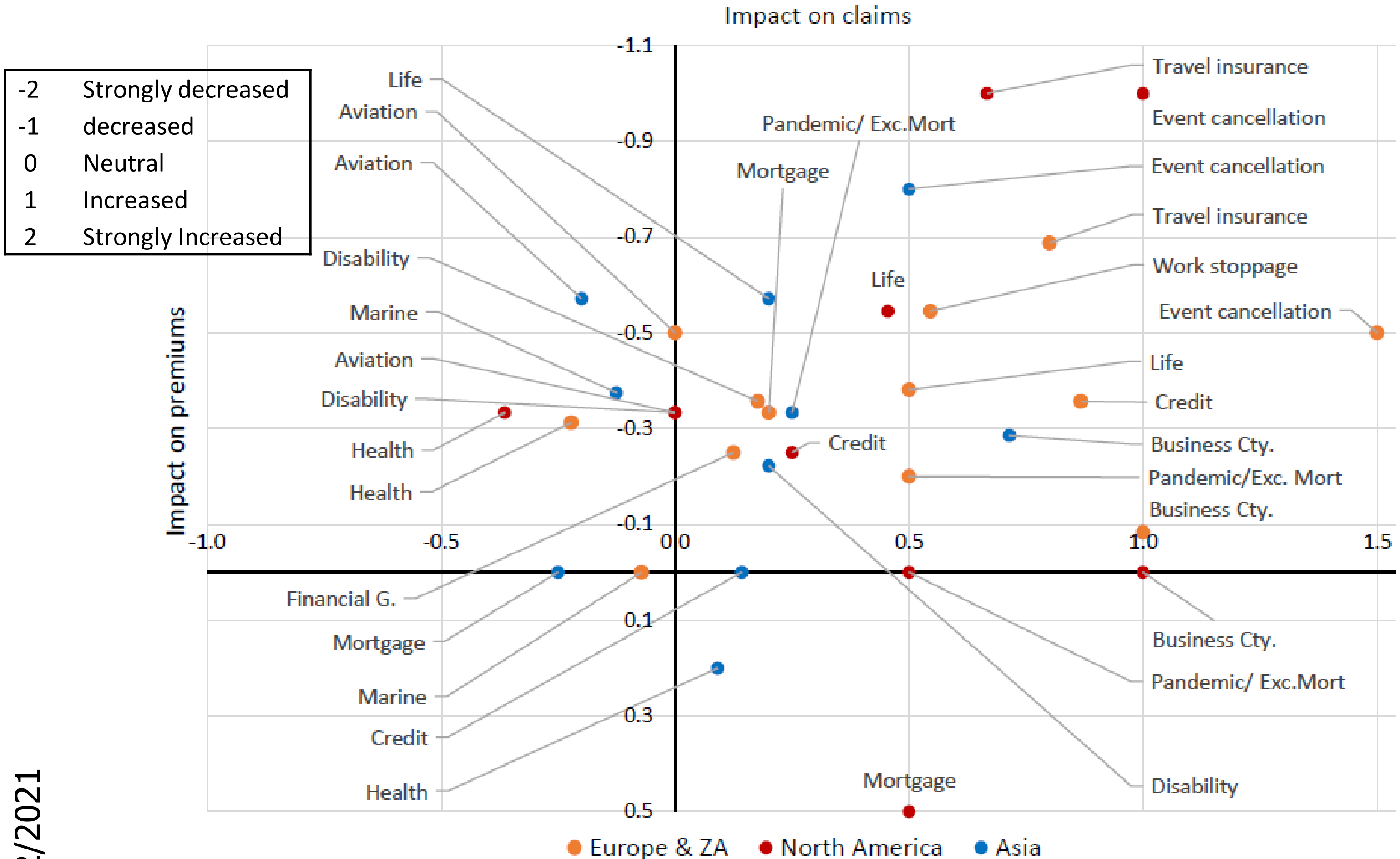


Source: IAIS: IAIS Global Monitoring Exercise (GME) 2020

The Global Impacts on Insurance Sector

IAIS' Report 2020

Claims and premiums



Source: IAIS: IAIS Global Monitoring Exercise (GME) 2020

The Global Impacts on Insurance Sector

IAIS' Report 2020

Tackling Covid-19

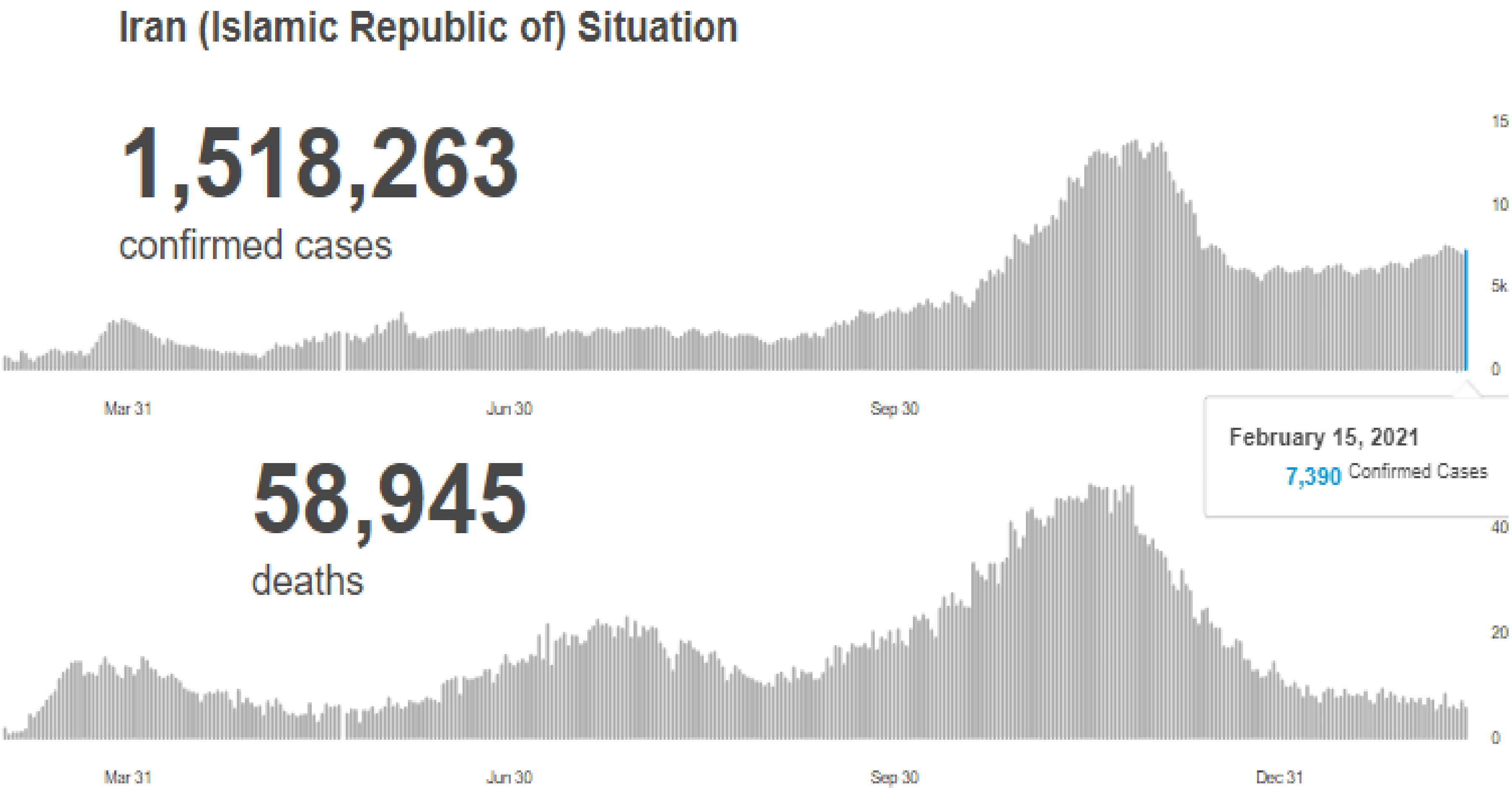
Proposal	Type of coverage	Perils	Eligible policyholders	Coverage trigger
EIOPA (Europe)	Non-damage business interruption (potentially parametric)	Pandemic	SMEs (potentially)	Not specified
CATEX (Federation française des assureurs)	Business interruption (fixed amount)	Extraordinary events (cyber, terrorism, pandemic, etc.)	SMEs	Government administrative order
GDV (Germany)	Business interruption	Pandemic (or epidemic)	No restriction	WHO/German authority declaration
ReStart (Lloyd's)	Business interruption	COVID-19	Small companies (potentially all SMEs)	Not specified
Recover Re (Lloyd's)	Non-damage business interruption	Pandemic and other perils	No restriction	Not specified
Black Swan Re (Lloyd's)	Non-damage business interruption (systemic event)	Systemic risk perils	No restriction	Not specified
Pandemic Risk Insurance Act (United States)	Business interruption and event cancellation	Pandemic and infectious disease outbreaks	No restriction	Certification by Secretary of Health and Human Services
Business Continuity Protection Program (APCIA, NAMIC, Big I – United States))	Business interruption (80% of eligible operating expenses for up to 3 months)	Pandemic	No restriction	Health emergency declaration
Pandemic Business Interruption Program (Chubb – United States)	Business interruption (fixed payment based on a multiple of payroll costs)	Pandemic	SME programme and larger company programme	Pandemic declaration and lockdown order

Source: Responding to the covid-19 and pandemic protection gap in insurance © OECD 2020

The Impacts of Covid-19 on Iran's Insurance Sector

The Impacts of Covid-19 on Iran's Insurance

The Latest Updated of Covid-19



Source: WHO, Coronavirus disease Dashboard

15/02/2021

The Impacts of Covid-19 on Iran's Insurance

Iran's Basic Macroeconomic Facts

Index	Iran	World (2019)	Times of the world
GDP (b$)	441	87700	0/50
GDPG(HY20)	-1.3	-0.1	-
GDPP($)	5622	11442	0.49
Unemrat	11.2	5.4	2.1
Infrat	32.2	2.3	14
POP(m)	83.1	7674	1/08
POPR	1.24	1.075	1.15
Sex Ratio	105	107	
POPA65	6	8.1	0.74
OADR	9	13.94	0.64

Source: Iran statistic center and world bank

The Impacts of Covid-19 on Iran’s Insurance

Key basic indices of Iran’s insurance Sector

Index	Iran	World	Times of the world	Rank
Premium(B$)	12	6293	0.002	38
Premium Growth(%)	10.3	2.3	4.47	64
Density (PCP($))	145	818	0,18	64
Life premium(%)	14.3	46.3	0.31	
Penetration R (%)	2.52	7.2	0.35	51
Life PR	0.36	3.35	0.11	
Nonlife PR	2.16	3.88	0.56	
Valadd share of GDP	0.47			
Loss R	47			
Life LR	32			
Carriers	34			
HHI	1391			
Biggest 4 (%)	55.2			
Biggest 1 (%)	32.3			

Source:

The Impacts of Covid-19 on Iran’s Insurance

The effect of corona on the insurance industry

The methods

- **Studying the possible Impact of Covid-19 of insurance sector**
  - Input-output approach
  - Reviewing the Key statistics of market

The Impacts of Covid-19 on Iran's Insurance

The effect of corona on the insurance industry

Impact Analysis: Input-output approach

The possible Channels of effects

- **Direct effects:**
  - Early effects
  - underwriting and claim
  - e.g. less transportation in economy, leads to fewer policies on aviation or less claim on motor insurance
- **Indirect effects:**
  - The whole economy
  - The effect through the other sectors
  - Subsequent or secondary effects
- **Multiplier**
  - A multiplier quantifies how a change in one sector of the economy impacts the entire economy
  - A tool to show economic linkages

The Impacts of Covid-19 on Iran's Insurance

The effect of corona on the insurance industry

Input-output approach

Assessing the effect of coronavirus outbreak on the insurance industry

- The main goal:
  - Assessing the impact of corona outbreak on the insurance sector
  - How much the insurance sector is affected directly and indirectly (by decreasing in the demand of other sectors of the economy) due to Covid-19
- The main requirement:
  - Having the input-output table that considers the insurance sector separately
  - Having an estimates of declining demand or sales of the sector's products and economic activities
- Two steps
  - how much the insurance sector is directly and indirectly affected by changes in the demand of other sectors of the economy
  - Using those information to show the impacts of corona on insurance sector due to contraction economic activities.

Source: WHO://worldhealthorg.shinyapps.io/covid/

The Impacts of Covid-19 on Iran's Insurance

The effect of corona on the insurance industry

input-output approach: Direct Dependence Index

Sector	Rank	Direct Dependence Index
Wholesale And Retail Services	1	4.069402
Chemical Products	2	2.54743
Freight Road Transport Services	3	1.765377
Iron, Steel And Its Products	4	1.760568
Services Of Non-Residential Units For Rent	5	1.709624
Coke And Petroleum Refining Products	6	1.568357
Electricity And Related Services	7	1.276773
Distribution Of Natural Gas, Liquefied Petroleum Gas And Gas Condensate	8	1.251353
Crops	9	1.227496
Metal Products	10	1.118087
Insurance Services	38	0.357714

Source: Statistical carter of Iran/ Input-Output table

The Impacts of Covid-19 on Iran's Insurance

The effect of corona on the insurance industry

Impact Analysis: input-output approach

Sector	Rank	Total Dependence Index
Wholesale And Retail Services	1	8.460155
Chemical Products	2	6.654502
Freight Road Transport Services	3	6.317251
Iron, Steel And Its Products	4	5.471093
Services Of Non-Residential Units For Rent	5	5.300583
Coke And Petroleum Refining Products	6	4.920422
Electricity And Related Services	7	4.768089
Distribution Of Natural Gas, Liquefied Petroleum Gas And Gas Condensate	8	3.876544
Crops	9	3.545976
Metal Products	10	3.162788
Insurance Services	35	1.619874

Source: Statistical carter of Iran/ Input-Output table

The Impacts of Covid-19 on Iran's Insurance

The effect of corona on the insurance industry

Impact Analysis: input-output approach

Activity	Direct Index		Total Index	
	Index Value	Rank	Index Value	Rank
Other buildings (Construction)	0.01478	1	0.022091	1
Water transportation services	0.009206	2	0.015353	2
Air transportation services	0.007092	3	0.011669	3
Residential buildings	0.006466	5	0.011073	4
Coal and lignite, peat	0.006542	4	0.010519	5
Chemical products	0.005713	6	0.010477	6
Optical tools, medical equipment and devices related to radio and television	0.004096	7	0.008408	7
Passenger road transportation services	0.003707	8	0.00566	12
Freight road transportation services	0.003644	9	0.005555	13
Architectural and engineering services, analysis and testing	0.003553	10	0.006355	8
Copper	0.003151	12	0.005693	11
Banking services	0.002935	13	0.004857	17
Chicken, poultry and other live fowl	0.001978	15	0.005907	9
Gardening products	0.001896	16	0.003948	22
Public accommodation services	0.001348	21	0.002494	41
Crops	0.001289	22	0.003384	27
Wholesale and retail services	0.001099	27	0.002244	49
Sports and entertainment services	0.001004	31	0.002102	53
Medical and dental services	0.00034	53	0.001213	79

The Impacts of Covid-19 on Iran's Insurance

The effect of corona on the insurance industry

The Real GDP growth by value added of economic activates

Sector	99-Q1	99Q2	99-H1
Agriculture group	0.13	2.67	1.67
Agriculture	-0.14	2.55	1.50
Fishing	8.70	10.58	9.51
Industries and Mines group	-5.24	3.96	-0.67
Mining	-13.06	3.26	-5.22
Extraction of crude petroleum and natural gas	-14.47	3.37	-5.94
Other mining	0.89	2.22	1.56
Manufacturing	-0.96	1.11	0.08
Water, electricity and natural gas supply	1.66	9.23	5.44
Construction	-1.99	5.41	1.96
Services group	-3.94	-3.02	-3.47
Wholesale and Retail trade, accommodation	-7.10	-5.36	-6.20
Transport, storage and communications	-3.15	0.22	-1.44
Financial and insurance activities	10.33	-7.49	1.22
Real estate, renting and bussines activities	-6.50	0.93	-2.79
Public services, education, human health	0.25	-1.54	-0.66
Other services activities	-62.99	-62.82	-62.90
Total of value added of economic activities	-4.24	0.17	-1.99
Net taxes onimport	26.07	14.87	20.47
Gross Domestic Product(Market price)	-4.12	0.22	-1.90
Gross Domestic Product(Excluding oil)	-2.39	-0.23	-1.28

The Impacts of Covid-19 on Iran's Insurance

The effect of corona on the insurance industry

The Real GDP growth by final consumption expenditure component

Expenditure component	99-Q1	99Q2	99-H1
Private final consumption expenditure	-0.6	-1.7	-1.1
Government final consumption expenditure	12.2	12.2	12.2
Gross fixed capital formation	-2.9	1.8	-0.5
Machinery capital formation	-3.5	-1.3	-2.4
Construction capital formation	-2.0	5.4	1.9
Net exports of goods and services	-53.9	-25.5	-41.2
Exports of goods and services	-56.6	-34.5	-46.9
Imports of goods and services	-68.1	-88.4	-75.7
Change in stocks and statistical discrepancies	-29.5	-16.8	-24.5
Gross domestic product (at market prices)	-4.1	0.2	-1.9

Source: Source: Statistical carter of Iran dataset

The Impacts of Covid-19 on Iran's Insurance

The effect of corona on the insurance industry

Input-output: The growth rate of Activities

Activity	HYrate		Activity	HYrate		Activity	HYrate		Activity	HYrate		Activity	HYrate
1	2/477		21	8/170		41	-2/255		61	7/676		81	12/013
2	-4/500		22	5/091		42	-21/895		62	12/075		82	12/131
3	2/677		23	8/126		43	-0/605		63	-5/538		83	-1/149
4	-0/668		24	6/677		44	9/844		64	5/170		84	11/966
5	-0/662		25	-6/716		45	-0/560		65	-1/943		85	11/865
6	-2/757		26	6/934		46	-0/300		66	-1/149		86	-1/149
7	6/087		27	1/237		47	-1/134		67	-1/153		87	10/701
8	-18/109		28	1/029		48	-2/385		68	-1/086		88	5/029
9	0/433		29	-2/326		49	-5/422		69	-0/472		89	3/865
10	-19/387		30	8/470		50	0/018		70	0/105		90	5/635
11	-2/782		31	-20/671		51	-4/969		71	-16/243		91	0/198
12	-4/208		32	-4/470		52	-14/499		72	10/110		92	4/190
13	-14/829		33	1/788		53	-17/928		73	0/288		93	10/681
14	-0/408		34	2/272		54	9/182		74	0/885		94	4/542
15	7/742		35	15/869		55	-2/280		75	7/691		95	10/459
16	0/807		36	6/341		56	1/463		76	2/257		96	3/999
17	13/040		37	14/607		57	3/838		77	-4/919		97	-1/013
18	7/805		38	6/649		58	2/167		78	2/005		98	-0/721
19	-18/548		39	0/752		59	-0/625		79	12/107		99	-0/271
20	12/765		40	-0/998		60	10/856		80	12/104			

Source: Outputs of IO model

The Impacts of Covid-19 on Iran’s Insurance

The effect of corona on the insurance industry

Impact Analysis: The results

The main finding

Input-Output Analysis for HY1399 (2020)

2% Contraction of Iran’s Insurance sector in real terms

Source:

The Impacts of Covid-19 on Iran's Insurance

The effect of corona on the insurance industry

Premium growth rate of insurance industry

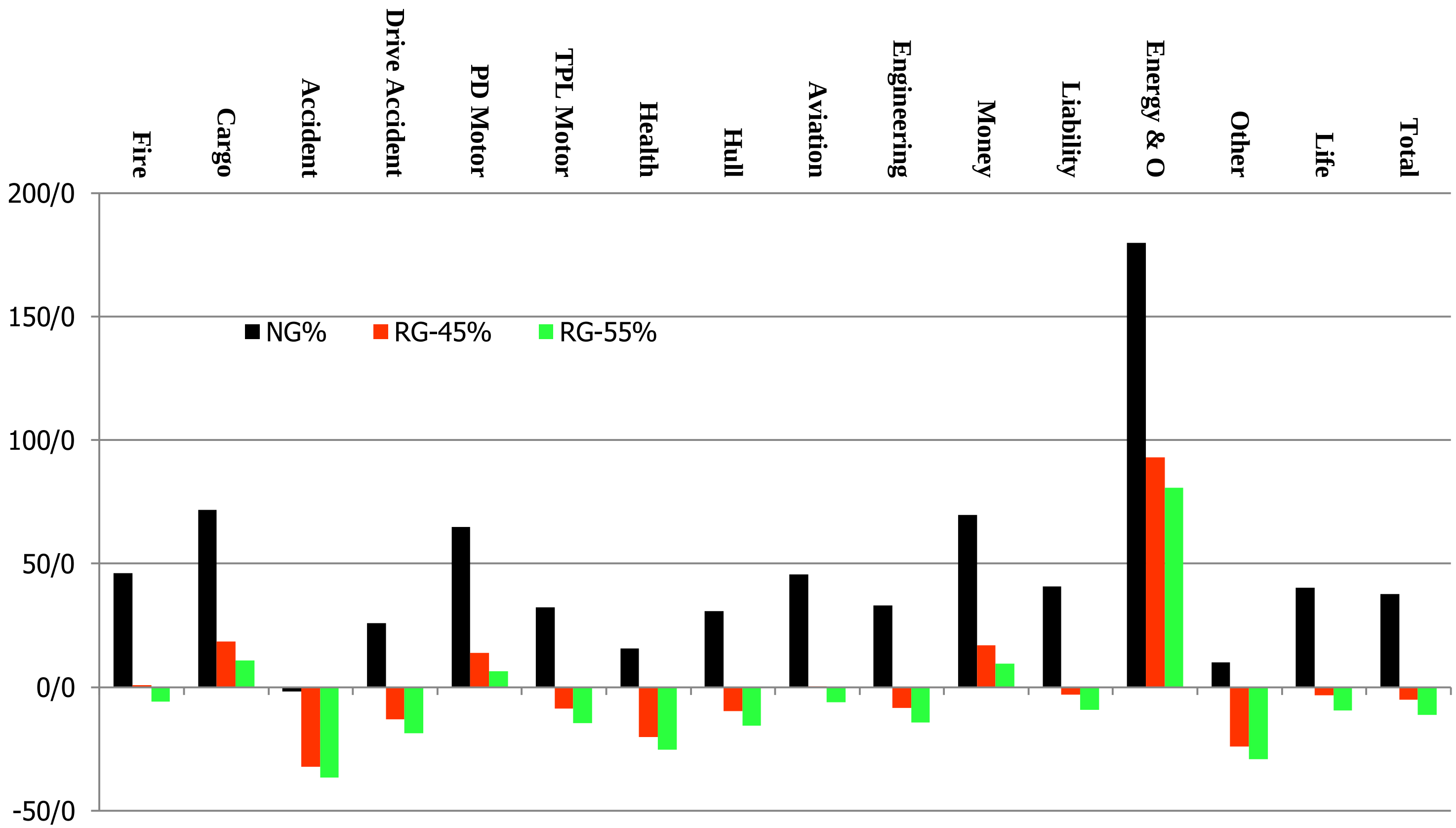
	2020 (The last three quarters)			
Insurance Lines	NG%	RG-45%	RG-55%	Share%
Fire	46/1	0/7	-5/8	4/2
Cargo	71/8	18/5	10/8	1/2
Accident	-1/8	-32/3	-36/6	0/7
Drive Accident	25/9	-13/1	-18/7	3/8
PD Motor	64/9	13/7	6/4	8/0
TPL Motor	32/3	-8/7	-14/6	31/3
Health	15/7	-20/2	-25/4	21/4
Hull	30/8	-9/8	-15/6	0/7
Aviation	45/5	0/4	-6/1	0/6
Engineering	32/9	-8/3	-14/2	1/6
Money	69/6	17/0	9/4	0/0
Liability	40/7	-3/0	-9/2	4/6
Credit	266/1	152/5	136/2	0/0
Energy & O	180/0	93/1	80/6	7/6
Other	9/9	-24/2	-29/1	0/0
Life	40/3	-3/2	-9/5	14/2
Industry	37/7	-5/1	-11/2	100/0

Source: Data from Central Insurance of Iran.

The Impacts of Covid-19 on Iran's Insurance

The effect of corona on the insurance industry

Premium growth rate of insurance industry



Source: Data from Central Insurance of Iran.

The Impacts of Covid-19 on Iran's Insurance

The effect of corona on the insurance industry

Number of Policies growth rate of insurance industry

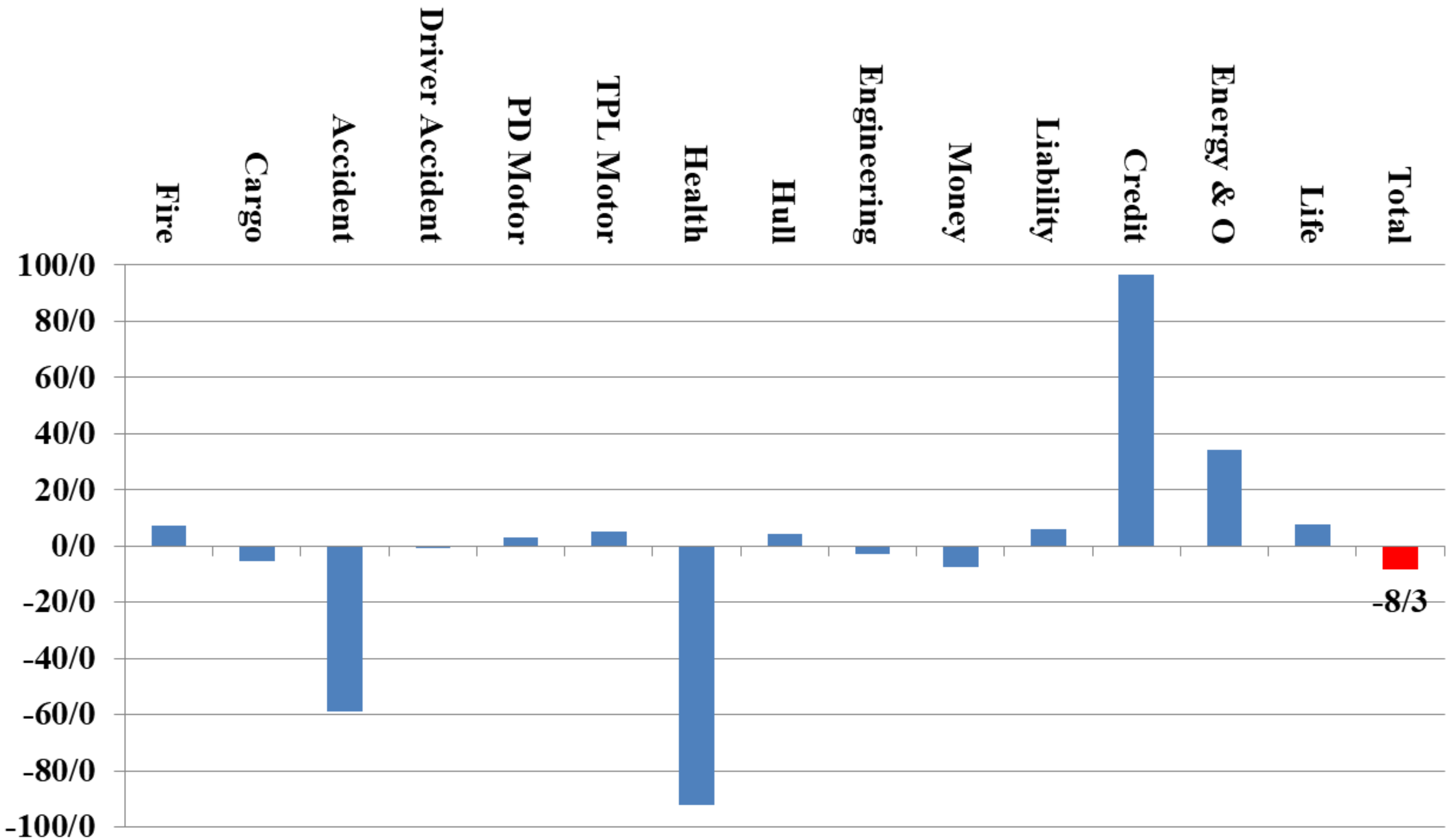
Lines	No. of Policies	Growth%	Share%
Fire	2469176	7/3	5/2
Cargo	389957	-5/4	0/8
Accident	1651341	-59/0	3/5
Drive Accident	16023551	-0/9	33/6
PD Motor	2660168	3/2	5/6
TPL Motor	17310278	5/4	36/3
Health	296607	-92/0	0/6
Hull	3951	4/4	0/0
Aviation	1678	118/5	0/0
Engineering	68893	-2/7	0/1
Money	1807	-7/6	0/0
Liability	1371501	6/1	2/9
Credit	131779	96/8	0/3
Energy & O	787	34/1	0/0
Other	858	240/5	0/0
Life	5263197	7/8	11/1
Total	47645529	-8/3	100/0

Source: Data from Central Insurance of Iran.

The Impacts of Covid-19 on Iran’s Insurance

The effect of corona on the insurance industry

Number of Policies growth rate of insurance industry



Source: Data from Central Insurance of Iran.

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Claim growth rate of insurance industry

2020 (The last tree quarters)				
lines	NG%	RG-45%	RG-55%	Share%
Fire	84/9	27/5	19/3	3/2
Cargo	-10/5	-38/2	-42/2	0/3
Accident	-4/0	-33/8	-38/0	0/5
Drive Accident	25/3	-13/6	-19/2	5/7
PD Motor	15/7	-20/2	-25/4	6/3
TPL Motor	20/1	-17/2	-22/5	36/9
Health	16/8	-19/4	-24/6	29/8
Hull	154/0	75/2	63/9	1/5
Aviation	81/7	25/3	17/2	0/3
Engineering	268/7	154/3	137/9	1/7
Money	1048/4	692/0	640/9	0/0
Liability	40/4	-3/2	-9/4	3/9
Credit	185/3	96/8	84/1	0/0
Energy & O	257/1	146/2	130/4	0/3
Other	4417/1	3015/3	2814/3	0/1
Life	52/3	5/0	-1/8	9/7
Total	26/4	-12/9	-18/5	100/0

Source: Data from Central Insurance of Iran.

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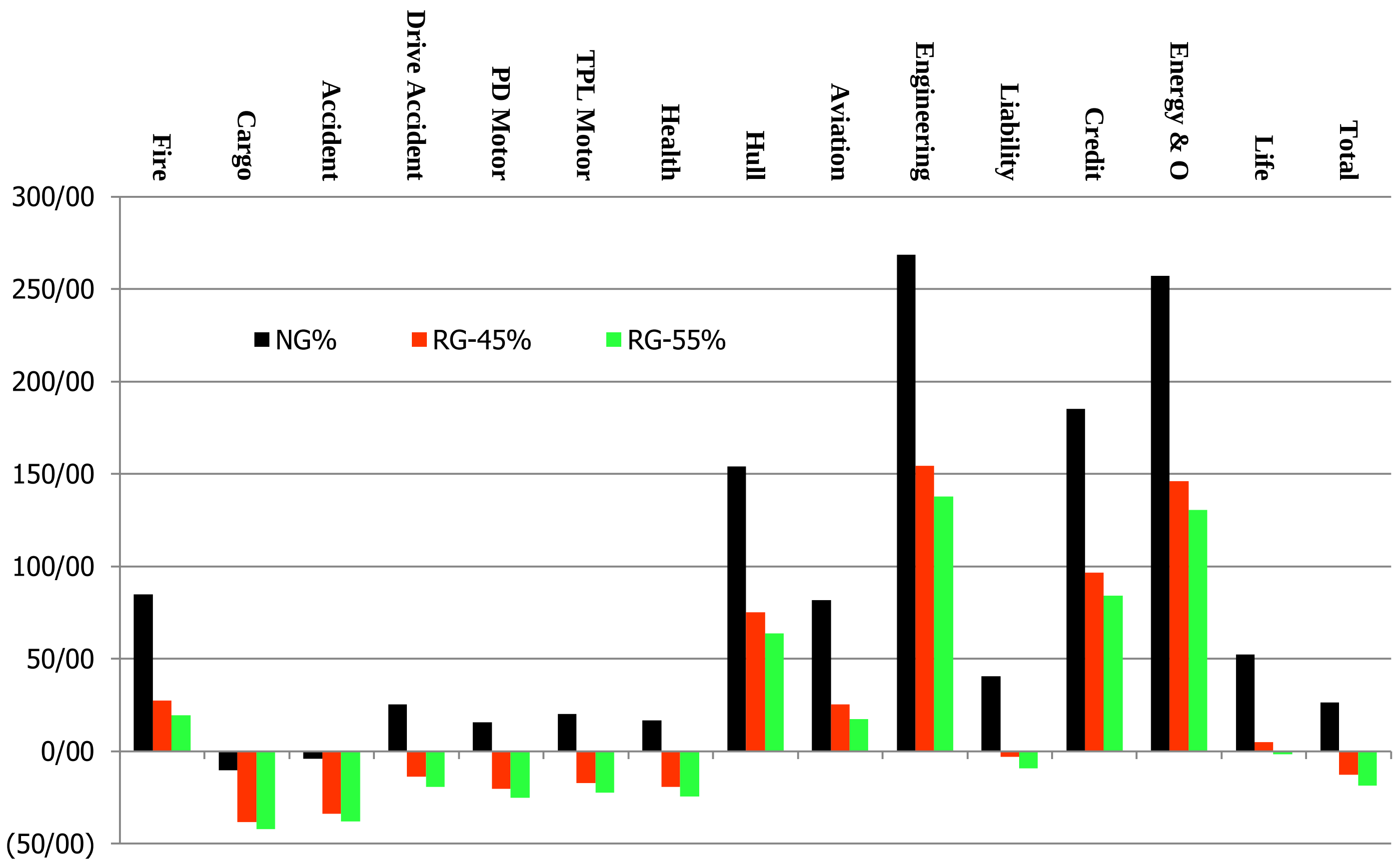
Claim growth rate of insurance industry

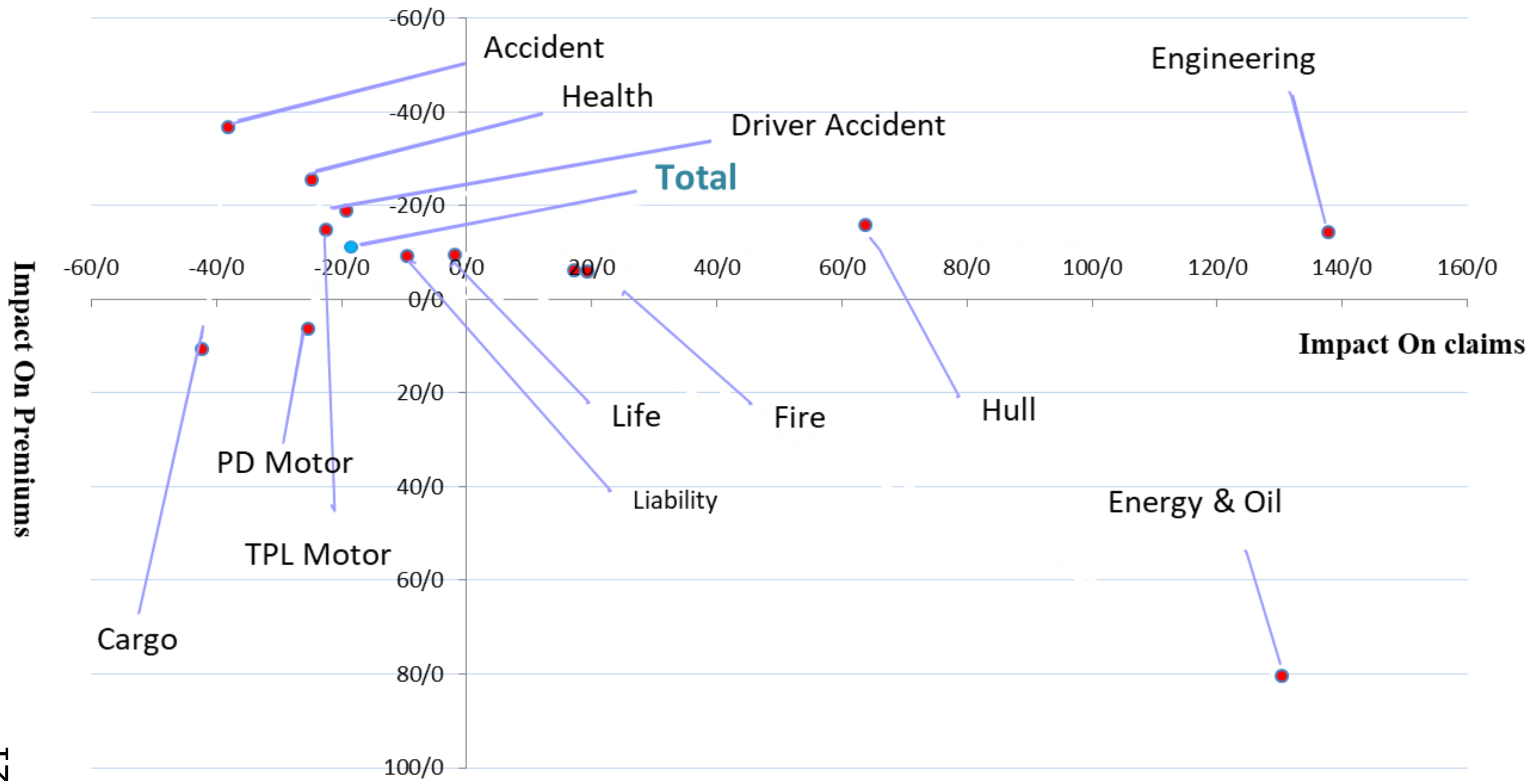


Source: Data from Central Insurance of Iran.

The Impacts of Covid-19 on Iran's Insurance

The effect of corona on the insurance industry

Claim vs premium growth rate of insurance industry



Source: Data from Central Insurance of Iran.

15/02/2021

The Impacts of Covid-19 on Iran's Insurance

The effect of corona on the insurance industry

Loss ratio change of insurance industry

Lines	LR%	LRG(PPG)
Fire	35/8	7/5
Cargo	11/2	-10/3
Accident	36/0	-0/8
Driver Accident	69/2	-0/4
PD Motor	37/0	-15/7
TPL Motor	55/4	-5/6
Health	65/6	0/6
Hull	92/0	44/6
Aviation	18/9	3/8
Engineering	49/3	31/5
Money	21/3	18/1
Liability	39/3	-0/1
Credit	33/9	-9/6
Energy & O	2/0	0/4
Other	210/5	205/4
Life	32/1	2/5
Total	47/0	-4/2

Source: Data from Central Insurance of Iran.

Key Takeaways

- The coronavirus recession is unprecedented and it is much deeper than the 2009 financial crisis and all other recession since the 1930s.
- This pandemic has impacted the global insurance sector through an overall decreasing of the solvency ratios and profitability for the sector
- The GDP of Iran for the first half of 2020 has decline by 1.9 percent
- The service group in the first half of 2020 has decline by 3.7 percent
- The production of Iran’s insurance sector has contracted in the first half of 2020
- The number of policies real premium and real claims of in Iran's insurance industry has sharply decline over the last three quarters.

Thank you

Comments and questions follows

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