Swiss Re
Institute

No 3/2022

sigma

Reshaping the social contract: the role of insurance in reducing income inequality

Executive summary

Income inequality is negative for economies, social cohesion and financial markets globally.

Income inequality within countries is negative for social cohesion, economic growth and financial markets. It is also detrimental to most insurance markets, leading to overall lower insurance penetration and reduced household protection, our research finds. Income inequality in advanced economies has in general been rising for 40 years. This is as measured by the Gini coefficient, which shows the distribution of income across the population and is the most common statistic used to describe inequality.[1] Inequality in emerging economies is in general higher than advanced markets, but declining. A key driver is globalisation, which, since the 1990s, has grown the middle class in economies such as Brazil and China at the fastest rate ever seen. In contrast, the US middle class has shrunk from almost 60% of the population in the 1980s to less than 55% in 2018.

Economic shocks, including today's cost of living crisis, hit low-income households the hardest.

In terms of immediate effect, economic shock events tend to disproportionately affect lower-income households and poverty rates. This is happening today as the conflict in Ukraine has exacerbated the current cost of living crisis by pushing up energy and food prices further. The World Food Programme states that currently 276 million people globally face acute food insecurity, more than double the number in 2019. Sustained inequality also has negative economic implications: it impacts productivity and aggregate demand, so reducing growth. Inequality erodes trust in institutions and can provoke social unrest too. In the longer term, we see structural trends such as deglobalisation, digitalisation and climate change shaping inequality. We also expect the "S" in ESG, for social issues, to play a bigger role in investment decisions in the future.

Income inequality and a stagnating middle class reduce insurance protection, leaving less of a buffer against shocks – especially in advanced economies.

Inequality has a significant impact on insurance demand. In advanced economies that have become more unequal since the 1990s, there has been almost no growth in insurance penetration. We find that in advanced economies, household insurance protection would have been about USD 252 billion higher than actual in 2019 had equality remained at 1990 levels. Putting this in the context of protection gaps, we estimate that the rise in inequality in advanced economies since 1990 has widened the natural catastrophe protection gap by about 2.5% of 2019. This suggests that an extra USD 1.7 trillion of assets could have been covered against natural perils, had inequality not risen. Advanced economies' mortality protection gap is estimated to be 8% larger, equal to USD 5.4 trillion in sums assured as of 2019.

Insurance is a powerful tool to promote economic growth and reduce inequality.

Insurance is a powerful tool to promote economic growth and reduce inequality, by supporting the incomes of households that suffer shocks. Studies have shown that insurance can raise economic growth by managing risks and saving lives by encouraging risk mitigation. By enhancing households' predictability of outcomes, insurance can enable more complex economic interactions. By supporting improved decision-making, it can result in a more equitable distribution of the resulting gains.

Narrowing inequality is a priority for the public and private sectors alike.

Addressing inequality can strengthen the social contract and support public trust in institutions. In the short-term, governments need to consider tailored policies to alleviate the current cost-of-living crisis many households face. In the long-term, it is incumbent on both the public and private sectors to take action to tackle inequality. Governments should enact a policy mix that distributes economic opportunities and outcomes more equally. Policymakers must also use risk transfer mechanisms to distribute risks to incomes more equitably, such as social security systems, transfers to enhance low-income individuals' risk protection, or public-private partnerships (PPPs) to expand insurability. Private insurance has a role by driving innovation to reach less protected communities. In the current high-inflation environment, product design and policy support that promote affordability of insurance covers are of particular importance. Agro insurance is a key tool to mitigate the elevated threat of food insecurity. Our findings suggest that if policy shifts stimulate a gradual decrease in the Gini coefficient by one point over the next decade, this could add a cumulative USD 700 billion of additional insurance demand in advanced economies.

[1] The Gini coefficient measures the distribution of income across the population. A Gini coefficient of zero means perfect equality, while one (or 100%) means maximum inequality. Source: F. Solt, "Measuring Income Inequality Across Countries and Over Time: The Standardized World Income Inequality Database (SWIID)." *Social Science Quarterly* 101(3), 2020, pp 1183–1199. SWIID Version 9.2, December 2021.

Download the full sigma report

Key takeaways

Economic shocks such as the war in Ukraine create inequality headwinds for vulnerable groups.

By pushing up food prices at a time of high inflation, the war will increase food insecurity and the cost of living crisis, with an outsized impact on the lowest-income populations. Long term, we see trends like climate change and digital adoption influencing inequality.

Current status of drivers of inequality in the US, Germany and China, and historical trend

		US	Germany	China
Drivers	**Policy space** SRI Macroeconomic Resilience Index, 2021	0.65	0.64	0.48
	Current inflation Annual inflation rate, March 2022	8.50%	7.30%	1.50%
	Globalisation KOF Globalisation Index, overall, 2021	82.28	88.73	64.57
	Digitalisation World Bank Digital Adoption Index, 2016	0.75	0.84	0.59
	Climate change SRI Climate Economics Index, 2021	17.90	19.40	32.70
	Inflation & unemployment Misery index, March 2022	12.1	12.3	5.46
Inequality metrics	**Income inequality** Income share of the top 1% of the population, 2021	19.06%	12.77%	14.00%
	Gini coefficient Gini coefficient of disposable Income, per capita, last available	38.60	29.30	41.80

Current ranking vs. other countries: Top Middle Low Latest value: 0.0 Trend since GFC to 2019 (pre-COVID-19):

Note: **traffic lights** indicate whether a country is in the top (green), middle (blue) or lowest (pink) third of country scores. Inflation rate is green if within +/–1% of the central bank target, blue if +/–1 to 1.5% of the target, and pink if more than +/–1.5% from the target. **Arrows** indicate whether a metric has increased or decreased since the Global Financial Crisis. Climate Economics Index arrows are estimates due to data availability. The Gini coefficient measures income distribution across a population.
Source: Bloomberg, SWIID, KOF Globalisation Index, World Bank Digital Adoption Index, World Inequality Database, Swiss Re proprietary indicators

Insurance demand benefits from a growing middle class and declining inequality.

The S-curve illustrates how economic development (GDP per capita) creates growth in demand for insurance.

Non-life insurance penetration rate and GDP per capita by country, 2019

Growing middle class boosts insurance penetration...

1. There is little demand for insurance in countries with high poverty rates.
2. Emerging economies' rapid growth lifts large parts of their populations out of poverty and strongly grows the middle class. The S-curve slopes up steeply given growth in insurable assets and affordability of insurance products.
3. Declining middle class contributes to flattening of the S-curve for high-income countries.

...but rising inequality holds back insurance markets

2. Declining inequality and an elastic demand for insurance in middle-income countries contribute to the steep slope of the S-curve.
3. Rising inequality and inelastic demand for insurance contribute to the flattening of the S-curve for high-income countries.

Inequality: Low Middle High Traditional S-curve

Note: colour of dots indicates the inequality level of the country in the latest year available, as measured by the Gini coefficient (from lowest inequality in green, to highest inequality in red). Blue line shows the fitted S-curve model, a non-linear relationship between insurance penetration and economic development that has been discussed in previous *sigma* publications. Source: Swiss Re Institute

Rising inequality in advanced economies has taken a toll on households' risk protection and resilience since 1990.

Insurance protection against catastrophes and mortality risks in advanced markets would have been approximately USD 252 billion (6.9%) greater in 2019 if income inequality had remained at 1990 levels. This translates into roughly USD 39 billion of foregone protection against expected P&C losses and about USD 213 billion in foregone life benefits.

Estimated premiums and protection impact (insured losses) in 2019 by insurance segment, due to changes in inequality

		Advanced economies	Emerging economies
Change in Gini coefficient	1990–2019, points	2.1	–2.5
P&C insurance	Direct premiums written, 2019, USD bn	1,405	139
	Estimated impact:		
	On premiums, USD bn	–60	9
	On premiums, %	–4.3%	6.7%
	On insured losses, USD bn	**–39**	**4**
Life insurance	Direct premiums written, 2019, USD bn	2,268	189
	Estimated impact:		
	On premiums, USD bn	–194	–8
	On premiums, %	–8.6%	–4.0%
	On life benefits, USD bn	**–213**	**–8**
Total	Direct premiums written, 2019, USD bn	3,673	328
	Estimated impact:		
	On premiums, USD bn	–254	2
	On premiums, %	–6.9%	0.5%
	On total claims, USD bn	**–252**	**–4**

Note: emerging economies excludes the following countries: Czech Republic, Hungary, Poland, Russia, Slovakia, Romania, Ukraine, China, Vietnam, Laos and India. We classify these as "transition economies" that have undergone significant structural and/or economic transitions and exhibit different growth and development trends from the other emerging economies in our sample. See the *Income inequality and insurance* chapter for the full details. The Gini coefficient measures the distribution of income across the population. A Gini coefficient of zero means perfect equality, while one (or 100%) means maximum inequality. Source: SWIID, Swiss Re Institute

The public and private sectors can work to reduce inequality by transferring income risks away from individuals.

Public sector risk transfer mechanisms include social security systems, public disaster assistance and acting as "insurer of last resort". Private insurance providers can work with policymakers to deliver risk transfer public-private partnerships and, with an enabling regulatory framework, can drive innovation in products and distribution to extend the reach of insurance protection. With respect to food security, public-private agriculture insurance programmes can play a supportive role.

A risk transfer policy matrix for reducing inequality

		Government intervention designed to reduce inequality		
		Social security risk transfer	**Other government involvement**	**Support for private insurance risk transfer**
Income cohorts	**Low income**	Reduced private social security contributions, risk transfer via social security (health, unemployment, pension) and welfare programmes	Incentives for loss prevention; public disaster assistance; PPPs with insurance sector; insurer of last resort (e.g. housing, motor, pandemic risk)	Subsidise use of private insurance (eg, agro, mortality); regulatory support for microinsurance and digital distribution
	Middle income	Income-based social security contributions, risk transfer via social security (health, unemployment, pension)	Incentives for loss prevention; PPPs; insurer of last resort (e.g. housing, motor, pandemic risk)	Promote private insurance; tax benefits for life/ pension insurance; regulatory support for digital distribution
	High income	Progressive income tax; capital gains tax, wealth tax; estate tax; corporate tax	Insurer of last resort (eg, commercial terrorism risk backstop); policies reducing financial market risks	Promote private insurance

Source: Swiss Re Institute

Published by
Swiss Re Management Ltd
Swiss Re Institute
Mythenquai 50/60
P.O. Box
8022 Zurich
Switzerland

Telephone +41 43 285 2551
Email institute@swissre.com

Authors
Fernando Casanova Aizpun
Caroline De Souza Rodrigues Cabral
James Finucane
Fiona Gillespie
Dr Anja Grujovic-Vischer
Dr Thomas Holzheu
Charlotte Mueller
Patrick Saner
Diana van der Watt
Dr Li Xing

***sigma* editors**
Alison Browning
Paul Ronke

Managing editor
Dr Jerome Jean Haegeli
Swiss Re Group Chief Economist

Explore and visualise *sigma* data on natural catastrophes and the world insurance markets at *www.sigma-explorer.com*

© 2022 Swiss Re. All rights reserved.

The editorial deadline for this study was 19 April 2022.

sigma is available on Swiss Re' s website: *www.swissre.com/sigma*

The internet version may contain slightly updated information.

Graphic design and production:
Corporate Real Estate & Logistics / Media Production, Zurich

The entire content of this *sigma* edition is subject to copyright with all rights reserved. The information in this edition may be used for private or internal purposes, provided that any copyright or other proprietary notices are not removed. Electronic reuse of the data published in *sigma* is prohibited.

Reproduction in whole or in part or use for any public purpose is permitted only with the prior written approval of Swiss Re and if the source reference "*sigma* 3/2022: Reshaping the social contract: the role of insurance in reducing income inequality" is indicated. Courtesy copies are appreciated.

Although all the information used in this edition was taken from reliable sources, Swiss Re does not accept any responsibility for the accuracy or comprehensiveness of the information given or forward looking statements made. The information provided and forward-looking statements made are for informational purposes only and in no way constitute or should be taken to reflect Swiss Re' s position, in particular in relation to any ongoing or future dispute. In no event shall Swiss Re be liable for any loss or damage arising in connection with the use of this information and readers are cautioned not to place undue reliance on forward-looking statements. Swiss Re undertakes no obligation to publicly revise or update any forward-looking statements, whether as a result of new information, future events or otherwise.