

RESEARCH BRIEF

Insurance in the Digital Age

A view on key implications for the economy and society

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A shift in the nature and scope of risks to society

The digital era brings a radical shift in the nature and scope of risks to society. Digitalization is widening the role of insurers allowing them to evolve from pure risk protectors towards risk predictors and preventers.

Digital technology provides insurers with the opportunity to use real-time monitoring and visualisation that will fundamentally change the insurers' relationship with customers. As an example, if customers let insurers track their habits via wearable monitoring devices, insurers can use the data to influence behaviour and reduce risks. The flipside of insurers gaining more data about their customers is a rising risk of anti-selection in life and health insurance.

An increase in the amount of information and knowledge available to society could lead to a decrease in the frequency of some risks, such as vehicle accidents, and may even cause some risks to disappear altogether if they become totally predictable. On the other hand, other newly emerging risks, such as cyber, will increase.

Digital technology underpins almost every aspect of modern life. Autonomous machines increasingly feature in daily business and customers' everyday lives. In minimising the human factor, which is usually the main cause of accidents, a shift from loss frequency to loss severity might take place, and losses may accumulate in new ways.

Data privacy is fundamental

Insurers have always held responsibility for the appropriate use of policyholders' personal data. In the context of a digitalized society, granular data available to insurers is expanding exponentially from a broad range of sources—not only from traditional data providers, but also public entities and enterprises generating data 'exhaust' from business activities.

In order to preserve customers' trust but also to ensure compliance with data protection requirements, it is essential for insurers to ensure transparency in their use of (big) data, and to process personal data responsibly, in ways strictly compatible with the specific purpose(s) for which it was collected.



Digitalization of the economy is widening the role of insurance.



Risk pooling is likely to remain as the insurance industry's best response to new risks.

Ethics and data protection may lag behind technological progress. Societies need to reflect on this.

The new possibilities introduced by big data analytics and other digital technologies could enable insurers to offer individual risk-based insurance. And with this, the issue of 'fairness' arises: the increased scope for personalised insurance might mean that some high-risk individuals will be denied cover or face prohibitively high insurance costs. That is not new in the insurance industry, but it is likely to become more accentuated in an increasingly digitalized economy.

Data and market power

New technology startup firms—or InsurTechs—are entering the industry, and industrial companies as well as established technology giants are eyeing opportunities in insurance. This presents opportunities for mutually beneficial partnerships with insurers but they could also become direct competitors, putting pressure on profit margins and challenging the insurers, especially at their interface with customers.

The increasing importance of data for value creation can spur concerns about the effects of any one player controlling massive amounts of data. Some global technology companies have a very large market share in their specific market segment, which provides them with unique access to customers and their data. Such companies could enjoy tech-enabled dominant positions and extend their market power to the insurance sector, and tip the competitive landscape. This raises the question of whether legal rules against monopolistic behaviour, written more than a century ago, are still well-suited to address the network effects that allow a platform to control the customer interface.

Risk pooling is the best response

In face of an ever increasing digitalization of the economy, and in spite of pervasive trends to personalise more and more aspects of our daily lives, risk pooling through insurance is likely to remain as the best response of the industry to the financial consequences of risk.

Insurance is a key component of economic development. Insurers will need to build on risk transfer systems that promote social cohesion.

Societies need to reflect on these developments and on the risk that ethics may lag behind technological progress. Nevertheless, insurance plays an important role in helping societies to address some of their greatest challenges. Policymakers can ease the way by putting in place regulation that helps the insurance industry leverage digital technologies and ultimately benefit customers.