

Welcome to the new issue of *Seeing Beyond Risk*, the quarterly electronic publication from the Canadian Institute of Actuaries (CIA). Each issue presents the latest actuarial thinking from experts.

In this first of a two-part series, Alain Lessard examines the disruptions the sharing economy is causing, particularly in the insurance industry. We are sure you will find this article informative and thought-provoking, and we encourage you to distribute it among your friends and colleagues.

The Sharing Economy: Be Ready for Disruption

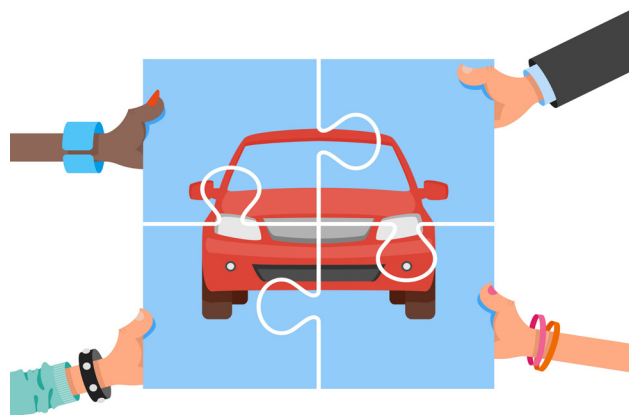
By Alain Lessard, FCIA, FCAS

The sharing economy, also referred to as the on-demand economy, has gained traction in the past five years. This socio-economic ecosystem is built on peer-to-peer (P2P) based sharing of access to goods and services and can take many forms. The two most famous sharing economy brands, Uber and Airbnb, are today as well-known as any blue-chip company.

The sharing economy started its rise with the most obvious personal assets: people's homes and automobiles. The idea was simple: people could generate income from idle assets.

While the sharing of personally owned resources is not novel on its own, the sudden rise of the sharing economy can be attributed to a number of factors converging at the same time; namely, the advancement and ubiquity of mobile platforms, consumer willingness to try mobile apps, and the shift in the world economy after the 2008 financial crisis.

Sharing Economy



Economic realities are driving both demand and supply. Stagnant income levels and job security are changing the demand for long-term investments such as cars and houses.

Millennials, challenged with increasing debt, soaring cost of living, and lifestyle changes driven by urbanization, want options. All these factors, combined with the rise of social media and mobile use, are driving young consumers to look at alternatives to owning.

On the supply side, in addition to their ease of use, mobile platforms allow for low transaction costs. Also, given that the assets being used were purchased primarily for personal use, there is often less pressure on returns on investment compared to a traditional business.

PUTTING IDLE CAPACITY TO USE

According to a recent [Morgan Stanley research study](#), the automobile is among the most underutilized and inefficient assets in the world, yet it takes up a significant portion of an average consumer's disposable income. By Morgan Stanley's estimate, we use our vehicles for only about 4 percent of their total available time. Couple this with the fact that Canada has one of the highest automobile running costs in the developed world and it is obvious there are inherent economic inefficiencies and, more importantly, an opportunity to do things differently.

In developing countries with high population densities, high levels of pollution, and low insurance penetration, it makes sense to look for more efficient methods of transportation.

IS YOUR INDUSTRY AT RISK OF DISRUPTION?

The astronomical rise of Uber is proof that a traditional industry such as passenger transportation can be disrupted due to the inherent inefficiencies in the traditional business model. Entrepreneurs in the technology sector are actively searching out industries which could be ripe for the same type of disruption.

In the financial sector, for example, companies such as Lending Club provide peer-to-peer services similar to banks, and companies such as Friendsurance and Guevara are entering the insurance space. Our analysis shows that for an industry to be open for P2P disruption, five factors need to be considered:

1. Critical mass: There must be sufficient volume to make the disruption worthwhile.
2. Unmet consumer need: Consumers are not satisfied with the service being provided and are open to alternatives.
3. Simplicity: Consumers are looking to get services that are easy to use and convenient, including online and mobile transactions.
4. Lower cost: Consumers are price conscious in this economic environment.
5. Idling capacity: If there is idle capacity in the economy which can be utilized, the sharing economy can provide an avenue to monetize it.

When viewed through this lens, almost every traditional industry is at risk of being disrupted by P2P businesses. A [PricewaterhouseCoopers study](#) estimates that the sharing economy will grow from \$15B today to \$335B by 2025 (see exhibit 1).

THE GENERAL INSURANCE INDUSTRY

There are three issues that can affect the general insurance industry as the sharing economy grows:

1. How we can address changing consumer needs?
2. The impact on traditional lines of business.
3. The impact of potential P2P insurance providers on our business model.

The first two issues have an almost immediate impact. We have already seen how they have affected the way insurers traditionally do business and have evolved the products we offer. To stay relevant, insurers need to realign their thinking and strategies.

In the longer term, potential P2P insurance providers can disrupt the traditional business model. The insurance industry has certain built-in protections such as claims infrastructure, capital requirements, and historical claims experience data—all of which will help slow down the pace of disruption in the short term.

Exhibit 1: Industry Growth Comparison

Sharing Economy Sector (CAGR 2013 – 2025)

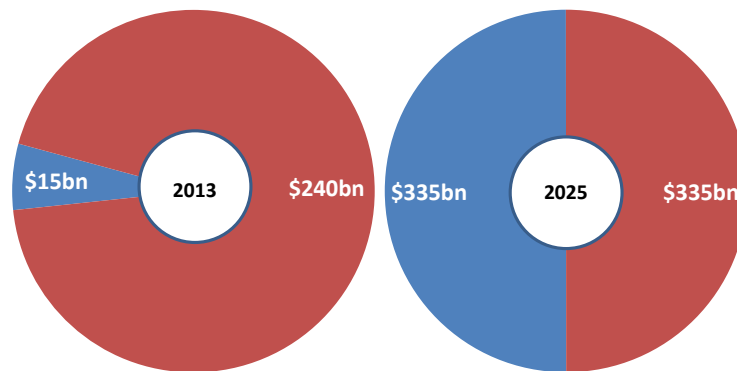
P2P lending and crowdfunding (63%)

Car sharing (23%)

Online staffing (37%)

P2P accommodation (31%)

Music and video streaming (17%)



Traditional Rental Sector (CAGR 2013 – 2025)

Equipment rental (5%)

Car rental (2%)

B&B and hostels (4%)

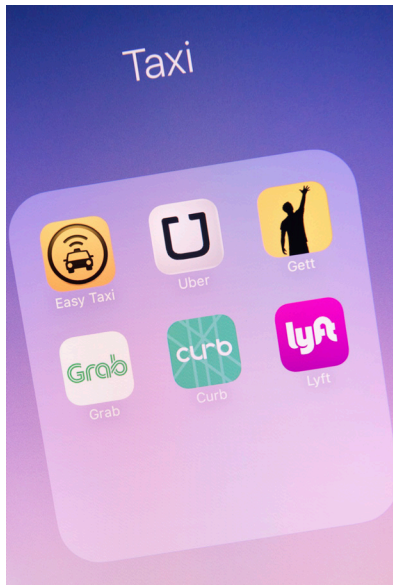
Book rental (3%)

DVD rental (-5%)

Source: PwC Analysts

PRODUCT INNOVATION AND CUSTOMIZATION

Using ride-sharing insurance as an example, it is safe to say the insurance industry has been slow to evolve its products to address the changing needs



of consumers in the sharing economy. Uber has been in Canada for four years. It averages one million rides per month in Ontario alone. Thousands of drivers use their personal vehicles to participate in Uber each day.

The same holds true for other P2P platforms such as house sharing and car sharing. The

question we have to ask ourselves is, are we prepared for the rising demand?

Currently, standard personal policies specifically exclude commercial use. Commercial policies on the other hand, are designed for consumers who operate as commercial businesses on a full-time basis, making commercial products unaffordable for individuals participating in a commercial activity on a part-time basis.

Insurers have to start evolving their products to address the blend of personal and commercial insurance required by the sharing economy. There is no doubt that the growth of the sharing economy will affect growth in traditional products such as personal auto insurance.

Currently, the only way to address consumer and public safety is to insure the P2P enterprise directly and protect all participants. Ideally, this should be done in conjunction with amendments to the

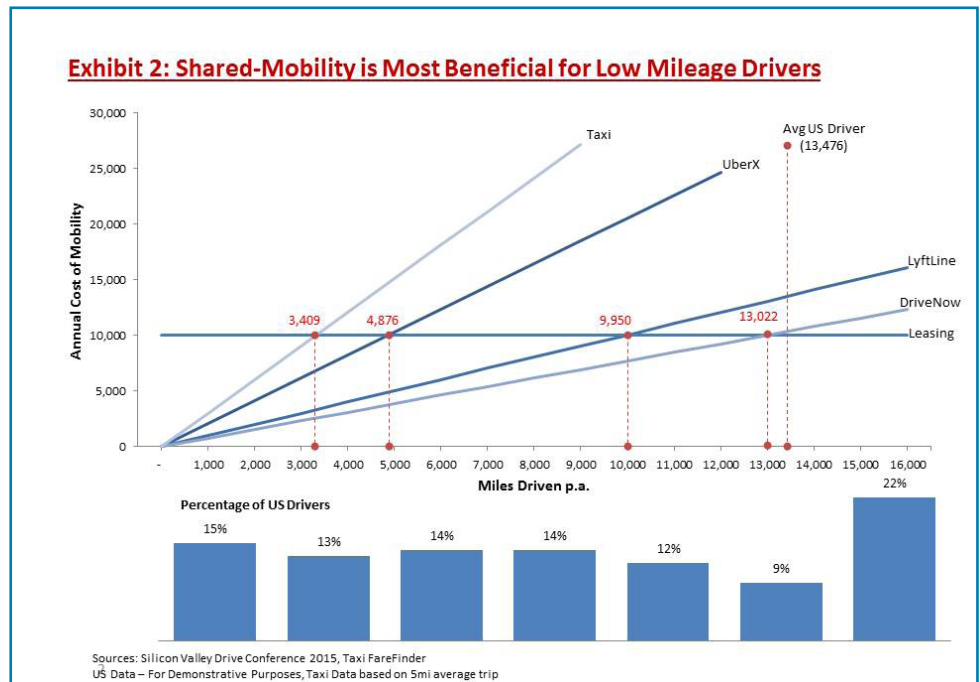
personal product, to allow participation in the sharing economy. Doing so eliminates any coverage gaps. In addition, insuring the P2P provider directly allows for the use of their data, which would permit accurate rating that correctly reflects the risk exposure. The cost of commercial coverage could also be spread over a large group of users, making the overall coverage affordable on both the personal and commercial policies.

CAPITALIZING ON GROWTH MARKETS

With more transportation options, increased urbanization, and changing consumption patterns, insurers also have the opportunity to redesign their products to capture the new commercial use of personal vehicles and to design products for new growth markets.

One area is usage-based pay-per-mile insurance, popular with low-mileage drivers (see exhibit 2). An example is Metromile, a U.S.-based pay-per-mile specialist.

Utilizing mobile technology, insurers can design products to allow consumers to pay for every mile they drive, and how they are using their vehicles. For example, a consumer who fully participates in the sharing economy could have a mileage-based program that comes with three different rates. Each mile can have a rate based on how the vehicle was used—for personal use, to transport a passenger, or for car share.




Actuaries will have to advance their pricing models to deal with enormous amounts of data being produced with mileage-based applications and be able to accurately price each type of usage. Linking mileage-based applications with P2P platforms can also open the door to data collection that was not possible in the past.

AGILE ADAPTATION

The key challenge for insurance companies and actuaries will be how quickly they can adapt their core competencies—from internal systems to rating engines and analytical tools—to make full use of the data that can be collected. Future development of segmentation and products to continue growth will be dependent on this transition and how quickly it can be achieved. Insurance companies will also have to balance this focus with their overall brand and customer experience.

The sharing economy may be driven by social changes, mobile, and analytics, but the centre of this new ecosystem is still the customer.

One thing is clear: agility pays, but the basics cannot

be ignored. Insurance companies will have to continue to work collaboratively with governments and regulators, develop and acquire talent, as well as strengthen their core competencies, to help them determine where they can add the most value for customers going into the sharing economy. In a future issue, we will explore some concrete examples of how products have evolved. 



Alain Lessard is senior vice-president, commercial lines, at Intact Insurance. In this role, he is responsible for developing and delivering Intact Insurance's strategy for commercial lines underwriting, pricing, and product development. Over his career Mr. Lessard has held various positions of seniority including senior vice-president of actuarial services & reinsurance at AXA Canada and chief risk officer at AXA France. Alain is a Fellow of the Canadian Institute of Actuaries and the Casualty Actuarial Society.