The Progressive Corporation

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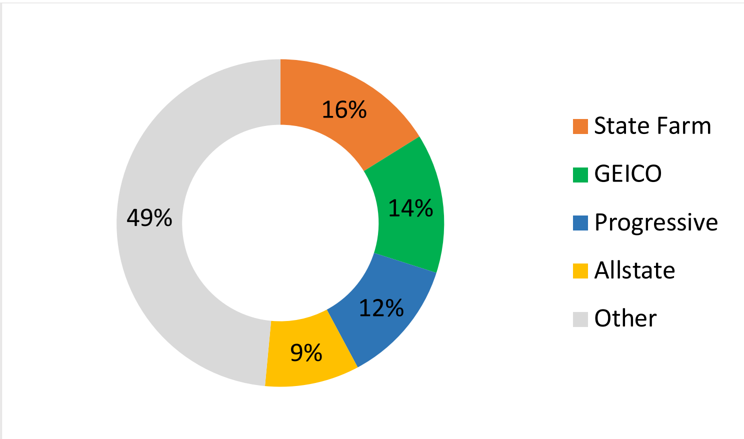
Overview

Ticker:	PGR: NYSE
Stock Price:	$92.94/share
Market Cap:	$54 billion

Progressive was founded in 1937. The company started life as an underwriter of auto insurance for high-risk drivers. The company was very successful in this niche. Today, it is the third largest auto insurance company in the U.S., behind State Farm and GEICO. It has been the market share leader for motorcycle insurance since 1998. Across all product lines, it writes $37 billion in premiums, has 24 million policies in force, and 41,500 employees.

Industry

The market for private passenger auto insurance in the U.S. is relatively concentrated with the top 4 players representing 51% of all direct premiums written.



Source: National Association of Insurance Commissioners (NAIC)

Auto insurance in the U.S. is sold in three ways:

1. Through captive agents
2. Through independent agents
3. Directly online, by phone or on mobile

The first channel – captive agents – are insurance agents who only sell products of one insurance company. State Farm uses this model.

The opposite of a captive agent is an independent agent. Independent agents can show you prices from different carriers. These agents receive a commission (typically 10-15%) for each customer they bring in and continue to clip renewal commissions (typically 2-5%) for each year a customer stays with a carrier. Since independent agents usually receive larger commissions than captive agents, this channel is usually the most expensive.

Selling through independent agents may seem like a low-risk way to sell insurance – since you only pay for the customers that sign up. However, it is an inefficient and expensive channel for a sticky product like auto insurance, where customers often remain with a carrier for 6-8 years. Progressive is the leader in the fragmented independent market.

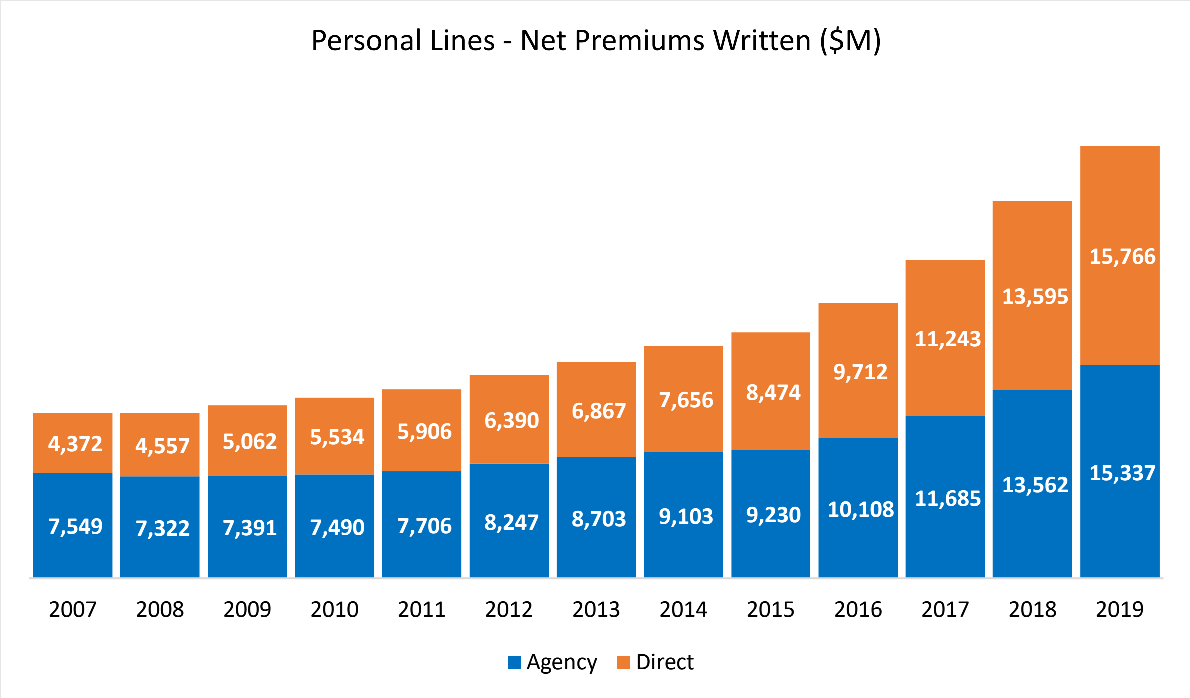
The direct channel is highly consolidated with just 3 companies – GEICO, Progressive and USAA – accounting for about 80% of all premiums written. This is the most lucrative channel in the long run because 1) no commissions are paid to agents 2) these savings can be spent on advertisements and 3) no channel conflict. Advertising directly to consumers is cheaper per dollar of premiums generated because the insurer (and not the agent) reaps the full benefit of the ad spend. For this reason, the giant direct auto insurers have a lower expense ratio than companies that pay commissions to captive and independent agents.

Business Segments

Half of Progressive's written premiums come from the direct channel whereas GEICO and USAA have a completely direct model. USAA is the smallest of the three since they only sell to U.S. military members and their immediate families. Therefore, GEICO is Progressive's only legitimate competitor in the direct channel.

Progressive pays around 10.5% of agency premium in commission. Their commission is lower than competitors. They can do this because they are best-in-class in underwriting and claims. This allows them to price their policies lower which forces the agents to carry Progressive.

Despite being the market share leader in the independent channel, Progressive is simultaneously growing its direct business.



Progressive's Personal Lines segment writes insurance for personal auto and other vehicles such as motorcycles, ATVs, watercraft, snowmobiles, etc. In 2007, only 37% of Personal Lines written premiums came from the direct channel. Today, it is 51%.

Progressive's other business segments consist of Commercial Lines and Property. The Commercial Lines segment writes auto-related liability and physical damage insurance for cars, trucks, vans, trailers, etc. that are used for business. Commercial vehicles such as cars in the Uber network require a separate policy because they are typically exposed to more risk than personal vehicles.

The Property segment writes residential property insurance for homeowners, property owners, and renters. They entered this business by acquiring ARX Holding. So far, results have been disappointing. I guess it is only a matter of time before they get the pricing right.

	Net Premiums Written $M	**% of Net Premiums Written**
Personal Lines	31,102	83%
Commercial Lines	4,792	13%
Property	1,684	4%

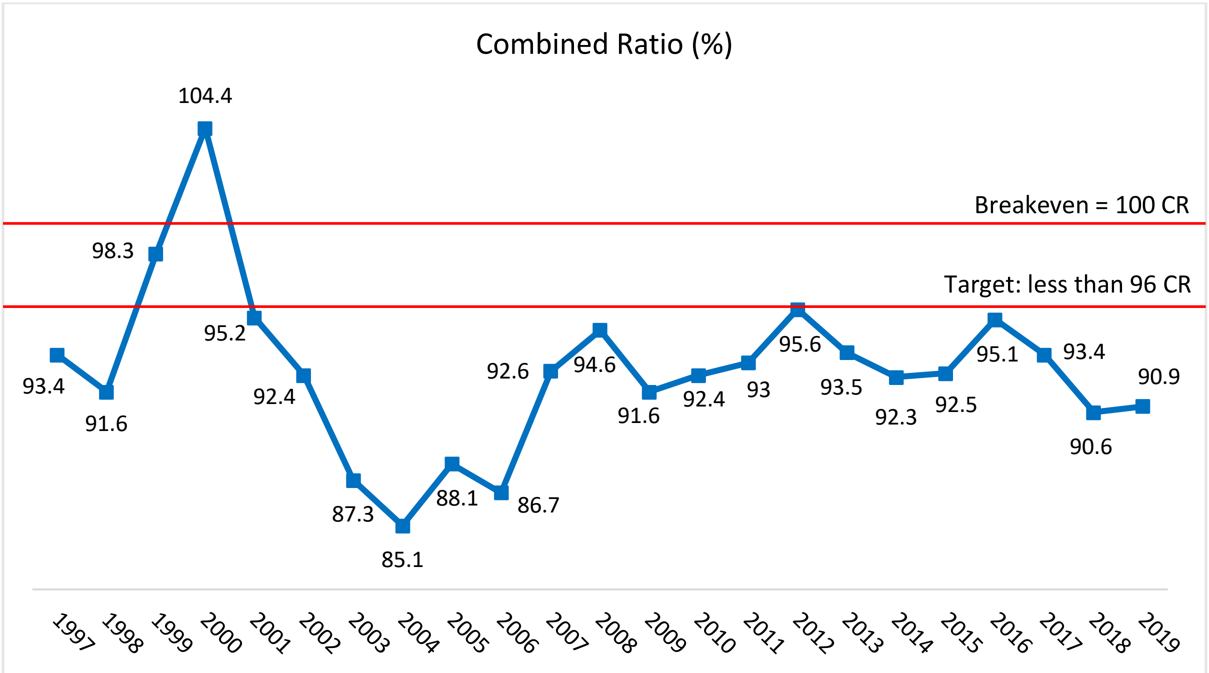
How Progressive Creates Value

The combined ratio is the yardstick used to measure the profitability of an insurance company. A combined ratio below 100 indicates an underwriting profit and above 100 indicates an underwriting loss. The pretax underwriting margin is the inverse of the combined ratio.

Progressive's goal is to grow as fast as possible by underwriting at or below a 96 combined ratio – i.e. achieve a 4% pretax underwriting margin. This underwriting discipline is deeply ingrained in the company culture.

> *Often, we are challenged regarding our long-standing goal of making at least four cents of underwriting profit while growing as fast as we can. If we must choose, profit comes before growth.*
>
> - Tricia Griffith (CEO), 2017 letter to shareholders

Progressive has been remarkably consistent in underwriting below a 96 combined ratio. Since 1997, only in 1999 and 2000 did Progressive fail to underwrite at 96, and only in 2000 did they lose money on underwriting. The company is currently on a 19-year streak of profitable underwriting. This track record is best-in-class.



Progressive creates value by leveraging its underwriting skill. Historically, it underwrites at almost 3x premiums to statutory surplus. This is referred to as operating leverage. While leverage magnifies gains in good times, it also magnifies losses. Excluding the effect of investment income, a combined ratio of 105 during a particularly bad year would wipe out 15% of the company's capital. But, Progressive's balance sheet is 30% debt and 70% equity. This means a 15% destruction of capital will cause a 21% destruction of equity (15%/0.7).

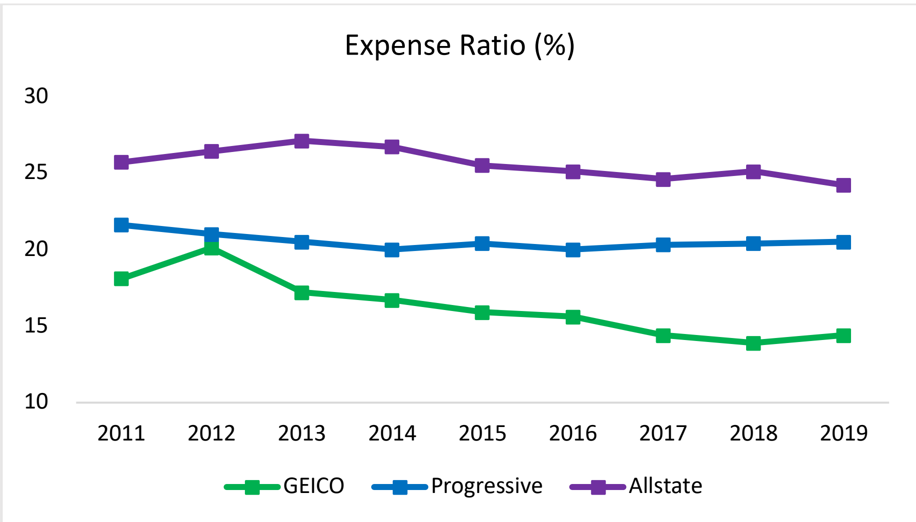
A big underwriting loss could force the company to dilute its shareholders by issuing shares. This is the biggest risk with an investment in Progressive. As long as the current 96 combined ratio mantra remains *firmly* in place – I believe there is a low probability of underwriting losses.

Progressive vs. GEICO

The combined ratio is a function of the expense ratio and the loss ratio.

Combined ratio = loss ratio + expense ratio

Progressive's advantage comes from its low loss ratio – its ability to accurately price risks and handle claims. A high loss ratio indicates adverse selection, rate inadequacy, or degradation in claims handling quality. On the other hand, GEICO's competitive advantage is a low expense ratio which comes from its pure direct business model. Both companies have an expense ratio advantage over their competitors.



Since GEICO and Progressive have lower expense ratios than Allstate, this means they can afford to have higher loss ratios (i.e. make mistakes in underwriting) while offering lower prices to policyholders.

Over the past 10 years, Progressive averaged a 7.1% pre-tax underwriting margin whereas GEICO averaged 4.2%. Progressive is the better underwriter. One reason is that the company started as an insurer for risky drivers – e.g. drivers with multiple DUIs or substance abuse problems. This means establishing the proper premium is very important. As a result, Progressive gravitated towards trying to achieve a low combined ratio by having a low loss ratio through better data analysis, pricing, claims handling, etc.

> *We believe we have industry-leading segmentation. We are looking across the country, state by state, channel by channel, product by product and being much more surgical when we're thinking about our rates.*
>
> - Tricia Griffith (CEO), Q2 2020 Earnings Call

Investment Portfolio

Progressive's competence is in underwriting not investing. Management knows this. This is why the company runs a very conservative investment portfolio. Of the $44 billion investment portfolio – only 10% is in equity securities while 90% is in very safe fixed-income securities. 21% of the overall portfolio is in AAA-rated U.S. government obligations.

The strategy of many insurers is to underwrite auto policies at breakeven (i.e. 100 combined ratio) and then try to earn a profit from investing their float. In today's low interest rate environment, insurers will continue to earn unattractive returns on their fixed-income heavy portfolio.

To compound the problem, many insurers have not invested in telematics or analytical expertise to earn a profit writing insurance, much less a direct sales channel to reduce expenses. They may try to mitigate their loss of revenue by buying lower-quality bonds or non-liquid "alternative" investments promising higher yields. But this is a very dangerous game.

Progressive, on the other hand, can earn higher returns than other insurers while taking less investment risk. This is because it typically earns industry-leading pretax underwriting margin of 6% to 9%. This makes it less dependent on investment income as a source of profit. Even if rates remain low, Progressive's investment income will grow to reflect the growth of the company's assets.

Culture

Progressive has a special corporate culture. The company promotes from within. The employees enjoy their work and frequently go the second mile for customers. CEO

Tricia Griffith is motivated by service to others, not money or prestige. She is committed to Progressive – having joined the company in 1988 as a claims rep.

The company is also known for doing the right thing. For example, during the aftermath of Hurricane Katrina, many insurers chose to sell their water-damaged vehicles to salvage dealers. Salvage dealers could then repair and resell those cars. This is perfectly legal. However, Progressive crushed every one of their cars that was exposed to sewage and fuel-contaminated floodwaters in New Orleans. This cost the company millions but it was the right thing to do.

The company does not provide earnings guidance. Instead, it releases very informative monthly, quarterly, and yearly financials.

Competitive Advantage

The insurance business in the U.S. is heavily regulated both at the federal and state level.

Each state has a unique and complex set of laws and regulations that are constantly changing. Adhering to them is complicated and expensive. This is a huge barrier to entry.

For customers looking to buy auto insurance on the internet, the choice is between GEICO and Progressive. It is very hard for new entrants to compete in the direct channel. The incumbents have scale advantages, cost advantages, low customer acquisition costs, huge advertising budgets, and very strong brand recognition.

Progressive also has substantial "know-how" developed from years of experience with usage-based insurance. The company has collected and analyzed data from almost 33 billion driving miles from its usage-based devices and mobile app. Even if a competitor (e.g. Lemonade and Root Insurance) chooses to replicate Progressive's model, they will not be able to get that 33 billion driving mile of data because it takes time. It takes 10 years to get 10 years of data. There is no way around this.

I believe Progressive has built a proprietary data flywheel. It works like this: Progressive insures millions of cars, as it gets more data, the data gets more predictive, the pricing gets more accurate. It can share these efficiencies with customers in the form of lower prices, which leads to more people choosing to insure with them. Thus, more data and more accurate pricing. And the flywheel keeps turning.

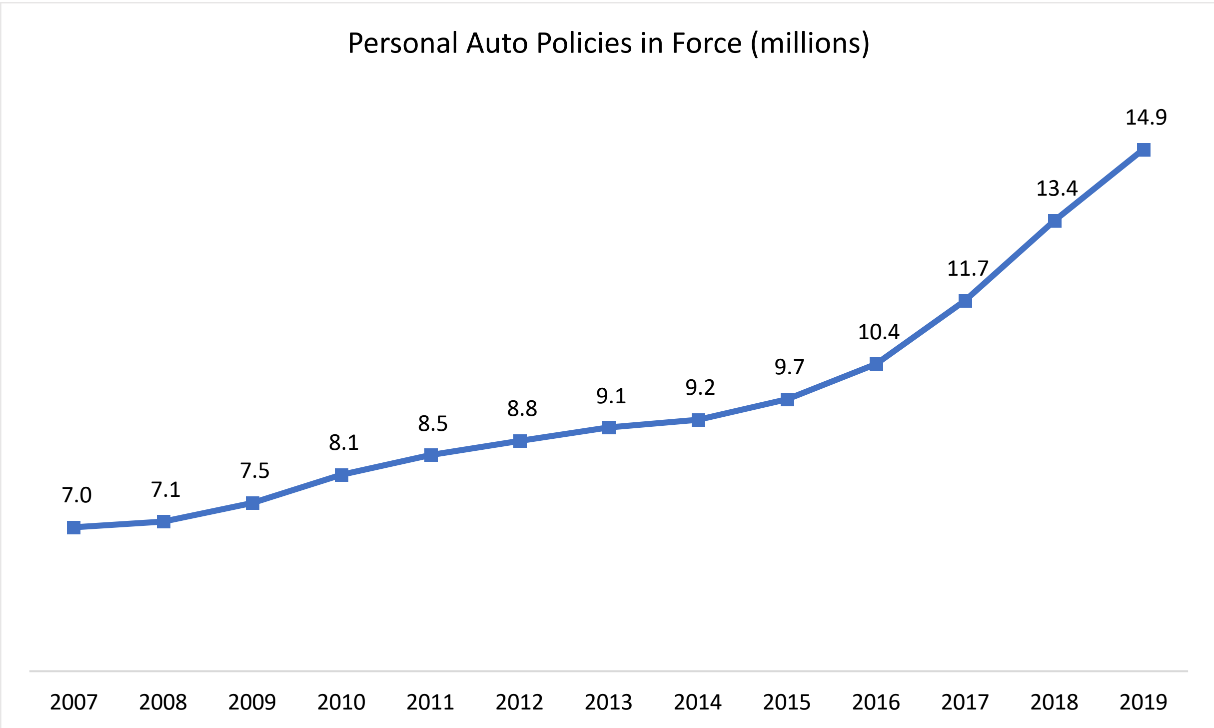
Without data, only dangerous inferences can be drawn. The folks at Progressive have shown that they can analyze large pools of data, segment risks, and use it to price insurance policies accurately. Progressive has a very strong competitive advantage in underwriting – perhaps the strongest among auto insurers.

Progressive's incredible corporate culture also helps it attract great talent: data scientists, actuaries, claims adjusters, pricing analysts, etc. They are usually the first underwriter to notice changes in troubling trends and apply for rate increases. This is no small task for a business with multiple products over 51 U.S. regulatory jurisdictions and two distribution channels.

Growth, Retention Rate, and Bundling

Progressive has a big appetite for growth.

Net Premiums Earned ($B)	2010	2019	Growth	Annualized
State Farm	32.4	42.1	30%	3%
Allstate	25.9	34.8	34%	3%
Progressive	14.3	36.2	153%	11%
GEICO	14.3	35.5	149%	11%



From 2007-2019, Progressive added nearly 8 million policies in personal auto yet its combined ratio never touched 96. It is rare to see an insurer grow in such a disciplined manner.

Due to Progressive's legacy in non-standard auto policies, the company has tended to over-index on younger and higher risk drivers who have lower retention rates. To improve retention, Progressive is working to increase the number of customers who bundle auto and home insurance. Management refers to this group as "Robinsons." The Robinsons are the Holy Grail customer. They are homeowners. They tend to be older, wealthier, and married. Statistics reveal that these customers are stickier (>90% retention rate), file fewer claims, and are less likely to miss payments.

An insurer's retention rate is extremely important. Progressive and other auto insurers rely on advertising to get new policyholders. The nature of the product is such that customer acquisition costs will exceed how much insurers make from new policyholders in the first one to two years. As a result, the longer the policyholder stays, the higher their lifetime earned premium is to the insurer.

An insurer with low retention rates – e.g. whose customers are leaving after just one year – must price their policies much higher to quickly recoup their policy acquisition costs. This leads to a high expense ratio which is undesirable.

Progressive classifies policyholders into four personas:

- Sam – inconsistently insured; higher-risk drivers; price sensitive
- Diane – renter; financially responsible
- Wrights – homeowner; does not bundle auto and home
- Robinsons – homeowner; bundles auto and home

As the table below shows, the Robinsons are the biggest segment in terms of premiums.

2018 AUTO/HOME INDUSTRY PREMIUM ($ billions)

SEGMENTS	CAPTIVE AGENT	INDEPENDENT AGENT	DIRECT	TOTAL
Sam	9	11	14	32
Diane	22	12	29	63
Wrights	23	30	14	67
Robinsons	97	59	26	182
Total	**149**	**112**	**83**	**344**

Source: Progressive 2019 Investor Presentation

Progressive has initiatives in both the direct and agency channel to increase its share of the Robinsons segment. On the direct side, customers can easily bundle by going to Progressive.com. On the agency side, Progressive has an invite-only Platinum program. Platinum agents are incentivized to grow their book of Robinsons through higher commissions, access to Progressive's lead generation tools, and other benefits.

We still have just about 2% of the independent agent Robinson market. This has lots of room to grow in a $59 billion market. Disruption in the captive market is putting more of that $97 billion of captive bundles in play as well.

- Tricia Griffith (CEO), Q4 2019 Earnings Call

If Progressive can successfully grow its book of Robinsons and retain its current book of policyholders for longer, this will increase both premiums and the quality of premiums without much additional costs. This is because as people go through predictable life events – buy their first car, rent a condo, buy a house, buy a second car, etc. – premiums are also rising in lockstep. The premium on a homeowner's policy can be 10x as high as a renter's policy.

Reserves

The insurance business does not consume much capital for property, plant, and equipment. But, for regulatory reasons, it requires significant capital reserves.

You should not invest in an insurance company without understanding how it reserves. This is because an insurer can make its reported earnings to be just about whatever it wishes by playing around with its reserves. Therefore, determining how accurate and conservative management has been with its reserves in prior years is very important.

There are two types of liabilities arising out of an accident: physical damage (e.g. car) and auto-related liability (e.g. bodily injury). Claims for property damage are assessed and paid out very quickly whereas claims for bodily injury can take a couple of years to settle.

The table below shows the incurred claims for auto-related liability in the agency channel.

Personal Lines - Agency - Liability
($ in millions)
Incurred Claims and Allocated Claim Adjustment Expenses, Net of Reinsurance

	For the years ended December 31,				
Accident Year	**2015[1]**	**2016[1]**	**2017[1]**	**2018[1]**	**2019**
2015	$ 3,774.9	$ 3,773.8	$ 3,798.8	$ 3,815.6	$ 3,776.0
2016		4,082.9	4,130.0	4,152.0	4,177.3
2017			4,474.8	4,485.8	4,511.1
2018				5,141.8	5,182.1
2019					5,885.0
				Total	$ 23,531.5

In the accident year 2015, Progressive originally thought it would cost them $3,774 million in claims. When they reevaluated those liabilities at the end of 2019, it was $3,776 million. Even though their revised estimates were higher – it was only higher by $2 million – a minuscule amount. This illustrates that Progressive was accurate in reserving in 2015. You can do the same analysis for other accident years.

There are other ways to assess an insurer's reserves. Investors can also look at the discrepancy between "calendar year LAE ratio" and "accident year LAE ratio." A smaller difference suggests better reserve accuracy. Watch out for big and frequent unfavorable developments. This is usually a sign of weak reserving and over-optimism.

Valuation

Progressive is trading at about 13x my estimates of this year's earnings. However, a single year's earnings don't mean much. In any business, there are probably less than five variables that will determine its long-term value. For Progressive, I believe they are underwriting profitability and growth in policies in force. This is what will make or break the investment.
I also believe that the current valuation does not reflect the following changes 1) increasing mix of premiums from the direct channel 2) higher retention rate from more bundled customers and 3) long-term opportunity to grow policies in force in the high-single-digit rate.

Car Safety and Autonomous Driving

Statistics reveal that the motor vehicle fatality rate in the U.S. has decreased over time. This is due to increasing seat belt use, improvements in airbags, electronic stability control, etc.

Year	Motor Vehicle Deaths	Vehicle Miles Traveled (billions)	Deaths per 100 million VMT
1930	31,204	206	15.12
2018	36,560	3,223	1.13

Source: National Highway Traffic Safety Administration (NHTSA)

From 1930 to 2018, motor vehicle deaths have increased by only 17% despite a 15x increase in vehicle miles traveled. This is amazing and indicates that cars have gotten much, much safer over time.

Here's another way to look at the data. If the number of deaths per 100 million VMT had remained the same, relative to miles driven, nearly half a million people would have died from auto accidents in 2018, instead of 36,560.

Car accidents are caused by human error. A common argument is that advances in autonomous driving will decrease the number of accidents. With fewer accidents, insurers will have to charge lower premiums.

However, this is only half the story.

In the future, I believe that we may see intermittent upticks in accident frequency and severity. This will probably be because of a combination of aging vehicles (almost 12 years on average), increasing distracted driving (smartphones), and rising miles driven (ride-sharing).

Furthermore, as cars have gotten safer, they have become more expensive to fix. This is because newer car models (especially EVs) are packed with complex computers, sensors, and cameras. Even if there are fewer collisions in the future, the damages will be costlier which means auto insurance is likely to remain expensive.

Auto insurance is required by state law. Highways in the future may include a mix of human and computer-driven cars. But as long as some cars are still driven by humans, states will not eliminate auto insurance. I believe the complete adoption of driverless cars is much further than we think.

Covid-19

The number of vehicle miles driven decreased dramatically when the Covid-19 restrictions were first put in place. As of June, vehicle miles traveled have returned to pre-Covid levels in many states, but both miles traveled and claims frequency remain down versus last year.

Vehicle miles traveled may continue to increase as people substitute away from air travel to vehicle travel for longer trips. Claims data will reveal whether these miles are riskier.

> *We typically find that disruption drives shopping, and shopping results in more consumers switching to Progressive.*
>
> - Tricia Griffith (CEO), Q2 2020 letter

There are two main reasons why I believe Progressive may be a long-term beneficiary of Covid-19. First, it has a thriving direct to consumer channel. Management has said that they are seeing a faster recovery in the direct channel than the agency channel. This is partly because agents, often being small businesses, are still working to get their offices compliant with social distancing requirements. Consequently, more people may permanently switch to buying auto/home insurance online. If so, Progressive should pick up a disproportionate number of new policyholders.

Second, Progressive may see increased adoption of its usage-based insurance (UBI) products such as Snapshot and Smart Haul. Auto insurance is required whether you drive a little or a lot. UBI is a win-win for both Progressive and its customers because the company receives access to valuable data while customers receive better rates based on their driving patterns.

Conclusion

Progressive should emerge stronger from the Covid-19 crisis as it has the balance sheet, cost structure, and profitability to withstand any short-term impact on its business. Its superb suite of digital offerings – Snapshot, Smart Haul, HomeQuote Explorer, BusinessQuote Explorer, FAO Portfolio – makes it well adapted to service its customers and grow market share when compared with competitors who have not built digital offerings.