\* What is the name of the company? Lemonade

\* When was the company incorporated? Lemonade was founded in 2015 (Tel Aviv, Israel)

\* Who are the founders of the company? The founders are Daniel Schreiber and Shai Wininger

\* How did the idea for the company (or project) come about? according to the founders they wanted to crate an insurance company that had a different "word cloud” associated with it. In other words they wanted to create a insruance company which was fresh, young vibrant and positive with a strong customer centric ethos. As both founders were existing tech entrepreneurs they decided to pick the insruance company because of the following reasons:

- the insruance company was yet to be disrupted

- the insurance market was huge and gaining only 5% of the market share would be a large number.

- it was a unloved sector which hadn’t changed much in the last 100 years.

\* How is the company funded? How much funding have they received? they initially went through a series of raises via private equity but have since IPO’d during year 2021.

## Business Activities

\* What specific financial problem is the company or project trying to solve? Lemonade is an insurance company that aims to provide a customer-centric experience by using AI to cut costs and improve efficiency in the insurance industry.

\* Who is the company's intended customer? Is there any information about the market size of this set of customers? The company's intended customer is individuals who are seeking home and rental insurance.

\* What solution does this company offer that their competitors do not or cannot offer? (What is the unfair advantage they utilise?) : Lemonade's key differentiator from its competitors is its AI-driven platform that uses algorithms to streamline the insurance process and reduce costs. Additionally, the company donates a portion of unclaimed premiums to charity, which helps create a sense of trust with customers.

\* Which technologies are they currently using, and how are they implementing them? (This may take a little bit of sleuthing–– you may want to search the company’s engineering blog or use sites like StackShare to find this information.) Technologies used: Lemonade uses AI and machine learning algorithms to streamline the insurance process and provide a more personalized customer experience.

## Landscape

\* What domain of the financial industry is the company in? Insurance

\* What have been the major trends and innovations of this domain over the last 5–10 years? Some major trends and innovations in the insurance industry include the increasing use of AI and machine learning to improve efficiency and provide a better customer experience, the growth of insurtech companies, and the increasing importance of cybersecurity in protecting sensitive customer data.

\* What are the other major companies in this domain? Other major companies in this domain: Some other major companies in the insurance industry include State Farm, Allstate, and Geico.

## Results

\* What has been the business impact of this company so far? Business impact of the company so far: Lemonade has experienced significant growth since its launch, with its revenue increasing from $9 million in 2018 to $67 million in 2019. The company's IPO in 2020 also resulted in a market valuation of over $3 billion.

\* What are some of the core metrics that companies in this domain use to measure success? How is your company performing, based on these metrics? Core metrics used to measure success in this domain: Some core metrics used to measure success in the insurance industry include customer satisfaction, retention rates, and underwriting profitability.

\* How is your company performing relative to competitors in the same domain? Performance relative to competitors: Lemonade has been able to disrupt the traditional insurance industry by using AI to provide a more efficient and personalized customer experience. However, it still faces competition from established players in the industry.

## Recommendations

\* If you were to advise the company, what products or services would you suggest they offer? (This could be something that a competitor offers, or use your imagination!) One potential product or service that Lemonade could offer is life insurance. This would allow the company to expand its product offerings and potentially attract a new set of customers.

\* Why do you think that offering this product or service would benefit the company? : Offering life insurance would allow Lemonade to diversify its revenue streams and potentially tap into a new market. Additionally, the company's existing AI-driven platform could be leveraged to streamline the life insurance application process and provide a better customer experience.

\* What technologies would this additional product or service utilise? : Lemonade could leverage AI and machine learning algorithms to automate the underwriting process for life insurance and provide a more personalized experience for customers.

\* Why are these technologies appropriate for your solution? AI and machine learning are already widely used in the insurance industry, and Lemonade's existing platform demonstrates the company's expertise in this area. Additionally, leveraging these technologies could help the company differentiate itself from competitors and provide a more efficient and streamlined experience for customers.

Additional Research

LMND reported 4Q operating EPS of $(1.14), above MSe $(1.19) and Cons $(1.13). Gross premium written, customer counts, and premium per customer were in line with consensus. Combined ratio was 14 points worse than consensus, driven mainly by higher net loss ratio, which was up 22 point yoy. LMND notes that 1/2-1/3 of the increase is from adverse prior period development owing to a few large losses, and the remainder from mix shift toward less mature lines.

What we like: Management expects losses to peak in 2022, stating that the company is "6 to 9 months away from peak losses."

* We expect 2022 to be the start of Act II for Lemonade. The investments in years prior have largely been in creating the technological infrastructure needed to "win with technology," and creating the suite of products needed to grow with its customers. Heading into 2022, management expects to leverage existing tech infrastructure to lower expense ratio and to employ machine learning to reduce loss ratio.
* Expense ratio peaked in 2Q21 at 417.8% and has since been coming down sequentially to 332.7% in 4Q21, which speaks to operating leverage.
* Company expects to take more rate increases in the next few months as it reins in its homeowners loss ratio, where inflationary pressures are affecting the industry.
* With the MILE acquisition, Lemonade has rounded out its product suites. We believe this diversified product suites should enable increased cross-selling which should further reduce CAC-to-LTV and increase customer retention.

What we are concerned about: Still a long way away from profitability.

* *Forward guidance*on in-force premium, gross earned premiums, and adj. EBITDA are well below that of the consensus estimate (midpoint of the FY22 guidance is 15.8% below the consensus estimate).
* *Pricing homeowners accurately?* 4Q saw a fairly significant loss ratio deterioration from 3Q, which the company attributed to (a) adverse development from one-off large losses and (b) mix change as homeowners represents an increasingly higher proportion of its overall book. While adverse development is never welcome, we're more concerned about part (b) of the answer. LMND's loss ratio stayed fairly consistently in the mid-70% range, but that was when renters dominated its overall book of business. A key question was whether the loss ratio would remain around that level as the company became more of a homeowners company (renters insurance is perceived as easier to underwrite, and thus traditionally carries better underwriting margins than homeowners). The company's answer to the 4Q loss ratio deterioration may give us a hint that its pricing prowess in homeowners may not be as strong as it is for renters. Admittedly, high growth in any line of business brings inherent pricing risk, but LMND's loss ratio is certainly an area to watch going forward as it continues to grow in homeowners.
* *Foray into auto will further delay path to profitability.*We think the company could be surprised at the vast differences in pricing automobile insurance as compared renters and homeowners. As we have said, and as is well known in the industry, new business brings an inherently higher loss ratio, but that is true for any company, even for the largest, most reputable companies in the business. For LMND, auto in an entirely different line than renter/homeowners. While its acquisition of MILE helps to leapfrog it into the business, what it bought had its own pricing issues (MILE's underwriting margins were far from industry-leading). Auto will still be a small piece of the pie for LMND, but we expect it to take time for LMND to prove that its "pricing toolkit" for auto is well-tuned.

MILE acquisition: Our model also incorporates the MILE acquisition. We are assuming the acquisition closes at the beginning of 3Q22. For the income statement, we incorporate $115mm of in-force premium, and assume $25mm of adj. EBITDA loss (for 2H22). Share counts are to increase by 6.7m shares based on 4Q21 MILE's share count (divided by 19, which is conversion ratio). For cash flow statement, we incorporate capex and D&A numbers in-line with historicals. For balance sheet, we incorporate ~$80mm of cash, in-line with company guidance, and ~$155mm of increase in equity associated with the issuance of shares (19:1 ratio) for the acquisition. Other line items already pick up the changes in the pro forma income statement given how it is projected currently.

Our 2022/2023e EPS move to ($6.60)/($5.06) from ($5.14)/($4.94). We also introduce 2024e EPS of ($4.37). The EPS change is mainly driven by increase in combined ratio, equally due to increase in expense ratio and loss ratio. For loss ratio, we are modeling a significant step up to 109.5% for 2022, vs. our prior estimate of 74.7%, given that 4Q21 loss ratio was 22pt higher than Morgan Stanley estimate and management commentary that loss ratio may trend worse before getting better. We are modeling a step function change in G&A and tech spend in 2H22 to reflect the MILE acquisition.

Moving PT to $28 from $74, reflecting an average of a low-high base case range of $17-39. Our PT still uses a 10-year simplified earnings model, but we have modified some key assumptions:

* *Growth*: With the launch of Lemonade Car, we incorporate the projections for personal auto line in addition to the existing projections for homeowners. In our base case, we assume that Lemonade will grow to account for 1.25% of homeowners' market (vs. previous assumption of 1.5%), which implies a 10-year growth CAGR of 14.1%, above industry growth CAGR of ~3%. This assumes that Lemonade will outgrow its competition with its customer-friendly product offerings and grow with those who graduate from renters to homeowners. For personal auto, we assume Lemonade will account for 0.10% of total industry market share, which implies a 10-year growth CAGR of 30.4% for personal auto. We think the growth rate is justified given the small premium base of personal auto lines. We see LMND grabbing auto clients from its homeowners base that want both products.
* *Underwriting margins*. For the base case, we assume that Lemonade will achieve a long term combined ratio of 97%, slightly better than the industry 10-year average of ~99%. In spite of a starting point of 417% combined ratio for 2021, we believe Lemonade will eventually bring down its expense ratio (332.7% in 4Q21 to 20% in the long run) on back of operating leverage, improve its homeowners margins, but operate at break-even in auto.
* *Multiple.* Our base case assumes a P/E multiple of 10.0x, below industry averages (we previously assume 18.0x). The new multiple selection drives a decent part of our lower PT, so warrants some color. Our base case still assumes higher growth at LMND than industry averages, particularly in homeowners (LMND projected 10-year CAGR of +14%, vs. industry CAGR of 3-4%). However, our concerns on underwriting profitability are more heightened than before, reflecting: (a) our concerns on auto, where new entrants often assume they can price accurately more-easily than proves to be the case. LMND plans to price auto mainly via continuous monitoring of how you drive (telematics) data, which has proven to be difficult for even the largest of auto companies. Pricing auto is materially different than pricing homeowners, and (b) LMND's 4Q results show that its mix shift into more homeowners (relative to renters) still comes with learning curves (the mix shift was part of the reason for sequential loss ratio deterioration in 4Q). Meaning it might be learning that homeowners is more difficult to accurately price than is its initial core business of renters. These reasons combine to inform our lower steady-state underwriting margin and P/E multiple that is just below industry average.
* *WACC*. We use a WACC of 8.6%, which incorporates a risk-free rate of 1.9%, an equity risk premium of 5.2%, and a Beta of 1.3.
* *Our bull/bear spread*is wide (bull case $60; bear case $8). We think the road ahead for profitability will be tough for LMND's auto book; thus, we place low probability on our bull case, but should we be proven wrong, there is certainly upside. Under our bear case, LMND gains little traction in auto, and underwriting profitability for both auto and homeowners remains at bay.
* **Insurtech disrupter in the renters/homeowners space.** Lemonade's direct model stands out in the agency-dominated homeowners space. Its strategy is to acquire young customers that are undesirable to other players, and retain them as they age and their insurance needs increase.
* **Compelling growth opportunities.** Lemonade has already climbed to #96 market share (0.1%) in the fragmented US renters/homeowners market. Share gain and TAM expansion drive further growth potential.
* **Growth opportunities likely priced into stock**. We believe current valuation already reflects impressive growth trajectory. Lack of downside catalyst informs our EW rating.

The story remains LMND is a compelling growth opportunity, climbing to #82 market share (0.3%) in the fragmented US renters/homeowners market since inception (2015). Share gain and TAM expansion drive further growth potential. However, growth opportunities likely priced into stock. We see current valuation as reflecting an impressive growth trajectory; we'll continue to watch underwriting margins as the auto book grows.

LMND highlighted scale and AIdriven efficiency leading to combined ratio improvement. The company noted new product offerings via its Metromile acquisition and Chewy partnership would accelerate multi-line customer growth and LTV.

CFO Tim Bixby notes that with large investments in the rear-view after the completion of Metromile and decelerating Adj. EBITDA losses the company is well-positioned and expects a base-case of profitability by mid-2026. The story remains LMND is a compelling growth opportunity, climbing to #82 market share (0.3%) in the fragmented US renters/homeowners market since inception (2015). Share gain and TAM expansion drive further growth potential. However, growth opportunities likely priced into stock. We see current valuation as reflecting an impressive growth trajectory; we'll continue to watch underwriting margins as the auto book grows.

Mr. Schreiber’s view is that with the introduction of connected cars, auto OEMs are set to disrupt the $500bn+ global Auto P&C market. His argument was around 3 key points: 1) On OEMs directly providing insurance, “There’s going to be massive dislocation in this entire sector. And the data implications are profound and they aren’t good for incumbent insurers.” 2) Regarding the pricing advantage of an OEM over an incumbent, “Tesla can do what you’re saying because they have live data feeds from the device… all of the pricing of insurance until now has had to look at big groups of people in aggregate and price them on average...” Mr. Schreiber went on to say: “based on pricing to an average, you don’t want to adopt these new technologies because suddenly you’d find that half of your customers has been overcharged and you have to reduce their premiums – that’s no good.” 3) Finally, on the entire insurance pool shrinking due to MAAS, “Accidents are going to decline and car ownership may well decline and, in any event, some of those dollars are going to go to businesses insurance fleets… rather than individuals owning them.”

When asked if it is a risk to insurance companies that the auto manufacturers themselves could provide insurance direct to consumers, Lemonade’s CEO said: “No doubt. You think about what Tesla is doing with the connected car… that has profound impact on insurance.” Mr. Schreiber continued: “There’s going to be massive dislocation in this entire sector. And the data implications are profound and they aren’t good for incumbent insurers.”

On the topic of auto implications for the pricing of auto insurance policies, Mr. Schreiber said: “Tesla can do what you’re saying because they have live data feeds from the device… all of the pricing of insurance until now has had to look at big groups of people in aggregate and price them on average. *As soon as you can break apart that average… that monolith… and price people using specific data to them you have a massive advantage that incumbents insurers don’t like.”*

With respect to legacy insurers, Mr. Schreiber elaborated: “If you have a $30 or $40bn business… based on pricing to an average, you don’t want to adopt these new technologies because *suddenly you’d find that half of your customers has been overcharged and you have to reduce their premiums – that’s no good.* And the other half you’ve been undercharging and you’ll need to raise premiums for and lose them – and that’s no good.”

We were also struck by the Lemonade CEO’s understanding that mobility ultimately becomes a service run by fleets and the implications this has for auto P&C: “Mobility becomes a service. You don’t own a car, you use a car and it really becomes a service rather than a piece of hardware that you have to keep parked outside your home. In general *I think you’re going to see car insurance shrink.* Over the course of the next decade, if you’re sitting on the Board of Directors of one of these big incumbents it’s pretty daunting because you’re going to see the total pie shrink. *Accidents are going to decline and car ownership may well decline and, in any event, some of those dollars are going to go to businesses insurance fleets… rather than individuals owning them.”*

As it relates to LMND, the move into auto was widely expected given the vast market opportunity (compared to renters and homeowners’), the adjacency to its existing products, and the company’s goal of driving coverage expansion over time. The company has been successful cross-selling new products to its existing customers noting the sequential growth rate for customers with multiple policies outpaced single-policy customers 5X last quarter…and we believe they will have similar success with auto. We’d highlight underwriting the product in-house brings its own set of challenges: in the near term to its expense ratio to build out infrastructure and talent. In the intermediate term as the company navigates the regulatory environment and starts writing business in various states, its current strong loss ratio will likely feel upward pressure from new business penalties and hiccups in fine-tuning its underwriting. Strategically, the expansion provides a long runway for growth, and the company plans to use reinsurance (as they do with homeowners’) that will limit the bottom line impact from any underwriting difficulties. Longer term we believe LMND will be well-positioned to compete in an auto insurance industry that may look very different than it does today.

OUR KEY MESSAGE TO INVESTORS: We expect to see over the near to medium term, with rather few exceptions, that all auto OEMs (not just Tesla) will offer auto insurance services directly to their customers on their connected vehicle platforms.

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