CUHK INVESTMENT RESEARCH SOCIETY

2022/05/23

Lucid

Equity Research Report

CUIRS Global Equity Team

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Lucid | North America

Fantastic vehicles, yet narrative changes with substantial delivery risk, Initiate UW

Stock rating	Target Price
Under-weight	US$ 10.91

Key Positive Thesis

Direct-to-consumer sales strategy

Lucid is committed to a direct-to-consumer model, which ensures the customer service of their retailing stores. Their retail stores focus on innovation with unique technology experiences for customers. With Lucid's virtual reality taking over the center showroom (Lucid, 2021). Customers can explore the design of the vehicle with elegance. Furthermore, Lucid's vehicles offer over-the-air updates so that the vehicles can be remotely diagnosed and immediately updated. Lucid also offers a fleet of mobile service vans that provides roadside assistance and collision repairs straight to the customer (InsideEVs, 2022).

Leading the EV industry in technology

Lucid's powertrain is designed and manufactured in-house. It builds on the years of experience as a technology supplier for Formula E. **The main technical advantage for Lucid is the range. The Lucid Air Grand Touring edition has an EPA of 830km**, which outperforms its competitors by a large margin. The Mercedes-Benz EQS580 and the Tesla Model S have an EPA of 547km and 652km, respectively. **Another key technology advantage is the acceleration of Lucid Air. The Lucid Air dream edition can do 0~100km/h in under 2.5 seconds**. It surpasses other close competitors such as the Tesla Model S (3.1 seconds) and Mercedes EQS580 (4.3 seconds).

Unprecedented media coverage and honorable awards

The Lucid Air was on the front page of over 10 car magazines when it was first announced. It was praised as an industry disruptor that can challenge the throne of Tesla. **The Lucid Air was rewarded MotorTrend's Car of the Year in 2022** (MotorTrend, 2021). It is the first time in history that an initial vehicle from a new automotive brand was awarded this award. The judges evaluated the efficiency, value, design, engineering, safety, and performance of the vehicle, and the Lucid Air surpassed other highly regarded vehicles, Including the Porsche Taycan, Mercedes S-Class, and Mercedes EQS.

Key Negative Thesis

Risk of scaling up production

Scaling up production is essential for Lucid, as they have more than 30,000 reservations to fulfill. **However, there are a host of execution challenges, including quality control and post-delivery issues**. In February 2022, Lucid recalled over 200 cars due to a faulty suspension (CNET, 2022), which is concerning when it has only delivered around 360 vehicles in total. **Furthermore, the company is currently facing supply shortages, including but not limited to the chip shortage.** Lucid outsources its components to over 200 companies**, logistics tightness because of the pandemic could also adversely impact their production.**

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Lucid (LCID US)

Stock Rating	**Under-weight**
Target Price	**US$ 10.91**
Shr price (20/05/22)	US$ 18.39
Up/downside (%)	-40.7%
52-Week Range	US$13.25 - 57.75
Shares Out. (bn)	1,67
Mkt Cap (US$ bn)	US$ 28.95
EV (US$ bn)	US$25.77

Fiscal year (12/31)

(US$ in mn)	2021A	2022E	2023E
Revenue	**27**	**1080**	**3124**
YoY (%)	NM	3884%	189%
Gross Profit	**-128**	**-151**	**312**
GPM	NM	-14%	10%
EBIT	**-1530**	**-1781**	**-1588**
OPM (%)	NM.	-165%	-51%
Net Income	**-2580**	**-2031**	**-1688**
NPM	NM.	-188%	-54%
Basic EPS	**-6.41**	**-1.24**	**-1.03**

(Source: Online Research, InsideEVs Research, MotorTrend Research, CNET Reports, CUIRS)

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Key Negative Thesis (Cont.)

Risk of competition from legacy automakers
Legacy automakers such as GM, and Volkswagen are investing a large amount of capital in developing EVs, and they have advantages compared to Lucid. First, is the sheer capital of legacy automakers. For example, Ford formed a joint venture with SK Innovation to establish an $11.4billion auto production complex (Ford, 2022). **These types of capital-intensive vertical integration would certainly be difficult for Lucid**. Moreover, legacy automakers offer a diversified portfolio of brands and models. For example, Volkswagen owns more than ten automakers, each brand targets different groups of customers. It is hard to justify that Lucid can retain significant market share by only offering Luxury EV models.

Risk of raising capital and rapid cash burns
Lucid is expected to spend $2 billion on capital expenditures in 2022, which puts pressure on the company's cash flow. **Lucid also shelled out over half a billion dollars in stock-based compensation** (The Motley Fool, 2022), which shows that it is likely hiding the large sum of expenses paid to its workers. Given that the company is likely to be unprofitable in the next few years. Lucid will likely need to raise additional capital in 2024. The recent war between Russia and Ukraine is expected to increase the interest rates by 4%, which would significantly raise the cost of debt for Lucid. If interest rates continue to remain high, **Lucid would have a hard time raising capital from the equity markets as well as the bond markets.**

Risk of Technology advantage becoming obsolete
The two advantages of Lucid are its bidirectional charging and efficient batteries. Lucid Air is one of the first vehicles equipped with bidirectional charging. However, other EV manufacturers are catching up. Volkswagen recently announced that its EVs will support bidirectional charging in 2022 (InsideEVs, 2022), the Hyundai Ioniq 5 and Kia EV6 were also designed with bidirectional charging in mind (Green Car Reports, 2022). The Lucid Air was also praised for its battery efficiency. However, Tesla is looking to close that gap, working closely with its biggest battery supplier LG Chem to develop more efficient batteries (Electrek, 2021). **Lucid is expected to reach relevant production in 2024, the technological advantages might cease to exist by then.**

Risk of higher production cost
The increase in EV battery prices is a potential risk for higher production costs. Lithium mining companies are scrambling to increase production, and they are also finding it hard to develop a new source of supplies (JPT, 2022). Moreover, Lucid mentioned that they have to pre-order lots of components early, which will increase their inventory cost. Lastly, scaling up production would inevitably cause quality control issues. Recalling problematic vehicles would increase their cost considerably. It is estimated that the recall of over 200 vehicles because of faulty suspensions cost Lucid millions of dollars.

Initiate UW, with -40.7% downside in base case
We adopted a relatively bearish projection from top-line to bottom line with unfavorable unlevered FCF, which resulted in a TP of US$ 10.86 using DCF model, and we will use this to further justify if our comps assumptions are reasonable. Based on our top line projections in 22E - 23E, with revenue 20.2% & 10.4% lower than the current consensus, we believe multiples should re-rate as well

Combing above, we adopted 4.8x 23E EV/Sales with TP at US$ 10.91 reflecting a nearly 40.7% downside, confirming our "Sell" Rating for Lucid.

Lucid | North America

Exhibit 2: 22E-27E Global Electric SUV market is expected to grow by +25.1% CAGR

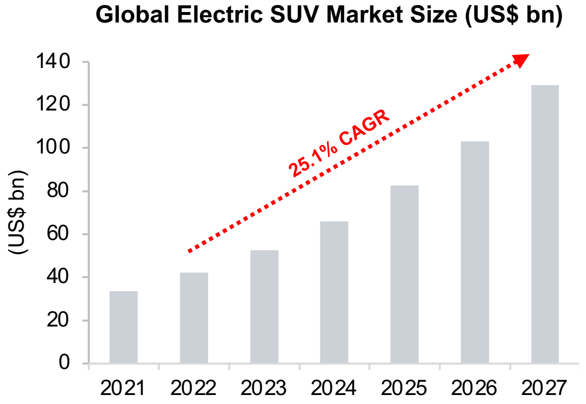
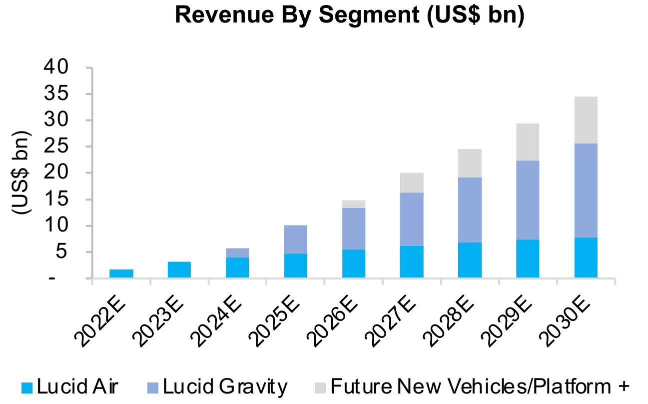
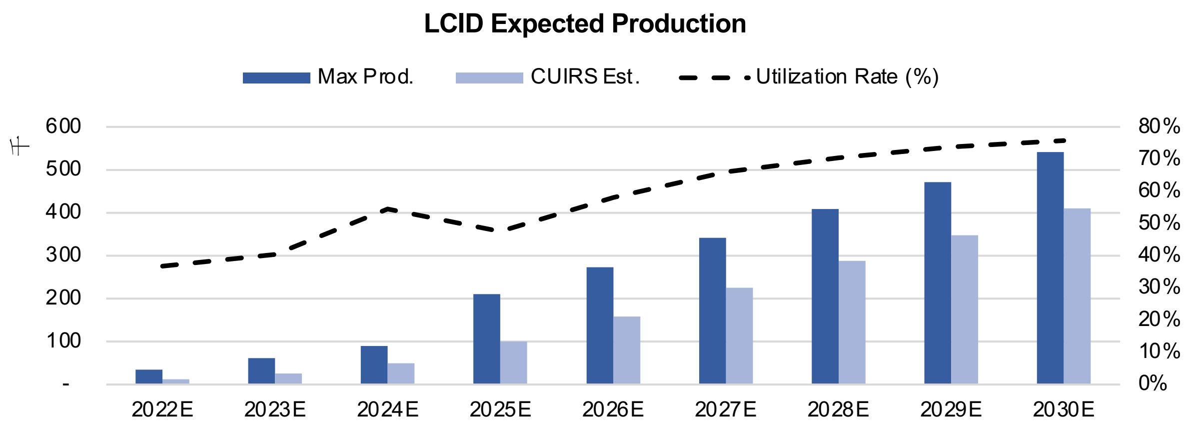


Exhibit 3: We expect Project Gravity to bring 7.9 bn USD in revenue by 26E and become the main revenue driver



Production Capacity Outlook summary

Exhibit 4: LCID maximum production capacity vs. CUIRS estimate – Lucid's production capacity outlook is optimistic. Lucid's expansion plan of its Arizona manufacturing plant (AMP-1) would add 2.85M square feet for its production, and increase its production capacity by 90,000 units. Furthermore, Lucid also plans to build a manufacturing facility in Saudi Arabia that would increase its production capacity by another 150,000 units. While the supply chain disruption continues and battery material prices surge, our estimated production utilization rate in 2023E is 40.3%. As the supply chain issues and chip shortages normalize, we expect a 66.1% utilization rate in 2027E.



Delivery Forecast

We believe that Lucid would not be able to reach its targeted delivery in 2022E

As the world is still recovering from the effects of the pandemic, we expect Lucid's deliveries to remain low for the following three years. **Lucid is especially vulnerable to production and supply chain issues considering that they outsource most of its components to foreign countries,** such as glass windows, interior carpeting, etc. They have been severely impacted by factory shutdowns in China because of the recent surge in confirmed cases in China. The company has announced to dial back delivery targets from 20,000 to 12,000 – 14,000 in 2022. **Lucid's management team has admitted that their factories were shut down for a few days because of the COVID-19 situation in China, and they expect that they will continue to be affected by the supply chain volatilities in China**.

(Source: Markets and Markets, Company S-1 Registration Fillings, Sell-Side Reports, CUIRS)

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