Brent Sheather's
RESEARCH

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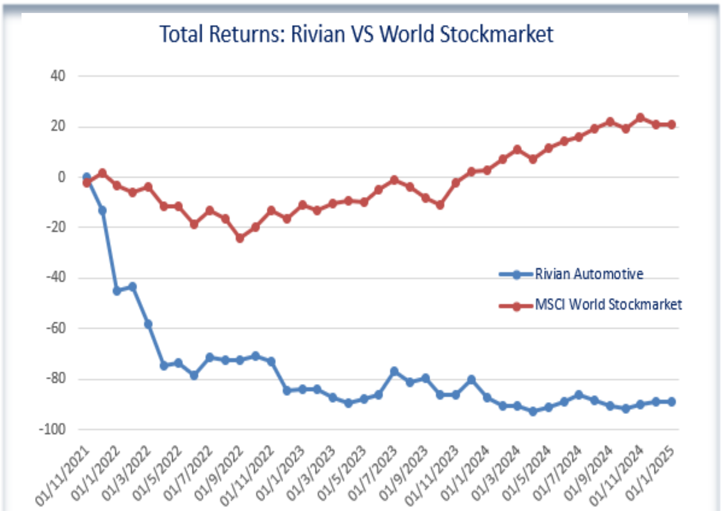
CAR STUFF : PART 2 – BIG MARKET DELUSIONS

Two weeks ago we kicked off another exciting four-part series – this time on the world's car industry. Last week's effort focused on the current crisis afflicting western car makers, with cheap, government-subsidised Chinese product the main culprit. Today we will look at a very prescient 2021 paper by Research Affiliates founder Rob Arnott, Bradford Cornell, Professor of Finance at UCLA and Lillian Wu, Vice President of Research at Research Affiliates. Their paper "Big Market Delusion: Electric Vehicles", made the case that the then investor enthusiasm for electric vehicle makers was a bubble and it would end badly. Published in March 2021, its timing was impeccable: investors were enamoured with the prospect of EVs.

Along with Tesla the market darlings at the time included the Rivian Automotive Company. Wikipedia recalls the euphoria: "*On 10 November 2021, Rivian became a public company through an IPO. 153 million shares were sold at an initial offering price of US$78.00, valuing the company at US$66.5 billion. The shares began trading on the Nasdaq under the ticker "RIVN". On its first trading day, the stock closed at US$100.73 per share, valuing the company at just under US$100 billion.*" Over the next year the stock peaked at US$129.95 but the good times didn't last – bad news was followed by more bad news and today the shares languish at US$11.92. Yes I know: "But Tesla!" Tesla has certainly done well. It's priced as if Elon Musk is going to continue to perform miracles, selling condos on Mars next year and maybe even list a Musk meme-coin any day. The car business is pretty much a sideshow so not really a fair comparison.



Source: Refinitiv

The "big market delusion" (BMD) concept was actually developed by one of the authors of this paper, Professor Brad Cornell, together with Professor Aswath Damodaran in a paper published back in 2020. The "big market" refers to the attraction that a big market, like planes, cars etc have for investors but the delusion bit is when all of the firms in the evolving industry rise in value thereby ignoring the fact that a few will dominate and many will fail: "big market delusions generally begin with innovation or disruption that opens a new market such as cannabis, or reinvents an old one, such as advertising. Investors become so enthusiastic that each firm is priced as it will be a major winner in the evolving big market despite the fact that is this a fallacy of composition: the sum of the parts cannot be great than the whole."

The authors cite the experience of investors in the airline industry as a classic BMD. Sure, the invention of the airplane was a great technological innovation revolutionising the way people live and facilitating the growth of tourism and trade but as we all know the airlines did not provide a "bonanza" for investors. The authors write "Over the course of the last century virtually every company in the business either failed or merged into a larger airline, most of which also collapsed".

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Warren Buffett has even weighed into the topic, "if a capitalist had been present at Kitty Hawke back in the early 1900's he should have shot down Orville Wright, he would have saved his progeny money". Professor John Cochrane of Stanford University also alluded to another elephant in the room for those who seek to exploit new technology when he posted on Substack "The profit, and ultimate benefit, of railroads was not so much in the railroad itself, but in the wheat fields of Kansas."

Armed with the historical record of BMDs: that new technology does not mean high sustainable earnings unless accompanied by significant barriers to entry the authors cite the EV industry in early 2021 as potentially being a "lesson in the making". They argued that, as the automobile industry has historically been a competitive and capital intensive business traditional auto manufacturers have traded at low valuations and are of the view that a change in the propulsion system is unlikely to reduce competition or improve valuations. They then go on to contrast their skeptical view with the then current (Jan 2021) market love affair with the EV industry: Despite the lack of barriers to entry, as at January 2021 the combined value of eight EV specialist manufacturers was almost equal to that of the 29 largest traditional automobile manufacturers yet the sales revenue of the latter were on average 42 times that of the former. Making matters considerably worse today is the fact that the EV industry is in the crosshairs of the anti-woke brigade, led by the spray tanned sociopath.

The authors then go on to argue that the valuation premium accruing to the EV industry was unsustainable on the basis that whilst EV sales were growing rapidly back in 2020 much of the growth was driven by regulatory policy, financial incentives and changing consumer preferences. Looking at the history of BMDs they warned that market disruption, consumer preference and social benefits don't necessarily imply higher profitability as competition inevitably forces profit down towards the cost of capital given the lack of barriers to entry. Echoing the view of Professor Cochrane, noted above, they write "*in a competitive industry market disruption benefits society at large, not necessarily the disrupters, and disrupters are disrupted themselves in due course. Note that in 2000, Palm – the maker of the then ubiquitous Palm Pilot had a valuation larger than GM but after only a few years was put out of business by Blackberry which, after only a handful of years, was itself on the ropes because of competition from Apple's iPhone.*" The authors also made a prescient comment about the Chinese market, back in 2021 when they warned that "*it is only a matter of time before the state owned EV companies begin to dominate the domestic market due to a range of factors including home-based consumption preference, potential protectionism and a substantial price advantage.*" Their view was that the pricing delusion was wide-spread and gave the example of Lucid which had a then market cap of US$56 billion but needed to spend US$10 billion over the next four years to get its EV business running but only had US$4.4 billion in cash. Lucid shares hit a high of US$55.21 on 15/11/2021 and today are US$2.76. The author's view that the advent of EV would not necessarily imply higher profitability is also evidenced by Ford's recent experience in the sector: apparently Ford lost US$5.1 billion on its EV business in 2024 and given it produced about 98,000 electric vehicles in the year it lost US$52,000 for every EV it sold. That continues Ford's loss-making track record in the EV sector – following losses of US$4.7 billion in 2023 and US$2.2 billion in 2022.

Arnott, Cornell and Wu conclude by saying that the electric vehicle industry was a classic BMD, that the move to electric vehicles won't alter the fact that the auto industry is highly competitive, capital intensive with low returns on equity, adding that, we *suspect that as EV competition heats up many companies will fail as was the case in previous industry booms and with time the total value of the industry will recede to more reasonable levels.* I made contact with Mr Arnott, via email, and he advised that they are updating the EV Big Market Delusion paper at present so we will report on that when it is available. In two weeks' time we will do a deep dive into the early years of the car industry, focusing on the winners and losers and its volatile fortunes.