(This copy is an AI-assisted translation of the original transcript in Chinese)

E07 A Typical Investment Conversation: Taking the New Energy Vehicle Industry as an Example

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This episode features an investment conversation between Alice and me. On the one hand, I believe this is a quintessential investment (not speculation) conversation, recreating how one debates with oneself or others about whether to invest in something. On the other hand, the new energy vehicle industry is simply a ubiquitous example; ultimately, it points to the question: "What should most of an investor's time be spent on?"

Introduction: Simulating a Real Investment Conversation

Patrick: Hello everyone, welcome back. Joining me today is our regular guest, Alice. Alice, say hi to everyone.

Alice: Hi Patrick, hi everyone, I'm very happy to be a guest on our podcast again.

Patrick: Great. Today, we want to simulate something we frequently do in investing. That is, we spot an interesting opportunity, gather information ourselves, and then debate internally: should we invest or not? Of course, sometimes we also discuss with friends whether it's a good opportunity and if it's worth investing in. So today, we're simulating this scenario: the two of us will chat about an industry we've looked at and care about a lot—the electric vehicle (EV) industry—to determine if it's truly worth investing in. If it is, should we invest in Tesla, Xiaomi, or Nio? We'll simulate some of the discussions that go into this. We don't have a script or any prior preparation; it's a purely impromptu chat, so it might not be highly structured. But that's okay, we're just recreating real-life situations.

Let's begin. Alice, what prompted you to start following the EV industry? I know the EV sector is the hottest thing right now, a crucial pillar industry for our country, and there have been massive trending events recently. On Xiaohongshu and Bilibili, there are endless business discussions about EVs. I'm curious what sparked your interest in this industry. I know you've done a lot of analysis and research; could you share some with me?

Alice: Actually, I've always liked following fresh news and the tech industry. So early on, from Tesla to when Chinese new energy automakers first started planning to enter the space and raising funds with business plans, I paid some attention. But I truly began reflecting on it again this year because I was doing a research project. This project forced me to re-examine the industry, especially since it's been developing for about a decade now. Conducting in-depth research on certain companies, though perhaps a bit academic, gave me an opportunity to look at them afresh. I realized that these companies went from starting up and raising funds via PowerPoint presentations to many now being public and achieving massive scale; this prompted me to think a bit more deeply about the industry.

Patrick: I'm not sure how you view this industry, but do you drive?

Alice: Yes, I drive. I've driven gas cars, EVs, and Teslas, yes.

Patrick: Same here, I used to drive a gas car and now I've switched to an EV. Basically, I feel the trend of transitioning from gas to electric seems irreversible; everyone seems to be making that shift. Otherwise, we wouldn't see so many of the hottest companies being EV manufacturers, like BYD, Xiaomi, Nio, Xpeng, Li Auto, etc., and they are all massive public companies. I'd like you to look at this from a consumer's perspective: how do you view gas cars versus EVs?

Topic 1: The Evolution of Consumer Needs and "Manufactured Demands"

Alice: Well, personally, I think the primary needs when buying a car are initially speed and safety. Next, you might consider costs, and then convenience—how convenient it is for daily use. If it's an EV, I'd have to consider charging, even battery swapping, and after-sales service is probably quite important too. Some consumers might also seek emotional value or social/community needs, though that's less important to me; I focus mostly on the functional aspects I mentioned. So speed, safety, convenience, and after-sales service are the parts I value most.

Patrick: My feeling is that, first of all, this is a very critical and massive industry. Making cars is known as the crown jewel of manufacturing because of the complex parts involved, so it's naturally an advanced manufacturing sector. The industry is huge, but competition is fiercely intense with so many automakers. To compete, they must think of various ways to differentiate themselves from rivals. Therefore, automakers try every possible method to highlight these differentiations during their launch events.

I feel the industry evolved from an early focus on the "electric" aspect—since it was a shift from gas to electric, the early narrative revolved around range, battery swapping, and cost savings on electricity, trying to convince consumers to buy in from that angle. Moving to the next stage, the focus shifted to the "comfort" side, where the biggest differentiators became fridges, color TVs, and big sofas—how many screens are in the car, does it have a fridge? Everyone immediately followed suit, and now new cars *must* have these features. In the most recent phase, I feel the focus or differentiation has shifted towards autonomous driving or advanced driver-assistance systems (ADAS). Showing superiority in this area seems to be the new core. As a consumer watching these launch events, their so-called differentiators are indeed slowly evolving. I don't know if you feel the same way?

Alice: I do feel that way. I feel like automakers are constantly putting consumers into specific scenarios, placing you in a certain environment. They create a new need for you that you perhaps didn't originally have—a very comfortable need, of course. Because if you initially approached buying an EV with the mindset and perceptions of buying a traditional gas car, EVs didn't seem to have overwhelmingly strong selling points to attract you compared to traditional cars. So I think they've manufactured many new needs. For example, smart interactive features, or the comfortable scenarios involving big sofas and color TVs. You see those ads pulling you into that scenario, making you think it's very comfortable and that you need it too. I think this is somewhat manufactured, as I'm a fairly rational consumer. Next, regarding functionality, they make you feel that ADAS provides a huge convenience. Of course, this point is also controversial. Sometimes I hear an analogy: just to what extent can this ADAS perform? Because if it's even 0.01% off, it represents a massive risk to the consumer.

Topic 2: The Foundation of Safety and the Efficiency Breakthrough of New Entrants

Patrick: Right, but from an investment perspective, I think we still have to return to first principles, which are the speed and safety you mentioned earlier. As an individual consumer, one might exhibit irrationality and be attracted to value propositions that aren't core, forgetting that the most important and core propositions are actually speed and safety. But broadly speaking, consumers as a large group are rational; ultimately, they will return to what is most important to them.

EVs are no exception; after all, they are transportation tools, at least for now. A transportation tool takes you from point A to point B. The primary demand is safety—that's the prerequisite; without safety, everything else is zero. Why is there such a sudden reversal in how people view other features or value points when there's an incident, like a recent accident involving a Xiaomi car? Because safety is absolutely the underlying foundation. Without that "1", any number of "0s" that follow are useless. Then comes speed. The reason I choose a car over walking or taking the high-speed rail is that driving is the most efficient way for me to get from point A to point B. So whether the car can deliver me safely at the highest speed is definitely the most fundamental consideration. Only on top of that do you have bonus features, like comfort or even luxury—how comfortable it is to sit in or drive. Convenience is also a bonus, like how convenient charging is, or if battery swapping is faster. But speed and safety must be the foundational layer. If those two aren't done well, everything else is a castle in the air.

But I've also been observing Chinese EVs. My feeling is that speed and safety—especially safety—truly require accumulation and history. Gas cars have been developing for over a century. Traditional, old-school automakers like Toyota definitely have more experience in safety. They've certainly had many accidents or quality issues, learned many painful lessons, accumulated a lot of knowledge, and ultimately strengthened their safety. So this accumulation is an advantage of established gas car companies.

Meanwhile, the new EV entrants have essentially all emerged in the last three to five years. How do they handle safety? Everyone can claim they are very safe and have various features to ensure safety, but many things need to be tested. You can only accumulate car-making experience through testing, failing, experiencing issues, and improving. This is why car manufacturing is the jewel in the crown of manufacturing; a major reason is that it's not that simple. Even if someone gave you hundreds of billions, you couldn't necessarily immediately defeat Toyota, BYD, or any of the existing players. We must consider: with all that money, can you actually beat them? Do they have a solid enough competitive advantage? Safety, I think, is a massive challenge here. New entrants haven't been around long enough to experience the complete process of making mistakes and accumulating knowledge. Wanting to jump straight to being highly safe—I don't think there are shortcuts; you inevitably have to accumulate that experience. Don't assume that with hundreds of billions you can instantly build the safest car in the world; it's not that simple. Especially now with ADAS or so-called autonomous driving, it's even harder. I always feel that when it comes to safety, it's very difficult to overtake on a curve. That's my feeling.

Alice: Listening to you say this makes me think of a question. Since traditional automakers have so much experience and advantage in safety, why is it that in today's industry landscape—whether globally or looking at Chinese new entrants—the companies emerging and even leading the new energy sector are all new? Many traditional automakers are also

making EVs, yet they don't seem to rank at the top. That's very strange; what's the reason for this? If they have advantages in safety, talent, and capital, have these advantages become factors limiting their development? Is it because at this stage of their corporate models, internal innovation has become exceedingly difficult, so breakthroughs must come from the outside, like Tesla or new entrants like Nio, Xpeng, and Li Auto? Or are there other reasons?

Patrick: That's an excellent question. My feeling is that people used to think car manufacturing was very difficult and required massive capital—tens of billions—just to get a seat at the table. Now, our country indeed needs such an industry to achieve a competitive advantage over Europe and the US, or to overtake them on the curve. Expanding and strengthening Chinese EV automakers absolutely aligns with national strategic interests. So, this need is the first layer. Furthermore, the maturation and strengthening of China's entire supply chain have made building cars a possibility. Previously, gas cars were bottlenecked by engines—V6, V8 engines are very hard to make. But once the shift to EVs happened, with batteries, electric motors, and electronic controls available, you can quickly assemble a company and a car leveraging China's powerful supply chain. This made the emergence of new players possible.

When it comes to manufacturing, efficiency is absolutely a strong first principle; high efficiency will always defeat low efficiency. Toyota previously rose to prominence because of its Just-In-Time model—its assembly line efficiency was extremely high, and prices were low, so Japanese cars conquered the world. Now, we can also achieve efficiency superiority with EVs. Our domestic companies can do better in efficiency, so we are definitely stronger in that regard than mature traditional overseas automakers. Including the new entrants, they build products with an internet mindset, starting from user needs. Their insights and execution in this area are definitely stronger than those of old-school traditional automakers. So you see: there's a strong national trend, the supply chain makes it possible, their efficiency is high, and their user insight and execution are strong. Therefore, their sudden rise is logical and expected.

However, experiencing a sudden rise doesn't mean they possess a good business model. From an investment perspective, a crucial aspect of a good business model is seeing what it has changed, and whether it has a core competitive advantage and a moat. These elements might be the current killer weapons of these new, internet-minded players, but can traditional gas automakers follow and learn? I believe they can; Wei Jianjun at Great Wall Motors is learning quite well. We need to consider whether these things truly count as long-lasting competitive advantages.

You mentioned safety earlier. If you can do it well, it can become a competitive advantage. Among traditional gas car companies, Volvo stands out because it's widely recognized as the safest family passenger car. This can serve as a competitive advantage to drive sales. People buy Volvo not for other reasons, but because everyone says it's the safest. If you prioritize safety as a core consideration, you might choose Volvo. So I think safety is not absolute. Even now with gas cars, there are certainly traffic fatalities every year; this won't completely disappear no matter what car you drive because it ultimately relies on individual operation, so you can't have an absolutely safe car. Therefore, to build a competitive advantage in safety, you have to invest massive amounts of capital and time. And even after investing, establishing this safety mindshare doesn't guarantee you'll sell exceptionally well. Look at Volvo's sales today; they clearly lag behind BYD, because people

still think BYD is cheap and offers high value for money. So safety can be a competitive advantage, but building it takes a very long time; it's a very long-term process.

It might ensure you survive longer. Assuming no accidents, if Volvo maintains high safety while making EVs, it might exist for another 30 or 50 years. But if you are a new entrant and do everything else well—make it cheap or comfortable—but fail on safety, you might disappear in ten years. I think this is a binary zero-or-one issue. If there is no safety, or if safety issues frequently occur, the automaker might not survive long-term. So I think safety serves as a screening criterion: if you don't have it, the company definitely shouldn't be considered. But claiming to build a competitive advantage in safety without spending time and money is very difficult. Volvo actually spent massive amounts of time and money investing in safety protection.

Topic 3: Automakers' Differentiated Portfolios and the Essence of Business Models

Alice: Actually, speaking of automakers' core competitiveness and business model differentiation, I often think about this. Observing these new entrants, sometimes I feel they are acting like a portfolio. Each company chooses different focal points. Some emphasize cost-effectiveness, offering the strongest base models and cost advantages; they have all the necessary features but at the lowest cost—that's their selling point. Some might focus on safety (though safety is the long-term foundation for all automakers). Some might focus on service convenience, or even emotional value. Providing convenience might have two models here: one is the frequently discussed battery swapping model, which involves building infrastructure. Because there's an argument in the market that if you sell pure EVs but the infrastructure can't keep up, pure EVs will be hard to adopt on a large scale. So Nio expends massive effort and energy investing in "battery swapping." Although it's controversial in the market, it is their differentiation, serving convenience and service. Every automaker's selling points and chosen combinations are different. So I often wonder: now that the technological barriers aren't that high and the supply chain is relatively mature so anyone can do it, what exactly is the core competitiveness in the new energy sector? If I were one of these new entrants, what differentiated path should I choose for myself? Of course, you must also consider the return on investment, because you are expending so much energy to build this moat of an advantage. Ultimately, no matter the advantage, what is built is called a moat—safety is a moat, service is a moat, providing convenience is also a moat. But you have to think: which path is the best choice for the company's value and overall development? You need to survive in the short term, and develop further in the long term. What is the best choice? Is this what we need to value most in investing?

Patrick: Yes, investing certainly requires a good business model, a good culture, and a good price, with a good business model being paramount. Regarding business models, what is the business model for EV automakers today? It's selling cars. Currently, the EV business model is relatively clear: you either sell cars or software services within the car. Before we reach true autonomous driving, the business model is relatively clear: selling hardware, not much different from the smartphone business model. The essence of a business model is seeing how the company makes money from customers.

Alice: Yes, I suppose some companies might say they also sell software. While selling hardware cars, they are improving their software capabilities, having owners pay for add-on services like unlocking software features. They are learning from Apple, hoping to make money from software too. Another point is, if this counts as a business model, doing battery

swapping might involve battery asset management in the future. Look at Nio's William Li; he feels this is the biggest business in the EV industry. If China has 200 million EVs, battery leasing could represent a 2 trillion market space.

Patrick: This is also a form of vertical integration. When you use an EV, you actually need many supporting services. For example, after buying a Li Auto, you still need to charge it. Sometimes you use Li Auto's charging piles, sometimes State Grid's, and if you drive a Nio, sometimes you use its battery swapping service. Current charging services are also provided by State Grid, and recently CATL has started building a battery swapping network. So the future business model leans more toward vertical integration concerning battery swapping. Besides selling hardware and services, they want to build the battery swapping network and even open it up to profit from that sector. So this is their future differentiation: they don't just sell cars, they build infrastructure. And they believe this battery swapping infrastructure can become a key driver in their profit model. They do both charging and swapping and open them up to everyone.

But I feel the essence hasn't changed: it's derived from hardware and can extend to software services, or to charging and swapping infrastructure services. In the future, they can open up to make more money. However, this will differ vastly between the "pre-autonomous driving era" and the "post-autonomous driving era." Once autonomous driving is realized, the car might no longer be what we thought it was. So for now, I think the business models are relatively clear; we can see clearly how everyone intends to make money.

The hardest part, I think, is this so-called competitive advantage and moat. The competition in this industry is too fierce. Everyone is trying to establish advantages through their own differentiation based on similar past business models. Everyone's approach is vastly different and has its own characteristics. But the question is: is this competitive advantage sustainable? Can it be replicated? Is it truly their moat? For example, if given hundreds of billions, could you do it too? This is crucial. We can discuss the differentiation of these typical automakers and whether this differentiation can form their moat. How does that sound? Why don't you start? In your opinion, who is differentiating themselves better, and can their competitive advantage be sustained? Have you seen anything clearly?

Alice: To be honest, I haven't seen things very clearly yet. But looking back, for example, when Li Auto listed its first model, the Li ONE, I thought it was a vehicle with very strong product capabilities. In that environment, Nio already had some hit models. Li Auto launched its first car using the extended-range route, precisely solving users' range anxiety. Furthermore, its configurations and price offered high overall value for money. I felt this was a product built heavily on user needs, so its subsequent success was very logical. As for future direction, I see Li Auto seems to be moving toward AGI recently. But since my research is limited, it seems hard to make a highly certain judgment.

As for Nio's battery swapping model, the investment is indeed massive. But Nio isn't just frantically spending money building infrastructure; it also highly values tech and R&D. Looking at the R&D investments in its financial reports, I feel it is solidly accumulating technological expertise, hoping to build a long-term competitive advantage. Of course, this is indeed very tough; the financial burden is heavy. This model needs time, and it requires their cars to sell very well to support the whole system. So this seems to be a state of needing to observe while moving forward.

Patrick: Actually, I feel the same way. If asked which company possesses a long-term competitive advantage, it's indeed hard to say. Because I have a "radical" view: if a company's car is purely assembled by procuring parts from suppliers in the supply chain to form a product... In other words, if I show up with tens or hundreds of billions and say I'm going to destroy you, if I can just procure your car's components from suppliers and those suppliers have no exclusivity agreements, that means your car itself (even if it's a hit like the Li L9) will struggle to become an absolute competitive advantage. Because as long as I have enough money, I can build an identical one, or even one slightly better or at a discount, and I can crush your hit product or create a new one. Because these components aren't exclusive to you; you are merely procuring and assembling from this supply chain. Therefore, if it's purely an assembly model, it's very difficult for the vehicle model itself to construct a long-term competitive advantage.

Unless you possess your own proprietary underlying technology across the entire industrial chain. In this regard, I feel BYD is doing okay. For instance, BYD deeply cultivates batteries. It has actually deeply integrated the entire industrial and supply chain, and many core components are in-house. It has strong innovation in batteries. If it can achieve primary innovation in chassis technology and other areas, this will be much stronger than simply having an advantage in the car model itself, and its sustainability will be much stronger.

Including Nio's battery swapping network you just mentioned, this is also probing deeper into its entire industrial chain, building something proprietary that is hard for others to replicate. I think this is more solid compared to automakers that lack these things, right? Because otherwise, if you have nothing and just find a group of people to procure components, hire smart people to design and assemble, understand customer needs, and design it the way they like it, then I think this is very easily replicated and hard to build a long-term competitive advantage on.

So this is why they respectively chose different paths later. For example, Li Auto moved towards AGI, positioning itself as an AI company, likely because it sensed that building a solid moat in traditional car manufacturing was too difficult, so it had to move towards the so-called next-generation business model: AI. Nio, on the other hand, treats its battery swapping network as its differentiator, perhaps its most difficult-to-replicate barrier. These can be considered their respective competitive strengths.

But whether this can endure and sustain them for another 20 or 30 years, I can't say. Take BYD's batteries, for instance. Will CATL produce an even better battery in the future? Of course, I think because BYD uses a vertical integration model, integrating other parts of the industrial chain, its overall chain efficiency is the highest, allowing it to offer highly cost-effective low prices. So you could also say a huge competitive advantage for BYD is its efficiency; it can consistently provide good products with high value for money because its efficiency is high enough, having integrated many upstream and downstream aspects of the industrial chain, right? This can be a competitive advantage, but this advantage actually has less to do with the car itself; it is essentially an advantage in industrial chain efficiency. Other industries have similar success cases.

Regarding battery swapping, you'd also consider how high its future competitive barrier really is. Will it become obsolete if battery charging speeds significantly increase? For example, BYD's latest ultra-fast charging technology can charge to 80% in five minutes. If technology advances to this level, then battery swapping is indeed less necessary, right? This

could be a massive challenge stemming from advancements in charging technology. Another point is, what if others start doing battery swapping too? For example, CATL is now building a regional battery swapping network. It will certainly be open to all EV companies, provided they meet the standards. So in the future, any automaker could use CATL's swapping network. When that happens, will Nio's differentiated advantage of its swapping network face a massive challenge? It's hard to say.

Alice: My personal feeling is that Nio is building its swapping network now primarily to support car sales. Because sometimes I come back to the issue of consumer habits. For a gas car owner to switch to an EV, especially looking toward the broadest mass market in the future, the learning curve must be as flat as possible, almost completely smooth, for people to be willing to switch. Imagine if one day swapping a battery is as convenient as pumping gas, and the costs are low, allowing users to be very lazy. Wouldn't that be extremely attractive to these users? I think it would. Because many people might not understand electricity, know nothing, and don't want to learn. But as long as they feel it's no different from pumping gas before, and it's cheaper, they'll naturally be willing to switch to EVs—cheap and convenient. If this happens, when Nio pushes its lower-end, mass-market models in the future, if the energy replenishment network keeps up, it could easily hit an explosive tipping point. Of course, whether the swapping stations themselves can become independently profitable in the future depends on their operational capability, which tests their management skills and requires careful calculation.

Patrick: Battery swapping was undeniably Nio's competitive barrier in the early days. Early on, many people bought Nio specifically because swapping was fast, so it was definitely attractive to consumers. But the question is, how long can this last? This brings two challenges to mind. The first challenge is: if battery charging is already very fast, reaching 80% in five minutes... if technology advances to that point in the future, then swapping is indeed less necessary, right? So advancements in charging technology will pose a massive technological challenge to swapping technology.

The second challenge is: what if others do battery swapping on a large scale? For example, if CATL builds a swapping network, it will surely open it to all EV companies; it won't just be for Nio, right? So in the future, any automaker can use CATL's network, provided they meet the standards. Doesn't that reduce the differentiation of Nio's early swapping network? It was certainly a strong attraction point early on, very useful for getting customers to buy Nio cars. But looking 10 or 20 years down the line, whether it will still be a core competitive advantage is a question mark.

So I feel this industry is truly hyper-competitive, and heavily reliant on the supply chain. If everyone is just procuring from the supply chain, it's hard to claim a solid competitive advantage, right?

As for self-developed tech, whether components or AI, it depends on how hard it is to master. I don't know much about the battery industry either. For example, how deep is the competitive barrier for BYD's batteries? Will CATL or future European battery companies make disruptive breakthroughs? It's hard to say. So I'm also in a state of not seeing things clearly, finding it very difficult to answer this question.

Alice: Yes, I also find it hard to answer. Speaking of this, I wonder, if we feel it's this difficult for new energy, what is the biggest differentiation for the traditional auto industry?

Think about Volkswagen, Toyota, and Ford. What is the core that allowed them to develop well long-term and differentiate themselves from competitors?

Patrick: This industry is inherently a very difficult one. I shared an episode before called "Investing is Not Betting on Industries," using the auto industry as a counter-example. Meaning, regarding industries, when the first car was invented, it was easy to know the horse carriage was doomed. But who would be the ultimate winner? Extremely hard to judge. In fact, everyone guessed wrong early on. Many car companies emerged early on, and almost all of them died out. Ultimately, Ford won with the Model T. But it didn't win because its car technology was so much better; it won because it invented the assembly line, enabling mass production in the most efficient way. That's why Ford succeeded, right?

But even though Ford succeeded, look 50 or 60 years later: Ford declined. Because the assembly line system was later learned by Toyota, and Toyota took it a step further, achieving Just-In-Time efficiency higher than yours. Then your competitive advantage disappeared. In the gas car era, the so-called differentiated factors people competed on—safety, speed, V8/V6 engine specs, or 5-seater vs. 7-seater configurations, sunroofs—were basically the battlegrounds. It was too hard to establish a long-lasting competitive advantage on these things because I can copy, I can learn.

So coming to the present, assuming the EV industry never emerged, the entire gas car industry was actually a very bitter one. Competition was fierce, and no one could hold the number one spot forever. Even giants like General Motors eventually declined. So without EVs, we wouldn't invest in this traditional auto industry. Now that EVs are here, is it easier for us to identify the winners compared to the gas car era?

Alice: It feels very difficult.

Patrick: I think it's very difficult too. The differentiation among everyone isn't that strong. If I had to pick the tallest among dwarves, I feel BYD might be a bit better. But if I ask myself if I would invest in BYD? No, I wouldn't.

Alice: Because that depends on whether you have better choices.

Patrick: Right, I still can't see it clearly enough. Investing at this point in time, I find it very hard to convince myself that it will still be the winner 50 years from now.

Alice: To summarize, the difficulty lies in: First, doing safety well is not easy and requires massive investment. Second, efficiency is crucial, but efficiency is easily learned by others. Whether it's supply chain capabilities or poaching top operational talent from competitors with high salaries, my efficiency can also improve rapidly. Third, you also face the impact of many unpredictable new technological innovations, right?

Patrick: Exactly. Meaning, facing an equal supply chain, you must either innovate fundamentally or vertically integrate. Fundamental innovation is like BYD; it used to make batteries and has cultivated the battery industry for so many years. Its advantage stems from over a decade of battery manufacturing accumulation. BYD has a certain advantage in vertical integration within the industry.

Or, you must engage in disruptive innovation, moving to the next era. For example, moving towards AI and autonomous driving. Li Auto says the money it makes now is to serve its future AGI and autonomous driving goals, attempting to seize the initiative in this transition. But who knows when autonomous driving will truly arrive? In five years, ten years, or twenty years?

Alice: Seizing the initiative to gain an early-mover advantage.

Patrick: Right, but to be honest, my feeling about AI remains the same. You know my attitude towards AI. AI is hard, AGI is very hard, and autonomous driving is actually the crown jewel of the AI industry. Because the large language models and generative AI chat tools we see now, like DeepSeek, it's fine if they make mistakes or hallucinate incorrect information, because the error tolerance is acceptable. But the error tolerance for autonomous driving is zero. One mistake means life or death. So autonomous driving is definitely the most demanding and challenging—it is the crown jewel of AI. If you want to move forward, there is still a very long way to go.

This is also a hot topic recently: should it be called autonomous driving or assisted driving? Clearly, everything is currently still in the assisted driving phase. It absolutely shouldn't be called autonomous driving; autonomous driving is impossible right now. I also know that once a certain situation occurs... previously, when building autonomous driving models, they wrote rules. If-then logic isn't prone to errors. Now, it's completely opened up, letting the large model make decisions itself, learning and deciding based on situations. Due to the inherent nature of large models, errors are inevitable; it's just a matter of probability. Currently, no one can perfectly solve the error or hallucination problem in large models, and this is absolutely the critical key to whether it can enter mainstream industrial and corporate sectors. Since this problem hasn't been completely conquered, logically, automobiles should be the absolute last sector to push AI so aggressively, because it's a matter of life and death.

But Elon Musk set a bad precedent. Firstly, calling it FSD (Full Self-Driving). He's been saying for years that it's arriving soon, but it hasn't truly arrived even now. We cannot defy objective laws to do this. He set a bad precedent, causing everyone to call it autonomous driving in order to compete. In reality, I think we are still very far from true autonomous driving.

Alice: I agree with that too.

Patrick: So if it comes down to placing a bet on a current EV manufacturer, betting they can seize the initiative when autonomous driving arrives in the future... I don't think I have that capability. I cannot make that judgment. Given this, when we discuss business models—is EV manufacturing a good business model? Which company has a good business model? Which company has a good moat? It seems the answer is currently impossible to determine. The two of us cannot determine it.

Alice: I can't determine it either. I'm observing and thinking, but it seems hard to quickly reach a definitive conclusion. Especially the more you look into it, the more you want to think deeper.

Patrick: Yes. You see lots of analyses, but returning to the core questions: What is its sustainable competitive advantage? Will it still be around in 10 or 20 years? If given hundreds of billions, could you defeat it? We don't have satisfactory answers to these questions. In that case, I choose to pass. I will not consider investing in any EV enterprise.

Alice: Right, we are not negating the industry or the efforts of these companies. We are purely looking at these companies from an investment perspective, evaluating whether they are good choices. This is our conclusion.

Patrick: Exactly. We say investing definitely requires a good business model, good culture, and a good price. The first two—good business model and good culture—are filters. If it doesn't pass this filtering stage, there's no need to consider it or look at the price. No matter how cheap it is, you won't consider it. Analyzing these EV enterprises, I feel we cannot get a definitive answer on "whether it's a good business model" and "the moat," so we simply pass.

Alice: Understood.

Patrick: Yes, so I don't own stock in any EV enterprise. Do you? No, right. We are not providing any investment advice.

Alice: This does not constitute any investment advice.

Patrick: Right, just chatting casually, I would pass on the entire auto industry.

Topic 4: An Investor's Daily Life and the Rational Deconstruction of Probability

Patrick: Let me add a quick side note. Didn't I talk about Apple in the last episode? I want to say a bit more here. Actually, for an investor, genuine action—meaning you've decided a company is great and decided to buy it—accounts for an extremely tiny fraction of the time allocation in your entire investment career. For example, investing in Apple, out of 365 days a year, maybe there were only two or three days where I thought it through, the price was right, and I executed the buy. The remaining 360-plus days are spent having discussions exactly like ours today: seeing an industry, seeing an interesting company, thinking about it, analyzing it, and then passing on it. Most of your time is actually spent passing. It's not like some people imagine, where you see a good company today and buy it, see another good one tomorrow and buy that, as if you spend half the year buying. That's not the case. I don't want to create the false impression that one is constantly debating whether to pull the trigger. In fact, most of the time you are rejecting, you are passing.

Buffett said investing is like watching grass grow or paint dry. It means it's genuinely boring; it's not as thrilling as people imagine. It's not buying this today to watch it rise or fall, and seeing what happens tomorrow. Most of the time is boringly looking at an opportunity, analyzing a company, reading its reports, doing extensive gathering and analysis, and finally passing because you don't get a satisfactory answer. Most opportunities—maybe 90% of them—must be passed. They cannot enter your portfolio, nor will you even build an observation position. So chatting about this today is also to show how to pass on an opportunity in daily life. Because for you, the biggest risk is the loss of principal. If you rush in without seeing clearly, your principal might suffer losses. To avoid such risks, you inevitably have to choose to pass many times.

Alice: I'd like to ask you, Patrick, how do you endure this boredom? Because human nature inherently requires positive reinforcement or encouragement. Think about it: out of 365 days, you have to analyze so many companies. If for 360 days you expend vast amounts of time and energy, only to conclude "can't do it, shouldn't do it," that means for most of the time you get no positive feedback or return. That is incredibly boring. To persistently continue spending time and accepting this result-less state under these conditions... It's like picking fruit, knowing this one can't be picked, but you must keep looking at many fruits and visiting different orchards. What is the driving force sustaining you? Is it the belief that the final two or three fruits will be exceptionally sweet and bring massive returns in the future? How do you adjust this mindset? If you asked me to do this fruitlessly for two or three days, I could endure it; but conversely, if this is how it is *most* of the time, it becomes very difficult. Looking at the market, whether it's ordinary financial firms or famous investors, whenever they make an investment move, they announce it to the public to gain positive feedback and encouragement. But I suppose if you are a value investing believer, you have to do the exact opposite. This "asceticism," where you don't even receive external social praise or feedback, where it's just you dialoguing with information and self-reflection—to an outsider, it looks like a state of nothingness. How do you face and endure this? What is the motivation? How do you keep going?

Patrick: How to keep going? That is indeed a great question.

Alice: Let us learn from you.

Patrick: I think first and foremost, for an investor, the core trait must be rationality. If I were selecting a fund manager, I would definitively look at whether they are rational. Why rationality? We can actually prove this using math. For an investor, there are so many companies in the market. Some you must pass on, and in the process of passing, you might miss some good opportunities. Some you choose to invest in, but you might invest incorrectly, leading to losses. So you are constantly balancing between the two: should I pass more, causing me to miss some good opportunities, or should I invest more, causing my error rate to spike? The more you invest, the higher the error rate; the more you pass, the more opportunities you miss, right? It's absolutely a double-edged sword; you can't have it both ways. So you must choose a strategy: are you more afraid of missing out, or are you more afraid of making a mistake? This is a binary choice. But probabilistically, we can actually calculate which approach is the most rational.

Let's look at an example. Assume you are a smart investor, a mini-Buffett. Looking at the US stock market, assume there are about 4,000 public companies. Among them, 1,000 are good companies, and 3,000 are bad ones. We don't need a highly precise definition of good and bad; generally, good companies allow you to make money steadily long-term, and bad companies make you lose money long-term. This means roughly one-quarter of the companies can make you money. This setup is very reasonable, right? You are a smart investor, and we assume your probability of judging correctly is as high as 80%. This means you are already an extremely smart, highly perceptive person. Now I'll test you: what do you think is the ultimate probability of this smart investor actually investing in a good company?

Alice: I'm not that smart, but I feel it should be lower than 80%.

Patrick: Right, which means you *are* smart. This probability is definitely significantly lower than 80%. Let's calculate carefully: there are 1,000 good companies and 3,000 bad

companies. Your probability of judging correctly is 80%. Therefore, out of these 1,000 good companies, you can accurately pick out 800 good companies. But simultaneously, because you only have an 80% accuracy rate, it means you have a 20% chance of making a mistake. So you will mistake 20% of those 3,000 bad companies—which is 600 bad companies—as good ones and pick them out. The result is that you have picked out a total of 800 genuinely good companies and 600 misjudged bad companies. So your ultimate probability of investing in a truly good company is 800 divided by (800 + 600), which is 800 divided by 1400. The calculated probability is only 57%. This means that even if your personal judgment accuracy is as high as 80%, because there are too many bad companies in the market's underlying assets, your ultimate winning rate when taking action is only 57%.

Now look, let's make one change. If we improve our ability to reject bad companies—meaning lowering the probability of making a mistake by 10%, down to just a 10% error rate—keeping everything else the same. Now you will pick out 800 good companies, but you will only mistakenly pick out 300 bad companies. Your success win rate now becomes 800 divided by 1100. Your win rate suddenly spikes to 73%! Just a moment ago it was 57%. Now, just by improving my rejection rate by 10%, my successful win rate jumped straight to 73%.

So it's actually very simple. From a data perspective, because there are too few good companies in the market—in our assumption, good companies only make up one-quarter—to achieve a higher probability of success, you must reject more. Only then can you achieve a better win rate. Because there are too many bad companies, you must reject frequently. Therefore, in investing, it is absolutely better to miss an opportunity than to make a mistake. Missing out is the default norm. If you want to achieve true investment returns, you will inevitably experience missing out. This is why Buffett frequently says, "I don't understand this, I won't look at that." On the surface, he missed out on many stellar tech stocks, but to maintain an absolute high win rate over the long term, you must continuously and actively choose to miss out. Only then can you keep your error rate at a controllable, reasonably low level. To succeed, you must learn to miss out. Don't think, "I don't want to miss out, and I don't want to make mistakes either." Even gods cannot achieve that.

This is why, rationally speaking, calculating the math shows us that you must continuously and actively miss out. You'd rather miss out than make a mistake. Missing out is an extremely important characteristic of investing. If you refuse to miss every hot trend, every so-called ten-bagger or twenty-bagger, your ultimate probability of success will inevitably be terrible, and you will inevitably face the risk of losing principal. If you are a rational investor, you must mentally accept this.

Another point, regarding whether it feels boring. I think if your ultimate goal is achieving good investment performance, and you deeply understand that "missing out is inevitable, and one should do everything possible to prefer missing out over making a mistake," then you must say "No" to many things. Once you understand this underlying mathematical logic, you won't feel this is a boring or frustrating thing to do, because it's for the sake of that final result. Although you actively passed on this company, it doesn't mean your research, analysis, and effort were wasted. Just like our discussion today, even though the final conclusion was that we can't see it clearly and choose not to invest. But the deductive process and the way we discussed it are definitely very helpful for our growth in investing. By constantly practicing correct rejection, we can ultimately increase our win rate. This is what rationality demands of us.

As for whether this process—which looks like grass growing or paint drying—is extremely tedious, it depends entirely on your perspective. If your perspective is that you greatly enjoy the deductive process of exploring the essence, treating it like making scientific discoveries, it's actually not boring at all. Buffett's life isn't about buying every day either. Finding a suitable, good opportunity once every year or two is already fantastic. Most of the time they are saying "No." Receiving countless opportunities daily, they are constantly saying no. So if you see a fund manager frequently buying and selling every day, opening a position in this today and that tomorrow, I think that is usually problematic; their probability of making a mistake is multiplied exponentially.

Alice: Understood, thank you for sharing, Patrick. So this is actually a process of rationality triumphing over emotion. Because you know exactly where you are ultimately heading, you know the final result you want, and you've calculated the probabilities using mathematical formulas. Having built this framework based on rationality, you already know how it operates. Therefore, you can tolerate any boredom, or rather, you don't even feel like you are "enduring" it.

Patrick: It's not that mystical; it's truly just a necessary process. In the beginning, one also makes mistakes, wanting to miss neither this nor that, feeling extreme thirst and panic for information, terrified that missing a piece of news or opportunity means getting further away from wealth. Only later do you realize that information doesn't actually affect your ability to get rich.

Alice: I think what you just talked about—having a clear ultimate goal of improving your win rate—is extremely important. Because only when you know what you are ultimately pursuing can you achieve the mental stability you mentioned in the first episode. Otherwise, if you don't know what you are pursuing, haven't calculated this probability, and lack the firm, clear understanding that "only by rejecting more will my win rate be higher," it's very hard to cultivate a good temperament. Because if you only rely on emotional reasons to tell yourself you should act a certain way, without a rational underlying foundation, it's very hard to persist. The rational foundation you just talked about, I feel, can give people massive confidence to persist in doing this. It isn't boring; it contains compounding value. Just as you said, this system of thinking and knowledge can be applied when analyzing other industries, even if people don't see it on the surface. This is also a process of compounding accumulation.

Patrick: Right, the key is whether you are willing to choose rationality. Humans are animals interwoven with rationality and emotion. Rationality requires massive effort to actively establish, while our biological instincts often make us lean toward emotion. So over the past few years, I think my biggest realization in investing is understanding this: many people think investing is just pure technical analysis—like how we just analyzed industries, moats, and whether prices are reasonable. This technical analysis is certainly important, but among the factors for success, they account for at most 20% or 30%. For the remaining 70% or 80%, you are likely cultivating your own temperament. Are you willing to submit to rationality? Are you willing to objectively accept these commercial laws? If your goal is ultimate success, you must accept this price. Many people are irrational because they want to make huge amounts of money and get extremely high returns, but they can't control their desires and want to seize every hot opportunity to speculate. Rationality tells you that having both is impossible. Munger spoke about temperament; he said some people are perhaps

naturally suited for this, while others are inherently less suited. I think that makes a lot of sense.

Conclusion

Patrick: Alright, we had a very pleasant chat today, let's stop here for now. Great, let's chat again next time.

Alice: Okay, thank you Patrick. Thank you everyone, see you next time.

Patrick: Bye-bye, see you next time, bye-bye.