HAYDEN CAPITAL

QUARTERLY LETTER

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Dear Partners and Friends,

The global economic picture remains cloudy, a point reinforced by several US regional bank-runs and their failures in the last few months. The economy clearly isn't out of the woods, with worker layoffs that started in the tech sector now spreading to other industries. Inflation is still too high, and confidence is weakening among consumers and businesses.

We can't predict when these storm clouds will pass, but at some point they will.

Time Period	Hayden (Net)[1]	S&P 500 (SPXTR)	MSCI World (ACWI)
2014[2]	(4.9%)	1.3%	(0.9%)
2015	17.2%	1.4%	(2.2%)
2016	3.9%	12.0%	8.4%
2017	28.2%	21.8%	24.4%
2018	(15.4%)	(4.4%)	(9.2%)
2019	41.0%	31.5%	26.6%
2020	222.4%	18.4%	16.3%
2021	(15.8%)	28.7%	18.7%
2022	(69.2%)	(18.1%)	(18.4%)
1st Quarter	21.5%	7.5%	7.4%
2023	21.5%	7.5%	7.4%
Annualized Return	7.3%	10.8%	7.4%
Total Return			
1 Year	(38.4%)	(7.7%)	(7.1%)
5 Years	13.7%	70.0%	39.9%
Since Inception	80.0%	136.1%	81.8%

Our companies were among the first to feel these economic changes, and thus were also the first to act. Over the past year, almost every company within our portfolio has undergone some form

1 Hayden Capital returns are calculated net of actual fees directly deducted from client accounts, for the period from inception (November 13, 2014) to December 31, 2020. Starting on January 1, 2021, reported performance is reflective of a representative account, managed in accordance with Hayden's strategy with no client specific investment guidelines or limitations, made no subsequent investments or redemptions, and remains invested. The representative account paid a management fee of 1.5% and incentive fees of 0%. Clients who elect the performance fee option for their accounts may pay higher fees and therefore realize lower net returns, during years of strong investment performance. Individual returns may vary based on timing of investment and your specific fee schedule. Performance results are net of expenses, management fee and incentive fees. Past performance is not indicative of future results.

2 Hayden Capital launched on November 13, 2014. Performance for both Hayden Capital and the indexes reflects performance beginning on this date.

of restructuring – whether it was curtailing new investments to focus on their core business, raising prices to accelerate the return on their prior investments, or downsizing operating budgets to only spend on the most efficient services.

The silver lining is that since they embarked upon these initiatives early on, restructuring efforts for the universe of companies we tend to focus on, are basically complete.

China's regulatory crack-down seems finished (for now). The government is even contemplating reducing Ant Financial's fine by 25%, as Alibaba completes its years-long restructuring (LINK). China's after-school education sector has stabilized, after the new regulations two years ago (see our Q2 2021 letter for more context; LINK). New Oriental (EDU), arguably the best-in-class operator among these education providers, even launched new learning centers the past two quarters, and grew revenues and profits by +23% y/y and +167% y/y, respectively.

Sea Limited sent a memo to employees that large-scale changes (i.e. layoffs) are finished, and the company even reached GAAP profitability & positive free cash flow for all three divisions, for the first time in its history as a public company.

These are just a couple examples, but it suggests that the sector is starting to turn a corner and even seeing positive growth again. Certainly, it will take much more time for the broader economic picture to follow suit. But I'm pleased to see the significant progress our companies have made in building their "earnings engines", and in the middle of an economic storm, nevertheless.

By becoming self-sustainable and generating their own cash flow, it provides the "fuel" for our portfolio companies to dictate their own trajectories more readily – rather than being at the whims of the economic winds and capital markets.

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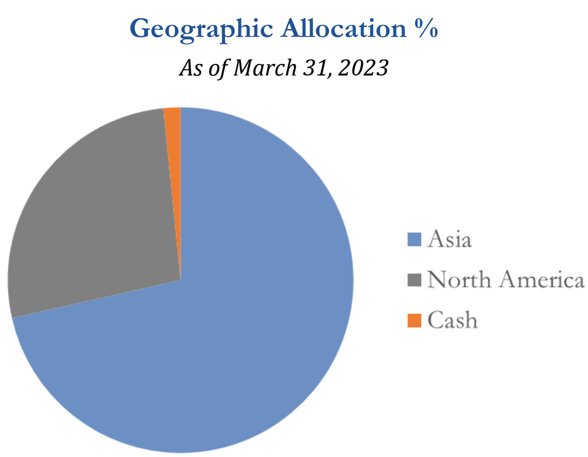

Our portfolio value appreciated +21.5% in the first quarter of 2023, versus +7.5% for the S&P 500 and +7.4% for the MSCI World indices. This brings our annualized return since inception to +7.3%.

We increased our investments in our Asia-based businesses this quarter, as market volatility continued to provide attractive opportunities. Valuations remained at a significant discount to their US counterparts, despite near-term earnings being on an upswing in the region (largely due to China's economic reopening), while the US economic outlook remains cloudy.

As a result, we ended the quarter with ~72% of our assets invested in Asia, ~27% in North America, and the residual in cash.

The Death of "Searching"

It's been hard to miss the recent media frenzy surrounding developments in Generative AI – specifically OpenAI's ChatGPT (chatbot) and Dall-E (image generator). It seems as if overnight, the world realized just how close we are as a society to seeing the movie *Her* become a reality.

And as is typical with venture capital, capital providers similarly jolted awake to the opportunities only after it was already in the headlines, with both the amount of AI funding and median valuations reaching new heights this quarter. It seems like everyone is scrambling to get in on this next "platform-shift".

It's true that the technology will be transformative for most businesses (if you haven't played around with ChatGPT or Dall-E yet, I highly recommend it). I've asked it to generate travel recommendations, interior design inspiration, and even a script for a webtoon idea that I had. The products delivered these answers within mere seconds, and with surprising detail and quality, that would probably take a human professional many hours to replicate.

However, I'm not going to discuss the technical aspects or engineering feats that make Generative AI game-changing here. That's beyond my expertise, and better left to the numerous articles online that dive into the subject.

It'll be interesting to see whether the industry develops into one where value is hoarded by a few key players, with irreplicable advantages. Or whether Generative AI is just a "shiny hammer" – another tool that's become available to everyone, used to build a more efficient world.

The fear is what Warren Buffett has talked about before, during his experience at Berkshire Hathaway's original textile business. He recounts that adoption of new technology didn't necessarily create a competitive advantage for the business.

It would temporarily give the first company to adopt it an advantage via more efficient operations, allowing them to outprice competitors. But as competitors similarly adopted the technology and it quickly became ubiquitous, *not* utilizing it meant falling behind, but making the expensive capital investments only put you on par with everyone else. In the end, businesses weren't any better off versus their peers, than before the new technology was invented. Without exclusive access to the technology, the business couldn't hold onto this excess value, and it was accrued elsewhere[3].

Google's recently leaked internal memo titled "[We Have No Moat, and Neither Does OpenAI]" makes a similar point, stating that LLMs can be trained & optimized for just a couple hundred dollars.

We'll be watching curiously, to see how this industry's value accrues over time. It's still too early to tell, but I suspect it may end up as the latter.

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What I find more fascinating, is watching whether this new technology ends up changing internet usage habits, and in what ways if so.

Companies are already using AI to automate aspects of their business – replacing customer service representatives, curators for retail businesses, gaming and animation illustrators, and even writers[4]. That's already happening today, and it's obvious that business cost structures will only become more efficient over time.

But the more interesting question is how will this change consumer behavior (i.e. how revenue is generated)? Over the past decade, the world has already been moving from a search to discovery-based behavior model.

And in a discovery-based world, accurately predicting what content and products will appeal to the customer, is more important than ever. Since the customer isn't actively searching, they aren't *telling* you their interests directly. It's the company's role to know what the customer wants, *before* the customer is even conscious of it.

For example, in social media, we've gone from old fashioned social clubs and calling friends, to Facebook (largely text-based, searching out friends' profiles), to Instagram original (image-based search), to Instagram Reels, Explore & Feed (discovery-based images & posts), to Tik Tok (video-based discovery).

And in ecommerce, we've similarly evolved from search-based behaviors (Amazon's search box) to discovery-based behaviors and an infinite scroll based on product recommendation engines (Shein, Temu, Tik Tok Shop).

Even in entertainment, we've moved from seeking out specific artists or albums and TV Shows, to a discovery-based model. Most of the music and shows played on today's streaming services are from unknown (to you) artists / creators. It was the streaming platform's algorithms, that introduced the content to the user, instead of users actively seeking them out.

Essentially, we've moved from content now being *pushed* onto users, instead of *pulled*. "Pulling" requires intent. Users need to know what they're looking for, in order to seek it out. But if

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3 In this case, the consumers (i.e. cheaper products) and the equipment manufacturers. But if there's no patent and the technology is replicable, even the equipment manufacturers will face increased competition and have a harder time capturing excess profits.

4 https://futurism.com/buzzfeed-publishing-articles-by-ai

algorithms already know what you want / like before your own mind does, it's faster to "push" what you'll like rather than waiting for your consciousness to catch up.

I suspect one reason for this shift, is the proliferation of information. For example, it's estimated that we create 2.5 quintillion bytes of data every day. There's ~3.7M new Youtube videos uploaded every day (LINK), and ~95M new Instagram posts per day (LINK). That's simply too much content for a person to search through.

The fact that consumers have embraced this behavior, made possible by improving technology, isn't all that surprising. In fact, I'd argue that it was inevitable.

At a fundamental level, the goal of technological progress has always been to make things as easy as possible for humans. We're naturally a lazy species, and most people would prefer to expend zero effort, and live a complete life of leisure. As such, technology has been trying for thousands of years to achieve this.

Starting from the wheel (who wants to spend all that effort moving heavy things?), to the domestication of animals (who wants to run and sweat to hunt for their dinner, when you can just keep animals fenced 100 feet away?).

Or more recently, why should we spend all that effort reading (which requires focus, and energy turning all those pesky pages), when we can have someone else read to us (the radio)? Or even better, see the image as the show's creator meant to (the television) and don't have to waste energy on using our imaginations?

And similar to the above examples, I suspect AI won't *change* the course of society or its future trajectory (towards an easier, more efficient life for humans), but merely *accelerate* it.

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These recent breakthroughs just give me more confidence in what I've long believed – that search-based habits will become antiquated soon. And in the meantime, patience / tolerance for the process of "searching" itself will diminish. The closer we are to simply injecting information straight into our brains, the better.

Users don't want to spend 5 minutes parsing through links, searching for an answer on Google. In fact, 95% of users never make it to the second page of Google's search result. And more so, the 1st result gets 10x the click-through rate as the 10th result (LINK).

And similarly, viewers don't want to waste an average ~18 minutes a day, just to decide what to watch on Netflix[5]. We just want the end result as quickly as possible – there's no joy in the "searching" process itself. Especially as the search process becomes longer and more cumbersome, as the amount of information and content grows exponentially.

Most users would probably agree with the Simpson's meme… "Just hook it to my veins!".

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[5] The study was conducted in 2016 (LINK). With the explosion in content since then, the number might be even higher now.

It's also why Netflix rolled out the "Play Something" feature, that just randomly starts playing a show or movie for you.

We can already see this on the "frontiers" of consumer behavior – notably younger generations and emerging market consumers. Those who aren't bound to the old-habits developed in a desktop based era (one of large monitors, and an easily expanding list of tabs to hop from one site to another).

Instead, these new users entered the online world via a 6 inch x 3 inch mobile screen – one with little room for extraneous tabs, and users with even less patience for information that isn't right at their fingertips.

(Note, my theory is that part of this behavioral difference between desktop and mobile, is that it's hard to multi-task simultaneously on a small screen. Instead of doing two tasks simultaneously in 10 minutes on multiple tabs / windows, the mobile user naturally tries to do 2 tasks linearly, in 5 minutes each. Patience levels are the same, but the need to accomplish tasks linearly on mobile might have accelerated the desire for even greater efficiency.)

These changing digital habits and lower patience levels are evident in the data. The average song is now ~24% shorter than 30 years ago (LINK), and Samsung found that listener's attention span shortened from 12 seconds to just 8 seconds (LINK). If you're an artist, you have to get the listener hooked much faster than before (no more long intros).

Podcasts are more popular than reading. For example, ~42% of people in the US have listened to a podcast in the past *month* (LINK). Meanwhile, ~52% of people haven't finished a single book in the past *year*. It's more pronounced by generation too, as Gen Z reads *less than half* as many books per year, compared to Baby Boomers (LINK).

Even traditional comics books have been usurped by Webtoons, which often are much shorter. While the average comic book is 32 pages and published monthly, Webtoons are just ~10 pages and released weekly[6]. Readers want quicker, but more frequent hits. Even large companies like Apple are taking notice, and trying to get in the game (LINK).

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[6] The average webtoon is ~50 panels, or ~10 pages (LINK). Modern comic books are ~32 pages (LINK).

AI, brought into mainstream consciousness by ChatGPT, is just the next step in our quest for efficiency. Nothing with human nature has changed, it just merely accelerates our ability to reach an ultimate "lazy" state.

And while investors are looking to identify the specific companies that will be the winners & losers from this trend, I suspect the act of "searching" in itself is likely the most prone to disruption. Every time we reduce the "search" friction (regardless of the use case), user engagement increases. Humans like quick dopamine hits, and instant results.

In general, companies that embrace this change will continue to do well, while those that don't will lose their relevancy. For example, while some think the future of Google and the trillion dollar plus market value it's created, is at jeopardy, I don't think it's as clear-cut[7].

What matters is a business' willingness to embrace this new user behavior, enabled by technological progress, rather than continue on with the status quo. Just as user behaviors differed on mobile, versus desktop, so too will behaviors differ with the end of search.

The question is, to what degree will humans trust algorithms to pick the right answer, product, or service provider for them? And is there a limit to the amount we trust an algorithm to present the best results, without us needing to spend the time verifying the results?

We already trust machines to answer "how do I make a vanilla cupcake" directly, without scrolling through search engine results (I just did this on Amazon Alexa). Maybe we'll trust the algorithm to choose the perfect outfit for a Victorian themed birthday party, and automatically order it in our size with our credit card.

But what about choosing a dog sitter? Or a baby sitter? Or our next apartment? Where is the limit of this human-machine trust, and how does that boundary change over time, as we develop familiarity with the algorithm? How will this shape the way businesses sell their products and services?

Does it mean high "search-friction" marketplaces like Care.com (nannies) or Rover.com (dog-sitting) are prone to disruption, or will they adapt to the new models?

There's still a lot of unanswered questions, and it's way too early to tell. But it's important to remember that most of technology is just a "shiny hammer" – a tool available to all who wish to use it. More than using it to get *ahead* of competitors, it's just as important to embrace the new tool, so that you don't get left behind.

The only thing that matters is remembering the fundamental truth – that humans want things faster, cheaper, and with the least amount of effort. The end desires have remained the same for thousands of years. It's just that technological progress allows us to serve those needs in more efficient ways. Businesses that remember this will continue to thrive – whether it's a new startup or a brand that's been around for centuries. It's nothing to get overly excited / worried about – it's simply one more step, to reaching our "lazy nirvana".

[7] Although they'll have to tweak their advertising model, since they won't be able to rely on sponsored links anymore.

Carvana (CVNA): We sold our remaining Carvana position last year, as it became clear that used vehicle demand was waning in the US. Most individuals finance their vehicles, so sharply increasing interest rates were having an effect on demand. The industry-wide double-digit price increases for used cars over the prior two years didn't help the situation. This was partly spurred by a low supply of new vehicles (caused by chip-shortages, due to pandemic related supply chain issues) trickling down to the used car segment.

We held the investment for approximately four years, based on the premise that the used car buying experience in the US is a generally a frustrating experience, and that consumers would embrace a better way of buying a car[8]. Additionally, we believed that as the company scaled, Carvana's centralized model would offer efficiencies and potential for superior unit economics, that simply wasn't available to the 90% of the used car market operated by small mom & pop sellers.

The company was on track to achieving this vision, especially as Covid accelerated consumer's willingness to try new online-based methods for large budget purchases. Unit sales accelerated, going from ~94K cars sold in 2018 to ~425K by 2021 (+352% over 3 years). Our thesis that margins would improve from increased scale started to come through also, as operating margins improved from -11.7% to -0.8% over the same period.

However, Carvana made a crucial mistake, which would ultimately make their situation much more difficult when the demand tailwind they had benefited from the past few years, started to turn.

In February 2022, Carvana announced that they were buying Adesa for $2.2 Billion (LINK). Adesa is the second largest physical auction service for used cars, with dozens of sites across the United States. Most importantly, Carvana was acquiring an additional ~2 million of reconditioning capacity, which after another ~$1 billion of capex investment, was expected to bring Carvana's total reconditioning capacity to 3 million cars.

This solved a critical bottleneck in Carvana's growth plans, as the company had to actively dial-back growth during 2020 and 2021, as demand for their cars exceeded their ability to source & recondition them. As management's rationale goes, this was capacity that Carvana already planned to build itself over the next few years, and the transaction unlocked this bottleneck immediately, while lowering execution / build risk and improved unit economics as the network of reconditioning centers would reduce transportation time and costs.

This all was a solid rationale, so long as consumer used car demand remained stable, and Carvana's superior customer experience led it to continue gaining market share within this industry. But as mentioned above, that didn't pan out as expected and the economy quickly turned. In this context, Adesa's fixed assets became an anchor around the company.

[8] Please see our Q4 2018 investor letter, for the original investment memo (LINK).

This was further compounded by Carvana's decision to use expensive debt to finance the acquisition. With US interest rates rising at the quickest pace in decades and the capital markets in turmoil, it was an extremely poor time to be raising growth capital. By the time Carvana was shopping its debt to complete the acquisition in April, investors were demanding a 10.25% interest rate – double the 4.9% - 5.9% rates they had raised at previously.

This equated to ~$330M in additional interest payments annually. Or at their 2021 scale, this meant an additional ~$790 per car sold would go towards paying the interest. It's a sizable amount, considering the industry's relatively low margins. As a result, pulling this off successfully meant growing annual unit sales quickly in order to amortize these interest payments across more cars. Also selling more cars would utilize the excess capacity they purchased, and leverage the cost efficiencies only available at scale.

In early last year, it seemed like the window to pull this off was narrowing, but still plausible. Demand for used cars was slowing, but still growing. Carvana's quarterly unit sales were still increasing, and even reached a historical high in the second quarter of 2022.

But the macroeconomic situation started softening industry demand by the latter half of the year, and Carvana's sales started declining ~-9% y/y. Because the company was still unprofitable on a unit economic basis, this created a negative feedback loop – whereby lower sales volume meant widening losses on a per unit basis, which meant the company couldn't afford to spend as much on marketing, which led to even lower sales.

This significantly changed our investment case, and we sold our remaining shares in the company at that time. The situation just became too tough.

I'm not sure Carvana's story is necessarily finished though. Management's biggest flaw is clearly that they were too aggressive, and didn't build enough of a buffer in their business model just in case demand softened. They skated too close to the edge. In my opinion, this is a case with management pushing too hard, too fast, and then being caught offsides when the environment changed. At the same time, our flaw is that I probably gave the management team too long of a leash and too much time, to try and fix these issues.

However, it doesn't mean the company's basic value proposition to consumers is flawed, and could have had a different outcome in an alternate universe. Carvana had sold over 1M cars since its founding – the quickest in the industry's history, all while gaining consumers' trust to make the second largest purchase of their lives completely online. Clearly something about the model appealed to consumers, and that deserves some credit.

The traditional used car purchasing experience is still frustrating, and holding a small, fragmented inventory between mom & pop dealers is still inefficient. The industry remains prone to disruption from a better way of doing business.

In recent months, Carvana's outlook has started to improve. The company is currently in a battle with its debtors to determine the potential equity dilution needed, in order to save the business. In the meantime, they plan to achieve positive Adjusted EBITDA next quarter, and gross profits per unit reached a new high.

The ending has yet to be written, and we'll see how this situation plays out in time. Despite management's missteps last year, I hope the company succeeds in its mission in improving the used car purchase experience for the sake of all US consumers needing a used car in the future.

Over our holding period from 2018 – 2022, we realized a ~+53% return on our investment[9]. Granted, this is a far cry from what we could have realized on our investment if we had sold our shares at the peak. However, we still managed to sell a significant portion of our original investment over the last few years, and have also taken advantage of the stock's volatility to flex the position up / down several times. In the end, Carvana contributed +22% to our overall portfolio value since inception.

Pinduoduo (PDD): One of the main investment thesis points we cited in our Pinduoduo Memo last quarter (LINK), is that the market is under-appreciating the profit potential of the company's Duoduo Grocery division.

PDD gives very little public disclosure into this division, and Duoduo Grocery's gross profits are consolidated within the "Transaction Services" revenue line item (which also includes the ecommerce division's payment processing fees for the use of WeChat Pay). As such, we're not surprised that the market ascribes little value to it, since understanding the division's progress and potential requires some substantial leg-work[10].

However, an important datapoint in Duoduo Grocery's progress was just published by LatePost, a well-known Chinese technology industry publication. According to their sources, Duoduo Grocery achieved RMB 180BN GMV in 2022 (LINK). This compares to the only major competitor left standing, Meituan Select, which achieved RMB 125BN GMV for 2022 (which was only slightly higher than their RMB 120BN in 2021). This is quite remarkable, considering Meituan Select was larger than Duoduo Grocery as recently as Q1 2022, and well-exceeds the RMB 135BN that we were originally modeling[11].

It now looks like Duoduo Grocery's GMV is on track to reach over ~RMB 250BN in 2023, or +40% y/y growth[12]. For context, we were originally expecting them to reach this in 2025. Duoduo Grocery focuses on lower-tier regions, where: 1) over 1 Billion of China's population resides (~71% of the country), 2) community group buying is only at ~9% penetration, and 3) faces far lower competition from established supermarkets (ship-from-store model), front-end warehouses (online markets, that own the inventory), and instant delivery (delivery from 3rd party brick & mortar stores, using gig-workers), which are prevalent in larger cities.

The nationwide community group purchase industry will likely grow at a mid-teens CAGR over the next few years. But lower-tier regions are expected to grow at ~3x the rate of Tier 1 & 2 cities, for the reasons listed above (LINK).

This estimate assumes Duoduo Grocery maintains a ~55% market share within group purchase grocery (given the retreat / bankruptcy of almost all competitors except Meituan), and also

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[9] Our first purchase was at $40.30 in 2018, and average purchase price was $64.60. The average sale price was $98.74.

[10] Note, we expect the company will give more regular disclosure on Duoduo Grocery once management is confident that the division is on solid footing and self-sustainable. They likely hesitate sharing information publicly, since the industry is highly competitive, and risks tipping off competitors.

[11] CICC estimates Meituan Select had ~39% market share in Q1 2022, and Duoduo Grocery had ~38.5%.

[12] For reference, we heard Pinduoduo is internally targeting a >50% cagr over the next few years, but we take a more conservative stance in our estimates.

accounts for a significant deceleration from last year's +125% y/y Covid-lockdown induced growth rate.

On the profitability front, LatePost also reported that Duoduo Grocery had a -7% operating margin as of mid-2022. Our on-the-ground research suggests this has improved further in the past year, and is now ~-2%.

From our understanding, the business is targeting profitability by the second half of 2023, and is on track to achieve this. Reportedly, gross margins have already increased from less than 10% to ~15% over the past year, and is expected to expand even further this year (LINK). Additional order density and efficiency improvements have helped bring operating costs per order down as well.

Putting the pieces together, this also implies that the underlying core ecommerce business made ~RMB 42BN in operating profits ($6.1BN USD) in 2022, versus the RMB 30BN ($4.4BN USD) that was reported. Duoduo Grocery's losses of ~RMB 12BN are obscuring the ecommerce division's true profits. If the grocery business achieves break-even this year, it would add at least an additional ~USD 1.7BN in profits to the consolidated business, simply by eliminating the cash burn and allowing PDD's core ecommerce profits to flow through[13].

In another indication that Duoduo Grocery is getting closer to profitability, PDD just promoted Jiazhen Zhao to Co-CEO. Zhao started and helped grow the Duoduo Grocery business, and now will be taking on additional responsibilities for overseeing Pinduoduo's overall China business and supply chain operations.

The former sole CEO (now Co-CEO), Lei Chen will be concentrating on the "global business" (i.e. Temu). Furthermore, Gu Pingping also shifted her focus from Duoduo Grocery to Temu last year. It's an important signal, as she's historically known as PDD's "fixer" – always spearheading the most competitive and insecure parts of PDD's business lines[14].

Lastly, there are whispers that PDD plans to invest over RMB 10 Billion (~USD $1.5BN) into growing Temu this year[15]. Considering that Duoduo Grocery will reduce its burn by a similar amount this year, and knowing the company's culture, it seems like more than just a coincidence. Essentially, PDD is shifting its reinvestment spend from Duoduo Grocery to Temu, while leaving the rest of core ecommerce profits to shareholders.

All of these "tells" together indicate that management is now confident Duoduo Grocery succeeded in the community group buying war, and that the division is on solid footing. Most competitors have exited the business, and Meituan showed its inability to respond to PDD's advances.

On its current track, it looks like the company should generate ~3 - 5% profit margins (as a % of Duoduo Grocery's GMV, matching traditional supermarket economics) within the next two years. If they reach ~RMB 350BN GMV by 2025, this will equate to ~$2BN USD in additional

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[13] Albeit, this doesn't account for Temu's investment spend. This also assumes the core ecommerce business experiences zero growth. This is unlikely, as Q1 2023 alternative data sources are indicating GMV growth of ~19% y/y.

[14] She's rumored to have convinced Colin to start Pinduoduo in the first place, when they worked together at a prior company. Then once Pinduoduo's ecommerce business was stable, she worked on Duoduo Grocery. And now, she's again shifting her focus to Temu.

[15] Increased from PDD's original RMB 7BN budget allocation for Temu. This is because Temu has been much more successful than management anticipated. Originally they were targeting $3BN GMV for this year, but have now revised that target to $5BN.

profits, or an incremental +$3.7BN improvement from 2022. This alone would increase operating profits by +84% versus last year.

Overall, the company trades at a ~$80 billion market cap today[16]. As of last quarter, they had $21.6BN of cash and short-term investments, and $2.2BN of convertible debt. Netting these out, equates to an enterprise value of ~$60BN today.

We think the business can generate a further ~$37BN USD in cumulative free cash flow from today to YE 2025. Sell-side estimates are currently at ~$28BN USD, with the differential being our view on Duoduo Grocery's profit potential and a reduction in Temu's investment spend by then[17].

But even if we use sell-side estimates for conservatism, this comes out to a $32BN enterprise value by 2025, assuming the stock price stays flat until then. Shares would trade at 3.1x EV / FCF, equating to a 32% FCF yield, and with ~71% of the market value in cash. We anticipate the company will generate even higher FCF than this, and in that scenario would equate to a mere 1.7x EV / FCF.

In either case, we highly doubt shares remain at current levels over the next two and a half years. Even if there were a government-sponsored privatization (a highly unlikely scenario), there are still precedents for a higher valuation than this.

In fact, I heard even Tinkoff (one of Russia's leading digital banks and previously one of the most popular stocks among international funds, which was de-listed from Western exchanges after the Russia - Ukraine war) is still trading for ~2x P/E over-the-counter at major investment banks, and actively on the Moscow exchange at ~6x P/E (LINK). I think it's safe to say, PDD's current valuations already bake in a worst-case scenario.

We'd expect to see these types of valuations for a small cap, distressed, cyclical company – but not a $80 billion, market leading firm, in one of the world's largest economies, with $20 billion of cash today, and another $30 billion+ more on the way. Especially if it just grew its revenues by +46% y/y, and operating income by +32% y/y last quarter. All while realizing 78% gross margins and 23% operating margins, despite being simultaneously depressed by two separate growth initiatives[18].

Sea Ltd (SE): Sea Ltd gave the market (and us) a massive positive surprise last quarter. In Q4 2022, every division of Sea Ltd – Garena, Shopee, and SeaMoney – individually reached profitability on a GAAP basis. This is the first time in their history as a public company, that they're profitable on a consolidated net income basis.

This substantial profitability pivot, shocked the market, as it exceeded the company's own guidance by a full 12 months, and was more than 6 months ahead of our internal expectations.

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[16] ~$60 stock price, as of May 9, 2023.

[17] Sell-side estimates are for $8BN FCF in 2023, $9.5BN in 2024, and $10.2BN in 2025.

[18] Operating margins came down year-over-year, due to Duoduo Grocery and Temu.

In terms of margins, the company reported Q4 2022 operating margins of 9.9% ($342M operating income), which is a +25.6% (or $838M) improvement from the prior quarter's -15.7% margin.

They achieved this by following the "PDD Playbook", which I originally suspected and outlined in our Q3 2022 letter. Last year I wrote:

"We can also see that once this level of penetration was achieved, the [PDD] management team deftly pivoted from away from aggressive marketing, going from spending ~132% of reinvestable cash on S&M in Q1 2021, to just ~75% a year later…

All of this cash quickly flowed to the bottom line, and operating margins went from -28% in 2019 and -16% in 2020, to +28% as of Q2 2022. From the time management decided to dial back marketing spend in Q1 2021 to today (1.5 years), margins have improved over +46%.

It seems to us that Sea originally planned to follow a similar playbook. In fact if you run the same calculation of Shopee's S&M spend vs. reinvestable cash, you'll notice a similar rate of spend as PDD pre-2021, averaging ~110% between 2018 – 2021…

However the key difference is, that due to the current macro environment, it looks like Shopee is going to need to pivot away from this strategy early (at least temporarily)… As such, we're expecting to see an even greater reduction in marketing spend over the next 12 months."[19]

As it happens, Sea went from spending ~174% of its reinvestable cash on S&M in the third quarter, to just ~72% at year-end, by our calculations. Pinduoduo made a very similar pivot in early 2021, from 132% in Q1 2021, to 77% in Q2 2021. As mentioned before, PDD's margins subsequently went up +46% after this shift and we're starting to see it flow through to Sea's bottom line now, as well.

It's a big difference in just three months – even more so when considering this result was also depressed by non-recurring charges of ~$178M of goodwill impairments. Adjusting for these expenses, operating profit and margins would have been +52% higher, at ~$521M and ~15% operating margins.

The company also generated ~$167M in free cash flow last quarter. This FCF, along with a portion of the cash balance, was used to repurchase a portion of their 2026 convertible bonds at a 25% discount to face value. Based on this action, I believe it signals the management team is confident in the business' cash generation and self-sustainability going forward.

The cash generation and debt payback essentially took the bankruptcy narrative off the table (which the market was fearful of just 6 months ago). If you were worried about your business' survival and running out of cash, why would you pay off 0.25% interest debt that isn't due for another 3 years? They saved over ~$200M by paying off the debt a few years early, which is obviously good for shareholders too[20].

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[19] Please see our prior letter for more details (LINK).

[20] Paid $611M for $817M face value of converts, not including saved future interest payments or deferred issuance costs.

These results were impressive, and put the company on solid financial footing, so they can focus on growing the business again. But after speaking with other shareholders these last few weeks, it seems the most important effect is that it's restored the market's confidence in this management team.

Last fall, it seemed as if most investors I spoke with thought that management was tone-deaf, with the general feeling that they're "prepared to spend the company into oblivion." I can certainly sympathize with that, since there was no evidence of cost-cutting in the public financials, and expenses continued to grow in the first half of last year. This quarter helped restore their credibility, and confirms what they've been saying for years.

For example, back in 2019, the Sea team told us that they believed they could be immediately profitable if they chose to. Four years ago, they publicly stated on their Q2 2019 earnings call:

"Obviously if we want to breakeven, can we? Yes, we can, right. But as I said before, it's not the focus of the business, as we are in a better-than-ever position to grow our ecosystem and digital economy consumer internet platform, with some of the largest opportunities that we have ever seen in the region and beyond… you don't have these kinds of opportunities coming along that easily for many generations… given our strong cash position, given our cash from the gaming business… we want to invest in the long-term growth of our ecosystem and will not trade that for a short-term profitability."

Again in Q4 2020, when the take-rate was just half its current levels, they stated on that earnings call:

"But most importantly… we can breakeven if we choose to at this point, even at this take rate… We're in a very good position right now where our destiny is in our own hands, and we can control the pace of investment and allocation of each market in a highly dynamic and elastic way to drive efficient growth."

It's clear that they've always been confident in their ability to pull this profitability lever. But they were afraid of doing so too early, because they believed reinvesting the cash flow instead would ultimately build a more valuable business.

This is an industry where dominant market share is a key determinant in being able to charge higher take-rates, and therefore increasing the ability to be profitable. While slowing down may result in short-term profits, it also leaves the business vulnerable if aggressive competitors are able to take share in the meantime. It erodes the long-term business value, which is what should be most important to shareholders, rather than a single quarter's results.

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What's changed today, is that the competitive environment is much more stable than a few years ago. Sea has unquestionably pulled ahead of the pack, with over 50% market share in the region. Lazada is just 1/3rd of Sea's size now. And while Tokopedia continues to put up a fight in Indonesia, they are having cash flow issues themselves, which is leading them to rationalize the business.

As such, the benefits of pulling the profitability lever (self-sustainable cash generation) far outweighs the risks today (ceding market share to competition) versus a few years ago, when optimizing for long-term business value.

The result, is the company pulled forward its profitability timeline a full three years ahead of schedule. Just a year ago, on the Q4 2021 earnings call (held on March 1, 2022), management stated:

"We currently expect that ***by 2025****, cash generated by Shopee and SeaMoney collectively will enable these 2 businesses to substantially self-fund their own long-term growth".*

And just two quarters later (Q2 2022 earnings call), this target was moved forward by two years:

"In terms of the breakeven target for the [Shopee] Asia market, post HQ costs… we expect that to happen ***by next year [year-end 2023]****."*

As mentioned above, they managed to beat their own guidance just two quarters after that, and became self-sustainable across all their divisions.

The consequence of cutting marketing spend by -42% q/q (-$343M) though, is that revenue growth is going to slow down in the near term. Even though existing users remain sticky, and GMV still grew +8% y/y on a constant-currency basis, there's only so much more existing users can spend on the platform per month.

As such, the sell-side estimates for 2025 revenue have come down -40% since last summer, while earnings estimates have increased +243%. The market's concerns have shifted from "will the company ever make money", to "will the company ever realize more than +15% y/y growth again"? It seems the market is never satisfied these days.

While I agree with the overall sentiment that Sea's new trajectory is that of lower growth and higher profits, it seems that the market's estimates may have over-shot again (but this time in the opposite way). Our understanding is that the company will maintain these slower growth rates for the next few quarters, in order to prove that the current economics are sustainable.

But these lower growth rates won't last. Before the year is over, Shopee is likely going to ramp up marketing spend again – especially targeting rural areas, where ecommerce penetration is still low, and more order volumes / scale are necessary to make the unit economics for these regions viable.

Now that they've won in the wealthy Tier-1 cities, they're now going to use profits from these areas, to build for the "mass market" consumer. According to NEA and Indonesian government statistics, ~90% of the Indonesian population lives outside Tier-1 cities and this segment makes up ~70% of the country's total GDP (LINK). Despite this, it's traditionally an untapped market and underserved by incumbents. It's exactly what they've been doing in Brazil for the last 4 years (which is close to profitability itself), and a business model that's similarly proven by Pinduoduo in China.

This will keep a lid on margins in the medium-term, but we should see the business continue to grow profits on an absolute level, while GMV growth reaccelerates in 2024. With the SE Asia business on solid footing, we should then see Shopee re-focus on Latin America (ex-Brazil), where they've kept a toe-hold via its cross-border business, by 2025.

CONCLUSION

It's been encouraging to witness several of our companies start proving the strength of their business models, over the last few months.

Whether it's the stickiness of users despite pulling back on promotions and subsidies with Shopee, the enduring brand recognition / trust among families in New Oriental despite the harshest regulatory and restructuring backdrop in the company's history, SmartRent's continued progress towards profitability, or Pinduoduo's management proving their executional prowess yet again with Duoduo Grocery.

We've long hypothesized about these points, but it's impossible to know a thesis' breaking point until it's been stress-tested. Especially since many of these businesses are less than 10 years old, it's the first time they have faced an economic downturn head-on. And the past year was one of the most grueling tests they could have faced – it hasn't been easy, but our businesses are passing this test with proven resilience.

While I believe their share prices continue to under-value their (now proven) strength and durability, I'm confident these aspects will be reflected in their valuations over time.

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I'm on the road again, and it's been great to see life getting back to normal. Instead of conversations dominated by Covid and endless PCR tests, people are back to worrying about how to create a better life for their families and the future of their kids. People, and the world they inhabit, are adaptive after all. The world will always move on, and it's almost impossible to stop the arc of economic progress.

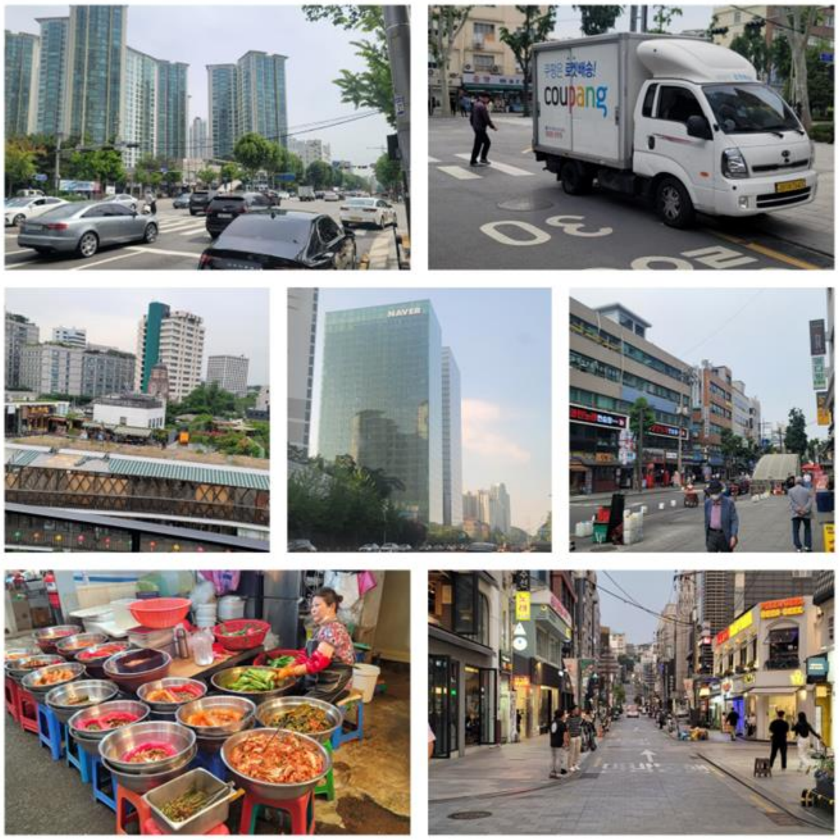
I remember many years ago, one of my high school teachers asked what percent of the class had ever been abroad. Less than half the students raised their hands. Even more surprisingly, a significant number had never even left the state. This is reflected in America's national statistics too – with Pew Research finding that ~27% of Americans had never left the country (LINK). Another study found over 50% don't own a valid passport and ~11% had never even left the state they were born in (LINK).

Granted America's a big place, lives are busy, and there's already a lot to experience within its borders. But I always believed that traveling internationally and getting to know cultures vastly different than your own brings the world closer. Especially in today's geopolitically tenuous world, it's refreshing to have a reminder that people on the other side of the globe generally have the same basic concerns and problems as yourself – regardless of religion, income, or location. It's just that opinions on the best ways to achieve these goals differ.

Human desires remain the same no matter where you're born, and it's this relatability that brings us closer together. And even if you're not running an international business or investing abroad, there's always something new you can learn and apply to your own life, simply by expanding your worldview. So, I encourage everyone to hop on a plane, and just do it.

Life in Seoul

Photos taken May 2023



Sincerely,

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