Bristlemoon Global Fund

BRISTLEMOON CAPITAL

Quarterly Report

September 2024

Unit Price[1]: $1.068

The Bristlemoon Global Fund returned 6.8 percent for the September 2024 quarter, with a 7.4 percent return for the month of September 2024, net of fees. Note that these returns are for Class A units; Class B (seed class) investors will have slightly different returns due to the lower fees, so please check your unitholder statement. As an aside, we still have some capacity available in our Class B (seed class) units which we will be closing to new applications by year end.

While the Fund has got off to a good start, we remind our investors that our concentrated, high conviction approach to stock picking will naturally introduce volatility into the Fund's return profile. It will not always be smooth sailing, and there may be months, quarters or even years where the market disagrees with our views.

However, volatility is the price of admission to the attractive returns that consistent, high-conviction stock picking can generate. We encourage our investors to adopt a long-term mindset that can provide the staying power that's needed when markets inevitably get choppy. It helps knowing that by being invested in the Fund, you become a fractional owner in a set of wonderful businesses that should compound their earnings at healthy rates in the years to come.

At this early juncture in the Fund's journey, investors and prospective clients are looking for clues to gauge our ability to invest their precious capital. The most relied upon heuristic for assessing an investment manager's aptitude is arguably their investing track record.

Performance (%) September 2024	
Net return	7.4

1) Applicable to Class A Units. Class B Unit Price is $1.073

Portfolio Exposure (%) (as at 30 September 2024)	% of NAV
Long	108.1
Short	(2.3)
Net exposure	105.8
Number of long positions	15
Number of short positions	4

Top 5 Long Positions (as at 30 September 2024)	(Alphabetical order)
AppLovin	
Meta Platforms	
PAR Technology Corporation	
Pinduoduo	
Tencent	

Fund Returns (Net)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
2024							(1.1)	0.6	7.4			

Disclaimer

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Our track record, with the Fund having officially launched on 1 July 2024, is veritably short. While our returns so far have been pleasing, it is worth us pointing out that shorter investing track records can be corrupted by the vagaries of luck.

Every investment outcome is a function of both skill and luck. Because of this, investing is unlike almost every other profession. Roger Federer didn't get lucky when he won his 20th Grand Slam. The dentist didn't get lucky when they successfully completed a root canal procedure on a patient. Investing, on the other hand, is a discipline where the investment returns of a novice investor, due to luck, can trounce the performance of a skilled practitioner who has decades of experience under their belt. In fact, if you had enough monkeys throwing darts at a sheet of stock tickers for their stock selection process, sooner or later one of them would produce a string of investing returns that would make Warren Buffett blush with envy.

What this means is that the distorting influence of luck can degrade the quality of signal derived from an investor's historical portfolio performance, and this is especially so over shorter periods of time. Strong investment performance is no guarantee of there being a robust investment process sitting behind those decisions. It's possible for stellar investment results to come from a poor investment process (i.e., dumb luck), and conversely, for bad investment outcomes to occur despite a good investment process (i.e., bad luck). It is thus important for investors to focus less on short-term fluctuations in the portfolio, and more so on what the fund manager can control: their investment process. As it relates to Bristlemoon, this involves the analytical work we undertake on our investments, our portfolio sizing decisions, risk management parameters, and how we react when we're wrong. We have included a writeup below on one of our portfolio holdings as a way to demonstrate our analytical capabilities and position sizing considerations.

It would be disingenuous for us to claim that our first quarter didn't benefit from a dose of good luck. Since the inception of the Fund, we have owned two Chinese internet companies: Tencent (HK: 700) and Alibaba (HK: 9988). They were purchased on the basis of being difficult-to-replicate businesses with growing earnings profiles, and they were exceptionally cheap. Alibaba, for example, traded on an 8x P/E, with nearly 30% of its market capitalisation as net cash while buying back its stock. We also later initiated a position in Pinduoduo (Nasdaq: PDD) following a 30% share price decline after the company's Q2 2024 earnings result on the basis of it being a high growth, disruptive business that was phenomenally cheap (30% of its market capitalisation was in net cash, and on our estimates, it was trading at just 4.5x FY26 earnings when netting out the cash on its balance sheet).

However, these stocks have been cheap for a while now. If our Fund had launched in July 2023, those investments would not have worked out. However, we launched the Fund in July 2024 and got lucky to the extent that the Chinese government decided to stimulate their economy in September 2024. This is not to say that we didn't know these companies well; we have followed them for years and done deep fundamental work on these businesses. It is also not to say that we didn't contemplate some stimulus response. In fact, we viewed there as being an increasing likelihood that China would need to stimulate its economy and with the U.S. Federal Reserve beginning its rate cutting cycle, it gave the Chinese government cover to provide monetary stimulus without putting unwanted pressure on the yuan.

We expected to profit from our China investments as the earnings of these businesses compounded, with the potential kicker of multiple expansion. Rather, a great deal of multiple expansion occurred in the span of a few weeks off the back of the stimulus-fuelled momentum in China stocks. We got lucky to the extent that 1) the stimulus measures were more aggressive than what we had envisioned; and 2) they were announced relatively soon after our Fund launched.

While there was some luck involved which we feel is appropriate to acknowledge to investors, it was not the sole contributor to our performance in the quarter. We made some portfolio adjustments, choosing to add to our China exposure immediately after the initial monetary stimulus measures were announced. We shifted the composition of our China exposure more towards quality over cheapness (i.e., Pinduoduo over Alibaba). We also refrained from selling our positions prematurely, letting our winners run during the breathtaking rally. We have since trimmed the positions in our China investments, taking some profits to reduce our China weighting. Lastly, our largest performance contributor in the quarter was a U.S. stock, AppLovin (Nasdaq: APP), which we discuss below, as well as a healthy mix of our performance coming from U.S. companies on both the long and short side. It wasn't a case of the China rally being the sole reason why we performed well in the quarter.

It is worth putting this bluntly: our first quarter numbers are close to meaningless when trying to assess our competence and credibility as an investment manager. If we had been up 20%, we would probably be lauded as great investors. If we had been down 20%, people would have laughed us out of the room as phonies and charlatans who have no right to be managing other people's money. This is why it's critical for investors to focus on our investment process and the quality of our investing decisions, not just whether a single quarter is good, or not.

Over longer time frames the stock price typically tracks the fundamental performance of a company, with the impact of luck fading over longer holding periods. Bristlemoon seeks to underwrite investments over a multi-year time horizon. We are banking on our ability to assess the earnings power of businesses three to five years in the future better than what the market can. We don't think we have any meaningful edge in accurately predicting next quarter's earnings for a company. That's not our game.

Our investment process involves deep diligence on companies in order to really understand what we own, and to build conviction in our investment holdings. It should be noted that there are some companies – more specifically, those that are particularly complex and opaque – where we are unable to build a sufficient understanding of the business. We rule these businesses out and move on to easier opportunities. There are no extra marks awarded for difficulty in the stock market.

What we are seeking to do is get into a customer's shoes and understand the business from their perspective. How does the business make money? What is the nature of its advantage against competitors? Does the business receive love and praise from its customers? These are amongst the many questions we attempt to answer as we analyse a company. We then estimate the future earnings power of the business. We are seeking out companies with mispriced future earnings streams. We want to pay a sensible price for the earnings the business is likely to generate, taking into account the growth rate of those earnings, the sustainability of that growth, and the conviction we can build in that growth profile transpiring.

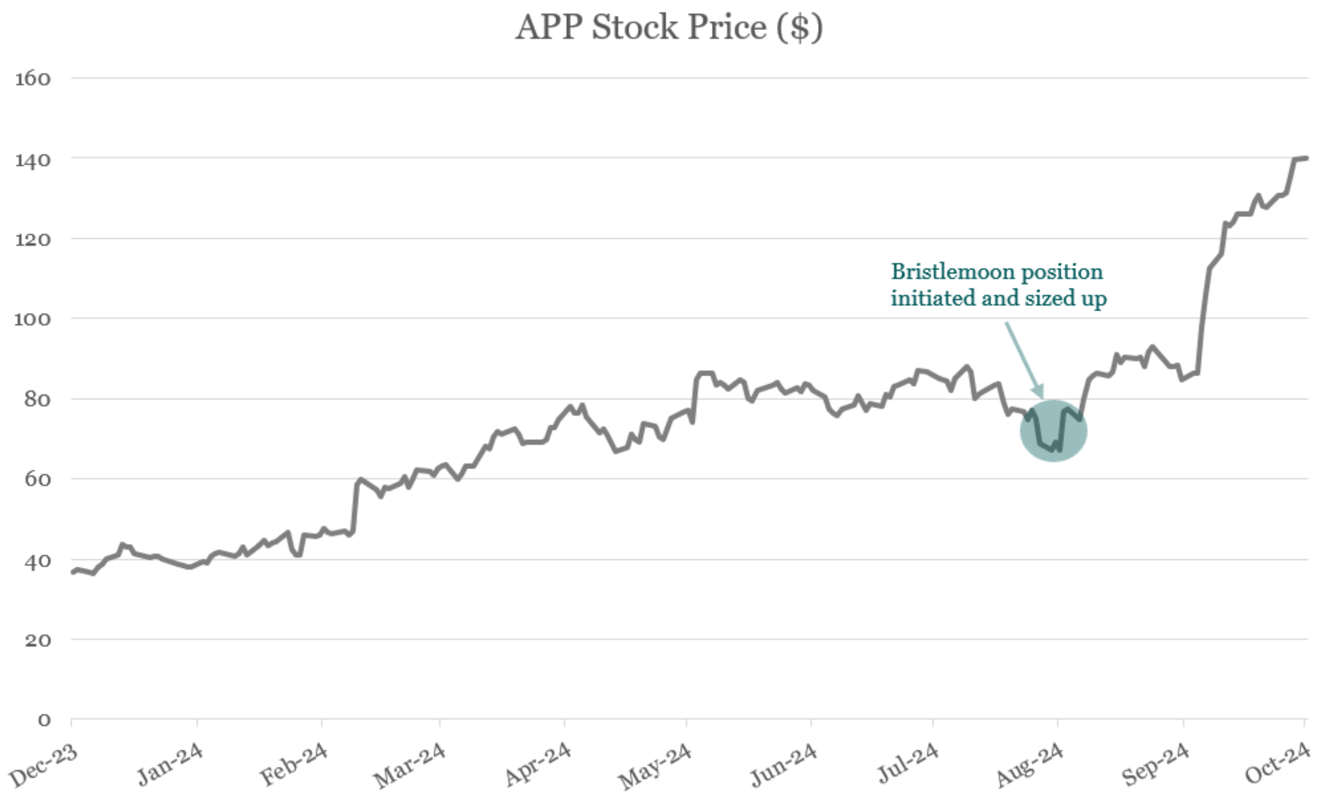
We plan to use our investor letters to provide incremental insights into our portfolio holdings and investment process, rather than quarterly macroeconomic commentary. We don't think we have anything particularly additive to say as it relates to the macro and there exists already a field of fantastic authors and commentators who provide astute economic analysis. But with that said, it would be remiss of us to not mention the stock market volatility in the quarter and how we navigated those market gyrations. There was heightened volatility that resulted from fears of the yen carry trade unwinding in early August, the U.S. Federal Reserve cutting interest rates by 50 basis points on September 18th (the first such cut in interest rates such March 2020), and more recently the Chinese government taking bold measures to stimulate its economy.

During August we ramped up our short portfolio to protect against the risk of further fallout from the yen carry trade unwinding. This was a highly uncertain period where there was a non-zero risk of a left-tail event unfolding for markets. The VIX, dubbed the fear gauge by Wall Street pundits, spiked to 65 in early August, a level not witnessed since the depths of the pandemic. A number of our shorts fell by more than 20% which provided some cover from the fallout (one of those shorts, National Vision Holdings (Nasdaq: EYE), has halved since we published our writeup on the company). But just as quickly as the crisis arrived, markets were quick to stabilise and soon began to recover. With the probability of a catastrophic market crash diminishing, we chose to cover the majority of our shorts. This proved fortuitous as many of these stocks staged a powerful rally in the ensuing weeks.

In September the Chinese government announced monetary stimulus, including People's Bank of China (PBOC) loans to banks to buy stocks and the encouragement of companies to engage in stock buybacks. These urgent and forceful measures were followed by the promise of massive fiscal stimulus, the details of which are still emerging. This stimulus unleashed the animal spirits of investors towards Chinese equities, creating significant momentum in Chinese stocks. These stimulatory measures may finally put a floor under Chinese property prices and boost investor sentiment, but it is unclear if they will sustainably boost consumer sentiment nor fix any of the structural issues that plague the Chinese economy such as an ageing and declining population, lack of social safety nets, high youth unemployment, and structural oversupply of property. Nevertheless, despite a vigorous rally in China stocks since the stimulus was announced, these stocks were rising from depressed valuations, suggesting that the market rally could continue. However, the sheer verticality of the rally in Chinese equities won't go on forever, and the risk of a correction is rising.

For this quarterly letter we wanted to share our investment thesis on one of the Fund's top five largest investments: AppLovin Corporation (Nasdaq: APP). The stock has been a solid performer, rising more than 70% in the two months since we purchased the stock.

We initiated a small position in AppLovin in late July 2024 when the stock was trading at a low-20s P/E – a steal for a company with a 30% earnings per share future growth profile. However, we were reluctant to size up the position due to concerns we had around the company's ability to sustain its incredible growth streak. This was especially so as APP began to lap the rollout of its AXON 2.0 release, an upgrade to its ad targeting algorithm that precipitated a step function change in the company's growth profile. However, after reporting its Q2 2024 earnings result, it was clear that the company was able to sustain this phenomenal growth, growing its software revenues and earnings by 75% year-over-year and 91% year-over-year, respectively. The stock inexplicably sold off to a less than 20x P/E despite issuing strong guidance for Q3, and we took this opportunity to significantly size up our investment holding, making it an 8% position.



Source: Bristlemoon Capital; Bloomberg

We do not intend to share a detailed stock writeup in every quarterly letter, but felt it was appropriate to do so in our inaugural quarterly letter to showcase the sort of analysis we undertake on our investments. We would note that the bulk of our ongoing investment commentary is viewable via the Bristlemoon newsletter, which can be found at www.bristlemoonresearch.com. Please enjoy our writeup on AppLovin.

AppLovin Corporation (Nasdaq: APP)

AppLovin Corporation (Nasdaq: APP) is a quality business that has experienced rapid growth: its revenues have more than doubled over the past three years, growing at a 31.3% annual rate. However, nestled within the company is a software business that has increased its revenues from $207 million in 2020 to $1.8 billion in 2023, an 8.9x increase, which equates to a phenomenal 107% annual growth rate. Below we break down AppLovin's business and look at why the business is one of the Fund's top holdings.

AppLovin is a leading advertising network and mediation provider for mobile apps. It is perhaps best to use an example to illustrate what APP does. Let's say you are playing a mobile game such as Candy Crush. As you progress through the various levels of the game you are intermittently shown ads. These could be static or video banner ads, playable interstitial ads (i.e., full screen ads where you can sample the gameplay of another game), or rewarded ads (where you get an in-app reward for watching the ad). AppLovin is the intermediary that connects advertisers (primarily game publishers, but also non-gaming advertisers) with in-game ad slots (i.e., the in-game moments where ads can be shown to gamers).

APP, via AI-powered ad targeting, shows the right ad to the right person at the right time, with the goal of maximising the chances that the user will convert (i.e., click on the ad and download the advertised game).

Business overview

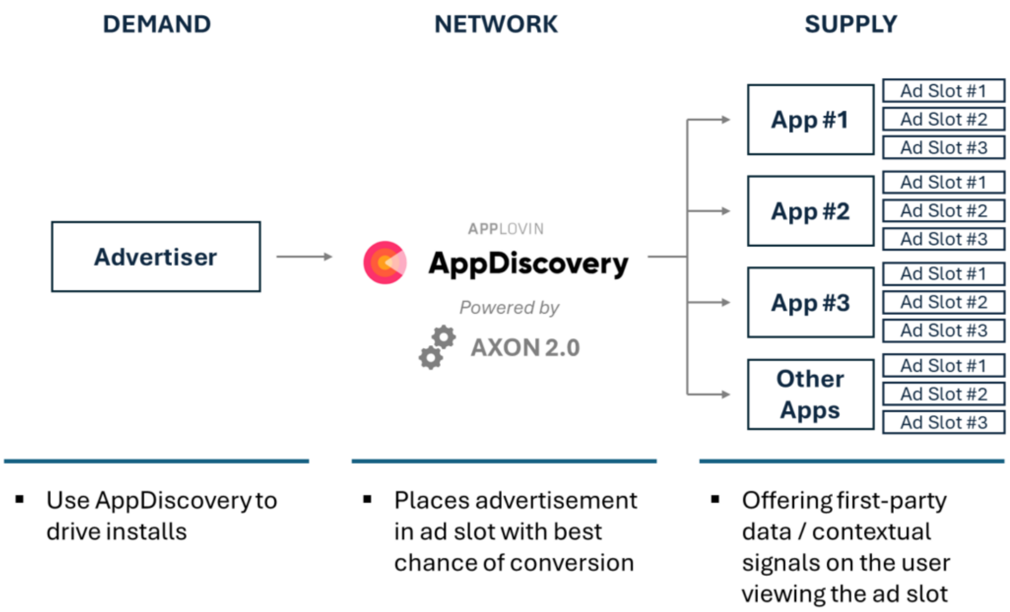
AppLovin has two key businesses:

1) Software Platform (i.e., the ad tech business discussed above) which enables advertisers (i.e., app developers), via AI-powered advertising solutions, to acquire users for their apps. It also provides solutions to publishers of apps to monetise their ad inventory. APP's platform reaches 1.4 billion users every day, and the Software Platform segment contributes 56% of company revenue and 85% of EBITDA.
2) Apps (i.e., the mobile gaming business) is a portfolio of more than 100 mobile games primarily in the casual and hypercasual genres. APP initially acquired these mobile game publishers as a means to gather first-party data to feed its ad-tech algorithms, but since acquiring MoPub from Twitter in early 2022, the company has de-emphasised this segment. The Apps segment is a stable contributor to earnings but it's a business we believe APP would sell if it received the right price. Apps comprises the remaining 44% of company revenue and 15% of EBITDA.

APP's Software Platform is the main driver of business value for the company and consists of a number of ad tech tools which we will explore below.

AppDiscovery

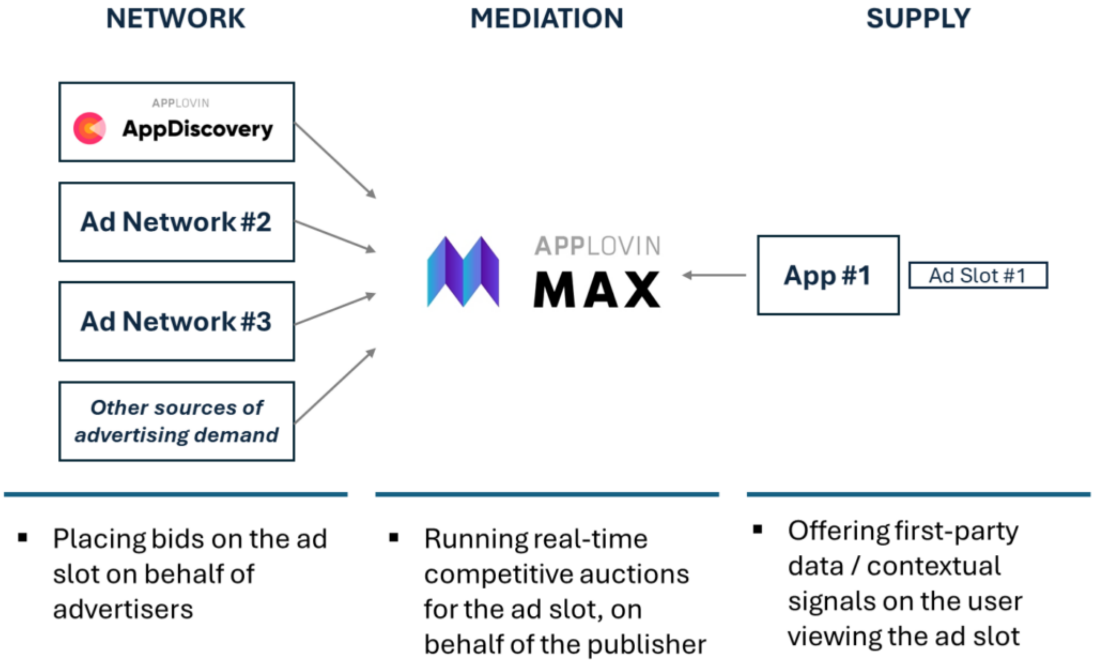
AppLovin's AppDiscovery product, which comprises around 65-70% of the company's software revenues, is a mobile ad network utilised by advertisers, mostly mobile game publishers, to drive installs for their games and thus grow their user bases. Below we can observe how AppDiscovery directs advertising demand to the advertising inventory (i.e., ad slots within mobile gaming apps) that has the highest chance of conversion.



Source: Naavik

<u>MAX</u>

MAX, which represents around 20-25% of software revenues, is a mediation platform for app publishers. What does this mean? Well, mobile apps can monetise in two ways: 1) in-app purchases; and 2) in-app advertising. Mediation is focused on the latter, helping game publishers monetise their in-app inventory. A mediation platform such as MAX acts as a market-marker for ad placements, dutifully connecting ad demand (i.e., advertisers) with ad supply (i.e., game publishers with ad slots in their games where ads can be inserted):



Source: Naavik

The mechanics behind a mediation platform like MAX are as follows:

- An app developer that wants to monetise their in-app inventory will integrate a mediation software development kit (SDK) into their app. This will allow the app to send bid requests to advertising partners when an impression is available, and will handle the auction process, ad placement, reporting, and yield optimisation functions. Notably, app developers typically only use one mediation provider, allowing them to interface with multiple ad networks via a single mediation SDK. This is important as it reduces the latency that comes with multiple SDK integrations and improves yield optimisation by ingesting bids from multiple ad networks.
- An advertiser (typically also a mobile app developer) that wants to run an app install ad campaign will integrate with one or more ad networks (e.g., such as APP's AppDiscovery) and then buy ad impressions from mediation partners. These purchases happen via a real-time auction.
- APP's MAX platform benefits from network effects: the more ad networks that integrate into MAX's mediation platform, the more bids that can be made for an ad slot in the auction. This maximises the chance of a better price being received by the publisher who is auctioning off that ad slot, thus attracting more publishers to MAX. More publishers lead to more inventory that advertisers can bid on, drawing more advertisers to the platform in a virtuous cycle.

- Furthermore, it can be an involved undertaking from an engineering standpoint to change mediation providers, creating switching costs. Additionally, publishers grow accustomed to the interface of a mediation provider that creates further friction when switching providers, another form of lock-in to a mediation platform.
- App install advertising is arguably the most performance-driven segment of the advertising world: app install budgets are uncapped, with advertisers continuing to spend so long as the return on ad spend (ROAS) exceeds their target. Put another way, a mobile gaming advertiser will only curtail their spend if the ROAS falls below their target level. This means that app install campaigns tend to be "always on", with advertisers shifting spend between various ad networks based on ROAS performance. The corollary here is that app install advertising is not a zero-sum game, but rather improvements in AppLovin's targeting capabilities will attract incremental advertiser dollars and expand the overall market.

<u>How does AppLovin make money?</u>
An ad network such as AppDiscovery does not charge a take rate in the way that typical Demand Side Platforms (DSP) do, but rather is a spread business. This is how it works:

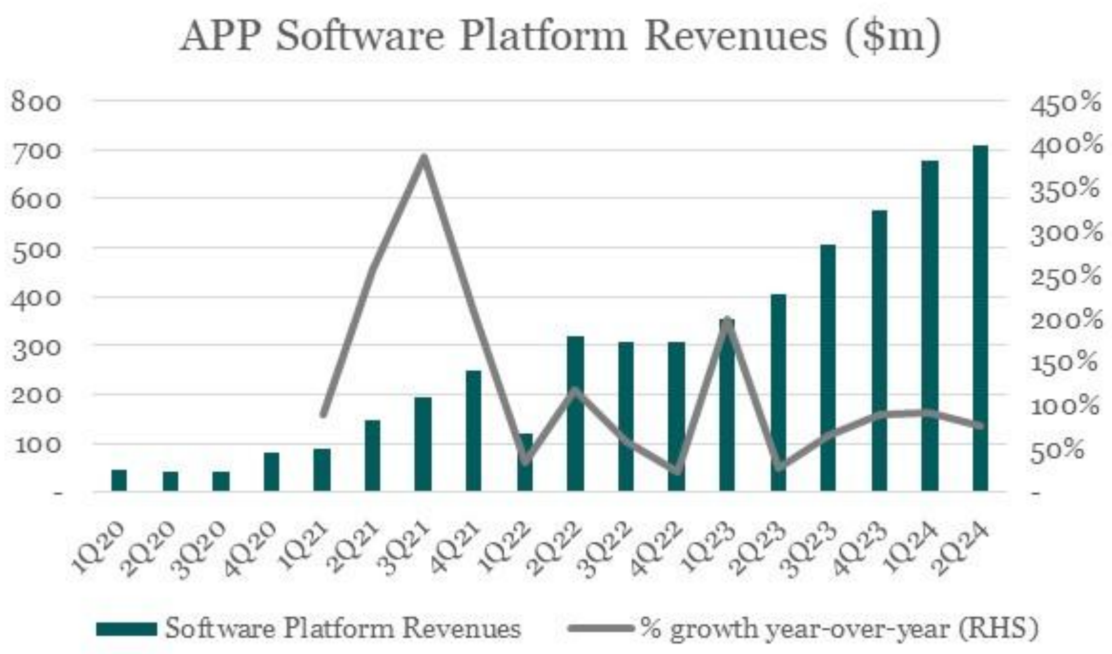
- Publishers get paid based on the number of ad impressions they serve (i.e., on a CPM basis, which refers to the cost per thousand ad impressions shown to users). For example, if they serve an advertiser's ad to 1,000 users, they might receive $1 (in which case the CPM for that ad would be $1). This is irrespective of whether those ad impressions drive successful app install outcomes for the advertiser.
- Advertisers, on the other hand, only want to pay for impressions that successfully deliver an install or some other action.
- An ad network like AppDiscovery will buy ad impressions on behalf of an advertiser running a user acquisition campaign. These ads are bought on a CPM basis, but from the advertiser's perspective they are effectively paying a Cost Per Install (CPI) or some other action. The ad network will spend up to the advertiser's budget buying ad impressions and deliver a number of installs that (hopefully) meets or betters the targeted CPI.
- The ad network's net revenue – that is, the spread – is equal to the advertiser's budget less the CPMs paid to publishers to deliver on that advertiser's campaign objectives. For example, an advertiser allocates a $1,000 budget to AppDiscovery with the objective of 500 installs, for a CPI of $2. If AppDiscovery can deliver 500 installs by purchasing $800 worth of ad impressions, it keeps the $200 as net revenue. If through targeting improvements it can now deliver 500 installs by buying only $700 of ad impressions, AppDiscovery's net revenue increases to $300.

Accordingly, an ad network can increase its spread by reducing the amount of money it pays away to publishers to achieve campaign objectives. Thought of another way, if the ad network becomes more efficient – that is, by showing ads to users that have a higher likelihood of converting – then less ads need to be purchased to achieve that advertiser's app install campaign goals. This means that for a given number of app installs, less dollars end up in publishers' coffers. Ad networks typically keep most of this higher spread, sharing just enough upside with the advertiser to entice them to increase their budget allocation to the network. APP has in the past commented that the average industry spread is 20-25% of ad spend but has refrained from sharing AppDiscovery's spread.

APP's MAX mediation business makes money via a 5% mediation fee for in-app header bidding from non-AppDiscovery ad networks (it does not charge fees for waterfall bidding). From speaking to industry experts, the market is expected to entirely shift over to in-app bidding this year, compared to just half the market using in-app bidding in 2023 (this has been a tailwind for APP given in-app bidding attracts the 5% fee).

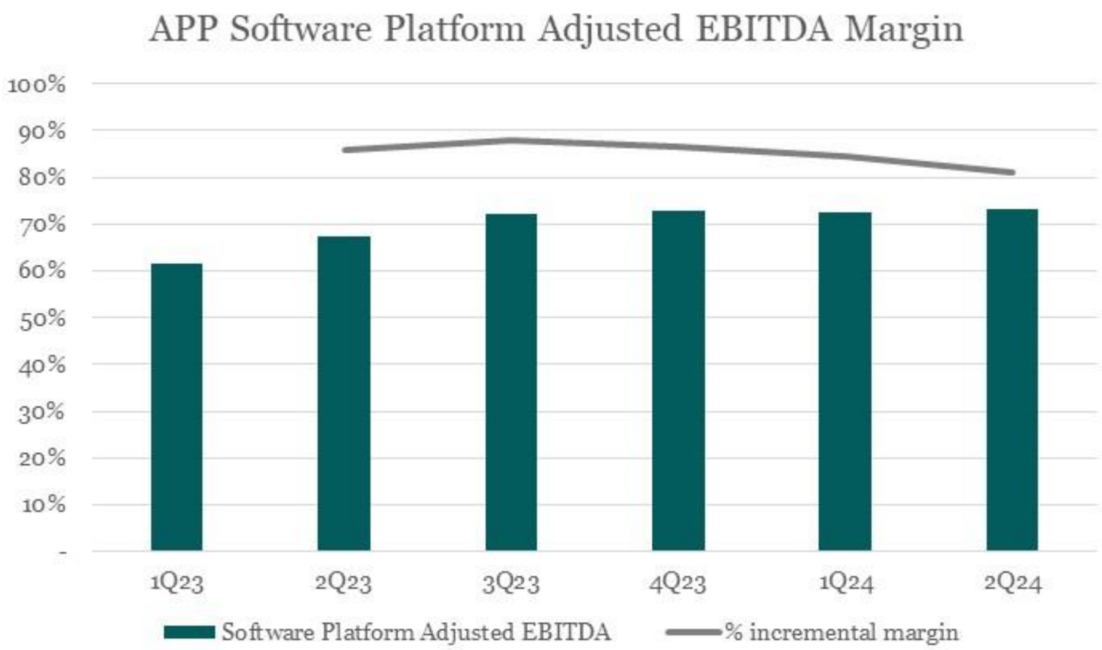
Financial highlights

APP's financial performance has been nothing short of extraordinary. If we home in on the company's software segment, we can see that Software Platform revenues grew at a 107% annual rate between FY20 and FY23. This wasn't off a small base, either. The software business was doing over a billion dollars of revenue in FY22 yet still managed to grow by 75% year-over-year in FY23, adding $793 million of incremental revenue dollars. This is the equivalent of adding the entire revenue base of an Australian business like CAR Group Limited, the owner of carsales.com, in a single year!



Source: Bristlemoon Capital; Company filings

Even more impressive is how profitable this growth is. Over the last year, for each dollar of incremental software revenue AppLovin generated, around 85 cents dropped through as profit. The Software Platform business boasts 73% adjusted EBITDA margins, which can increase further to the extent that the business continues to scale its topline. There are few companies in the world that are as profitable as AppLovin is.



Source: Bristlemoon Capital; Company filings

The enormous financial success of AppDiscovery has been driven by AXON, the AI/machine learning (ML) tool that powers AppDiscovery. AXON 1.0 was launched in late 2020. It was an ML model that drove significant growth in APP's Software Platform revenues. Our understanding is that AXON 1.0 was useful for mobile gaming but less extensible to non-gaming ad markets.

AXON 2.0 was launched in mid-2023 and similarly drove a step function increase in growth for AppDiscovery, even off a much larger base of revenue dollars. AXON 2.0 is a neural network/deep learning model that utilises recent AI breakthroughs to further improve ad targeting beyond what was possible with AXON 1.0. Notably, AXON 2.0 is better set up to be used not just in mobile gaming, but in other verticals such as connected TV (CTV) and e-commerce. This has implications for APP's total addressable market (TAM), which we believe could expand by more than 3x, from sub-$30 billion for mobile gaming app installs to over $100 billion when including CTV and retail media. If we were to take the c.$7 billion of gross ad spend for AppDiscovery, it equates to only a 7% penetration rate of this expanded TAM, signalling headroom for further growth.

AXON 2.0's almost magic-like ability to turbocharge AppLovin's growth can be put down to smart AI-talent being combined with an industry-leading data set. To replicate APP's moat would require not just finding talented software engineers, but rebuilding the data trove APP obtains via its MAX mediation platform, which has around 60% share of mediation SDKs.

MAX's dominance in the mediation space confers a number of subtle advantages that are extremely difficult to replicate. MAX is able to observe mediation data in real-time such as the bid amounts of each ad network as well as the price at which ads are clearing in the auction. Given that MAX commands approximately 60% share of mediation SDKs, it is privy to twice the number of auctions as the next largest competitor, Unity's LevelPlay, which has 30% share of the mediation market. This allows MAX to observe twice the number of bids. Advertisers also share data with APP, and they likely only do this because MAX is a scaled player.

Why is this mediation data so valuable? Because following Apple's ATT changes, which deprecated the IDFA, advertisers lost access to device-level events stream data that could allow them to target the highest LTV users with impressive accuracy. Prior to Apple's changes, advertisers could direct their ad dollars at users that were known to be big in-game spenders (referred to as "whale hunting"). In the current post-ATT paradigm, advertisers no longer have access to that data (this was very damaging to their targeting capabilities and user acquisition unit economics). Advertisers had to shift from deterministic ad targeting to a probabilistic methodology that uses other signals to inform an advertiser's bid amounts.

This mediation data is fed into the AXON machine learning algorithm, allowing AppDiscovery to deliver ROAS outcomes at a scale that other user acquisition tools struggle to match. In this sense, APP is using AppDiscovery to monetise the valuable data it gleans via its MAX mediation activities. The corollary of this is that if a competitor were to want to compete against APP's AppDiscovery business, they would need to build up mediation scale, a prospect that would be incredibly difficult at this stage due to the network effects and switching costs.

Much like other ad buying and targeting tools such as Google's Performance Max and Meta's Advantage+, AXON 2.0 is a black box. The company is extremely vague and secretive about its workings. This creates an element of trust that is necessary when trying to underwrite the future growth trajectory of the business, a proposition that while uncomfortable, is made more palatable by APP management's stellar execution.

We met APP Founder and CEO Adam Foroughi a number of years ago in San Francisco and have spoken with former AppLovin employees. From these discussions, it is clear that Foroughi is a highly competent and driven leader who has assembled a high-performing team. The company has a hard-charging, no-nonsense culture that is sometimes described as brutal, but also rewarding by being around A-grade individuals who are similarly putting in the hard yards.

We continue to like the path ahead for APP given the opportunity for incremental improvements to AXON's targeting capabilities which should drive a further uplift in ad revenues, as well as the potential to expand into new verticals such as e-commerce and CTV. Despite more than doubling from the August 2024 lows, APP still trades on just 36x earnings. With the company targeting 20-30% growth for its ad network business over a multi-year period, the stock does not appear expensive.

While we have only provided a partial look at our analysis on APP, we may do a full writeup on the company at some point in the future which will be accessible via www.bristlemoonresearch.com. We want to take this opportunity to thank our early investors for their trust and support. We are deeply grateful for this and hope to serve you well for years to come.

Kind regards,

Bristlemoon Capital