BVP Just Released State of the Cloud 2024! Here Are Some Highlights…

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Key Takeaways

- Our partner, Bessemer Venture Partners, recently published the State of the Cloud report for 2024. This year, AI is the cornerstone of the entire report, signaling its importance in the cloud computing industry.
- Foundation models dominate the AI model market, capturing more than 60% of total venture capital dollars recently, with smaller models gaining prominence and novel architectures emerging.
- Vertical AI applications are targeting high-cost, repetitive language-based tasks in various industries, representing a significant market opportunity that dwarfs the current size of the software industry.

At WisdomTree, we work with Bessemer Venture Partners (BVP) on our cloud computing strategy. Twice a year, BVP looks at the business models and revenue exposures of a swath of software companies, seeking to ensure that the exposure within the BVP Nasdaq Emerging Cloud Index is keeping up with the Software-as-a-Service (SaaS) space.

State of the Cloud

For those following developments across the SaaS space of cloud computing, BVP puts out an annual research piece—their *State of the Cloud* report—that aims to give perspective on what they are seeing as the most important drivers within this business model.

On June 20, 2024, BVP released its 2024 version of the report. What's immediately clear is that, while artificial intelligence (AI) was a big topic in 2023's report, AI is the cornerstone of the entire report in 2024.

The subtitle of the report was even, "The Legacy Cloud Is Dead—Long Live AI Cloud."

Valuation: AI Doesn't Cancel Out the Macro in the SaaS Space

The cloud computing megatrend has shown us a rather large amount of volatility in total return experiences over a short period. The BVP Nasdaq Emerging Cloud Index has only been live since 2018.

- Many can think of the excitement of the cloud business model catching fire during 2020. As much of the world was forced to work from home and use software for many more activities, Zoom Video Communications was emblematic of a demand pull forward, with multiple quarterly results announcements featuring year-over-year revenue growth of greater than 300%.[1]
- 2021 saw the momentum continue in certain cases, but the key variable to watch then was the fact of the massive money printing and zero interest rate policy really catching hold across the broader economy.
- 2022 and 2023 saw rapidly rising interest rates and an overall tough period, performance-wise, for many of these same companies that delivered remarkable returns in 2020 and 2021. Valuations had appreciated so much in the environment of zero interest rates and money printing, that some sort of correction was inevitable. When markets began expecting interest rate cuts in late 2023, many of these SaaS companies saw their share prices respond positively. Notably, a higher interest rate is something of a gravitational force on valuation, pulling in a downward direction.
- 2023 and the first half of 2024 were also driven by some of the world's largest companies delivering some of the stock market's best performance. Most pure-play SaaS companies are nowhere close to the likes of Nvidia, Microsoft, Alphabet, Apple or Meta in market capitalization size.

Many are disappointed in the recent, 2024 performance of SaaS companies. There is a so much attention being showered on Nvidia, and since no company's results are really comparable to its history-making performance, there is a bit of disappointment regarding every dollar that is focused elsewhere. This is further compounded by how SaaS companies rallied on thoughts of rate cuts in November and December 2023, and then were faced with a months-long period of adjustment back to the slower reality of rate cuts.

BVP starts *State of the Cloud 2024* by noting that the valuations we are seeing in SaaS companies, on an enterprise value to forward sales basis, are quite close to historical averages. What we experienced in 2020 and 2021 in terms of higher valuations ruined our forward-looking expectations in terms of contrast.

One thing we keep in mind is that the constituents of the BVP Nasdaq Emerging Cloud Index are focused on providing SaaS to enterprise customers. Enterprise customers tend to make purchasing decisions more slowly—and the market may have been distorted during the pandemic where they may have needed to purchase certain software services in order to keep the lights on. In our opinion, the story of businesses using software to gain efficiencies is alive and well, and AI represents an enhancement, meaning that we expect that software will be able to do even more things in the future.

However, if interest rates are not at or near record lows, it will be difficult to see EV/forward sales multiples going back to levels of 15 or 16 times anytime soon.[2]

The 5 Trends Defining AI Cloud in 2024

The bulk of the piece, however, was not about valuation, but rather about BVP's five trends defining the AI cloud in 2024:

- Big tech's battle over AI foundation models
- AI makes us all 10 times developers
- The rise of multimodal models and AI agents
- Vertical AI dwarfs legacy vertical SaaS
- Consumer cloud is back from the dead

We summarize each in turn.

Big Tech's Battle over AI Foundation Models

Many might have heard "data is the new oil," but BVP writes that "foundation models are the new oil" that will fuel downstream AI applications and tooling. In 2023, it was also true that foundational model companies captured more than 60% of the total venture capital dollars.[3]

- Foundational models captured about $23 billion in funding, whereas applications captured about $11 billion and technology & tools captured $3.9 billion.
- The valuation of foundational models first was more than $124 billion. Application companies were about $57 billion while technology & tools companies were valued at $21.30 billion.

It's also notable that many of the largest technology companies—Microsoft, Amazon, Alphabet, Nvidia, Meta, Apple, Salesforce and Oracle—have significant stakes in many of the foundational model companies. We have also seen:

- Base models (Gemini, Claude, GPT-4, to name a few) improving rapidly.
- The battle between open and closed source rages on.
- Small models, meaning those with far fewer than hundreds of billions of parameters, are gaining in prominence.
- Novel architectures are sprouting up, beyond the transformer.

BVP sets up a thought experiment, having the reader consider the oil market and the potato chip market as a way to think of what the AI model market may one day look like. The oil market—even though oil is a commodity—is dominated by a smaller number of quite large companies, and it is difficult for a brand new company to succeed at a high level on a sudden basis. The potato chip market is changing all the time—tapping into the right flavor at the right moment could very well lead to viral success. The easier prediction, based on what we know today, is that the largest companies continue their prominence in the AI foundational model market (smaller number of big players provide majority of the models).

AI Makes Us All 10 Times Developers

In 2023, we saw widespread adoption of code copilots, and it's possible that the role of software developer could face some of the biggest changes of any job due to AI.

Github's incumbent Copilot, powered by GPT-4 and Codex models, is getting close to 14 million installations. There are a lot of companies focusing on different aspects of writing software code with different types of attributes and allowing human experts to continually get faster and better.

One of the most interesting forks in the road will be in recognizing the path of how these systems help the most advanced coders and, on the other path, how different systems allow for almost any person to have some at least beginner-level software coding skills.

The Rise of Multimodal Models and AI Agents

When people see the word "multimodal," it can sound complex, but what it really means is giving AI the possibility to approach human capabilities across multiple data ingestion pathways—vision, hearing and speech, to name a few. If AI can ingest information in these ways, it could then augment the human work that is dependent on these senses.

Voice agents have huge potential, in that latency is generally going down and the capabilities of these systems to pick up on such things as tone and emotion or expression are improving every day. It's possible that, with fewer people working, customers may be able to get their questions answered with greater accuracy and greater speed. Systems that can ingest documents and the information contained therein have also been massively improving.

In following the market, it feels like there is a push toward autonomous AI agents. The idea of an agent is really a system that can take on a multi-step process for a user. Taking a trip on an airline is frequently cited as an example, in that one has to recognize many underlying steps and different technology needs all the way through the journey. We don't just hop onto the plane and step off at our final destination. A system that can monitor the progress of a journey and seamlessly arrange different modes of transportation from your home to your hotel would be quite impressive.

Vertical AI Dwarfs Legacy Vertical SaaS

Today, the top 20 U.S. public companies in the vertical SaaS space represent roughly $300 billion in market capitalization, with many of these companies fairly new to the public market. Vertical AI applications are targeting the high-cost, repetitive, language-based tasks that dominate numerous verticals and large sectors of the economy.

The U.S. Bureau of Labor Statistics cites the Business and Professional Services industry at 13% of U.S. gross domestic product (GDP), making this sector alone, which is known to be dominated by repetitive language tasks, about 10 times the size of the software industry.

Copilots, autopilots and AI-enabled services make up three new business models of the vertical AI economy. Notably, copilots work alongside a user, autopilots or agents can complete a task autonomously, and AI-enabled services represent various things that we might have thought of as outsourcing in the past—instead of sending the task to a group of people the task is sent out to software.

Consumer Cloud Is Back from the Dead

Consumer cloud has had a slow decade. BVP puts out their Cloud 100 list each year and only 4% of the cumulative lists going back nine years represented companies with a consumer offering. One can argue that Dropbox was the last exit of a pure consumer cloud company, which was a 2018 initial public offering.

ChatGPT, released in November 2022, has had remarkable consumer uptake and is emblematic of AI's capacity to, at least so far, take on the heavy hitters in the "attention economy." It is still early, but there are signals that consumers are interested in AI applications and in playing with them to see how they might improve their daily lives.

Conclusion: Is AI a Bubble?

At WisdomTree, we are asked this question often, and BVP notes in their conclusion the phrase "reality vs. hype." However, BVP also put in one of our favorite quotes from Roy Amara, an American scientist and futurist:

We tend to overestimate the effect of a technology in the short run and underestimate the effect in the long run.

As we sit in 2024, we find ourselves directly in the mix of the short run. A lot of us might be thinking—AI is getting a lot of headlines, but it doesn't seem to impact ME yet. AI is not yet responding to all of MY emails or helping with MY calendar, for example. However, if we are honest, take the smartphone, which is held by billions of people today. Steve Jobs was presenting on the stage in 2007.[4] For a bit of time, we were debating whether we wanted to type on a glass screen or if we wanted a keyboard. Now, smartphones are virtual keys that unlock an array of services that we are able to access nearly anywhere in the world.

Similar to how we currently don't think—oh wow, that is a smartphone or that person is using a smartphone, there will come a time where AI leaves the headlines and just becomes a part of how we use technology. Our gateway into AI's beneficial impacts will likely be software.

Unless otherwise stated, data source is: The BVP State of the Cloud 2024 Report, publicly available on BVP's Cloud Atlas website.[5]

[1] Source: https://investors.zoom.us/financial-information/quarterly-results

[2] During the zero interest rate, extensive money-printing environment observed in 2020 and 2021, the EV/forward sales multiple on the BVP Nasdaq Emerging Cloud Index eclipsed levels of 15–16 times.

[3] Source: Morgan Stanley, within BVP's 2024 State of the Cloud Report.

[4] Source: Steve Jobs presented the iPhone on 1/9/07. https://en.wikipedia.org/wiki/History_of_the_iPhone#:~:text=On%20January%209%2C%202007%2C%20Steve,applications%20using%20the%20Safari%20engine.

[5]Source: https://www.bvp.com/atlas/state-of-the-cloud-2024#page_top

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