WHY WE'RE BULLISH ON CLOUD COMPUTING

Wisdomtree EU 30 Sep 2019

The Information Technology industry is the largest exposure in the MSCI World Index¹. When combined with the Communications Services sector, companies in these two sectors comprise one quarter of the total market².

Over the past decade, the Information Technology sector has been the top performing sector, returning 306% cumulatively. For context, the next best sector, Consumer Discretionary (term given to goods and services that are considered non-essential by consumers), was 249%. Additionally, the top holding, Microsoft, has eclipsed \$1 trillion in market capitalization, with Apple and Amazon close behind and having eclipsed this milestone as well (just not as of this writing)³.

The fact of the matter is that it is going to be harder and harder for these giant companies to continue to generate the stratospheric returns that led the market higher over the past decade.

For growth-oriented investors, we believe cloud computing represents a compelling alternative to broad tech-sector strategies.

Demystifying the Cloud

cloud computing has become ingrained in nearly every aspect of our lives by fundamentally altering how we consume, process, and share information.

But what exactly is this technology that has transformed our everyday lives?

- **Technical definition:** The "cloud" refers to the aggregation of information online that can be accessed from anywhere, on any device. Cloud companies provide on-demand access to a centralised pool of information technology (IT) resources via a network connection.
- **Real-world application:** Cloud computing allows us to access the same e-mail inbox that we have at our desktop computers from our mobile phones. Our e-mails are stored in the cloud, and not remotely on our computers, allowing access from any location via internet connection.

Although cloud computing already has a significant impact on our daily lives, we believe the industry will eventually overtake the traditional software market.

In the near term, cloud growth is poised to accelerate for two key reasons: 1) cloud



computing is powering technological advancements in areas like artificial intelligence and the internet of things 2) many enterprises and organisations (including the US government) are shifting to a cloud-based workflow.

The Cloud software advantage

Cloud computing is transforming the software industry. Over the last decade, cloud Software-as-a-Service (SaaS) businesses have eclipsed traditional software companies as the new industry standard for deploying and updating software. Cloud-based SaaS companies provide software applications and services via a network connection from a remote location, whereas traditional software is delivered and supported on-premise. This key difference in distribution leads to several distinct fundamental advantages for cloud versus traditional software:

Cloud advantages⁵

- Speed, ease and low cost of implementation cloud software is installed via a network connection; it doesn't require the higher cost of on-premise infrastructure setup and installation.
- Efficient updates upgrades and support are deployed via a network connection, which shifts the burden of software maintenance from the client to the software provider.
- Easily scalable deploying via a network connection allows cloud SaaS businesses to grow as their clients grow, with the ability to expand services to more users or add product enhancements with ease. Client acquisition can happen 24/7; cloud SaaS companies have much lower barriers to entry into foreign markets.

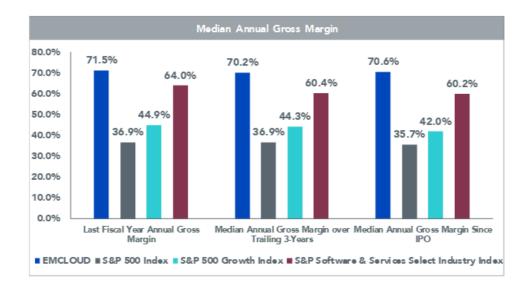
Business model advantages

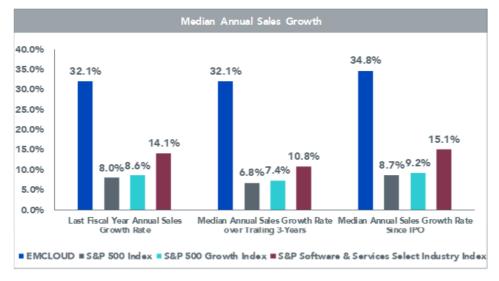
- High recurring revenue cloud SaaS companies employ a subscription-based revenue model with smaller and more frequent transactions, while traditional software businesses rely on a single, large, upfront transaction. This model can result in more predictable, annuity-like revenue streams for cloud software providers.
- High client retention with longer revenue periods cloud software becomes embedded in client workflow, typically resulting in higher switching costs and client retention. Importantly, many clients prefer the pay-as-you-go transaction model, which can lead to longer periods of recurring revenue, as upselling product enhancements does not require an additional sales cycle.
- Lower expenses cloud SaaS companies can have lower research and development costs because they don't need to support multiple types of networking infrastructure at each client location.

In our view, the software and business model advantages of cloud SaaS companies have historically led to better margins, growth, free cash flow and efficiency characteristics as compared to non-cloud software companies.

Figure 1: Cloud companies have demonstrated high gross margins and revenue growth







Sources: WisdomTree, Bessemer Venture Partners, FactSet, S&P Global, as of 31 July 2019. Median growth rates and gross margins are calculated as the median fiscal year metrics for the last fiscal year, the trailing three full fiscal years and all trailing fiscal years since a company's IPO.

BVP Nasdaq Emerging Cloud Index (EMCLOUD): An equally weighted index designed to measure the performance of emerging public companies focuses on delivering cloud-based software to customers. S&P 500 Index: Market capitalization-weighted benchmark of 500 stocks selected by the Standard and Poor's Index Committee designed to represent the performance of the leading industries in the United States economy. S&P 500 Growth Index: A market capitalization-weighted benchmark designed to measure the growth segment of the S&P 500 Index. S&P 500 Software & Services: a market capitalization weighted index that is designed to measure the performance of the Software & Services industry, as defined by the Global Industry Classification Standard.

You cannot invest directly in an Index.

Historical performance is not an indication of future performance and any investments may go down in value.

An exciting new index to specify Emerging Cloud companies

Currently, there is no clear sub-industry definition that one can type into a database and simply find all the publicly listed cloud computing companies. The BVP Nasdaq Emerging Cloud Index (EMCLOUD) represents and approach that is underpinned by the



expertise of Bessemer Venture Partners (BVP), a venture capital firm that has been involved with cloud companies for more than 10 years.

BVP's expertise functions to guide the selection of constituents into the index on a semi-annual basis.

Figure 2: Cloud companies represent a distinctly different exposure vs. a large cap tech Index

	EMCLOUD Company Examples			
	Company	Weight	Description	
Large Cap	Adobe	2.1%	Develops cloud-based software solutions for web and print publishing	
	PayPal	2.1%	Provides cloud-based digital and mobile payments on behalf of consumers and merchants.	
	Salesforce.com	1.7%	Develops on-demand customer relationship management cloud-based software technology.	
	ServiceNow	2.1%	Provides cloud-based services that automate enterprise \ensuremath{IT} operations.	
	Workday	1.9%	Provides cloud-based software applications for finance and human resources management for enterprises.	
	Dropbox	1.7%	Provides cloud-based file backup, sync and sharing solutions.	
d	Zendesk	1.9%	Provides cloud-based software for on-demand customer support.	
Mid Cap	DocuSign	1.7%	Provides cloud-based electronic signature solutions.	
2	Coupa Software	2.5%	Provides cloud-based financial software applications.	
	HubSpot	1.9%	Provides a doud-based marketing and sales software platform.	
Small Cap	Zuora	1.2%	Provides a doud-based subscription billing and management platform.	
	Instructure	1.7%	Provides cloud-based learning management, assessment and performance software aplications for institutions.	
	Carbon Black	2.2%	Provides cloud-based endpoint security solutions.	
	2U	0.3%	Provides cloud-based software for nonprofit colleges and universities to deliver education.	
	Domo	1.6%	Provides cloud-based software for business operations, customer relationship management, human resources, and financial reporting.	





Sources: WisdomTree, Nasdaq, Bessemer Venture Partners, FactSet Weights as of 31 July 2019. Weights subject to change.

Adopting cloud in your portfolio

Cloud adoption is taking place across the broader economy, and we believe investors may want to make the "shift to cloud" in their portfolios. These companies have distinctly different opportunities than the world's largest, most established firms that have led equities higher over the past decade.

Sources

1 WisdomTree, Bloomberg, with data as of 30 August 2019.

2 WisdomTree, Bloomberg, with data as of 30 August 2019.

3 Bloomberg, with performance data measured as of 11 September 2009 to 11 September 2019 and market capitalisation data measured as of 31 August 2019.

4 Bessemer Venture Partners, WisdomTree, FactSet, 31 January 1990 to 30 August 2019.

5 Please note the discussion regarding the growth potential of cloud computing is our opinion and there is no guarantee future high growth of the sector will continue or translate to positive fund performance. Factors inhibiting the growth of the cloud computing sector may include changes in business cycles, world economic growth, technological progress, and government regulation.

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