
THE CLOUD COMPUTING MEGATREND FOR GROWTH AMIDST UNCERTAINTY

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Global markets seem to wait with bated breath for the next Central Bank announcement or Presidential tweet—and that doesn't even touch upon BREXIT or the trials of Italy's government. The fact of the matter is that there are many obvious risks facing investors, and it doesn't appear that these will be receding to the background any time soon.

Our society is betting on data as the new oil

A recent report estimates that the world's data will grow at a compound annual growth rate of 61% between now and 2025, from a level of 33 zettabytes to a level of 175 zettabytes. As a quick aside, one zettabyte equals one trillion gigabytes. In 2025, it is projected that 49% of this data will be stored in the public cloud¹. Therefore, if one believes that the growth of data generation will continue unabated, the growth potential of the cloud should occur, possibly completely independently from any economic growth conditions.

We can see the impact of this already by looking at the top 10 companies of the S&P 500. It is interesting to note:

- The five largest companies by market capitalisation all deal extensively with data. Some even collect data through “free” services, like using Gmail for email or using Facebook to connect with friends and family.
- The five largest companies had a total market capitalisation of more than \$4 trillion. Microsoft was over \$1 trillion by itself. Apple and Amazon of each also eclipsed \$1 trillion in the recent past.

Figure 1: Top 10 companies of the S&P 500.

Company Name	Index Weight	Market Capitalisation (in USD, billions)
Microsoft Corp	4.31%	\$1,018
Apple Inc	3.74%	\$916
Amazon.com Inc	3.05%	\$865
Google*	2.95%	\$799
Facebook Inc	1.80%	\$507
Berkshire Hathaway Inc	1.61%	\$484
JPMorgan Chase & Co	1.45%	\$339
Johnson & Johnson	1.43%	\$337
Visa Inc	1.29%	\$348
Procter & Gamble Co/The	1.24%	\$294
Total for Top 5	15.85%	\$4,106
Total for Top 10	22.87%	\$5,907

Source: Bloomberg, with data as of 23 August 2019. *The Weight for Google represents the combination of the two listings, GOOG and GOOGL.

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

Shifting landscape of how companies and customers deal with data

Over the course of the past fifteen years, the world has completely changed how it feels about this data. There was a time when individuals had to depend solely on their physical hard drives—and possibly backups—to store everything they'd want to store. Music or movies are great examples, in that the world has shifted from physical discs and players to the same content being available on a distributed platform with a login and monthly fee.

Companies have done the same, in that there was once a need to maintain physical infrastructure like servers on premises, but now this is shifting again to distributed, monthly subscription-type services where the data is always there and always accessible through an internet connection.

The world's data, in short, has been moving to the cloud.

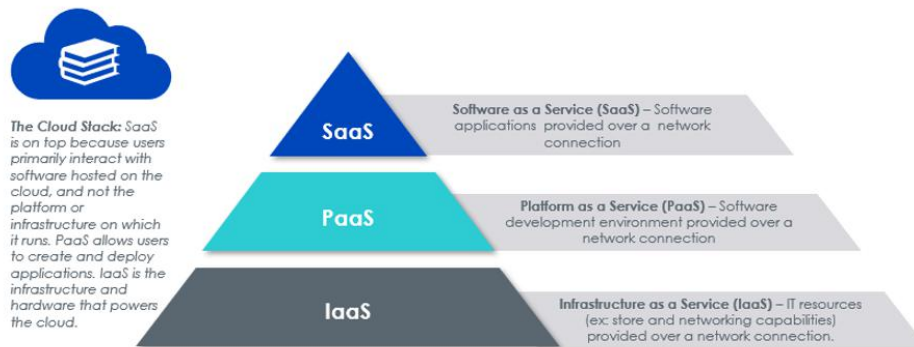
What is the cloud?

Like many terms, "cloud" encapsulates many different types of technology aimed at providing different arrays of services to customers. While the ultimate picture can get quite detailed, broadly speaking, the categories of cloud services would be:

- Software-as-a-Service (SaaS)
- Platform-as-a-Service (PaaS)
- Infrastructure-as-a-Service (IaaS)

The infographic in Figure 2 provides some details on these categories.

Figure 2: Three categories of Cloud Services



Source: WisdomTree.

The cloud benefits the customer AND the provider

On 6 January 2016, Netflix expanded its service to over 130 new countries. This was after a seven-year effort to move from its own traditional data centres onto cloud services provided by Amazon Web Services. If Netflix had attempted to build its own infrastructure in enough locations worldwide to make it feasible to serve 130 countries, the business model may have failed under the weight of such capital intensity. Though this is a very high-profile example, the fact remains that companies of all sizes can use the cloud for their infrastructure needs, and this would allow them to only pay for what they need and to scale quickly if the occasion called for it.

Providers benefit from the recurring revenue and the ultimate stickiness that they see from low churn rates, i.e. customers remaining loyal. There is also the possibility to attain operational leverage, in that revenues have the potential to expand at a faster rate than variable costs once the customer base reaches a certain size.

The economy might be late cycle, but it’s early innings for our data transition

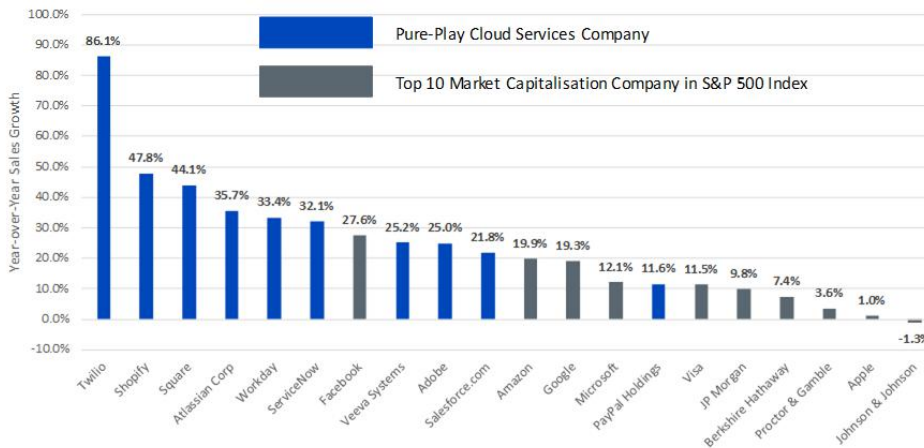
As we enter the Autumn of 2019, global equity markets have been at or near record highs in many instances within the prior 12-months. There are genuine concerns that 1) recessions may be a part of reality in coming years and 2) equity returns in the coming 10 years will be less than the last 10 years.

If the result of discussions led to people considering Google, Amazon, IBM or Microsoft for their cloud services, in our view, the investment opportunity would miss the mark. These are some of the world’s largest, most well-known companies, and they all have diversified business models. Instead, smaller, less well-known firms that are more directly focused on delivering cloud services could represent an interesting, purer play on the growth opportunity that cloud computing could represent.

- Many of the pure-play cloud services companies have exhibited stronger year-over-year revenue growth than the larger companies within the S&P 500, many of which have driven excitement and returns over the past 10 years.

Figure 3: Revenue growth of cloud companies vs. the largest firms in the S&P 500

over 10 years



Source: Bloomberg. Data is measured as of 10 years up to 23 August 2019.

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

Cloud computing could be an interesting megatrend over the next decade

Over the past 10 years, many investors have benefited from exposures to market capitalisation-weighted indices, such as the S&P 500. This tells us that many of the world’s largest companies have tended toward quite strong returns. As these companies have grown, their ability to continue to deliver performance may be challenged. Cloud computing may be an avenue for more specific exposure to technology firms with a different set of growth prospects going into the next decade.

Source

1 ReinseI, David et al. “Data Age 2025: The Digitization of the World from Edge to Core.” IDC. November 2018.

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