Citi Global Wealth Investments

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Top Tech Takeaways: “You Have to Spend to Make Money”

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- After a summer of consolidation, the Nasdaq composite made a fresh record high last week. Market-leading tech shares then fell back as large platform companies reported sharp increases in their investment spending on AI. All five of the “Magnificent 7” firms that reported EPS beat consensus expectations.
- Whether today’s strong investment spending on AI will fully pay off in future profits has been an ongoing concern. Another risk is that the large firms compete more directly with each other than they have in the past.
- High valuations have been a worry for some investors, but valuation has rarely been a performance catalyst for profitable tech firms with solid balance sheets. Instead, shares have fallen and underperformed sharply when profits declined (notable drops were seen in 2000 and 2022). EPS gains for the Mag 7 were 43.3% in 2023. Consensus sees a 28.2% EPS gain in 2024 and 18.3% rise in 2025.

Potential Portfolio Implications

- When one talks about “high equity valuations,” consider that the S&P 500 trades at 21.9 expected EPS but 19.3 excluding the Magnificent 7. Mag 7 firms have very different businesses, but collectively trade at 30x expected EPS with a 16% EPS growth pace over the past decade. Outside the US, the forward P/E is 13.3x. In terms of “rich valuations,” world equity markets are generally a story of a few “haves” and many “have nots.”
- As we wrote in June – just prior to a tech correction – a strategy of holding only the shares of firms who rise to a top-10 market cap within the S&P 500 has a history of underperformance (please see the June 22nd CIO Bulletin). Outperformers of the late 1990s such as Intel, Cisco Systems, IBM, and GE – once thought of as “unstoppable” – have a market value lower today than 25 years ago. Only one of the top 10 largest firms by market cap in the late 1990s is among the world’s largest today (Microsoft).
- With this in mind, today’s largest tech firms have the scale needed to invest and deliver new AI services. They may compete with each other, but this may become a greater threat to smaller software firms who fail to integrate AI with legacy applications. That said, we suspect tech leadership will continue to evolve as AI disrupts the tech status quo.
- Keeping competitive threats, new technology and regulatory issues in mind, we still think it is prudent to own, but carefully manage, concentrated positions in US tech mega-caps.
- “**Big, bad jobs data?**” The US reported just 12,000 new jobs were added in October, a post-pandemic low. However, 512,000 reported they were unable to work due to inclement weather as two major hurricanes stuck in the month. This is about double the October average (see **FIGURE 11**). This impact is a major distortion that will reverse next month, making the data useless for forecasting the future. Of course, it will still make pre-election headlines.

Tech Takeaways – Must Spend to Make Money

With just days left to the US Presidential election, the Nasdaq and Nasdaq 100 made new record highs following a summer consolidation. Shrugging off bipartisan regulatory threats, this was powered by record profits, not political hot air. The early week rise was followed by a round of profit taking on Thursday as investors refocused on the rapid spending increases from the largest tech platform companies to cover costs needed to develop AI services (see **FIGURE 1**). Markets reversed once again on Friday as good corporate news and a hurricane-distorted employment report drove modest declines in bond yields.

Investment spending, competition, disruptive innovation

In offering new AI services, we've long been concerned that several of the so-called "Magnificent 7" – the largest firms with tech-related businesses – might compete more directly with each other than they do today. And of course there are others: OpenAI, the developer of ChatGPT, isn't even a public company.

As the late 1990s tech boom showed, nothing stays the same in tech investing and we would highlight that portfolios need room for more than just the largest gainers of the recent past (see **FIGURE 2** and the June 22nd CIO Bulletin).

Dispersion between winners and losers is usually very wide in dynamic, innovative industries. We suspect that the intense focus on big tech may have driven too wide a performance divergence, however, creating potential opportunities for undiscovered smaller firms. There can be no promises made about individual firm prospects, but history suggest smaller, profitable innovators may be systematically undervalued compared to large firms (see **FIGURE 3**).

FIGURE 1: Top 3 AI cloud providers capital investment spending as % of AI cloud revenue

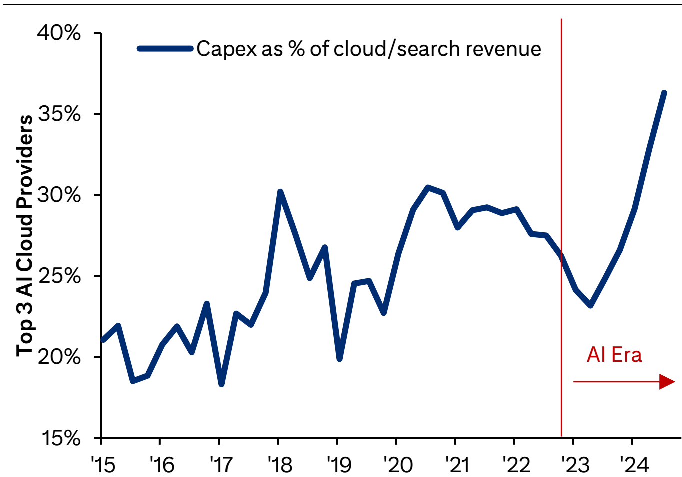
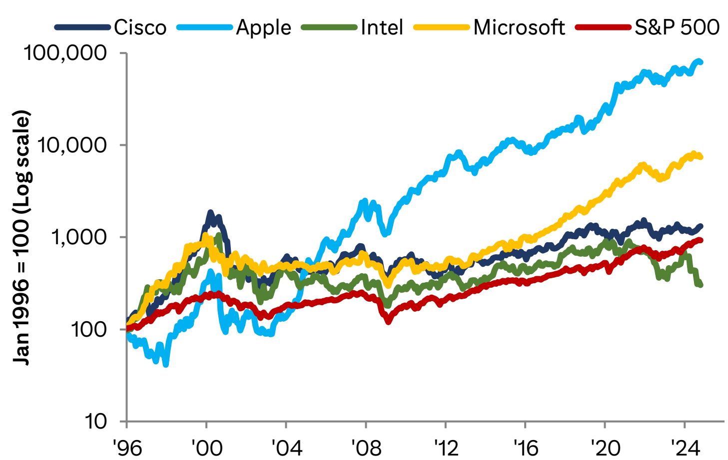
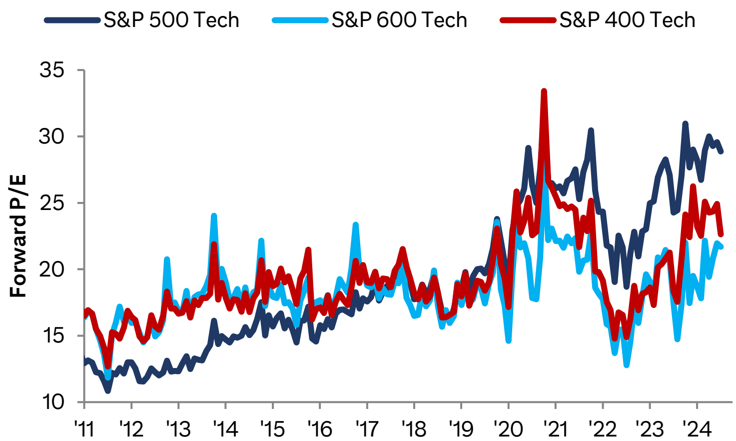


FIGURE 2: The biggest tech stocks of the late 1990s: Apple wasn't one of them



Source: Factset and Bloomberg as of October 31, 2024. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Index returns do not include any expenses, fees or sales charges, which would lower performance. Any company named herein is not a recommendation and is solely being used for illustrative purposes only. **Past performance is no guarantee of future results. Real results may vary.**

FIGURE 3: S&P small, mid, and large cap tech forward P/E



Source: Bloomberg as of October 17, 2024. All forecasts are expressions of opinion and are subject to change without notice and are not intended to be a guarantee of future events. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Index returns do not include any expenses, fees or sales charges, which would lower performance. **Past performance is no guarantee of future results. Real results may vary.**

The Big, Big, Big Tech Week

To say last week was a big one for Tech earnings is an understatement with five of the Magnificent 7 stocks, and many more, reporting their third quarter results. So far, we've heard from 348 of the S&P 500 companies and the aggregated results show firms beating consensus earnings and sales estimates collectively by 7.1% and 1.5%, respectively (see **FIGURE 4**). Zeroing in on Technology, earnings and sales are topping the forecasts by 1.6% and 1.0%, and the sector is expected to generate faster earnings growth than the overall market in 2024-2026 (see **FIGURE 5**).

FIGURE 4: S&P 500 3Q24 earnings scorecard

Sector (GICS)	% Reported	Sales Surprise	Earnings Surprise	Sales Y/Y Growth	Earnings Y/Y Growth
S&P 500	70%	1.50%	7.10%	5.30%	8.80%
Energy	55%	1.90%	4.60%	-4.70%	-20.20%
Materials	75%	0.00%	-2.10%	1.60%	-2.10%
Industrials	81%	-0.30%	8.00%	0.30%	-4.60%
Consumer Discretionary	72%	1.80%	11.80%	6.90%	21.70%
Consumer Staples	63%	0.50%	3.70%	0.80%	4.00%
Health Care	65%	3.30%	8.90%	9.70%	12.70%
Financials	88%	2.20%	9.30%	9.20%	9.20%
Information Technology	54%	1.00%	1.60%	8.50%	10.30%
Communication Services	53%	0.90%	11.50%	9.40%	23.60%
Utilities	52%	-1.30%	5.10%	2.80%	6.40%
Real Estate	84%	1.40%	-0.30%	6.10%	2.00%

FIGURE 5: S&P 500 EPS growth estimates 2024-2026

S&P 500 EPS Growth Estimates			
Sector	**2024E**	**2025E**	**2026E**
Consumer Discretionary	13.2%	13.0%	13.1%
Consumer Staples	3.2%	6.4%	8.2%
Energy	-20.0%	7.5%	16.6%
Financials	11.6%	6.5%	11.0%
Real Estate	4.4%	4.2%	6.2%
Health Care	3.3%	22.2%	9.4%
Industrials	-2.0%	17.5%	13.8%
IT	19.7%	20.7%	16.4%
Materials	-5.6%	16.5%	12.9%
Communication Services	22.7%	14.1%	11.1%
Utilities	14.9%	8.2%	7.8%
S&P 500	**8.9%**	**14.0%**	**12.4%**

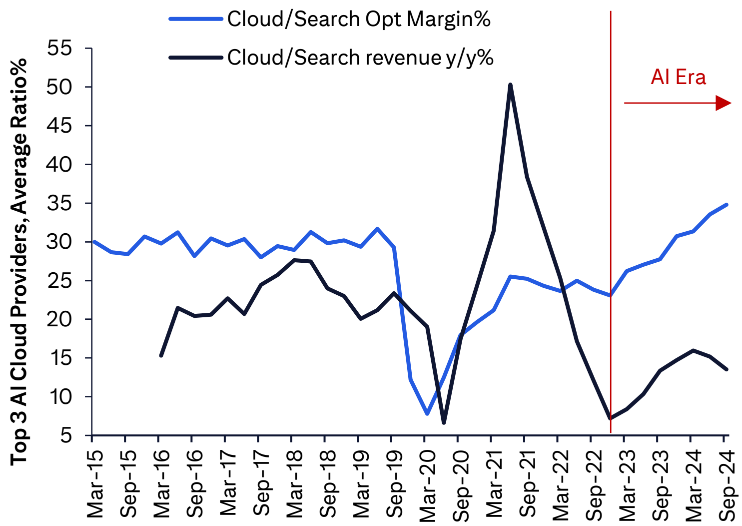
Source: Bloomberg as of October 25, 2024. All forecasts are expressions of opinion and are subject to change without notice and are not intended to be a guarantee of future events. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Index returns do not include any expenses, fees or sales charges, which would lower performance. **Past performance is no guarantee of future results. Real results may vary.**

Rapid growth, but AI chip demand will slow

AI spending plans were in focus, as companies across virtually every industry seek to leverage their data to enhance sales and make productivity improvements in the years ahead. Three of the reporting Mag 7 lie at the center of the cloud computing infrastructure so critical to bring this about. Collectively, these companies, based on their reporting, have capital spending plans totaling $179 billion in 2024 with the prospects of continued growth but likely at a moderating rate in 2025. This should translate into slowing revenue growth of leading AI chip players as a result.

With that said, it's encouraging to see an accelerating return on investment of AI user cases among mega tech and their clients, with operating margins on AI revenue continued to ramp, likely supporting further investment (see **FIGURE 6**). Companies with efficient capex management and transformation to profits have been greatly rewarded by the markets, while those who showed weaknesses, even for temporary reasons, experienced negative price reactions after the reports.

FIGURE 6: Top 3 AI cloud providers operating margins and revenue on AI cloud



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Much of the AI-related capex has lined the pockets of leading AI chip providers. This surge in earnings has helped semiconductors and equipment race ahead of the S&P 500 over the last year. Even within the semiconductor space, there is significant divergence at play with the world's largest designer and fab pulling away from the rest of the constituents in the Philadelphia Semiconductor Index (SOX) (see **FIGURE 7**).

Meanwhile, software has lagged far behind semis and hardware, reaching overbought and oversold levels along the way (see **FIGURE 8**). Some leading software companies struggled to navigate a constrained tech spending cycle that has seen more budget allocated to generative AI. Furthermore, some customers remain uncomfortable signing 3-5 year contracts amid significant invisibility into what the tech landscape will look like as AI takes hold across the digital economy.

Innovation is often disruptive

There is a real possibility that leading software as a services (SaaS) firms may be replaced by more streamlined public AI cloud services. That said, software companies that can effectively integrate AI to improve outcomes for their customers are poised to outperform. Indeed, the emergence of open-source AI tools may further reduce costs of developing customized applications. We recommend a selective approach to software investing with a focus on those companies with long history of specialty and "wide moats" in the software space.

FIGURE 7: AI-centric semiconductors greatly outperformed the non-AI part

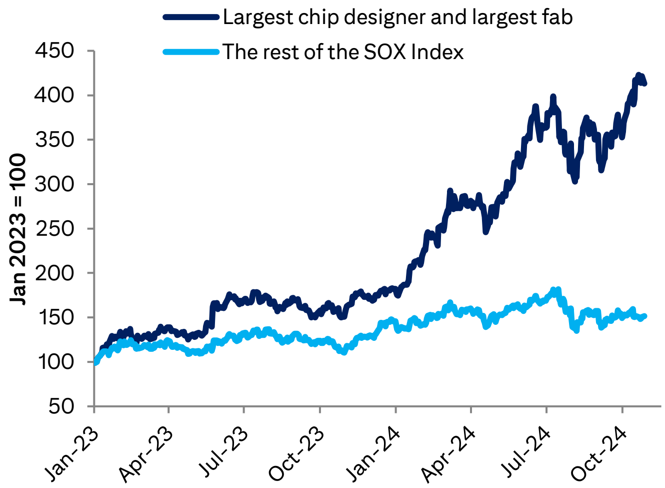
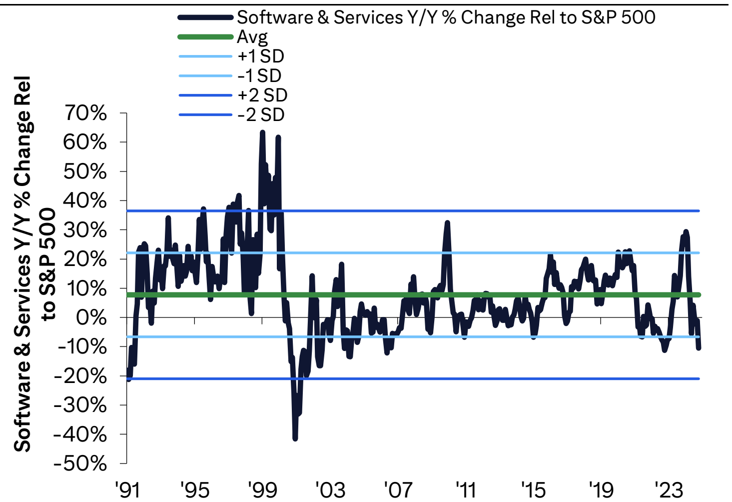


FIGURE 8: Software vs S&P 500 Y/Y%



Source: Bloomberg as of October 28, 2024. Standard deviation (SD) is a way to assess volatility of performance. It measures the distance of a point in a dataset from the mean to find how dispersed (volatile) the data tends to be. 68% of data points will appear within one SD greater or less than the mean, and 95% will appear within two SD greater or less than the mean. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Index returns do not include any expenses, fees or sales charges, which would lower performance. **Past performance is no guarantee of future results. Real results may vary.**

Conclusions

As AI capacity expands and more cutting-edge chips are installed in the cloud, the potential benefits from AI should broaden out beyond "infrastructure" providers over the next few years. We therefore wouldn't be surprised to see leadership within the Tech sector undergo a rotation.

Likewise, we see potential opportunity in a broader catch-up supported by widespread profit gains across sectors in 2025-2026.

Other takeaways

The latest company reporting points to continued strength in online advertising, search activity, and e-commerce. Although the holiday shopping season is five days shorter than last year, the National Retail Federation (NRF) forecasts winter holiday spending to be up 2.5% to 3.5% higher than last year with online and other non-store sales up 8.0% to 9.0%.

What it means for investors

While share prices can fluctuate in the shorter-term, especially in the richer corners of the sector, the longer-term earnings outlook and a wave of innovation appear supportive. Along with Healthcare, the greater "Tech" sector is one of just two that have seen its earnings and market cap share of the total grow over time (see **FIGURE 9-10**). We believe this reflects the ongoing digital transformation of the economy underway which we consider to be an unstoppable trend.

FIGURE 9: S&P 500 Information Technology (IT) share of total earnings and market capitalization

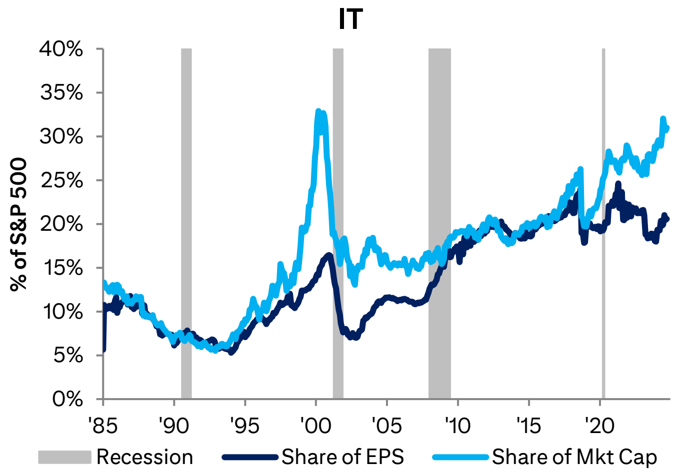


FIGURE 10: S&P 500 Healthcare share of total earnings and market capitalization

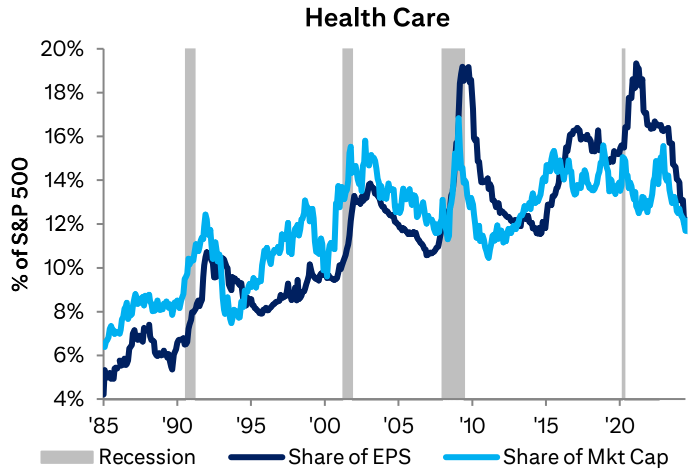


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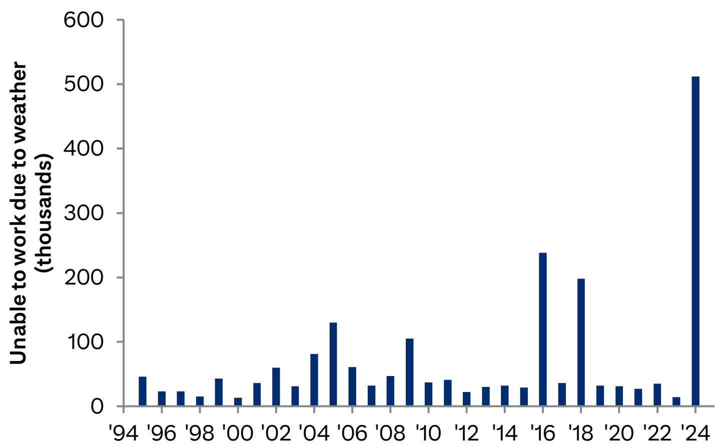
FIGURE 11: October weather distortions for US employment



Source: Haver Analytics as of November 1, 2024. **Past performance is no guarantee of future results. Real results may vary.**

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High quality (very strong)	Aa	AA	AA
Upper medium grade (Strong)	A	A	A
Medium grade	Baa	BBB	BBB
Not Investment Grade			
Lower medium grade (somewhat speculative)	Ba	BB	BB
Low grade (speculative)	B	B	B
Poor quality (may default)	Caa	CCC	CCC
Most speculative	Ca	CC	CC
No interest being paid or bankruptcy petition filed	C	D	C
In default	C	D	D

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Additionally, the underlying collateral supporting non-Agency MBS may default on principal and interest payments. In certain cases, this could cause the income stream of the security to decline and result in loss of principal. Further, an insufficient level of credit support may result in a downgrade of a mortgage bond's credit rating and lead to a higher probability of principal loss and increased price volatility. Investments in subordinated MBS involve greater credit risk of default than the senior classes of the same issue. Default risk may be pronounced in cases where the MBS security is secured by, or evidencing an interest in, a relatively small or less diverse pool of underlying mortgage loans.

MBS are also sensitive to interest rate changes which can negatively impact the market value of the security. During times of heightened volatility, MBS can experience greater levels of illiquidity and larger price movements. Price volatility may also occur from other factors including, but not limited to, prepayments, future prepayment expectations, credit concerns, underlying collateral performance and technical changes in the market.

An investment in alternative investments can be highly illiquid, is speculative and not suitable for all investors. Investing in alternative investments is for experienced and sophisticated investors who are willing to bear the high economic risks associated with such an investment. Investors should carefully review and consider potential risks before investing. Certain of these risks may include:

- loss of all or a substantial portion of the investment due to leveraging, short-selling, or other speculative practices;

- lack of liquidity in that there may be no secondary market for the fund and none is expected to develop;
- volatility of returns;
- restrictions on transferring interests in the Fund;
- potential lack of diversification and resulting higher risk due to concentration of trading authority when a single advisor is utilized;
- absence of information regarding valuations and pricing;
- complex tax structures and delays in tax reporting;
- less regulation and higher fees than mutual funds; and
- manager risk.

Individual funds will have specific risks related to their investment programs that will vary from fund to fund.

Asset allocation does not assure a profit or protect against a loss in declining financial markets.

Diversification does not guarantee a profit or protect against loss. Different asset classes present different risks.

The indexes are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Index returns do not include any expenses, fees or sales charges, which would lower performance.

Past performance is no guarantee of future results.

International investing entails greater risk, as well as greater potential rewards compared to US investing. These risks include political and economic uncertainties of foreign countries as well as the risk of currency fluctuations. These risks are magnified in countries with emerging markets, since these countries may have relatively unstable governments and less established markets and economics.

Investing in smaller companies involves greater risks not associated with investing in more established companies, such as business risk, significant stock price fluctuations and illiquidity.

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