

The Tech Downturn: Submarine Cables

PTC '23 - Honolulu

January 16, 2023



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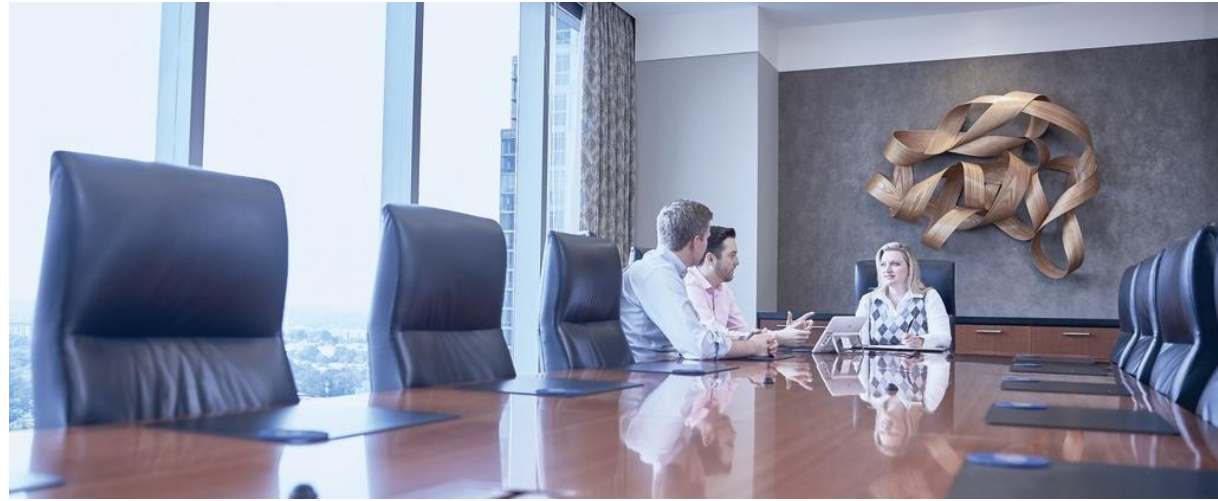
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Tech Downturn: Google & Facebook are in rough surf



Alphabet down 42% v.2021

Meta down 63% v.2021

Nvida down 50% v. 2021

Amazon down 46% v. 2021

Microsoft down 35% v. 2021

Tesla down 47% v. 2021



**Reports of 11,000
employees laid off**

**Market Cap loss of
\$600 Billion**

Submarine Cable: Purpose for constructing?



- Alphabet/Google
- Meta/Facebook
- Amazon
- Microsoft

“**Shipping**” content – YouTube, Cloud, Gaming

Dramatic shift in 10 years from using undersea cable for “**information**” like voice calls, news

TeleGeography: From 6.3% to 78% by 2027





Purpose for Google's Undersea Cable "Shipping Goods" – YouTube and Cloud

Topaz example: "delivering low-latency access to **Search, Gmail and YouTube, Google Cloud, and other Google services**

but also increasing capacity to the region for a **variety of network operators** in both Japan and Canada."

-Google Cloud Blog, April 2022





- **Undersea Cable requires Capital Expenditures**
- **Alphabet/Google** is the largest undersea cable in terms of investment
20 cables, ~182,000km ~**\$5.1 Billion total**

~\$340M /year average ~1.4% total /yr
- **Meta/Facebook** is second in undersea cable

What will be cut from spending?

- Employees?
- Expenses?
- Capital Expenses?

-
1. Data Centers?
 2. Fiber?
 3. Servers?
 4. **Undersea cable?**
 5. All categories?

The Tech Downturn: Alphabet, in a rip current?



Alphabet

Down 42%

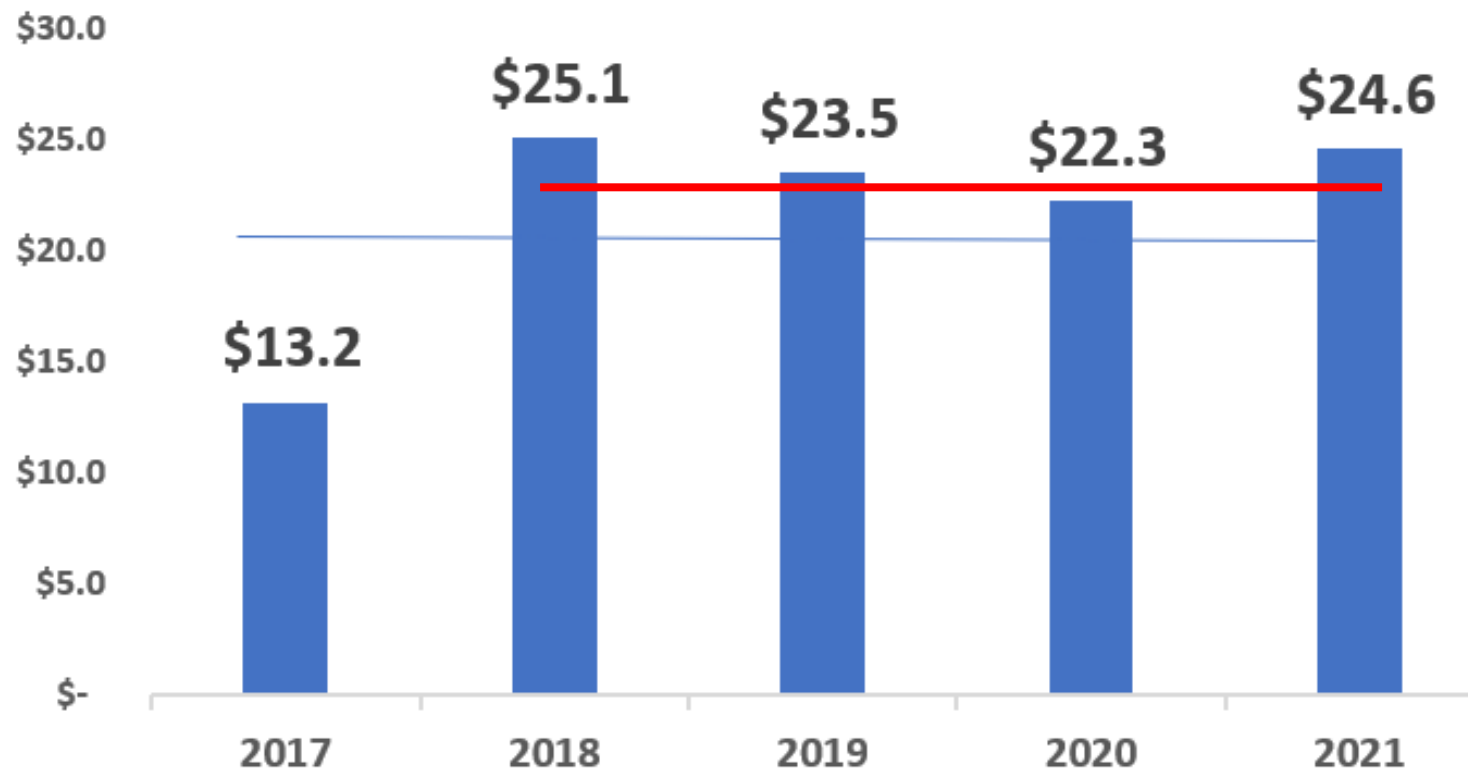
Market Cap loss: \$800B from Market Cap \$1.15 T from \$2.0 T



The Tech Downturn: Alphabet is in rough surf



Alphabet CapEx – Year to Year



Alphabet

Not all bad

For example

Cloud grew 3Q22

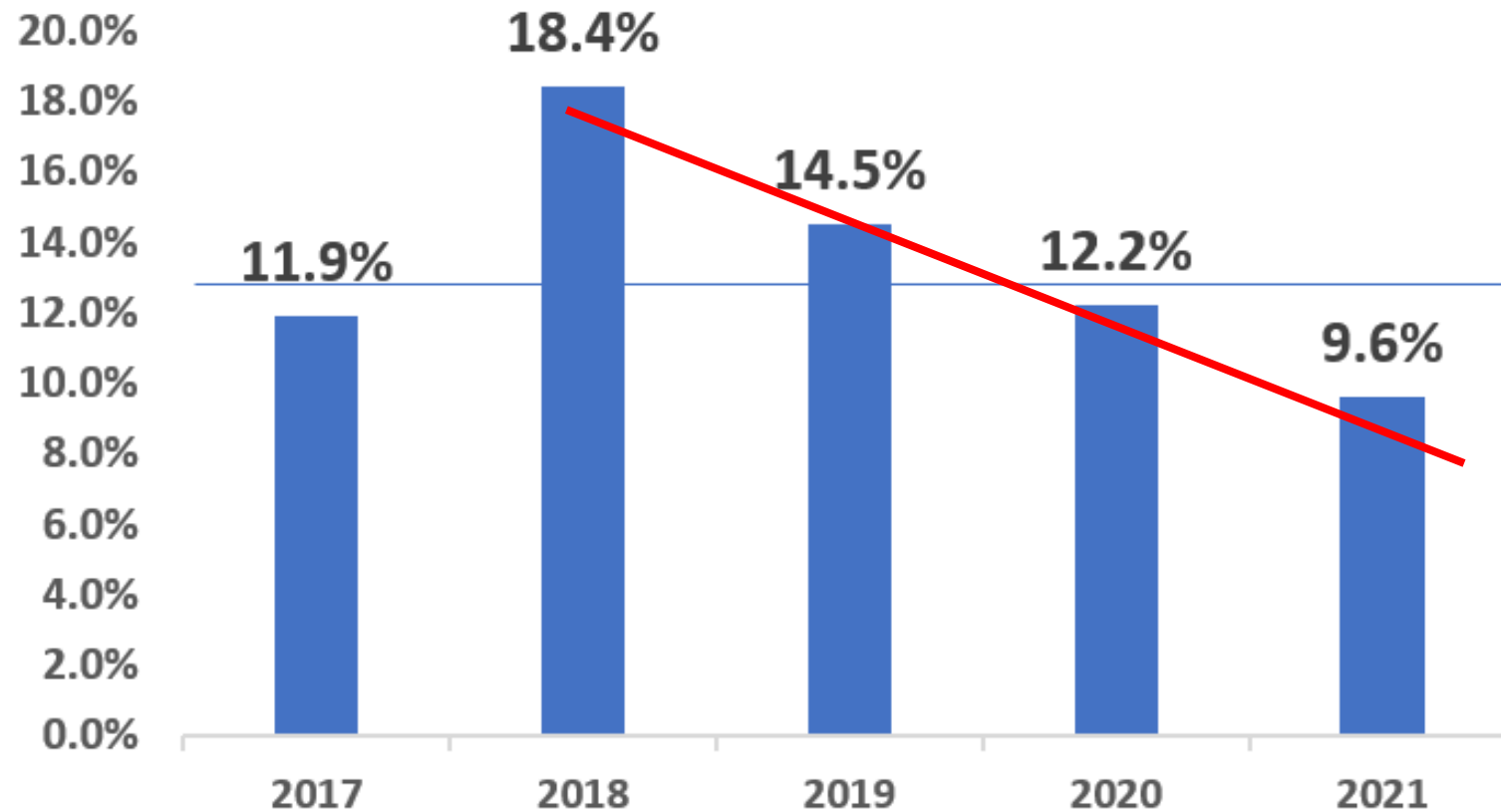
\$6.9 B

in cloud revenue
a 38% jump

The Tech Downturn: Alphabet CapEx is decreasing



Alphabet CapEx –% of Revenue



Alphabet

**But
Employees Up**

10,500 employees

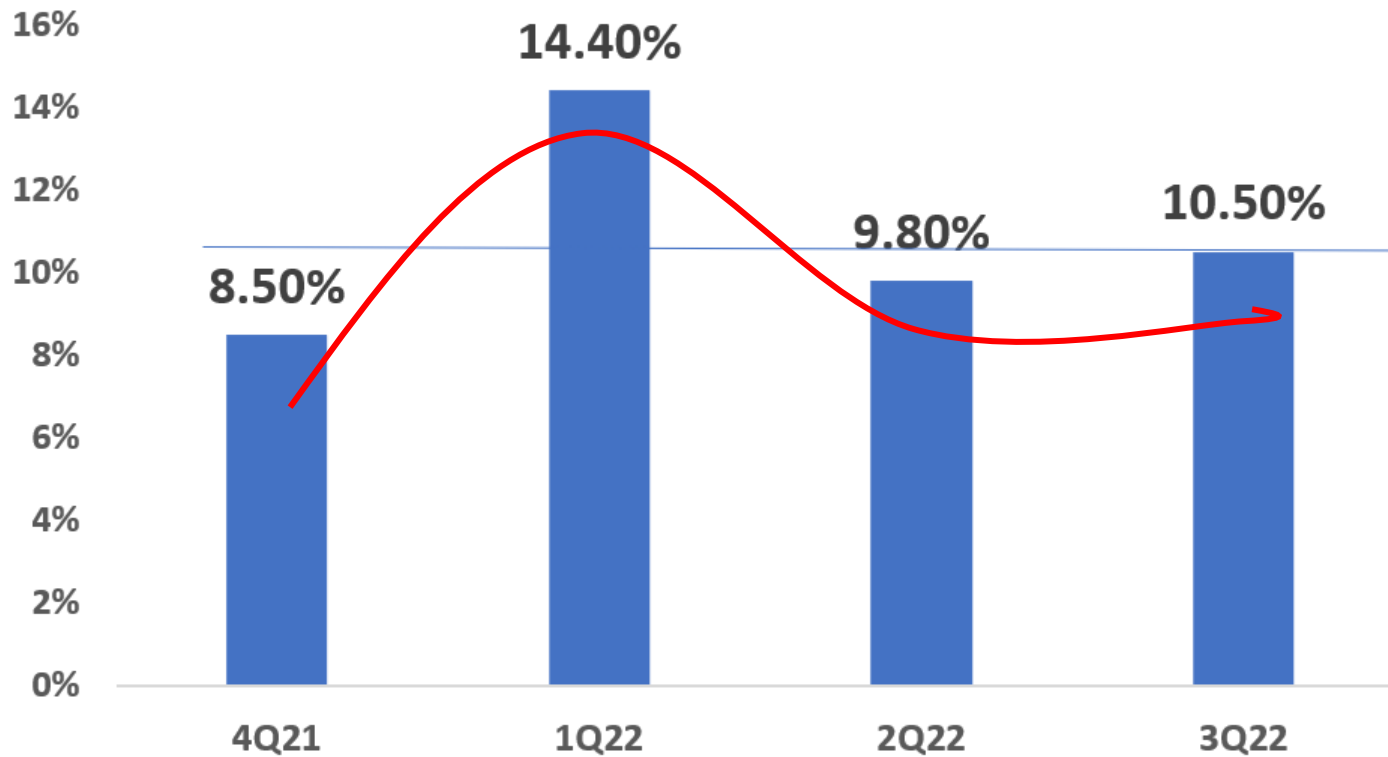
2021 156,500

2022 187,000

The Tech Downturn: Alphabet's CapEx is Level



Alphabet CapEx by Quarter – % of Revenue



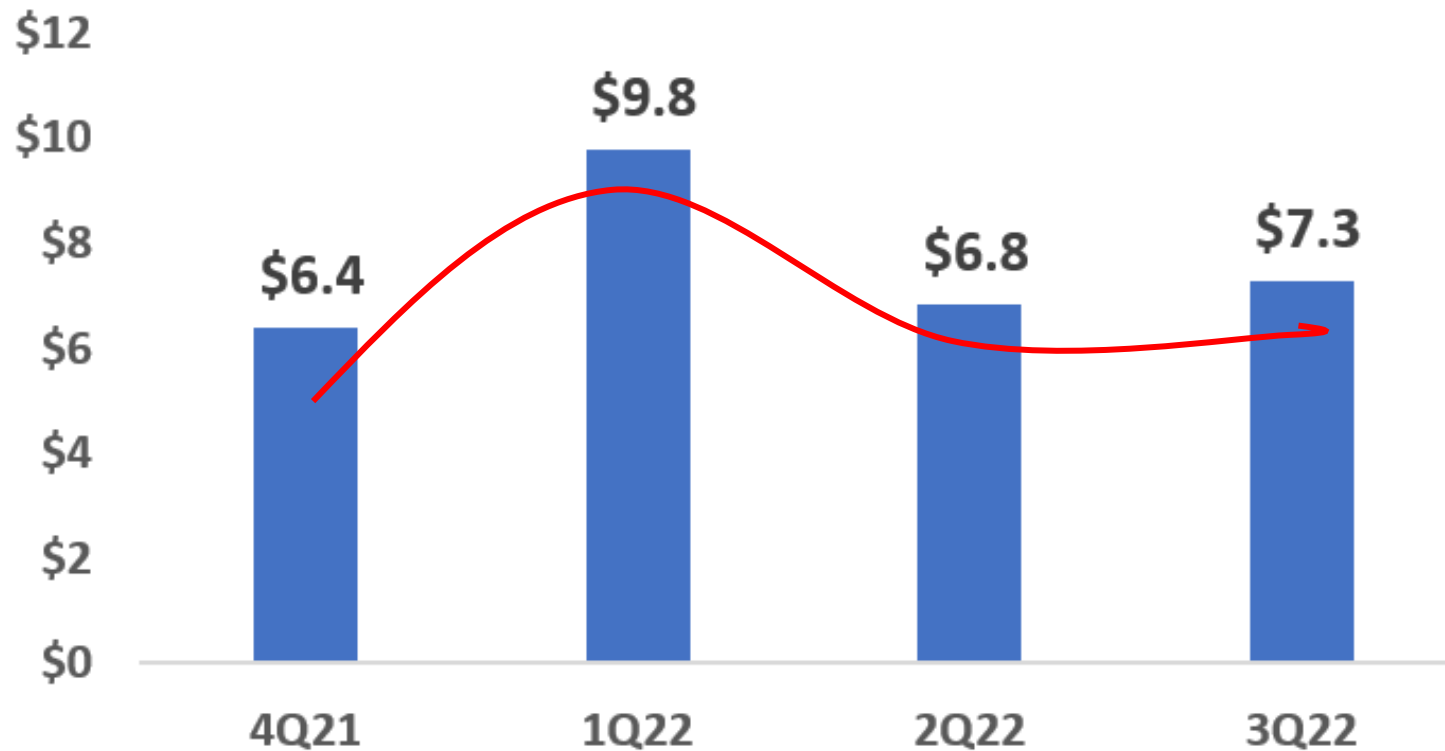
Alphabet



The Tech Downturn: Alphabet's Quarterly CapEx Level



Alphabet CapEx by Quarter – % of Revenue



Alphabet

**CapEx is not
increasing
By Quarter**

Limited Growth



- **Meta down 65% year over year**
- “Reducing hiring” in 2023
- **“Significantly slowing our hiring”**
- “Cutting expenses” by “\$1-\$2B” in 2023



“Zuckerberg’s \$10-billion-a-year investment”
in Meta

The Tech Downturn: Meta is Tightening the Hatches



 **Meta**

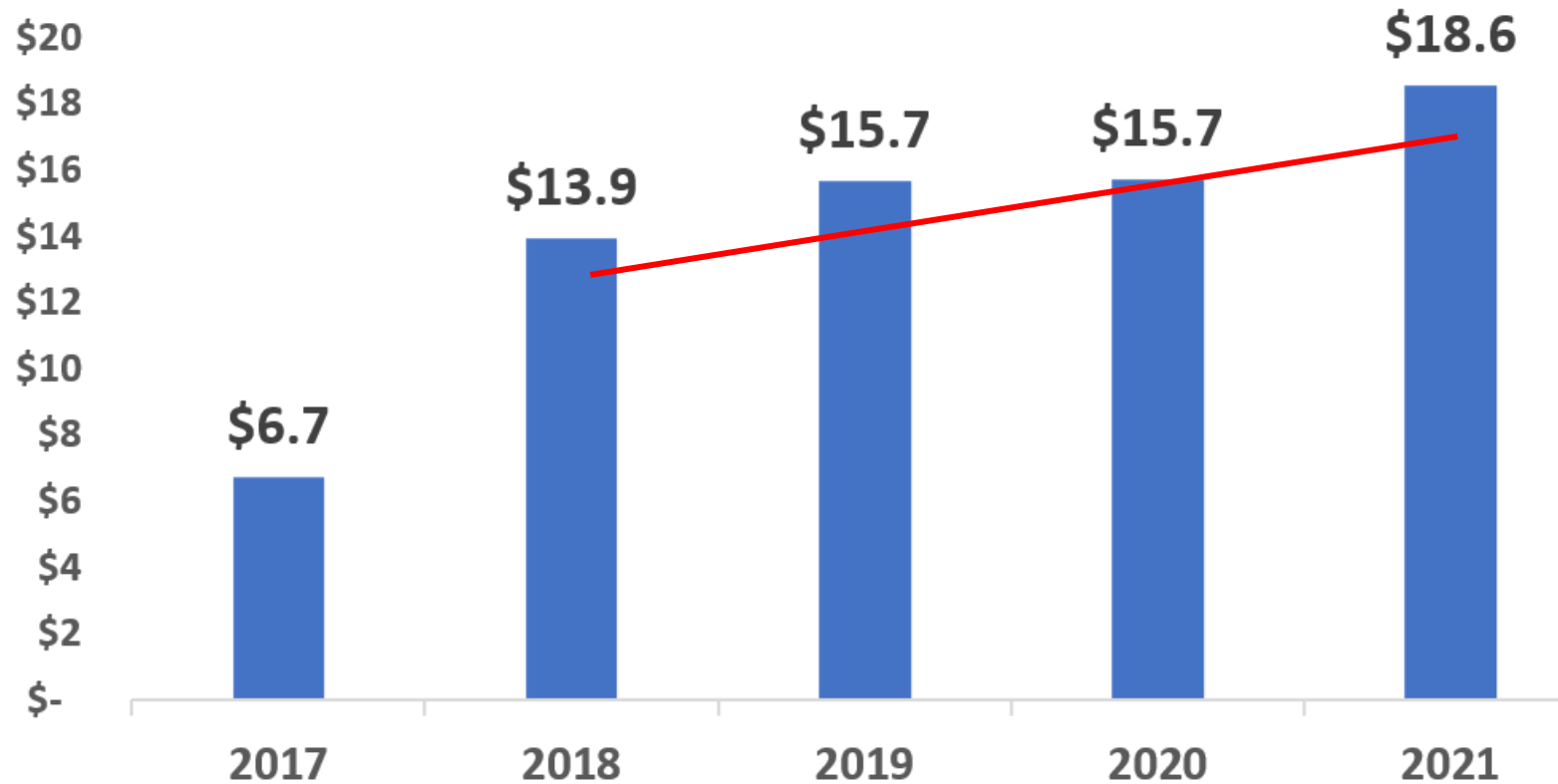
Down 73%
Market Cap \$348B



The Tech Downturn: Meta CapEx Increasing Annually



Meta CapEx: Year to Year is Increasing

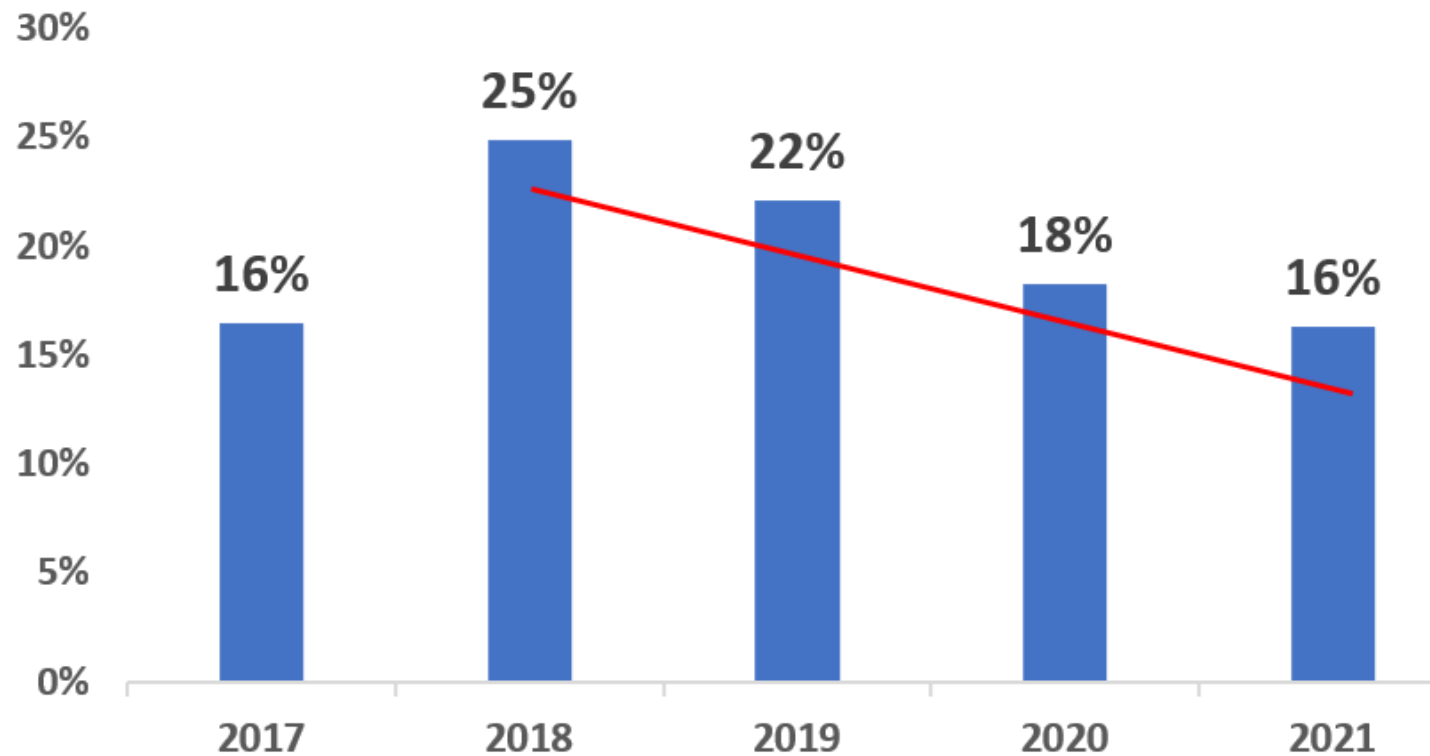


**CapEx
Grew in Total
Year to Year
\$18.6 Billion**

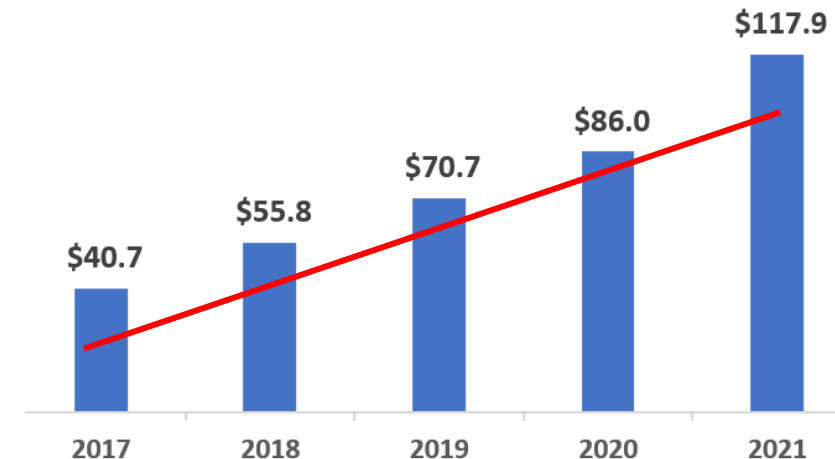
The Tech Downturn: But CapEx is trending down by \$



Meta CapEx –% of Revenue

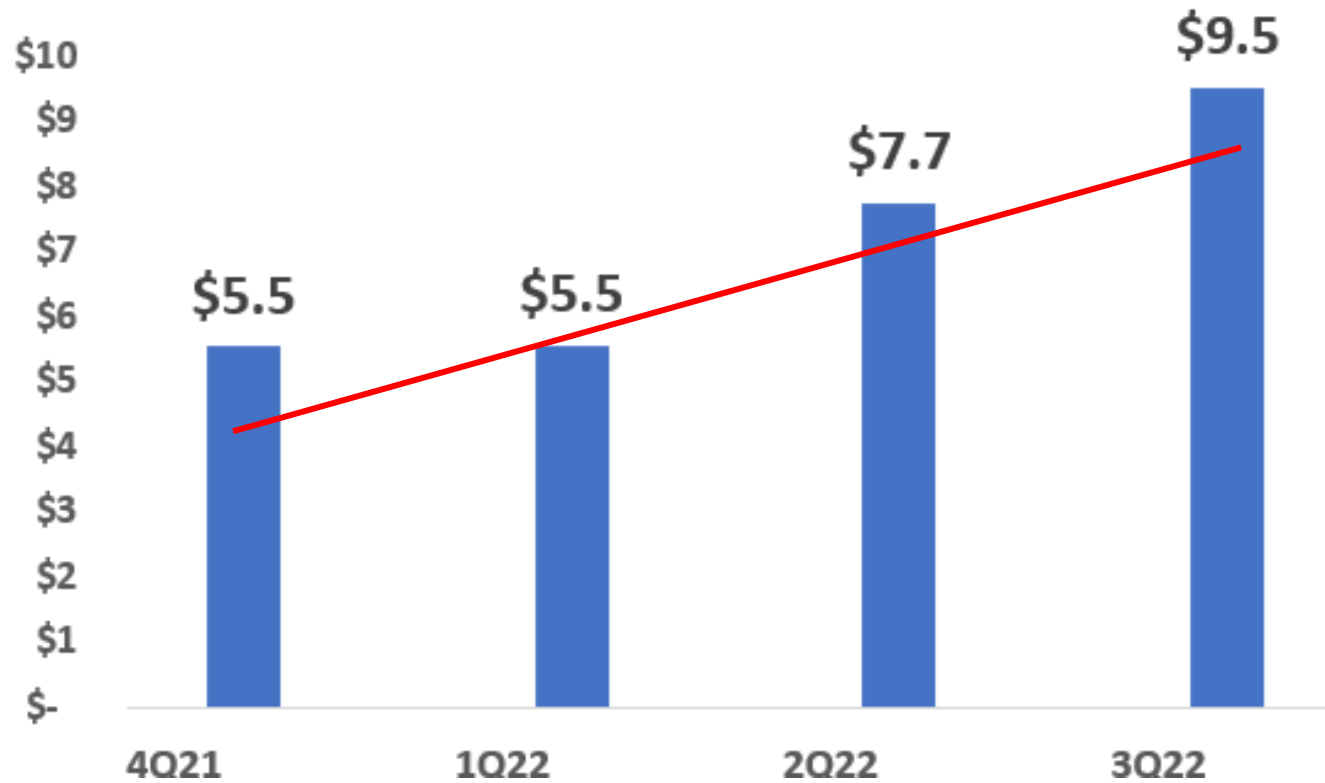


**CapEx Decreased
As a % of Revenue
But Revenue increased**





Meta CapEx by Quarter is Growing



 **Meta**

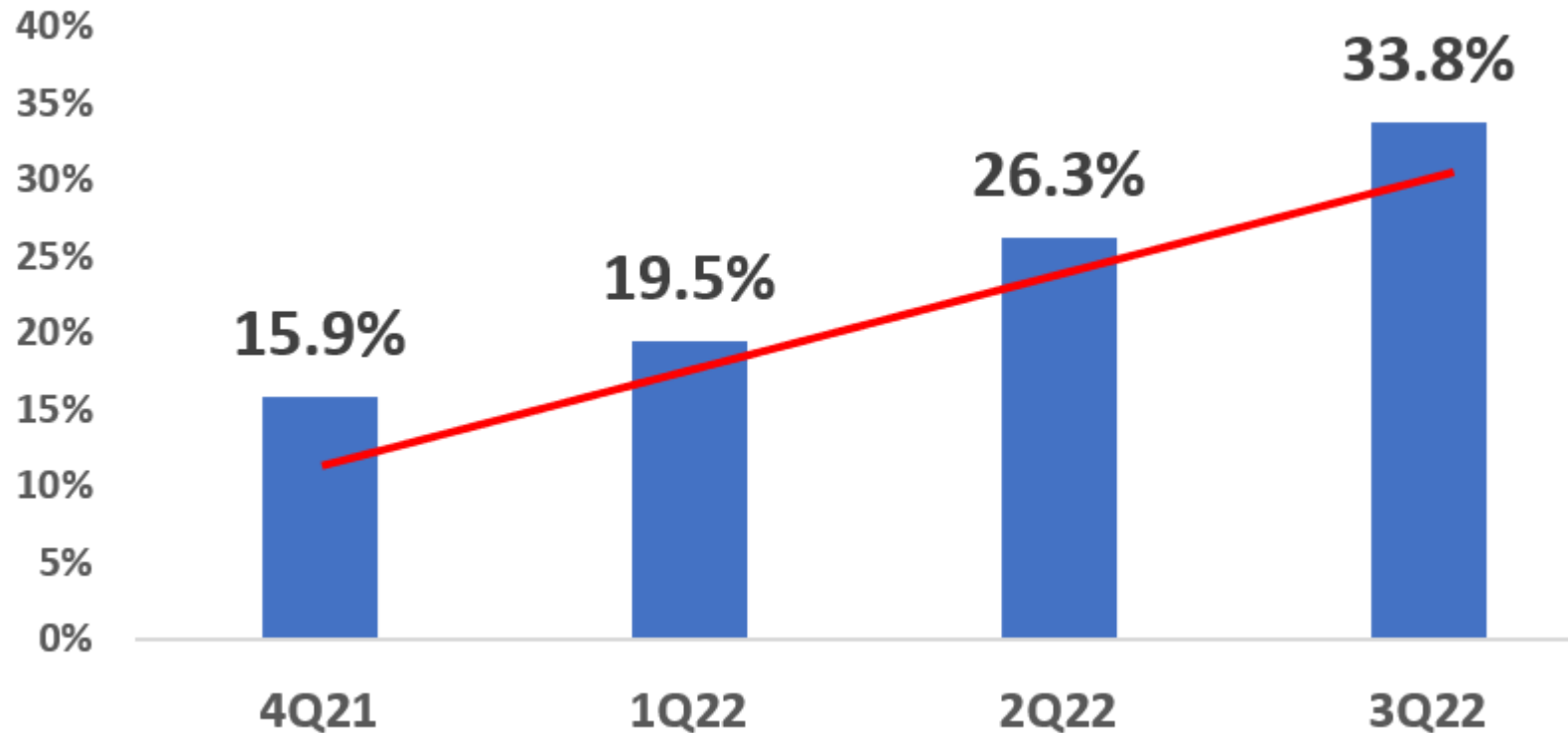
**CapEx
Last Year
Grew in Real Terms**

By quarter
despite cuts in
employees

The Tech Downturn: Meta CapEx in 2022 - Growing



CapEx as a % of Revenue



CapEx
Grew

As a % of Revenue



- **OTT Total CapEx Spend**
“Ball Park” estimates
- **2010 to 2024: ~\$10.0 B** OTT total undersea cables
- **2022 to 2024: ~\$3.0 B** OTT total
- **CapEx /year 2010-2024: ~\$0.70 B /yr**
- **CapEx /year 2023-2024: ~\$1.5 B /yr**

Undersea Cable CapEx Comparison with Mobile

Verizon CapEx
in 2022 ~\$22.5 B
~\$6 B on C-Band Deployment

Comparison
Total OTT Annual Undersea
Cable Capex is
3% of Verizon’s CapEx



- **The FCC treats undersea cable** as “second fiddle” to satellites ~Kent Bressie
- **\$10 Trillion** every day in financial transactions transported on undersea cable
- **95%** of the international content and data is transported on undersea cable
- **“Out of sight, out of mind”** The average executive globally has no idea that undersea cable plays such an important financial role





Cost cutting may be across the board and include future undersea cable projects

- 1. C-Suite will understand** that cuts to undersea cable projects will dramatically hurt future revenue, and **will continue to fund capex there**
- 2. If there are cuts, a downturn** in undersea cable projects could be on the horizon
 - **Private builds** serving content providers
 - Alphabet or Meta **exiting the business** and selling undersea to operators

Alphabet

 Meta

“Trees Don’t Grow to the Sky.”



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Thank you!



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