Tech-tonic Shifts I A Deep Dive on “Technology” Specialist Funds
Q4 2018

Jefferies Prime Brokerage I Capital Intelligence

Jefferies

Overview

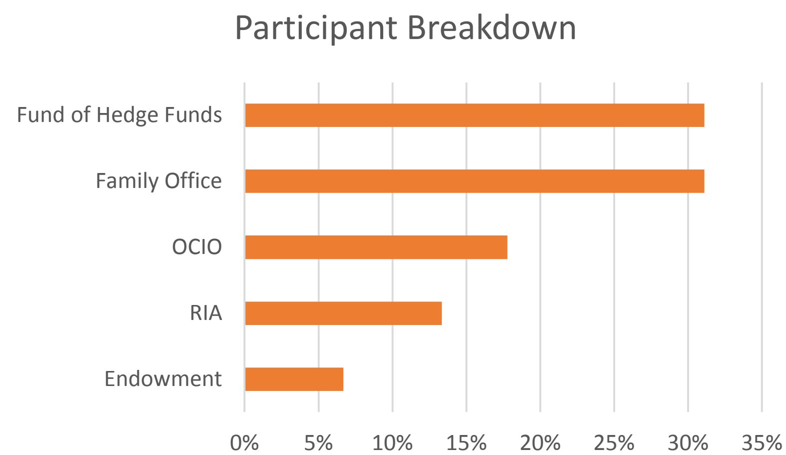
In **3Q2018**, the Jefferies Capital Intelligence Team interviewed and researched **over 50 alternatives allocators with active investments in "technology" specialist funds**.

Specialist, sector or niche searches make up about **40%** of allocators' open and active Equity strategy searches – of which technology is a material percentage.[1]

Tech-tonic Shifts: A Deep Dive on "Technology" Specialist Funds explores the backdrop for these investments and digs into the broad and diverse levers that can convert interest into allocation.

PARTICIPANTS

- We explored the holdings, attitudes and outlook across Single- and Multi- Family Offices, Funds of Hedge Funds, Endowments/Foundations, Wealth Advisors/RIAs, Consultants, Hospital Systems, Asset Managers & Pensions
- Allocators spanned the **U.S.** (Tri-State, Mid-Atlantic, Midwest, West Coast, Texas and Boston), **Canada**, and **Europe** (London, Switzerland)
- Sources included **in-depth interviews** with senior decision makers, **publicly available data** (board minutes, etc.) and **Jefferies Capital Intelligence proprietary data**
- This study polled allocators with long-term holdings in the sector as well as more recent entrants
- In all cases, the goal of each conversation was to understand **how investors define technology today** and **what this means for portfolios in the years ahead, as they look to make allocations to hedge funds in the next 24-36 months.**
- Jefferies Capital Intelligence team is focused on **actionable intelligence** to more effectively understand what moves the needle when it comes to making an allocation to the technology space
- All information has been aggregated and anonymized



1 Jefferies Prime Services

Tech-tonic Shifts | Getting Tech-nical about Defining Tech

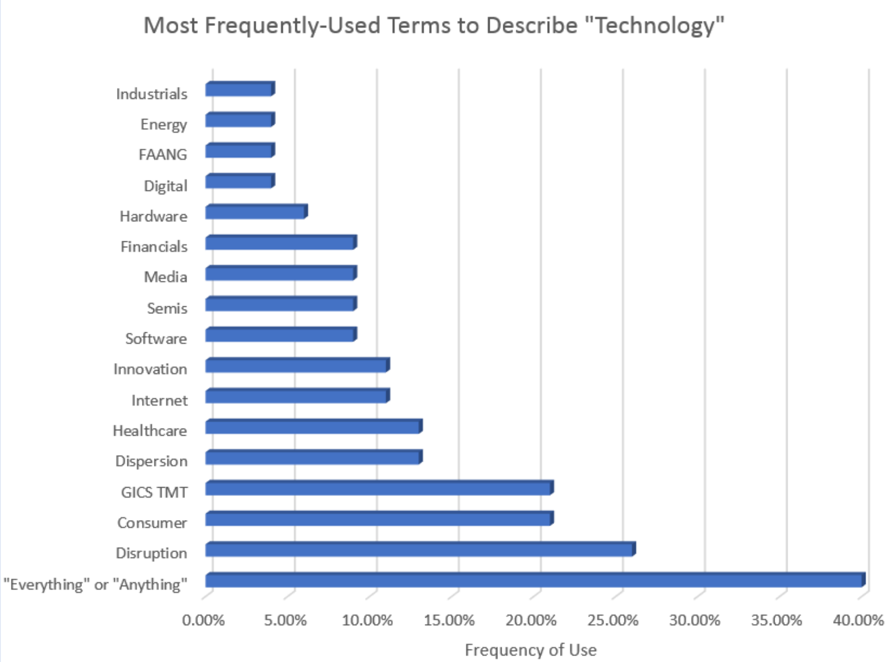
The Capital Intelligence team published a white paper in November 2018 that outlines why and how investors have allocated to technology specialist hedge funds *in the past few years through the present.* Many allocators report a shift in how they view the very definition of the term "technology"—we explore what this implies for portfolios in the years ahead.

The Term Previously Known as "Technology" is Taking on New Meaning

Everyone from the GICS classification to CIOs at the world's biggest pensions are trying to more precisely and accurately define "technology." We delineate what technology means to investors right now and what it means to portfolios in the years ahead.

"Most companies will be tech over time."
"Technology will eventually become every sector and subsector."

Ask allocators what tech investing means to their portfolio and you'll get answers ranging from "Industrials" to "software" to "Canada" to "everything."



Source: Jefferies

ONE CONSENSUS POINT:
The definition of Technology from a sector perspective should be overly broad — broader than any other sector, as allocators look to identify and capture a paradigm shift not seen since the industrial revolution.

What do Allocators Want?

Whether or not allocators are worried about a valuation bubble, many express that perhaps the biggest tech-related risk of all is not being invested

Too narrow a definition of Technology could mean missing out on the next Facebook, the next Amazon, the next breakthrough—and its ripple effects on all other corners of the global economy.

Virtually every allocator we spoke with has put dollars to work in Technology investments, but the factors that drove them to deploy capital and the ways that they think about the future are surprisingly diverse.

Allocators are on the lookout for managers who:

- Play in small- and mid-cap Technology names
- Maintain low net or market neutral exposure,
- Run capacity-constrained strategies, or
- Pursue a variety of idiosyncratic avenues for unlocking the value of technology

Tech-tonic Shifts: Step 1: Motivation for Allocating

Technology has at times been responsible for over 50% of market growth in the past two years, but performance is only one of a few key drivers of interest in the space.

At the broadest level, diversity of allocator portfolio objectives leads to diversity of primary investment drivers

"This is the most competitive part of the equity markets globally"

"Everyone will be a tech manager in 15 years or less"

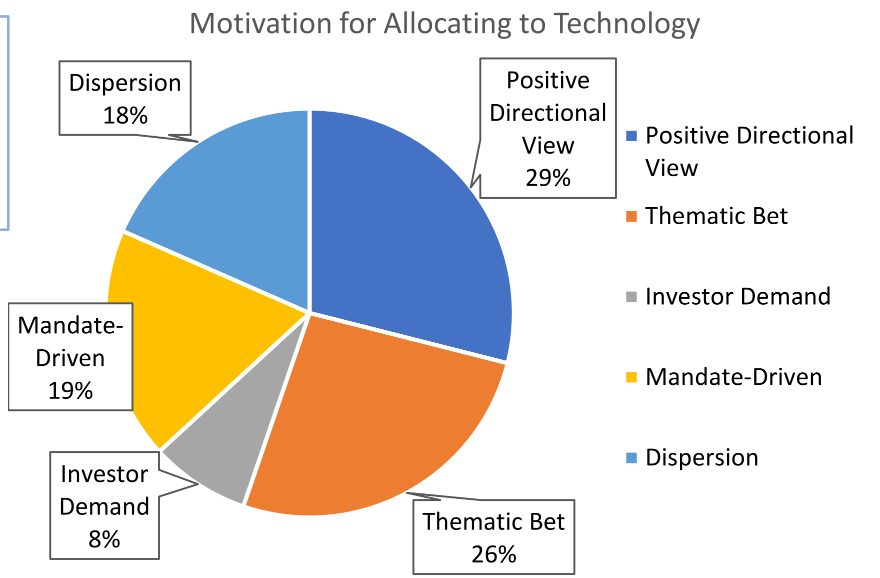
"Tech is pretty much affecting everything"

Given that technology has at times been responsible for over 50% of market growth in the past two years, performance is an obvious driver of interest in the space.

But the reality is far more complex.

While an overwhelming majority of allocators' initial motivation to invest in Technology was either a positive directional view on the sector or a specific sub-theme, almost 20% of allocators cite dispersion as their primary motivation for seeking exposure to the space.

- Predictably, many express interest in Technology growth stories: more than 25% of allocators interviewed made this directional bet on the sector
- Almost twice as many respondents are focused on thematic bets or desires to capitalize on dispersion. **For many, Technology is *not* purely a growth strategy**.
- Numerous allocators cited examples where some Technology investors claimed to be long/short funds – only to be exposed as strongly long-biased during market corrections or periods of acute stress.



Though plenty of money has been made via buy-and-hold strategies, allocators are happy to report that their tech specialists have also identified pockets of dislocation that sector generalist managers might miss.

"Tech is not purely a growth strategy for us"

Tech-tonic Shifts: Defining Technology on the Manager Level

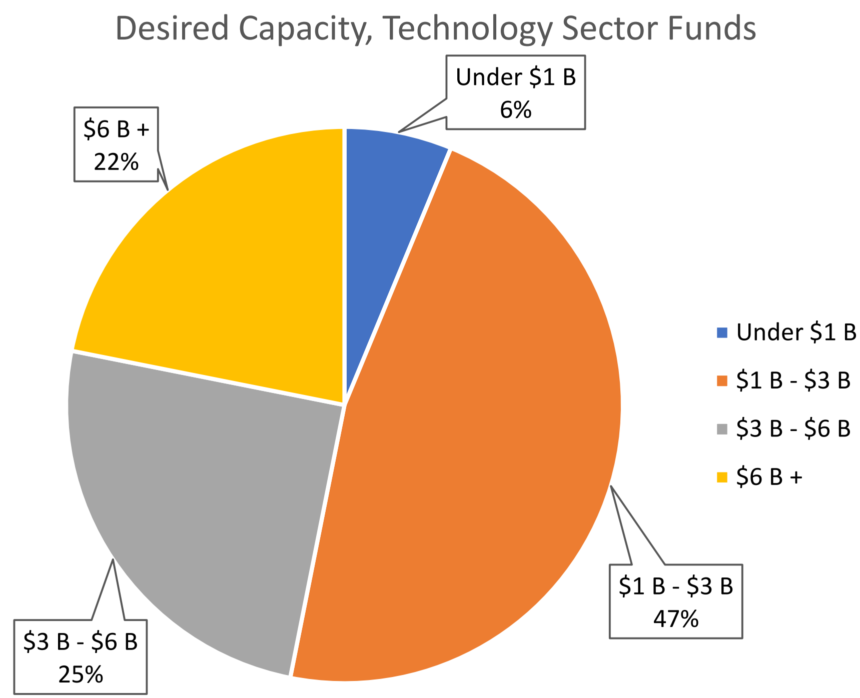
Allocators—especially those looking to make second or third allocations to tech specialists—have surprising preferences for fund capacity.

That over 75% of allocators prefer capacity-constrained strategies speaks to concerns about the evergreen quality of the technology momentum thesis

Fund Capacity: What do Allocators want

An overwhelming majority of allocators—over 75%--say that manager size is an important factor in the search process for Technology specialists, especially thos looking to add a second or third manager to their portfolio. T**hose with opinions are even able to express a numerical threshold at which they might lose intere in a manager based on fund size.**

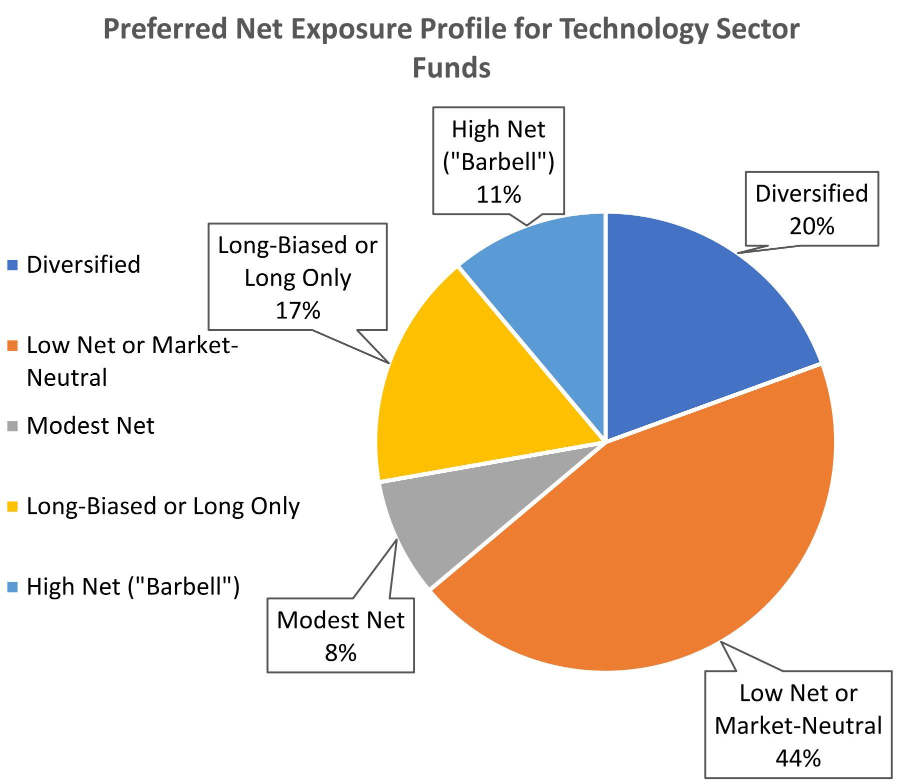
- General sentiment is that smaller is better, but what constitutes "small" for investors who invest in a huge, liquid, and growing industry varies.
- Most allocators agree that **sudden growth in assets would not raise a red fla on its own; however, if coupled with weakening performance, it would certainly provoke conversations and initial thoughts about redeeming, give potential questions around asset gathering.**
- **Allocators initiating new tickets about their searches over the past 24 months, we heard a different story: now, size is a determining factor when allocators look to write tickets to Technology specialist funds.**
- A number of allocators agreed that fund growth alone might not raise a red flag; but when coupled with waning performance, it might ultimately lead to decision to redeem
- In our Healthcare deep dive, we heard the same. There is something about sector specialization and this point in our industry's maturity that drives allocators to prefer capacity-constrained strategies, at least to an extent.



Tech-tonic Shifts: Defining Technology on the Manager Level

Allocators—especially those looking to make second or third allocations to tech specialists—have surprising preferences for net exposure targets.

Surprisingly, almost half of those interviewed report seeking managers with low net or equity market neutral exposure to the space. This seems dichotomous given that over half of allocators polled also cited positive sector or thematic views as a motivation for investing in Technology.



Net Exposure: What Do Allocators Want from their Tech Managers?

Increasingly, allocators are looking for their tech specialists—and to an extent, all of their sector specialists— to play a longer, all-weather-proof game.

- They want funds that will do well in any market environment, and are able to dodge periods of acute stress in their sector in ways generalists may miss.
- **Being able to point to this ability over cycles is a strong differentiator for many allocators**
- **Today's most popular tech trade is not simply to buy and hold as much growth as possible.** Only 17% of allocators explicitly desire long-biased or long-only strategies.
- More than 10% of respondents seek both high- and low-net managers to achieve a "barbell" like distribution across exposures.
- 20% of allocators prefer to make evenly distributed allocations across the net exposure spectrum and only 8% of allocators want managers who run a book with net exposure targeted between 30% and 60%.

Allocators want to profit off trades that only a sector-specialist could get right, including how a nascent technology nearly no one has heard of will upend the traditional supply chain management in the next decade.

Tech-tonic Shifts: Gauging and Paying for Performance

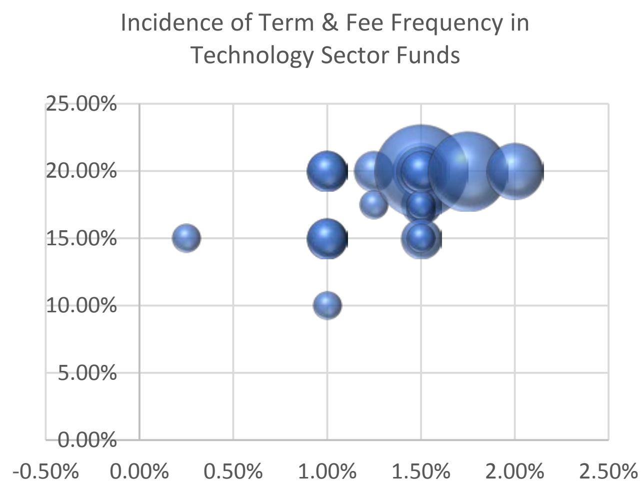
Allocators' views on the above facets of Tech sector funds' identities—that is, their size, net exposure targets, and their definition of technology and the universe of opportunities that should be included within it—directly impact allocators' appetites for fees, their preferences around liquidity, and their approach to benchmarking hedge fund performance.

Benchmarking is a Considerable Challenge

However difficult it is to define a Tech manager today, some argue it's even harder to benchmark one.

- Allocators struggle to find a happy medium
- Some prefer to benchmark against general indices
- Other allocators believe general indices to be useless benchmarks for tech funds
- The allocators with the most detail-oriented approach to benchmarking performance create bespoke benchmarks for the Technology managers

Terms and Fees....Less So



Interestingly, many allocators considering Tech sector specialists expressed a willingness to pay higher fees for quality performance – similar to our Healthcare findings.

A review of the Jefferies Capital Intelligence team's data revealed that:

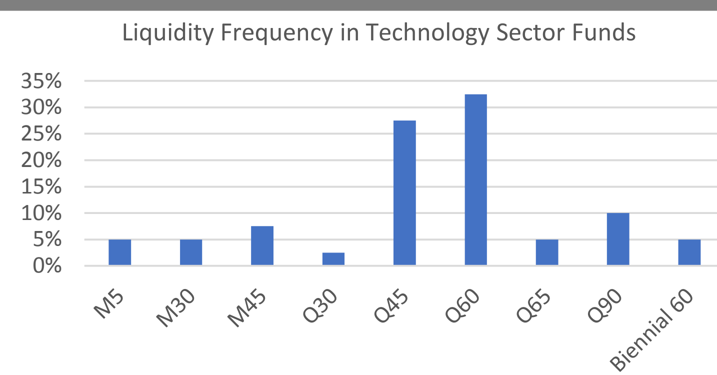
- Most management fees are somewhat rangebound, falling between 1.25% and 1.75%
- Performance fees remain on the higher end of the scale, mostly around 20%

Overall, allocators are willing to pay higher fees for excellent returns and a commitment to maintaining capacity-constrained strategies.

What About Liquidity?

Most allocators surveyed prefer to see quarterly liquidity from Technology specialist hedge funds, which is reflected in data sourced by the Jefferies Capital Intelligence Team on liquidity in tech sector funds.

- This is driven in part by an expectation that many tech funds trade in and around some of the market's most liquid names
- While the majority of funds offer quarterly liquidity with 45 or 60 days' notice, 10% require 3 months' notice while many others promise monthly liquidity
- Given the importance of private investments to many allocators' technology portfolios, it is unsurprising to see



Tech-tonic Shifts: Playing the Private Landscape

An interesting theme to emerge is how crucial allocators feel it is to be plugged into the network of private investors and companies.

Allocators broadly agree that effective Tech investing involves participation in—or, at the very least, extensive knowledge of—the private market.

Why does the Private Market Matter to Tech?

Those who invest in privates—especially in venture capital deals—say that it is the source of their best returns. Many public market tech allocators maintain a robust internal portfolio of investments and even prioritize their efforts to source private deals over publications. Here's why:

- Technology startups are born every day and wait longer to go public than ever before—twice as long as it did in the 90s. When they do, they are larger, more sophisticated, and have more global reach.
- Some of the most important tech companies never IPO at all. **A refrain we heard was "if a company were *really good*, one of the FAANGs would've bought them."**
- Private-side activity can materially shape the public markets, so being plugged into the private market's knowledge pool is invaluable
- Opting to sit out private equity or venture capital deals could mean less exposure to a vast pool of information and a profitable universe of deals in technology.

How Do Allocators Play Private Tech?

How allocators participate in private deals varies, but a few commonalities in tactics emerged, including:

- **Thematic approach:** investing in venture capital deals around themes like:
  - Autonomous driving
  - Disruptive technology
  - Business development
  - Software as a Service (SaaS)
  - Biotechnology
- **Deal-specific Approach:** allocators will specifically seek a certain type of deal, ranging from early-stage venture capital to venture debt, or late-stage private credit deals

Tech-tonic Shifts: Going Global

Forward-thinking investors are looking globally as they construct their portfolios, on both the private and public sides of their books

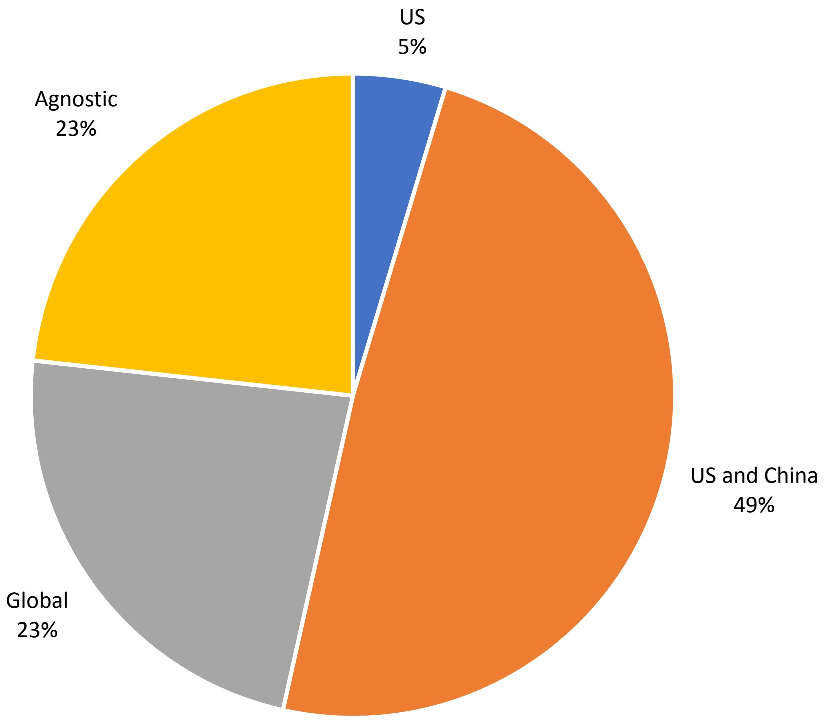
Conversations about private investments were more global and specific than those about public regional exposure. While most Technology hedge funds invest in the United States and Asia predominantly, private investments cover the globe. Allocators are sourcing private deals in **the United States, China, and Israel,** as well as in cities throughout **Portugal** and **Canada**.

The United States has dominated growth in Technology over the past several years. When looking for what's next, allocators are framing their portfolios in a "US & x" structure.

Common combinations include:

- US & China
- US & Japan
- US & Portugal
- US & Canada
- US & Taiwan
- US & Israel

Regional Exposure Preferences for Technology Sector Funds



As an overriding trend, the cities that are home to private deals today might likely be the hotspots for public activity in the future. In this way, staying abreast of the happenings in the global private market is an important part of making informed decisions about regional exposure.

What Does This Mean for Me?

The Capital Consulting team published a white paper at the start of 2018 which outlines the evolution of the traditional Capital Introductions model in an era of ubiquitous information. Our conclusion is that firms need next generation intelligence – to comb through all the new data and options – identifying patterns, relationships and opportunities to create smarter, more productive, and more efficient organizations for the next decade.

Capital Intelligence: *Working to better align managers and allocators' needs*

Start with where you are. Methodically plan where you want to go.

- **Review your current LPs**
  - Why am I a part of their portfolios?
  - Does it differ by region or allocator type?
- **Review your performance profile**
  - Does my value proposition shift, depending on different drivers for allocation (i.e. - What does the fee profile look like when fees don't crystalize for 24 months? What does my crowdedness score look like vis-à-vis others directly in my space?)
- **Review your pitch – update your value proposition if your story has evolved**
  - The healthcare sector is always changing. Why you *then*, why you *now*, and why you *for the coming years*?
  - Get specific!
- **Take "the technology story" to allocators who may not be open to investing today**
  - How many allocators know what percentage of their portfolio represents healthcare exposure?
  - How are those names performing versus having a specialist (if they are not with a sector specialist)?
- **Build a pipeline** and be vocal about your sector
  - What are you known for? What are your competitors known for? Why are you different?
  - Focus on education, engaging warm relationships and closing the sales cycle
- **Precision, precision, precision**
  - What are the multiple ways I can fit in an LPs portfolio? As a hedge? A complement to generalist exposure? Lower fee but lower vol general industry exposure? Route for growth?
  - *"Would I rather own a railroad or a company with 5 drugs in the pipeline?"*

HOW JEFFERIES CAN HELP

Systematized, proprietary database

Next-generation intelligence requires data-driven systems and processes that result in real time updates (think the "if you liked Stranger Things, you might like The Crown") mapping market and industry data.

Ongoing strategic market intel

We provide clients with the tools and information they need to make strategic insourcing/outsourcing decisions, assistance on developing organizational culture and building teams.

Tactical content

We have knowledge of the Technology sector by virtue of the Jefferies franchise across Investment Banking, Equity Capital Markets, and Trading

Disclaimer

Disclaimer

IMPORTANT DISCLAIMER

THIS MESSAGE CONTAINS INSUFFICIENT INFORMATION TO MAKE AN INVESTMENT DECISION.

Please contact your Jefferies representative for copies of the most recent research reports on individual companies.

This is not a product of Jefferies' Research Department, and it should not be regarded as research or a research report. This material is a product of Jefferies Equity Sales and Trading department, and intended for Institutional Use. Unless otherwise specifically stated, any views or opinions expressed herein are solely those of the individual author and may differ from the views and opinions expressed by the Firm's Research Department or other departments or divisions of the Firm and its affiliates. Clients should assume that this material is not independent of the Firm's proprietary interests or the author's interests. For example: (i) Jefferies may trade for its own account or make markets in the securities referenced in this communication (and such trading may be entered into in advance of this communication); (ii) Jefferies may engage in securities transactions that are contrary to or inconsistent with this communication and may have long or short positions in such securities; and (iii) the author of this communication may have a financial interest in the referenced securities.

The information and any opinions contained herein are as of the date of this material and the Firm does not undertake any obligation to update them. All market prices, data and other information are not warranted as to the completeness or accuracy and are subject to change without notice. Past performance is not indicative of future results, and no representation or warranty, express or implied, is made regarding future performance. The Firm is not providing investment advice through this material. This material does not take into account individual client circumstances, objectives, or needs and is not intended as a recommendation to particular clients. Securities, financial instruments, products or strategies mentioned in this material may not be suitable for all investors. Jefferies does not provide tax advice. As such, any information contained in Equity Sales and Trading department communications relating to tax matters were neither written nor intended by Jefferies to be used for tax reporting purposes. Recipients should seek tax advice based on their particular circumstances from an independent tax advisor. In reaching a determination as to the appropriateness of any proposed transaction or strategy, clients should undertake a thorough independent review of the legal, regulatory, credit, accounting and economic consequences of such transaction in relation to their particular circumstances and make their own independent decisions.

OPTIONS ARE NOT SUITABLE FOR ALL INVESTORS. Please ensure that you have read and understand the current options risk disclosure document before entering into any option transaction. The options disclosure document can be accessed at the following web address: http://optionsclearing.com/publications/risks/riskchap1.jsp. Please contact Peter Seccia, Head of New York Derivative Sales for additional information (212-284-2454).