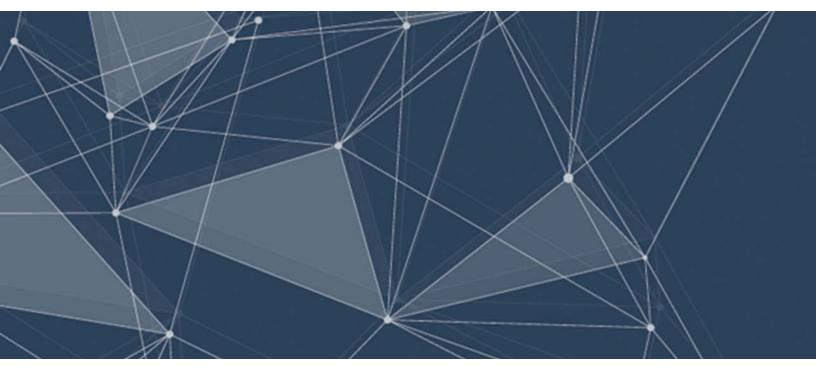
Jefferies Prime Services Monthly

OCTOBER 2018



CONTACTS

John Laub

Global Co-Head of Prime Services +1 212.284.1726 jlaub@Jefferies.com

Leor Shapiro

Global Head of Prime Services Capital Intelligence +1 212.336.6267 Ishapiro@jefferies.com Nick Rankin Global Co-Head of Prime Services +1 212.444.4432 nrankin@jefferies.com

Shannon Murphy Prime Services Capital Intelligence Strategic Content +1 212.336.1139 shannon.murphy@jefferies.com Barsam Lakani Head of Prime Services Sales +1 212.284.1783 blakani@jefferies.com

Lily Calcagnini Prime Services Capital Intelligence Strategic Content + 1 212.323.7596 Icalcagnini@Jefferies.com

Don't Take Your Capital for Granted.

We've anecdotally heard how much the capital raising and retention landscape has changed. The latest third quarter hedge fund industry flow numbers bear this out, and underscore important lessons heading into year end and for 2019.

3Q2018 outflows were across the board. Equity Hedge, Event Driven, Macro and Relative Value all experienced **net outflows** (more than **\$9 billion cumulatively**) for the first time since 4Q2016. Quantitative Equity funds continue their steady raise, but for many other strategies – raising net new capital remains challenging.

What's Driving This?

- 1. Muted performance and headline closures. Not only are allocators having a harder time moving from "interested" to "allocated," a number of mature, household name funds are proactively returning capital to LPs and are winding down.
- Allocators are hunting for the *right* specialist or niche manager. More than 40% of active Equity L/S searches are for specialist, niche or no specific mandate. It can take longer to find that 'perfect portfolio fit.'
- 3. Lots of portfolio reviews in the last 24 months. We've seen a growing number of allocators conducting deep dive reviews across their portfolios, in many cases trimming exposure in one area, then taking the time to decide where to reallocate that capital given the 10 year bull market.

What Does This Mean for Managers?

- 1. Precision matters. When we conducted our deep dive on healthcare specialist funds, it was more evident than ever that allocators are looking for a more exact fit for their portfolios. They have a more exact picture of what delivers "value" to their portfolio and it can differ widely. Two allocators can write two tickets to the same manager for two entirely different reasons. Thus, it is increasingly necessary for managers to understand the whole portfolio and where they would precisely fit.
- 2. Engagement in "quiet" times is just as important as during periods of strong *or* weak performance. Managers can go through periods where performance is...fine. Not blockbuster, not abysmal. It is just as critical to stay connected with LPs during these times because your competitors are likely working to find ways to deepen engagement and build partnerships in new and innovative ways. Like this.
- **3.** Become an expert. And show it. Managers are increasingly working to share industry and sector expertise with allocators beyond the confines of typical PM LP meetings. They want to be seen as "thought leaders" and subject matter experts for diverse topics.

Leor Shapiro | Global Head of Capital Intelligence Ishapiro@Jefferies.com | 212.336.62.67

2018 Hedge Fund Performance Review | HFRI

Strategy	Sept 2018	YTD
HFRI Event Driven	0.39%	2.79%
HFRI Macro	-0.32%	-1.82%
HFRI Relative Value	0.31%	2.99%
HFRI Equity Hedge	-0.54%	1.66%
HFRI Fund Weighted Composite Index	-0.26%	1.37%

Valuation Matters. So What Happens When the Model is *Wrong?*

John DiFucci and our Software research team recently released a refresh primer on valuation for Software. Given the considerable focus in the TMT and Software space recently, highlights below:

The swoon in the market over the last couple weeks has further piqued our interest in the topic of Valuation and how we should consider the unique characteristics of Software models and their highly profitable, highly recurring renewal revenue streams. We refresh the multiples on recurring revenue for our coverage universe herein.

<u>Valuation on Our Minds. We published a note on Sep 21</u> that considered a lower US tax rate and modest growth assumptions in calculating the NPV of the potential future free cash flow of efficiently run, renewal revenue streams (maintenance or SaaS subscription) for Software companies: Valuation on Our Minds – and in Our Face. We also published a video on the same topic on Oct 8. [Watch the Video]

Market Move Up ... and Down. The impetus to this work was the significant appreciation of the market, but also of Software stocks relative to the market. The market was up over 30% since the beginning of 2016 and Software stocks were up over 70%. Since publication of that report, the market is down about 7% and Software (IGV) is down about 10%, but some names are down much more.

Update to Coverage Universe. We provide an update to the EV/Recurring Revenue multiples for our coverage universe herein, as some names with meaningful growth prospects are starting to look more interesting in this context, including: ALRM, APTI, MIME, NICE, ULTI, and ZEN. We also provide those multiples from Sep 21, the date of our original report for comparison purposes.

John DiFucci | Equity Analyst (212) 284-2196 | jdifucci@jefferies.com

Jefferies Hosts Two Disrupt Events in New York and Hong Kong, Featuring WeWork, Ford Motor Company and Compass Real Estate

On **October 22nd**, **Jefferies hosted its Disrupt Summit**, featuring: Aneesh Chopra, 1st CTO of the U.S. and President of CareJourney, Veresh Sita, Head of Enterprise for WeWork, Dr. Ken Washington, Chief Technology Officer of Ford Motor Company, Anthony Belfiore, Chief Security Officer for AON, Dave Neiswander, CEO of World Bicycle Relief, Samantha Lynch, Director of Corporate Development and Strategic Finance for Compass Real Estate, and Steven Overly from Politico Pro.

On November 30th, **Jefferies Hong Kong** is hosting **Technology Disruption Across Consumer Verticals** at the Mandarin Oriental. The mix of disruptors will be divided across key panels, hearing from leaders in the:

· Food & agri-tech space, capitalizing on the Wellness movement

Jefferies

- Social media and e-commerce platforms
- Leading vaping companies taking share from Big Tobacco &
- Top Venture Capitalist funds investing in emerging global technologies and consumer verticals.

Contact your Jefferies salesperson for more information.

Source: HFRI as of 10.18.18

Jefferies Prime Services Monthly | October 2018

Jefferies Capital Intelligence

Emerging Manager Conference | November 1st

On the back of a strong year for pre-launch and emerging managers, the Jefferies Capital Intelligence team is delighted to be hosting its annual Pre-Launch and Emerging Manager Forum on November 1st in New York.

The hedge fund industry has seen four consecutive quarters of net new launches after a streak of seven of net closures dating back to Q4 2015.

For the first time, the Emerging Manager Forum will be hosting a majority of specialist funds – focused on a diverse group of strategies and investment approaches – and reflecting the broader appetite and interest in these focused offerings.

.....Of Further Note:



•What's your benchmark? It's long been known that different allocators leverage different benchmarks for different managers. What emerged in our upcoming TMT study (more on that below...) is that while many cite *one* benchmark used to measure correlation, there is often a shift and the same benchmark isn't used to measure performance.



• *Quantifying Process* – the Jefferies Data Science Working Group just published the third and final piece of their data trilogy – Quantifying Process. QP focused on the critical role that processes and frameworks play in shaping enduring and agile data efforts, and echo some of the themes Ben Reiter explored in his September talk on *Astroball*.

•Focus on TMT sector funds. We are conducting a deep dive study on TMT funds, much in the same vein as *Checking the Pulse*, our healthcare piece from earlier this year. We dug into: "what are we talking about when we talk about technology," whether there is as big an appetite for TMT subsector funds as there was for healthcare subsector funds, what perceived risks for the industry are, and how the GICS reclassification impacted portfolio construction – among others. We anticipate an early November release.

•Jefferies London Healthcare Conference. On November 15th, we will be in London to host a breakfast around Jefferies' Annual Healthcare Conference. We will convene managers and investors to share insights on the current investing landscape, and conduct a deep dive behind the data for our *Checking the Pulse* white paper.



•On the Road Again. Again. The team continues to rack up the miles, with trips to Texas, San Francisco, Denver, Cleveland, Cincinnati, Boston, London and Memphis on the calendar. Regionally specific themes continue to emerge – but there are also some over arching themes we're preparing to share in our 2019 State of Our Union.

Leor Shapiro | Global Head of Capital Intelligence Lshapiro@Jefferies.com



Business Consulting ODD Day 2019

On October 16th, the Jefferies Capital Intelligence team convened its second annual **Operational Due Diligence Summit**, to share industry trends and themes shaping our collective next chapter.

What Does the Growth in Data Usage Mean for ODD and Compliance? MScience CEO Michael Marrale and Head of Data Science and Engineering Ajay Krishna shared how much the third party data landscape has changed, and what it means for due diligence and investment professionals. As various jurisdictions focus on data from a regulatory and policymaking perspective, it becomes even more critical to ensure your data partners have a strong and robust data compliance effort.

Preview on Our 2019 State of the Union. Head of Content Shannon Murphy shared the three trends on the top of our minds for 2019 and beyond: i) Regulatory divergence, ii) Acceleration of specialization and iii) Is your unwind as strategic as your wind up?

New Ways to Connect With Stakeholders. We welcomed award winning Gimlet Media to share why demographic trends have started to favor diversifying mediums for connecting with stakeholders. Audio is one avenue managers are increasingly leveraging to communicate with current and prospective partners, and a number of attendees mentioned they regularly tune into Gimlet's programs, or Ted Seides' *Capital Allocators* podcast.

We look forward to hosting our 3rd ODD Summit in 2019.

Erin Shea | Capital Intelligence eshea@Jefferies.com

Cybersecurity in Focus

Jefferies hosted Cybersecurity: Israel's Role As An Industry Leader and Global Defender on October 10th, to dig into the strategic contributions of the Israeli cybersecurity sector to global defense. Jefferies Senior Security and Enterprise Software Analyst John DiFucci joined Bracha Shapira (Vice Dean for Research in the Faculty of Engineering Sciences at Ben Gurion University) and Nadav Zafrir (CEO and Co-Founder of Team 8) to dig into the rapidly changing landscape of cybersecurity and defense.

For more information, contact Natti Ginor I nginor@Jefferies.com Head of Israel Markets

JEFFERIES EQUITY RESEARCH DIFFERENCE MAKERS

Top Jefferies Research Reads in recent weeks

Leaders of the Pack:

- <u>JEF's SMID-Cap Strategy: What Happened to SMID? No Such</u> <u>Thing as Q4 Hail Mary</u>
- <u>AMZN into HC: Solimo Personal Care Line Adds SKUs; PillPakc's</u> <u>Still Status Quo</u>
- GOOG: Lunch with Autonomous Expert: All Roads Open to Waymo
- Instagram & OTT Leading the Charge at Ad Week
- Short Cycle Monitor: Index Rebounds from Softer September

Equity Strategy: Global Asset Fund Flows Tracker

Over the past week (11 to 17 Oct), investors remained risk averse. Liquidation of global equities picked up pace (-US\$15bn, the largest outflow since late Jun) led by US (-US\$17bn) and European (-US\$5.5bn) equities. In Asia, a significant divergence of equity interest appeared between mutual fund/ETF and foreign investors. Global bond redemptions softened to US\$8.1bn while investors continued to rotate away from riskier categories into government bonds. Gold (+US\$325mn) dominated commodity inflows once again. In the money markets, there was a US\$8.0bn unwinding following US\$13bn injections previously.

Global bonds. Another week of significant withdrawal (-US\$8.1bn) globally despite slowing from the US\$14bn liquidation in the previous week. Government bonds remained investors' preferred category (latest: +US\$1.4bn; 2-week: +US\$3.3bn) at the expense of investment grade corporate bonds (latest: -US\$3.2bn; 2-week: -US\$5.8bn) and high yield bonds (latest: -US\$336mn; 2-week: -US\$6.5bn). Meanwhile, interest within inflation protected bonds (latest: -US\$165mn; 6-week: -US\$1.9bn) has cooled. Recent six consecutive weeks of outflow marked the longest redemption streak since Sep 2015.

Commodities and money markets. Once again gold (latest: +US\$325mn; 2-week: +US\$633mn) dominated commodity inflows after ending 10 straight weeks of withdrawal. In the money markets, European money markets continued to receive additions (latest: +US\$9.7bn; 3-week: +US\$26bn). Interestingly, investors unwound US\$19bn from the US money markets after pumping US\$8.9bn previously. Looking ahead, the US money markets tended to attract sizable additions approaching the year-end (see RHS chart).

Global equities. Liquidation of global equities picked up pace (-US\$15bn, the largest since late Jun) amid broad equity markets selloff last Thur. Substantial redemptions were seen within the US (-US\$17bn) and Europe (-US\$5.5bn) — both were the largest since Jun. While EMEA and LatAm continued to record outflows, Asia witnessed significant flow divergence between mutual fund/ETF investors (US\$8.3bn) and foreign investors (-US\$7.0bn, the second heaviest selling since early Feb). <u>Click here for full note</u>.

Kenneth Chan | Quantitative Strategist +852 3743 8079 | kenneth.chan@jefferies.com

US Insights Housing: Needs a New Front Door, Not a Teardown



Mortgage rates are at 7 year highs, affordability is back to long-term averages, tax reform increased the after tax cost of housing and partly as a result, existing home sales have slowed. The press has gleefully documented the slowdown and it's taken a toll on related stocks. Still, Jefferies analysts find reasons to remain optimistic, believe the rental market is well positioned in the meantime, and offer up several stocks that are overly discounting risks.



- Housing faced a number of headwinds in 2018 but those are unlikely to get worse in 2019 and demographic factors are likely to look better. Highlights include:
- Segmenting Millennials into Three Groups, 26-29 Year Olds are Growing Fastest
- Should We See Meaningful Democratic Victories in November, That Could be a Large Positive for Housing.
- We assume the adjustment period for housing lasts several more quarters, but the longer term housing story remains very compelling.

SKY is well positioned as consumers seek out affordable homes, in Phil Ng's view, and builders will pivot toward more affordable homes, though that may take a few quarters. MAS and FBHS have sold off with housing but have exposure to R&R, which is more resilient. Tayo Okusanya believes apartment **REIT ESS** is well positioned as >80% of SS NOI comes from CA, where affordability is low and the SALT change provides another headwind to housing. Tayo also highlights **NXRT** positively, and **HHC**, which has been hit on housing concerns but which has large exposure to Houston and Las Vegas, two strong and relatively affordable markets. **FND** has more than priced in the slowdown in housing turnover, in Jonathan's view, and he finds that the **NAHB** remodeling index correlates more closely to **FNDs** comp than **EHS**.

Jefferies Equity Research (888) JEFFERIES | research_support@jefferies.com

BattleFin Discovery Day Hong Kong

November 6th – The Shangri-La Hong Kong BattleFin Hong Kong will bring together top Machine Learning, Artificial Intelligence and Alternative Data Providers to showcase the latest in new data sets being used to create alpha. The event delivers industry leading content and utilizes a One-on-One meeting format with 15 minute meetings and facilitates up to 8-10 meetings in per day. Think speed dating for Alpha & new VC investments. For more information, contact **Dan Furstenberg** or **Rich Carbone**. Dfurstenberg@Jefferies.com | rcarbone1@Jefferies.com

Jefferies



3

Jefferies Stock Loan Corner Jefferies Fully Paid Lending

Jefferies Fully Paid Securities Lending presents a unique opportunity to investors who are seeking an alternative way to create alpha. Fully paid lending enables investors to utilize existing assets to earn additional income through securities lending.

Some of the benefits of Jefferies' flexible program:

- Lenders retain the right to sell shares at any time, with restriction
- Lenders retain most beneficial ownership rights on all loaned securities
- Overall portfolio performance is enhanced through incremental return on assets
- Portfolio costs are reduced by lending proceeds
- You do not have to be a Jefferies Prime Brokerage client to participate in the program

US Sector Rotations Utilities Technology Industrial Funds Financial Energy Consumer, Non-cyclical Consumer, Cyclical Communications Basic Materials 🔒 0.00% 5.00% 10.00% 15.00% 20.00% 25.00% 30.00% ■ 15-Oct-18 ■ 12-Sep-18 ■ 15-Aug-18

A few examples:

- A stock in the Automobile sector stock has been extremely volatile year to date with headline news. Borrow rates have traded in negative territory following imbalances in supply and demand. This has created both fully paid lending and synthetic outperformance opportunities generating an annual return of 3% in revenue for lenders participating in Jefferies fully paid for program.
- Over a three month period the lender earned an annualized return of 5.50% in security lending revenue from lending a stock in the Consumer Staples sector. While the stock was still on loan the lender was still able to unwind their long position over time.
- Over a multi-year period, lenders in the program were able to earn annualized returns of between 25% and 60% for lending a Consumer Discretionary stock

Nick Rankin	Tom Tasso
Global Co-Head of Prime Services	Head of Sec Finance Sales
nrankin@Jefferies.com	ttasso@Jefferies.com

Active U.S. Crowded Borrow

Ticke r	Issue r	Industry Group Name	Borrowed Shares	WOW Change	Utilization	Days to Cover
ACRX	Ace IRx Pharmaceuticals Inc	Health Care	3,914,798	105%	92.73%	1.94
TRVN	Trevena Inc	Health Care	12,393,163	68%	84,60%	1.08
NBEV	New Age Beverages Corp	Consumer Staples	6,515,157	57%	96.73%	0.20
PZZA	Papa John's International Inc	Consumer Discretionary	6,504,348	27%	57.01%	4.70
XONE	ExOne Co/The	Industrials	1,212,658	25%	64,67%	5.82
Y RD	Yirendai Ltd	Financials	1,633,403	2.4%	58.57%	3.10
CVNA	Carvana.Co	Consumer Discretionary	6,514,292	18%	51.10%	3.07
FIT	Fitbit Inc	Information Technology	35,486,104	17%	59.96%	5.69
RH	RH	Consumer Discretionary	6,030,463	16%	56.82%	4.29
VKTX	Viking Therapeutics Inc	Health Care	17,283,504	15%	75.24%	2.50
SENS	Sense onics Holdings Inc	Health Care	14,946,550	14%	82.82%	6.21
P EB	Pebblebrook Hotel Trust	Real Estate	18,364,432	13%	41.77%	8.82
CNAT	Conatus Pharmaceuticals Inc	Health Care	2,126,833	13%	61.11%	2.59
ARWR	Arrowhead Pharmaceuticals Inc	Health Care	14,837,417	13%	64,67%	3.12
LGIH	LGI Homes Inc	Consumer Discretionary	6,864,737	12%	64,61%	13.91
ATRA	Atara Biotherapeutics Inc	Health Care	5,407,722	12%	40.99%	8,83
HEAR	Turtle Beach Corp	Consumer Discretionary	2,877,253	12%	96.21%	1.92
CIOXY	Cielo SA	Information Technology	1,314,971	12%	43.83%	2.72
VRAY	View Ray Inc	Health Care	11,048,807	11%	65.22%	7.41
DLTH	Duluth Holdings Inc	Consumer Discretionary	4,276,309	10%	52,68%	17.93
ERII	Energy Recovery Inc	Industrials	5,143,451	10%	66.54%	20.15
XON	Intrexon Corp	Health Care	26,987,382	9%	73.31%	12.59
смсм	Cheetah Mobile Inc	Information Technology	5,496,271	9%	73.98%	8.44
HIMX	Himax Technologies Inc	Information Technology	20,249,814	9%	80.15%	10.81
GEL	Genesis Energy LP	Energy	5,104,194	9%	80.91%	8.50
PLSE	Pulse Biosciences Inc	Health Care	1,326,960	8%	91.67%	18.87
SLCA	US Sili ca Holdings In c	Energy	23,045,116	8%	54.78%	9.41
мтсн	Match Group Inc	Communication Services	14,205,190	7%	55,44%	6.81

Source: Markit/Jefferies

JEFFERIES UPCOMING EVENTS

Upcoming Conferences & Events				
NEW YORK	Jefferies Pre-Launch and Emerging Manager Conference			
HONG KONG	BattleFin Hong Kong			
ADMIRALTY	Jefferies 8th Annual Greater China Conference			
LONDON	Jefferies London Healthcare Conference			
SAN FRANCISCO	Jefferies West Coast Consumer Conference			
HOUSTON	Jefferies 2018 Energy Conference			
	NEW YORK HONG KONG ADMIRALTY LONDON SAN FRANCISCO			

More of What We're Reading & Listening to This Fall

We've started receiving recommendations from clients, so we're passing along some of our collective best. If you have a suggestion, feel free to submit to JefferiesPrimeServices@Jefferies.com or Shannon.Murphy@Jefferies.com

For Those Preparing for the 2019 Holiday Season

Holidays on Ice. An oldie but a goodie from David Sedaris to highlight the absurdities of the holiday season.

Superstition, Ritual or Neuroscientific Quirk?

Why So Many Adventure Athletes Are Superstitious. Outside magazine explores the neuroscience behind pre-performance rituals.

In the Event Stephen Hawking Didn't Base His 'Brief History of Time" on Your Fourth Grade Paper

Astrophysics for People in a Hurry. Neil deGrasse Tyson delivers an easy-to-understand intro to the universe for civilians.

For Those Who Are Excited About the Start of Hockey Season

Behind the Glass: New Jersey Devils Training Camp. Ok, not a book – but an NHL documentary in the vein of HBO's 24/7, following the New Jersey Devils as they prep for the 2018-19 season.

IMPORTANT DISCLAIMER

THIS MESSAGE CONTAINS INSUFFICIENT INFORMATION TO MAKE AN INVESTMENT DECISION.

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. 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. Jefferies may trade or make markets for its own account on a principal basis in the securities referenced in this communication. Jefferies may engage in securities transactions that are inconsistent with this communication and may have long or short positions in such 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. In preparing this material, the Firm has relied on information provided by third parties and has not independently verified such information. 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 a registered investment adviser and 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 p articular 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.

© 2018 Jefferies LLC