Setter

Volume Report FY 2017

Highlights

The Setter Capital Volume Report analyzes global secondary market activity in FY 2017 and covers the following topics:

- > Total Volume of Secondary Deals
- > Secondary Volume FY 2017 vs. FY 2016
- > Breakdown of Volume between Funds and Directs
- > Breakdown of Volume by Type of Assets Purchased
- > Breakdown of Volume by Geography of Assets Purchased
- > Profile of Buyers
- > Number of Deals and Average Deal Size
- > Buyers' Scope of Interest
- > Buyers' Return Targets
- > Profile of Sellers
- > Percentage of Intermediated Deals
- > Predicted Secondary Deal Volume for FY 2018
- > Changes in the Level of Competition
- > Changes in Debt Levels
- > Expected Returns of Secondary Purchases
- > Expected Distribution and NAV Changes in FY 2018
- > General Partners' Approach to the Secondary Market



The survey

As the secondary market continues to grow and evolve, we seek to take a comprehensive and methodical approach to quantifying the market and identifying trends. Using a survey approach, we asked principals directly the same questions that buyers, sellers, agents and secondary fund LPs often ask us. How much was completed in FY 2017? How much was completed in LBO, venture, real estate, infrastructure and hedge fund secondaries? What are the expected returns and buyer debt levels?

This report summarizes the results of our survey of the most active global buyers in the secondary market for alternative investment funds conducted in early Jan 2018. Volume is defined as total exposure (NAV + unfunded in USD) purchased by the respondents, including only deals where a binding agreement was entered into during FY 2017. Please note the '\$' sign denotes USD throughout this report.

We were pleased by the high response rate as 89 of the 123 most active and regular buyers in the secondary market agreed to share their confidential results (see partial list of participants on page 23). Given the high response rate and the fact that all ten of the largest buyers participated, the respondents to our survey represented 94.2% of the transaction volume, making it the most reliable and detailed study of the industry's activities.

Being mindful of response bias, we compared the list of respondents to those who had declined to respond and did not find any obvious or meaningful differences in the known and observed levels of activity between the two groups. We then estimated and charted the total volume, number of transactions, and other reported figures herein by prorating the survey results based on the proportion of small, medium and large buyers that participated.

We hope you find the results interesting and useful. We welcome any questions and would be happy to provide further insights into the results.

FY 2017 in review

After slumping to 42.2 billion in 2016, the secondary market rebounded to a record high of \$60.74 billion in 2017 completed transactions, representing a 44.1% increase from the volume recorded in the **Setter Capital Volume Report FY 2016**.

Volume was up across all alternative asset classes. The private equity secondary market (funds and directs) increased 48.1% year over year, to a total of \$51.56 billion. Real estate secondaries (funds and directs) were up 32.9% to \$6.38 billion and hedge fund secondaries were up 22.6% to \$743 million. Private equity fund secondaries were up 35.9% (\$34.86 billion in FY 2017 from \$25.64 billion in FY 2016), driven by the strong market for both LBO funds (up 36.4%) and VC funds (up 60.5%). Other noteworthy bright spots included the continued growth of private debt secondaries, up 24.5% (\$1.81 billion in FY 2017 from \$1.46 billion in FY 2017 from \$973 million in FY 2016).

Traditional fund secondaries were up 33.1% from \$32.1 billion in FY 2016 to \$42.7 billion in FY 2017 and 'direct secondaries' increased by 79.2% from \$10.06 billion to \$18.0 billion (private equity directs were \$16.7 billion and real estate directs were \$1.33 billion). Indeed, 56% of the survey respondents felt that meaningfully more GPs attempted to liquidate or restructure older funds in FY 2017 as compared to FY 2016 and 25% of respondents felt that a materially higher number of GPs sought staples in FY 2017 as compared to FY 2016.

While the breadth and number of buyers continued to increase, the most significant activity was driven by the large buyers in the market. The fourteen largest buyers, defined as those that deployed more than \$1 billion in FY 2017, accounted for 70.8% of the market's total volume (vs. 58.4% in FY 2016), driven largely by the increase in larger portfolios for sale and the record amounts of capital raised by the big players. 53 mid-sized buyers accounted for roughly 26.1% (vs. 37.1% in FY 2016) and 56 small buyers represented 3.1% (vs. 4.5% in FY 2016). Buyers continued to diversify their secondary focus with about 22% of participants buying other alternative investment types for the first time (infrastructure, real estate, etc.).

Buyer competition for deals continued to heat up in FY 2017 as noted by 24% of respondents who felt it was significantly higher than last year (vs. no respondents that felt it was lower) As a means to stay competitive, the use of debt to improve pricing and deal returns became even more prevalent as 38% of respondents felt that buyers had used significantly more leverage in FY 2017 as compared to the prior year, and not a single respondent felt buyers used less leverage.

Agents intermediated \$9.47 billion more in deals, an increase of 34.4% over FY 2016. We expect the level of intermediation to rise in response to the entrance of new agents and as sellers struggle to stay on top of the ever-growing buyer universe.

There were a total of 1378 transactions in FY 2017, with an average size of approximately \$44.1 million. The number of transactions was up 26.9% from the 1086 transactions completed in FY 2016, while the average deal size increased 13.6%.

The ranks of sellers continued to grow as more institutions looked to actively manage their private market portfolios. Managers of funds across buyout, VC, hedge funds, fund of funds and secondary funds accounting for 38.9% of all sellers, as they continued to use the market to drive liquidity in their funds. Pensions were the single most active sellers, accounted for 21.2% of FY 2017 volume, down from 37.3% in FY 2016, while endowments and charities accounted for 8.1% and sovereigns accounted for 12.6% of volume. Looking forward, most buyers expect pensions to be much more active sellers in FY 2018 (33.1% of total transaction volume).

From a geographical perspective, North American sellers accounted for the largest proportion of volume in FY 2017 selling \$31.37 billion (51.66% vs. 62.22% in FY 2016), whereas Western European sellers sold \$17.58 billion (28.94% vs. 30.40% in FY 2016) and Asia-Pacific sellers accounted for about \$3.71 billion (6.1% vs. 6.85% in FY 2016) year over year. Interestingly, other geographies such as the Middle East accounted for 8.08% of the total volume in FY 2017, up significantly from .53% in FY 2016.

Buyers, on average, estimated NAV valuations would increase 3.15% in FY 2018, while the pace of distributions would increase 1.21%. These forecasts are more optimistic than those in the **Setter Capital Volume Report FY 2016**, where buyers expected distributions to increase by .79% and NAV valuations to increase by 1.23%.

Looking forward, buyers expect FY 2018 volume to be \$58.85 billion, which would be down 3.10% from the \$60.74 billion transacted in FY 2017. This is less optimistic than what buyers expected at the end of 2016, when they expected volume growth to be 25.5% in the coming year.

More Insight.

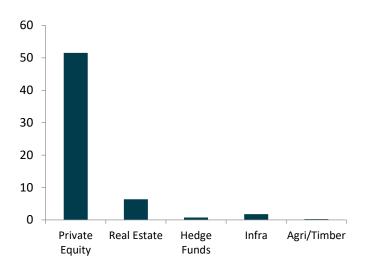
In the secondary market, knowledge is power. By providing granular custom portfolio analysis and industry-leading market research, we empower our clients to make the most informed decisions.



Total volume

Total secondary market volume for FY 2017 was \$60.74 billion. This is the volume estimate derived from the 123 secondary buyers surveyed with dedicated secondary efforts and includes 64 secondary funds, 42 funds of funds, 10 hedge funds, 6 investment consultants, and 1 pension. We believe this estimate is reliable as the 89 survey respondents alone reported \$57.21 billion in volume in their survey responses. The figure is also conservative, as **it does not include the activity of over 1000 opportunistic and non-traditional buyers**, whose combined activity may be significant. For instance, the activities of all sovereign funds (including ADIA, ADIC, GIC, Temasek, etc.) were excluded entirely, even though some have built teams dedicated to secondary purchases.

Types of assets purchased



Private Equity (Directs¹ & Funds):\$51.56 billion (48.1% increase YoY)

Real Estate (Directs & Funds): \$6.38 billion (32.9 % increase YoY)

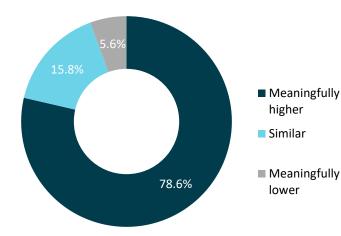
Hedge Funds: \$743 million (22.6 % increase YoY)

Infrastructure Funds: \$1.79 billion (11.1% increase YoY)

Agri/Timber Funds: \$266 million (19.5 % decrease YoY)

Directs include fund recapitalizations and restructurings, fund liquidations, and purchase of single minority stakes and co-investments.

FY 2017 volume vs. FY 2016 volume

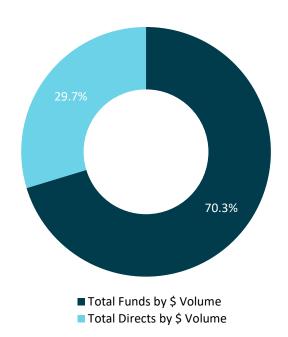


FY 2017 volume increased 44.1% compared to FY 2016, which was \$42.15 billion.

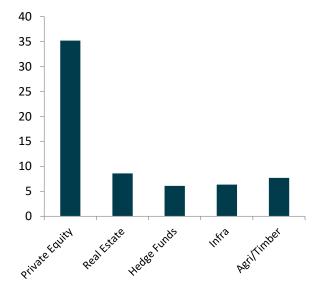
78.62% of survey respondents felt their volume was significantly higher while only 5.58% felt their volume was significantly lower.

Assets purchased

Funds vs. Directs



Breakdown of fund secondaries



In FY 2017, \$42.70 billion of funds (70.3%) and \$18.03 billion of directs (29.7%) were purchased.

Fund secondaries increased 33.1% in FY 2017, from \$32.09 billion recorded in FY 2016. Secondaries of direct investments¹ increased from \$10.06 billion in FY 2016 to \$18.03 billion in FY 2017, which represents a 79.2% increase. Private equity directs and real estate directs accounted for 92.61% and 7.39% respectively of the total directs volume.

Survey respondents estimated that the split between fund and direct secondaries in 3 years would be 68.62% funds and 31.38% directs.

¹Secondaries of direct investments includes GP restructurings and purchases of single minority stakes and co-investments.

Private equity fund purchases totaled \$34.86 billion (35.9% increase YoY)

Real estate fund purchases totaled \$5.05 billion (29.4% increase YoY)

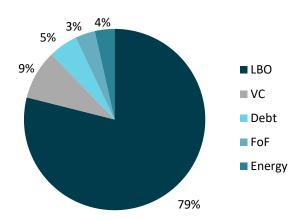
Hedge fund purchases totaled \$743 million (22.6% increase YoY)

Infrastructure fund purchases totaled \$1.79 billion (11.1% increase YoY)

Agri/Timber fund purchases totaled \$266 million (19.5% decrease YoY)

Types of funds purchased

Private Equity Funds



LBO – \$27.51 billion (Up 36.4% YoY from \$20.17 billion)

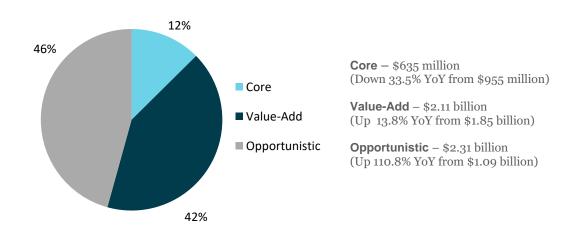
VC – \$3.08 billion (Up 60.5% YoY from \$1.92 billion)

Debt – \$1.81 billion (Up 24.4 % YoY from \$1.46 billion)

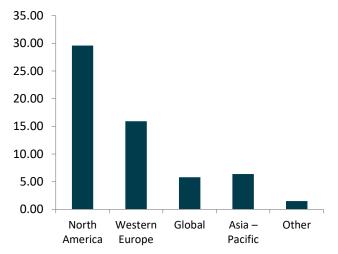
Fund of Funds – \$1.23 billion (Up 9% YoY from \$1.12 billion)

Energy – \$1.23 billion (Up 26.2% YoY from \$973 million)

Real Estate Funds



Geography of assets purchased



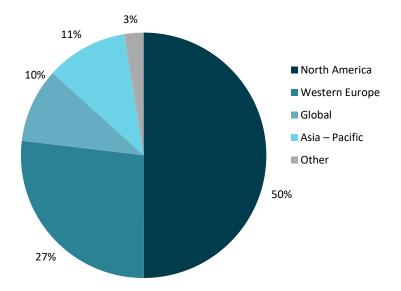
North American and Western European focused funds/directs accounted for the vast majority of assets purchased in FY 2017:

North America – \$29.61 billion (Up 26.2% YoY from \$23.47 billion)

Western Europe - \$15.94 billion (Up 16.2% YoY from \$13.71 billion)

Global – \$5.80 billion (Up 285.1% YoY from \$1.51 billion)

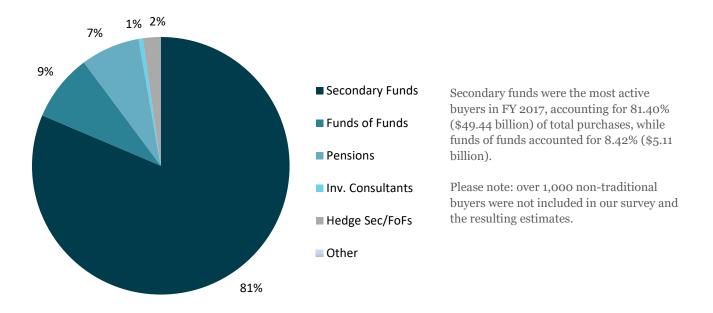
Asia-Pacific – \$6.39 billion (Up 113.5% YoY from \$2.99 billion)

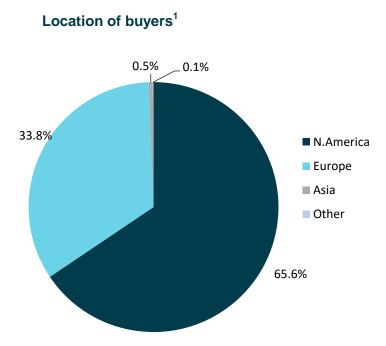


In terms of percentage, North America focused funds and directs accounted for 49.98% of total volume, Western European funds and directs accounted for 26.91% and Asia-focused funds and directs accounted for 10.79% of sales.

Profiles of buyers







North American buyers transacted the most (65.57% of total volume) in FY 2017, up from 63.52% of total volume in FY 2016.

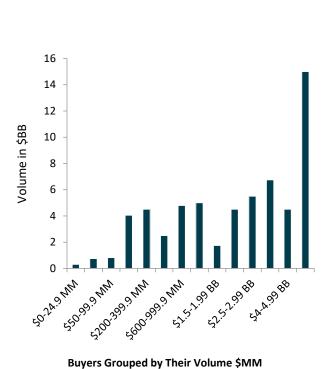
European buyers accounted for 33.81% of total volume in FY 2017, which was lower than FY 2016 (34.7%).

¹Location is based on head office location.

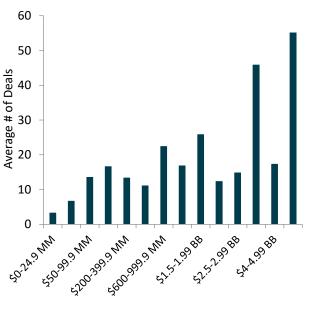
Activity levels of small, medium and large buyers

Volume distribution by size of buyer

Applying the survey respondents' dollar volume and transaction numbers, while taking into consideration the proportion of small, medium and large buyers that did not participate, we estimated the market share of small, medium and large buyers as follows:



Average number of transactions by size of buyer



Buyers Grouped by Their Volume \$MM

14 large buyers (defined as those that deployed \$1 billion or more in FY 2017) purchased \$43 billion, representing approximately 70.80% of total volume across 306 transactions with an average deal size of \$140.52 million. This was an increase from FY 2016, where large buyers accounted for 58.40%.

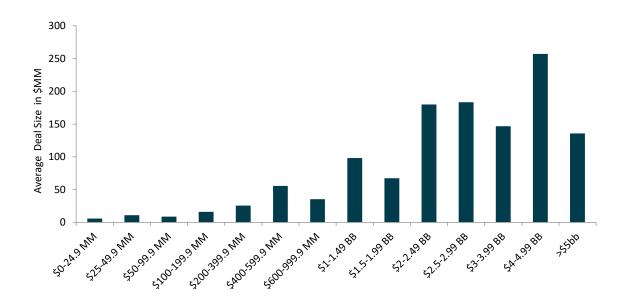
53 medium sized buyers (defined as those that deployed \$100 million to \$1 billion in FY 2017) purchased \$15.85 billion, representing approximately 26.10% of total volume across 744 transactions with an average deal size of \$21.29 million. This was a decrease from FY 2016, where they accounted for 37.10%.

56 small buyers (defined as those that deployed less than \$100 million in FY 2017) purchased \$1.88 billion, representing approximately 3.11% of total volume across 328 transactions with an average deal size of \$5.75 million. This was decrease from FY 2016, where they accounted for 4.50%.

Number of deals and average size deal

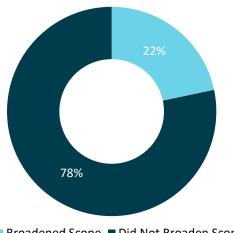
Buyers completed 1,378 transactions in FY 2017 across the entire secondary market for alternative assets, with an average size of approximately \$44.07 million. The number of transactions increased 26.9% from 1086 transactions in FY 2016 and the average deal size increased 13.6% from \$38.8 million in FY 2016.

Average deal size by size of buyer



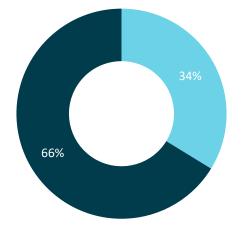
Buyers' scope of interest

Buyers that broadened their focus in FY 2017



21.69% of participants broadened their secondary focus in FY 2017 to include buying other alternative investment types (e.g. infrastructure, real estate, direct secondaries, etc.).

Broadened Scope Did Not Broaden Scope

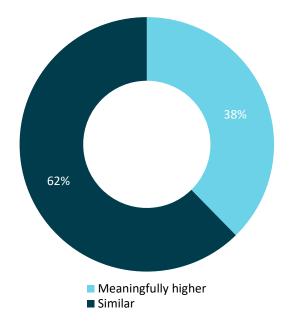


Buyers that intend to broaden their focus in FY 2018FY 2018

33.75% of participants plan to broaden their secondary focus in FY 2018 to include buying other alternative investment types.

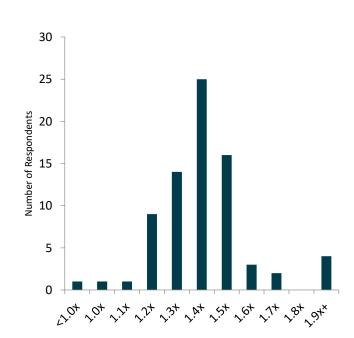
■ Will Broaden Scope ■ Will Not Broaden Scope

Leverage and returns



Level of debt used by buyers in FY 2017 vs. FY 2016

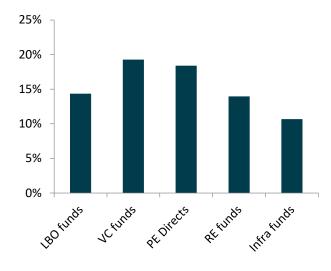
37.66% of respondents believed the level of debtused by buyers had increased significantly in FY 2017.62.34% felt it was the same and no respondents felt itwas less.



Expected multiple for secondary deals completed in FY 2017

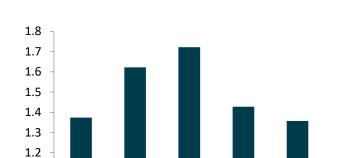
Respondents predicted that the average gross multiple for secondary deals completed in FY 2017 would be 1.41x, which was slightly higher from the 1.38x multiple buyers expected from deals completed in FY 2016.

Buyers' return targets



Targeted IRRs on secondary purchases

When underwriting new purchases, the 89 survey respondents estimated their peers' average targeted IRR to be 14.4% for LBO funds, 19.3% for VC funds, 18.4% for PE directs, 14.0% for real estate funds and 10.7% for infrastructure funds.



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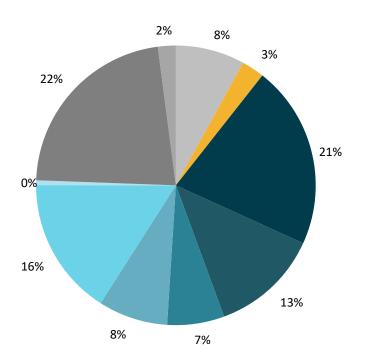
1.1 1.0

Targeted multiples on secondary purchases

On average, the 89 buyers estimated their peers' targeted multiples to be 1.37x for LBO funds, 1.62x for VC funds, 1.72x for PE directs, 1.43x for real estate funds and 1.36x for infrastructure funds.

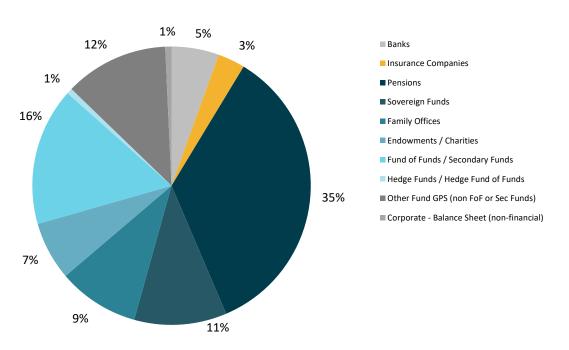
Seller profiles

Type of sellers in FY 2017



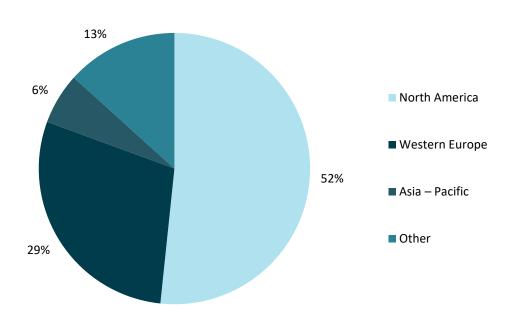
Pension funds and GPs (that are not fund of funds or secondary funds), were the most active sellers in FY 2017 making up 21.2% and 22.4% of the FY 2017 volume. Most buyers expect pensions to continue to be the biggest sellers in FY 2018 (33.1% of total transaction volume).

Expected sellers in FY 2018

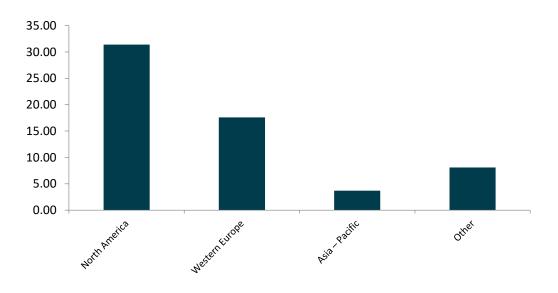


Seller location

Geography of sellers

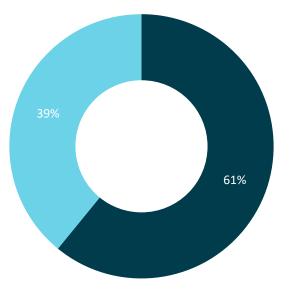


In terms of the location of sellers, North American and Western European sellers accounted for the vast majority of volume in FY 2017. North American sellers sold \$31.37 billion (51.66% vs. 62.6% in FY 2016), whereas Western European sellers sold \$17.58 billion (28.94% vs. 30.7% in FY 2016). Asia-Pacific sellers accounted for 6.10% of the total volume up from 5.60% in FY 2016. Interestingly, other geographies such as the Middle East accounted for 8.08% of the total volume in FY 2017, up significantly from 0.53% in FY 2016.



Intermediation and level of competition

Volume of intermediated transactions

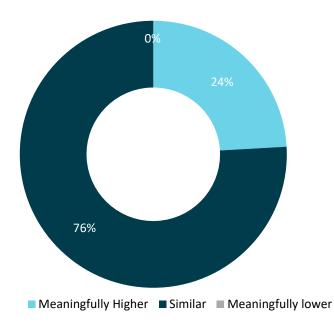


Approximately 60.90% (\$36.99 billion) of total secondary volume involved an intermediary, on either the buy or sell-side, as compared to 65.30% in FY 2016.

In terms of volume, agents intermediated \$9.47 billion more in deals, an increase of 34.4% over FY 2016.

Total Volume Involving Intermediary
Total Volume Not Involving Intermediary

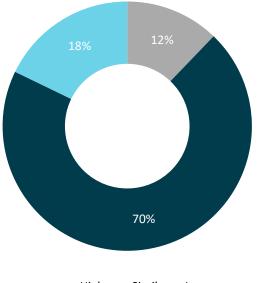
Buyer competition for deals in FY 2017 vs. FY 2016



76% of respondents felt buyer competition in FY 2017 was similar to FY 2016, while 24% felt buyer competition was significantly higher. No respondents felt buyer competition was lower in FY 2017.

Projected volume for FY 2018

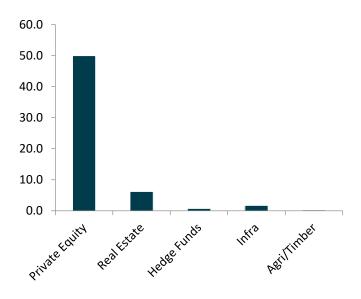
How FY 2018 volume will compare to FY 2017



12% of respondents felt that their FY 2018 volume will be meaningfully higher than FY 2017, while 18 % of respondents felt that it will be meaningfully lower and 70% felt that it will be similar.

■ Higher ■ Similar ■ Lower

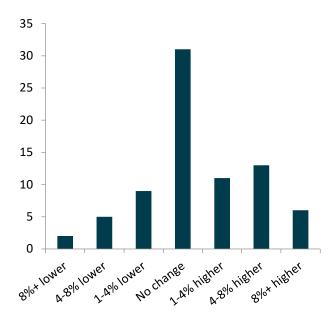
Predicted volume for FY 2018



Respondents predicted total volume for FY 2018 to be \$58.85 billion, which would represent a 3.20% decrease from the \$60.74 billion transacted in FY 2017. Assuming proportions do not change in FY 2018, this suggests private equity volume will be \$49.96 billion in 2018, real estate will be \$6.18 billion, hedge funds will be \$720 million, infrastructure will be \$1.73 billion and agriculture & timber will be \$258 million.

Expected distribution and NAV changes in FY 2018

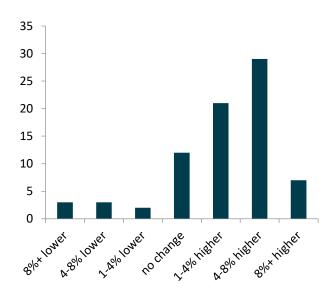
Distribution Pace in FY 2018 vs. FY 2017



Most respondents expect the pace of distributions in FY 2018 to be slightly higher than FY 2017 as the average response suggests an expected increase of 1.21% in FY 2018.

Respondents are more optimistic than they were in FY 2016, when they expected the pace of distributions to be only up .79%.

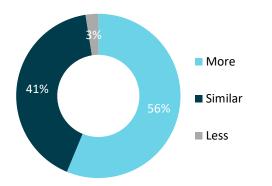
Change in NAV in FY 2018 vs. FY 2017



On average, respondents expect NAV valuations to increase by 3.15% in FY 2018 compared to FY 2017. Respondents were more optimistic than FY 2016 when they expected NAVs to increase by 1.23% in the upcoming year.

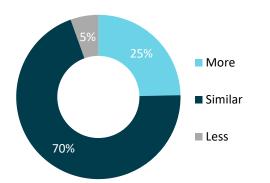
General partners' approach to the secondary market

Liquidations and restructurings in FY 2017 vs. FY 2016



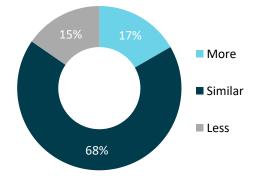
56% of respondents felt that meaningfully more GPs attempted to liquidate or restructure older funds in FY 2017 compared to FY 2016.

Staples sought by GPs in FY 2017 vs. FY 2016



25% of respondents felt that meaningfully more GPs sought staples in FY 2017 as compared to FY 2016.

GP restrictiveness on transfers in FY 2017 vs. FY 2016



Most respondents felt that GPs restrictiveness on transfers didn't change in FY 2017 compared to FY 2016.

Select respondents

50South Capital Abbott Capital Adams Street Partners Altamar Capital Ant Capital Partners Arcano Group Aviva Investors **BBR** Partners **Capital Dynamics** CBRE Central Park Group **Cipio Partners** Coller Capital Commonfund Capital **Corbin Capital Partners** CPPIB **Dorchester Capital Euro Private Equity** Fort Washington **Glendower** Capital Glenmede Trust **Glouston Capital Partners Golding Capital Partners** Hamilton Lane Advisors HarbourVest Partners Headlands Capital Hollyport Capital ICG **Idinvest Partners** Industry Ventures International Woodland Company (IWC) JP Morgan **Klinehill Partners** Knightsbridge Landmark Partners LGT Capital

Mercury Partners Metropolitan Real Estate Neuberger Berman NewQuest Capital Partners North Sky Capital Northleaf Capital **Optimize Capital Partners** Pantheon Partners Group Pictet Alternative Advisors SA PineBridge Pomona Capital Portfolio Advisors **Private Advisors RCP** Advisors **Roc Partners** Schroder Adveg Sobera Capital Spectra Investments Stafford Capital Partners StepStone Sturbridge Capital SwanCap Partners Sweetwater Capital **Top Tier Capital Partners** TR Capital UBS Global Asset Management Unigestion Vintage Ventures Vision Capital W Capital Partners Warana Capital Whitehorse Liquidity Willowridge Partners

About Setter

Established in 2006, Setter Capital is a leading independent advisory firm specializing in providing liquidity solutions for fund managers and institutional investors in the secondary market for alternative investments. We serve a diverse institutional client base including some of the world's largest pensions, endowments, investment consultants and fund managers. To date, Setter Capital has completed over 400 transactions, representing more than \$20 billion in liquidity across venture capital, private equity, infrastructure, real estate, real asset, and hedge fund investments.

Setter Capital's mission is to make the secondary market more transparent and efficient for all market participants. To this end, Setter provides the market with complimentary secondary market research and analytical tools such as:

The Setter Liquidity Rating[™] A unique rating system that allows buyers, sellers and creditors to assess the relative liquidity of over 7000 different fund families.

The Setter Volume Report[™] and the Setter Price Report[™]

Two semi-annual reports that provide the most comprehensive and accurate assessments of the secondary market. Data is based on pricing of over 2000 funds and a survey of over two thirds of the most active secondary buyers globally.

SecondaryLink.com[™] A professional network where over 5000 institutional LPs and GPs connect on primary due diligence and the secondary market.

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