

Setter

Volume Report FY 2016

First in the Secondary Market.

Highlights

The Setter Capital Volume Report analyzes global secondary market activity in FY 2016 and covers the following topics:

- › Total Volume of Secondary Deals
- › Secondary Volume FY 2016 vs. FY 2015
- › 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 2017
- › Changes in the Level of Competition
- › Changes in Debt Levels
- › Expected Returns of Secondary Purchases
- › Expected Distribution and NAV Changes in FY 2017
- › 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 2016? 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 January 2017. 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 2016. Please note the '\$' sign denotes USD throughout this report.

We were pleased by the high response rate – of the 119 most active and regular buyers in the secondary market, 94 agreed to share their confidential results (see partial list of participants). Given the high response rate and the fact that nine of the ten largest buyers participated, the respondents to our survey represented 85.8% 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 meaningful or obvious 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.

2016 in review

After hitting a high of \$49.6 billion in 2015, the secondary market retraced as the total volume of completed transactions decreased to USD 42.15 billion in FY 2016, falling 15.0% from the volume recorded in the **Setter Capital Volume Report FY 2015**.

Although volume was down, the experience across different sectors was far from uniform. The private equity secondary market (funds and directs) decreased 7.7% year over year, to a total of \$34.8 billion. Real estate secondaries (funds and directs) experienced the largest drop falling 47.8% to \$4.8 billion and hedge fund secondaries were down 27.4% as side pocket supply continued to evaporate. Private equity fund secondaries were down 10% (\$25.6 billion in FY 2016 from \$28.5 billion in FY 2015), reflecting the mixed volume changes in LBO funds (down 17.3%) and VC funds (up 12.8%). Noteworthy bright spots include a sizeable increase in debt fund secondaries which increased 71.3% (\$1.4 billion in FY 2016 from \$850 million in FY 2015). Fund of funds secondaries also increased by 55.7% (\$1.1 billion in FY 2016 from \$722 million in FY 2015) and rebounding energy prices helped boost energy fund secondaries by 17.8% (\$973 million in FY 2016 from \$826.0 million in FY 2015).

While traditional fund secondaries were down 18.6% from \$39.4 billion in FY 2015 to \$32.1 billion in FY 2016, 'direct secondaries' decreased by only 1.4% to \$10.1 billion (private equity directs were \$9.2 billion and real estate directs were \$0.9 billion). Indeed, 54.7% of the survey respondents felt that more GPs attempted to liquidate or restructure older funds in FY 2016 compared to FY 2015 and 25.3% of respondents felt that a materially higher number of GPs had sought staples in FY 2016 as compared to FY 2015.

While the breadth and number of buyers continued to increase, the most significant activity was driven by the large buyers in the market. The ten largest buyers, defined as those that deployed more than \$1 billion in FY 2016, accounted for 58.4% of the market's total volume (vs. 62.0% in FY 2015), while the 56 mid-sized buyers accounted for roughly 37.1% (vs. 33.6% in FY 2015) and 53 small buyers represented roughly 4.5% (vs. 4.4% in FY 2015). Large buyers had the most challenging year with their total purchases down 19.9% from \$30.7 billion in FY 2015 to \$24.6 billion in FY 2016, largely driven by the lack of large scale portfolio sales. Buyers continued to diversify their secondary focus with about 20.9% 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 2016 as noted by 96.5% of respondents who felt it was either similar or higher than last year. As a means to stay competitive, the use of debt to improve pricing and deal returns became even more prevalent as 27.3% of respondents felt that buyers had used significantly more leverage in FY 2016 as compared to the prior year.

The level of intermediation increased from 63.0% in FY 2015 to 65.3% of total secondary volume (\$27.0 billion) in FY 2016. We expect the level of intermediation to continue 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 1,086 transactions in FY 2016, with an average size of approximately \$38.8 million. The number of transactions was down 3.6% from the 1,127 transactions completed in FY 2015 and the average deal size decreased 11.8% year over year, as larger deals were less prevalent than in the last few years.

The ranks of opportunistic sellers continued to grow, given investors' increasing familiarity and comfort with secondary sales along with the disappearance of the stigma associated with selling. Although pensions (37.3%) were the most active sellers in FY 2016, managers of funds across buyout, VC, hedge funds, fund of funds and secondary funds accounted for 31.8% of all sellers, as they continued to use the market to drive liquidity in their funds. Looking forward, most buyers expect pensions to be the most active sellers in FY 2016.

From a geographical perspective, North American sellers accounted for the largest proportion of volume in FY 2016 selling \$26.4 billion (62.6% vs. 50.3% in FY 2015), whereas Western European sellers sold \$12.9 billion (30.7% vs. 26.3% in FY 2015) and Asia-Pacific sellers accounted for about \$2.4 billion (5.6% vs. 20.1% in FY 2015) year over year.

Buyers, whose expertise is modeling near and midterm fund performance, estimated NAV valuations would increase 1.23% in FY 2017, while the pace of distributions would be increase 0.79%. These forecasts are more optimistic than those in the **Setter Capital Volume Report FY 2015**, where buyers expected distributions to be 2.43% lower and NAV valuations to appreciate by only 0.53%.

Looking forward, buyers expect FY 2017 volume to be \$52.3 billion, which would be up 25.5% from the \$42.15 billion transacted in FY 2016. This is much more optimistic than what buyers expected in FY 2016 (**Setter Capital Volume Report FY 2015**), where they expected the growth rate to be 2.2% in the coming year.

More Insight.

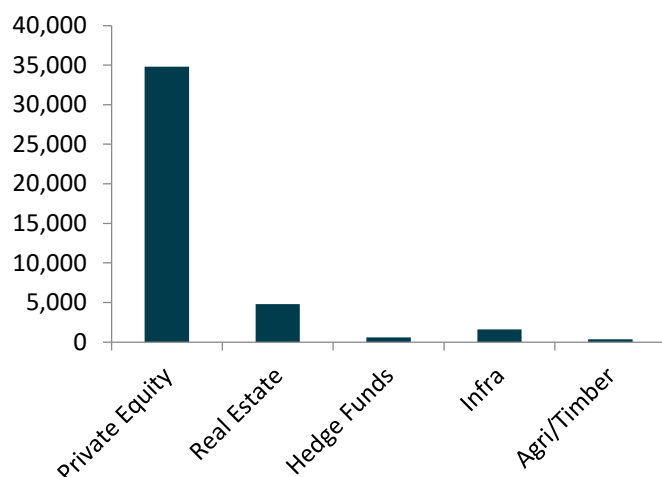
In the secondary market, knowledge is power.
By providing granular custom portfolio analysis and
industry-leading market research, we empower our
clients to make the most informed decisions.

Setter

Total volume

Total secondary market volume for FY 2016 was \$42.15 billion. This is the volume estimate of the 119 secondary buyers surveyed with dedicated secondary efforts and includes 66 secondary funds, 40 funds of funds, 6 hedge funds, 6 investment consultants, and 1 pension. We believe this estimate is reliable as the 94 survey respondents alone reported \$36.2 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): \$34.8 billion
(7.7% decrease YoY)

Real Estate (Directs & Funds): \$4.8 billion
(47.8% decrease YoY)

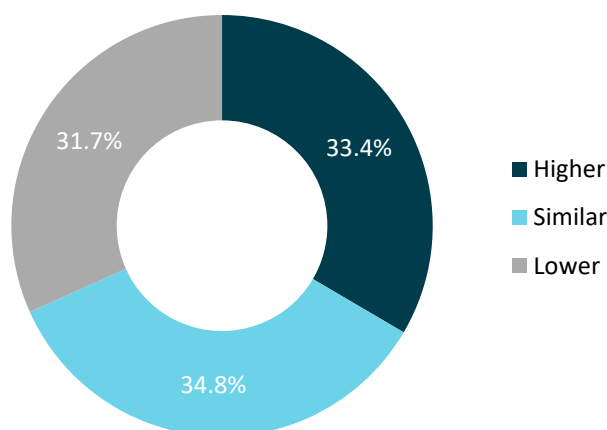
Hedge Funds: \$606 million
(27.4% decrease YoY)

Infrastructure Funds: \$1.6 billion
(0.5% increase YoY)

Agri/Timber Funds: \$331 million
(5.8% increase YoY)

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

FY 2016 volume vs. FY 2015 volume

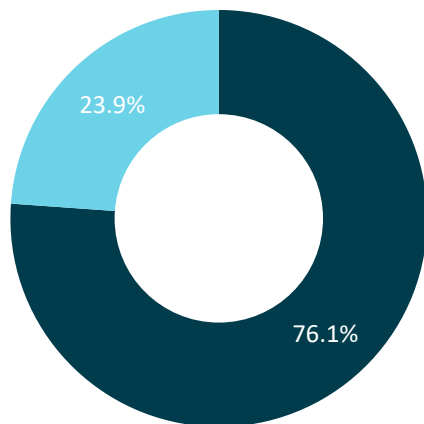


FY 2016 volume decreased 15.0% compared to 2015, which was roughly \$49.6 billion.

34.8% of survey respondents felt volume was similar to FY 2015, while 33.4% said it was significantly higher and 31.7% felt it was significantly lower, showing buyers' had mixed success in 2016.

Assets purchased

Funds vs. Directs



■ Total Funds by \$ Volume
■ Total Directs by \$ Volume

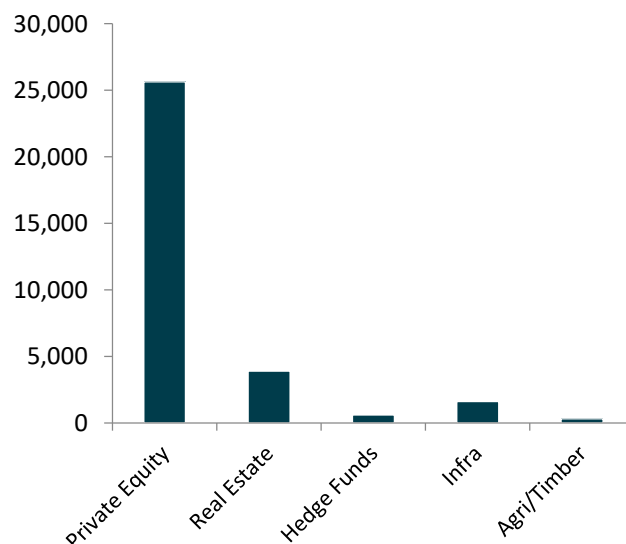
In FY 2016, \$32.1 billion of funds (76.1%) and \$10.1 billion of directs (23.9%) were purchased.

Fund secondaries decreased 18.6% in 2016, from \$39.4 billion recorded in FY 2015. Secondaries of direct investments¹ decreased slightly from \$10.2 billion in FY 2015 to \$10.1 billion in FY 2016, which represents a .9% decrease. Private equity directs and real estate directs accounted for 91.1% and 8.9% respectively of the total directs volume.

Survey respondents estimated that the split between fund and direct secondaries in 3 years would be 72.9% funds and 27.1% directs, respectively.

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

Breakdown of fund secondaries



Private equity fund purchases totaled \$25.6 billion (10.0% decrease YoY)

Real estate fund purchases totaled \$3.9 billion (51.8% decrease YoY)

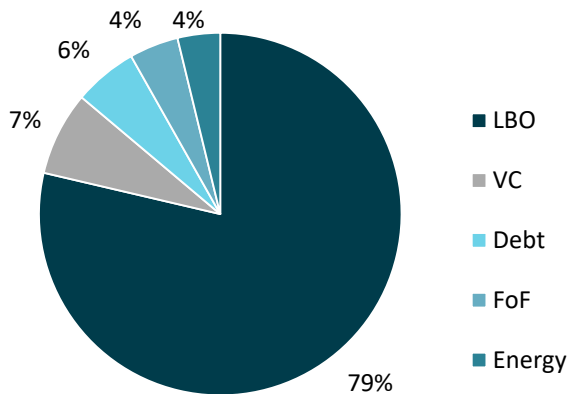
Hedge fund purchases totaled \$606 million (27.4% decrease YoY)

Infrastructure fund purchases totaled \$1.6 billion (0.5% increase YoY)

Agri/Timber fund purchases totaled \$331 million (5.8% increase YoY)

Types of funds purchased

Private Equity Funds



LBO – \$20.2 billion
(Down 17.3% YoY from \$24.4 billion)

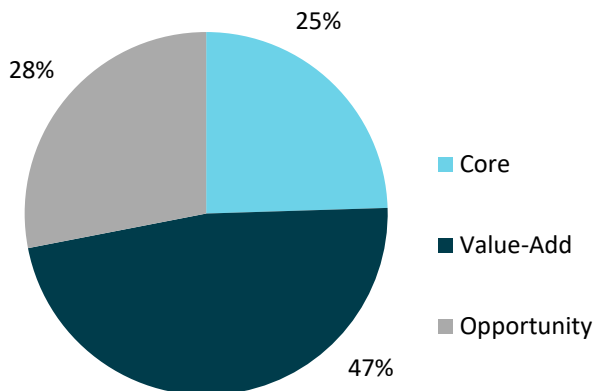
VC – \$1.9 billion
(Up 12.8 % YoY from \$1.7 billion)

Debt – \$1.4 billion
(Up 71.3% YoY from \$850 million)

Fund of Funds – \$1.1 billion
(Up 55.7% YoY from \$722 million)

Energy – \$ 973million
(Up 17.8% YoY from \$826 million)

Real Estate Funds

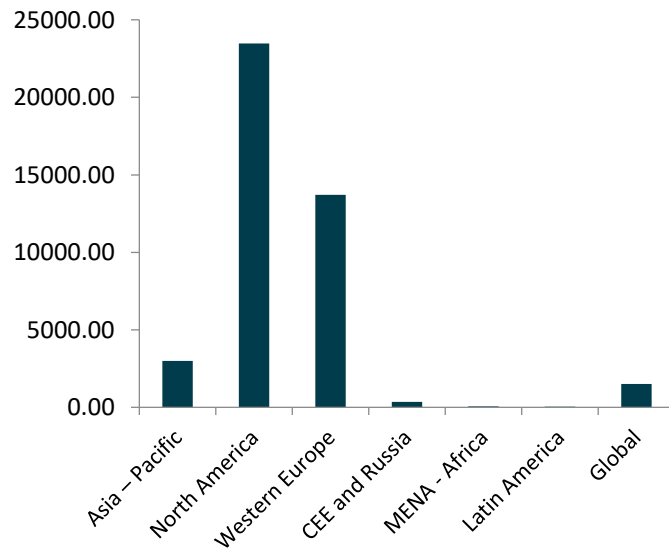


Core – \$955 million
(Down 46.7% YoY from \$1.8 billion)

Value-Add – \$1.8 billion
(Down 43.7% YoY from \$3.3 billion)

Opportunity – \$1.1 billion
(Down 64.6% YoY from \$3.1 billion)

Geography of assets purchased



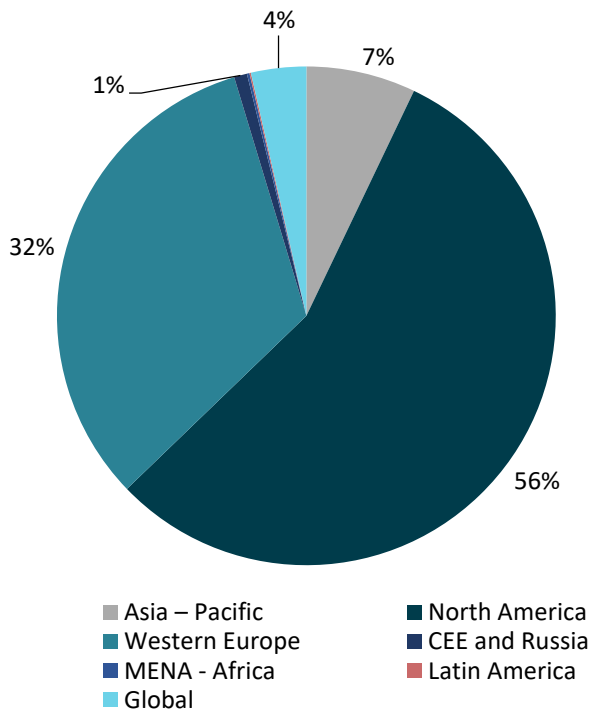
North American and Western European focused funds/directs accounted for the vast majority of assets purchased in FY 2016:

North America – \$23.5 billion
(Down 8.3% YoY from \$25.6 billion)

Western Europe - \$13.7 billion
(Down 15.3% YoY from \$16.2 billion)

Global – \$1.5 billion
(Down 64.9% YoY from \$4.3 billion)

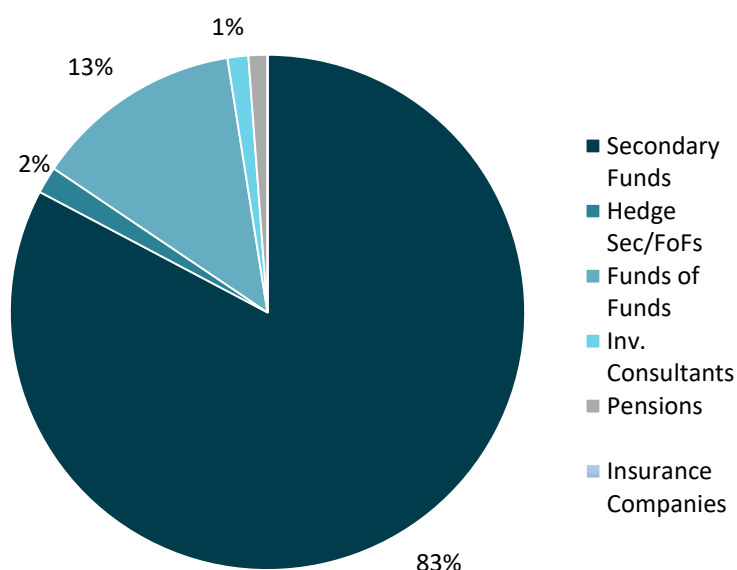
Asia-Pacific – \$3 billion
(Down 5.1% YoY from \$3.2 billion)



In terms of percentage, North America focused funds and directs accounted for 55.7% of total volume, Western European funds and directs accounted for 32.5% and Asia focused funds and directs accounted for 7.1% of sales.

Profiles of buyers

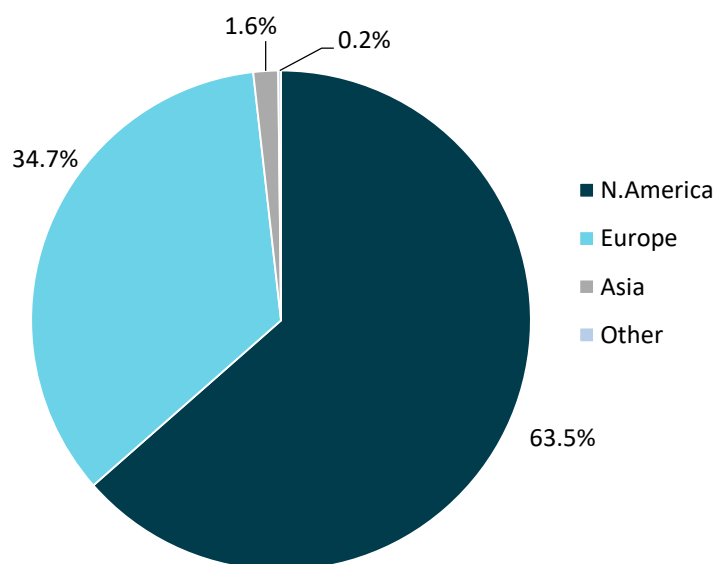
Type of buyers



Secondary funds were the most active buyers in FY 2016, accounting for 82.7% (\$34.9 billion) of total purchases, while funds of funds accounted for 13.1% (\$5.5 billion), and investment consultants accounted for 1.3% (\$550 million).

Please note: over 1,000 non-traditional buyers were not included in our survey and the resulting estimates.

Location of buyers¹



North American buyers transacted the most (63.5% of total volume) in FY 2016, up from 61.1% of total volume in FY 2015.

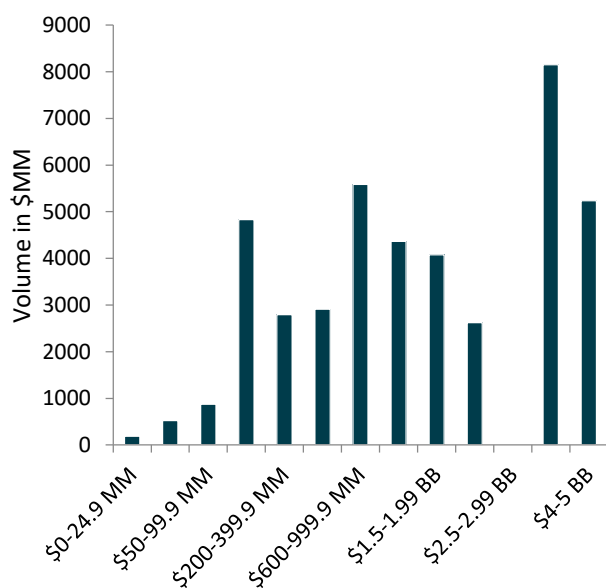
European buyers accounted for 34.7% of total volume in FY 2016, which was lower than FY 2015 (37.4%).

¹ Location is based on head office location.

Activity levels of small, medium and large buyers

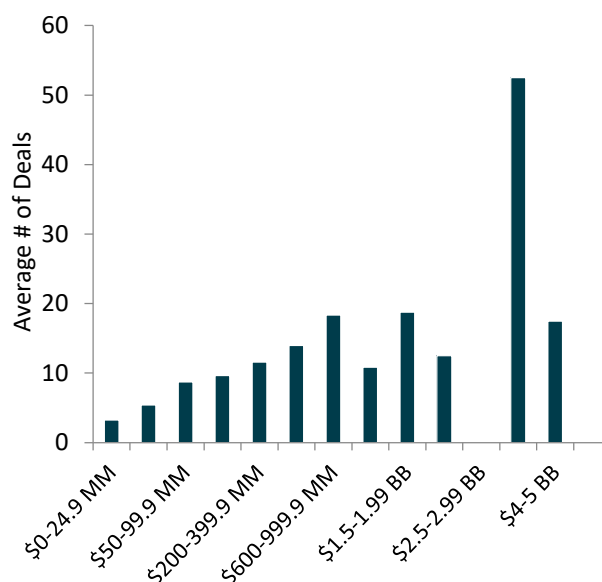
Applying the survey respondents' dollar volume and transaction numbers, while taking into consideration the proportion of small, medium and large buyers that did not participate, we estimated the market share of small, medium and large buyers as follows:

Volume distribution by size of buyer



Buyers Grouped by Their Volume \$MM

Average number of transactions by size of buyer



Buyers Grouped by Their Volume \$MM

10 large buyers (defined as those that deployed \$1 billion or more in FY 2016) purchased \$24.6 billion, representing approximately 58.4% of total volume across 239 transactions with an average deal size of \$103.1 million. This was a decrease from FY 2015, where large buyers accounted for 62.0%.

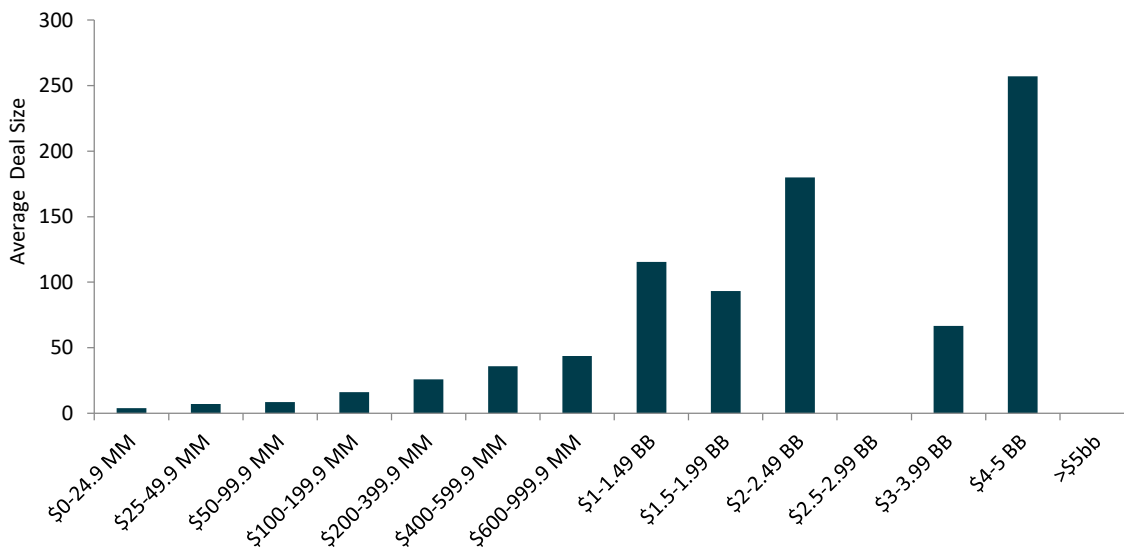
56 medium sized buyers (defined as those that deployed \$100 to \$999.9 million in FY 2016) purchased \$15.6 billion, representing approximately 37.1% of total volume across 620 transactions with an average deal size of \$25.2 million. This was a slight increase from FY 2015, where they accounted for 33.6%.

53 small buyers (defined as those that deployed less than \$100 million in FY 2016) purchased \$1.9 billion, representing approximately 4.5% of total volume across 227 transactions with an average deal size of \$8.4 million. There was no material change from FY 2015, where they accounted for 4.4%.

Number of deals and average size deal

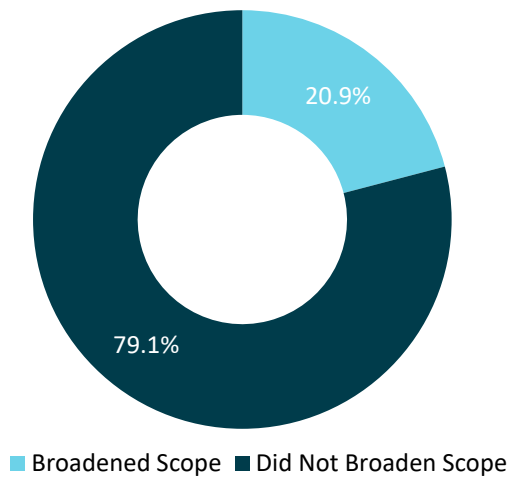
Respondents completed approximately 933 secondary deals in FY 2016, from which we extrapolated an estimate of 1,086 transactions across the entire secondary market for alternative assets, with an average size of approximately \$38.8 million. The number of transactions decreased 3.6% from 1,127 transactions in FY 2015 and the average deal size decreased 11.8% from \$44.0 million in FY 2015.

Average deal size by size of buyer



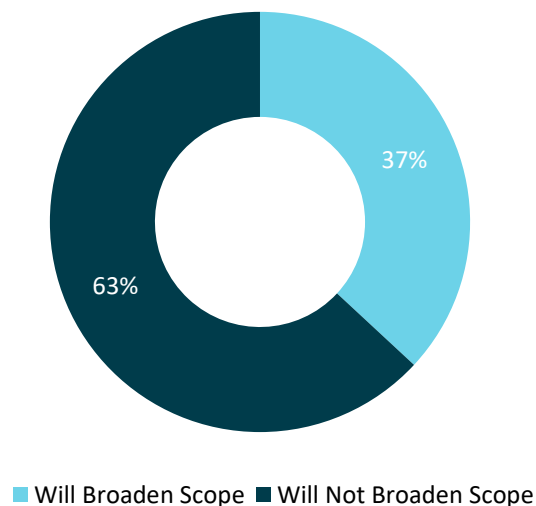
Buyers' scope of interest

Buyers that broadened their focus in FY 2016



Approximately 20.9% of participants broadened their secondary focus in FY 2016 to include buying other alternative investment types (e.g. infrastructure, real estate, portfolios of direct, etc.).

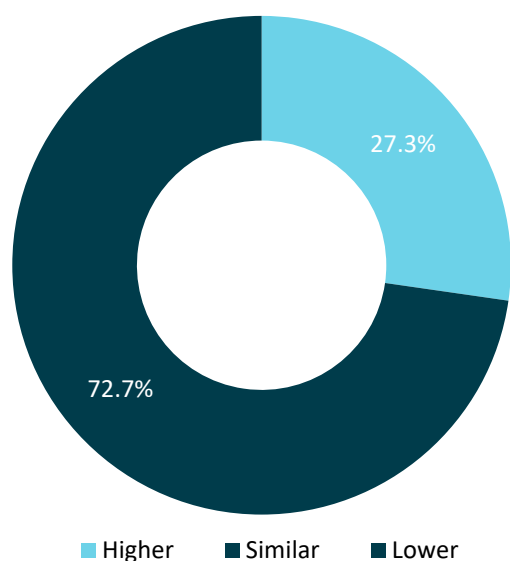
Buyers that intend to broaden their focus in FY 2017



Coincidentally, the same percentage of participants (36.9%) plan to broaden their secondary focus in FY 2017 to include buying other alternative investment types. This percentage represents a 25.5% increase from buyers' expectations in FY 2016.

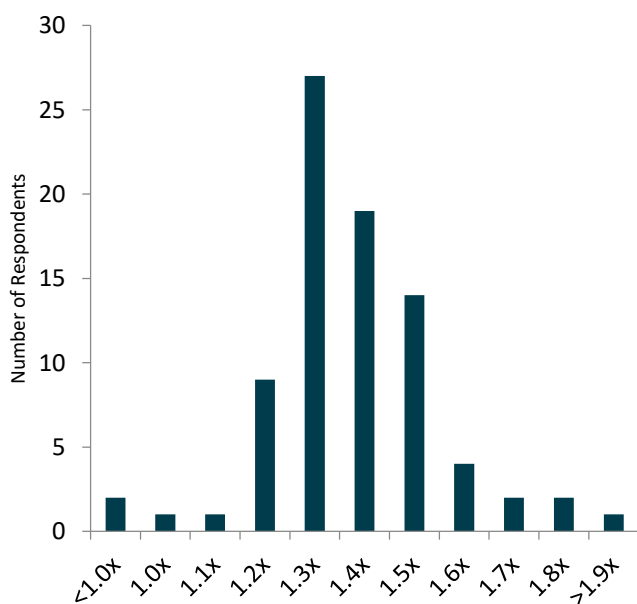
Leverage and returns

Level of debt used by buyers in FY 2016 vs. FY 2015



27.3% of respondents believed the level of debt used by buyers had increased significantly in FY 2016. 72.7% felt it was the same and no respondents felt it was less.

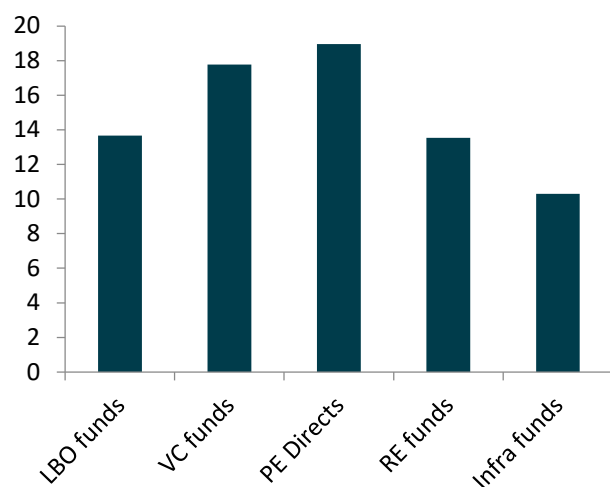
Expected multiple for secondary deals completed in FY 2016



Respondents predicted that the average gross multiple for secondary deals completed in FY 2016 would be 1.38x, which was slightly down from the 1.41x buyers expected in FY 2015.

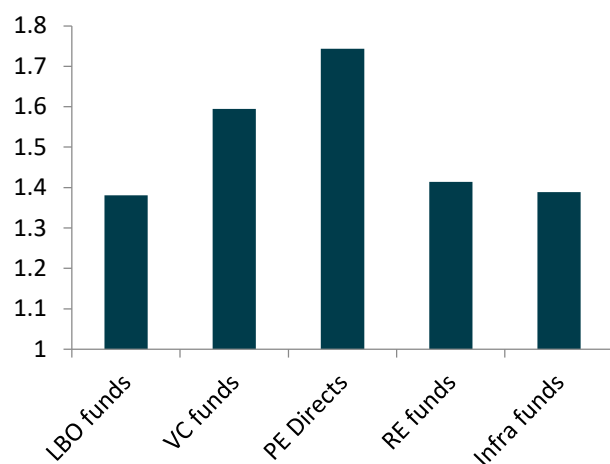
Buyers' return targets

Targeted IRRs on secondary purchases



When underwriting new purchases, the 94 survey respondents estimated their peers' average targeted IRR to be 13.7% for LBO funds, 17.8% for VC funds, 18.9% for PE directs, 13.5% for real estate funds and 10.3% for infrastructure funds.

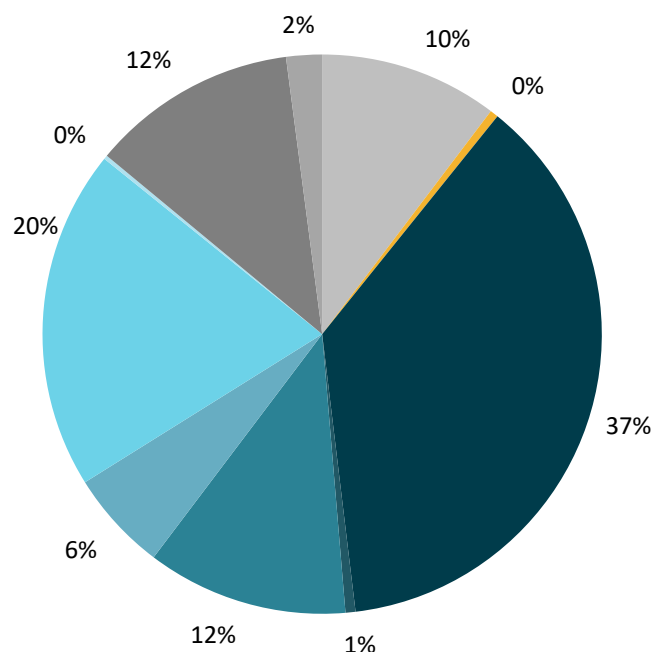
Targeted multiples on secondary purchases



On average, the 94 buyers estimated their peers' targeted multiples to be 1.38x for LBO funds, 1.59x for VC funds, 1.74x for PE directs, 1.41x for real estate funds and 1.39x for infrastructure funds.

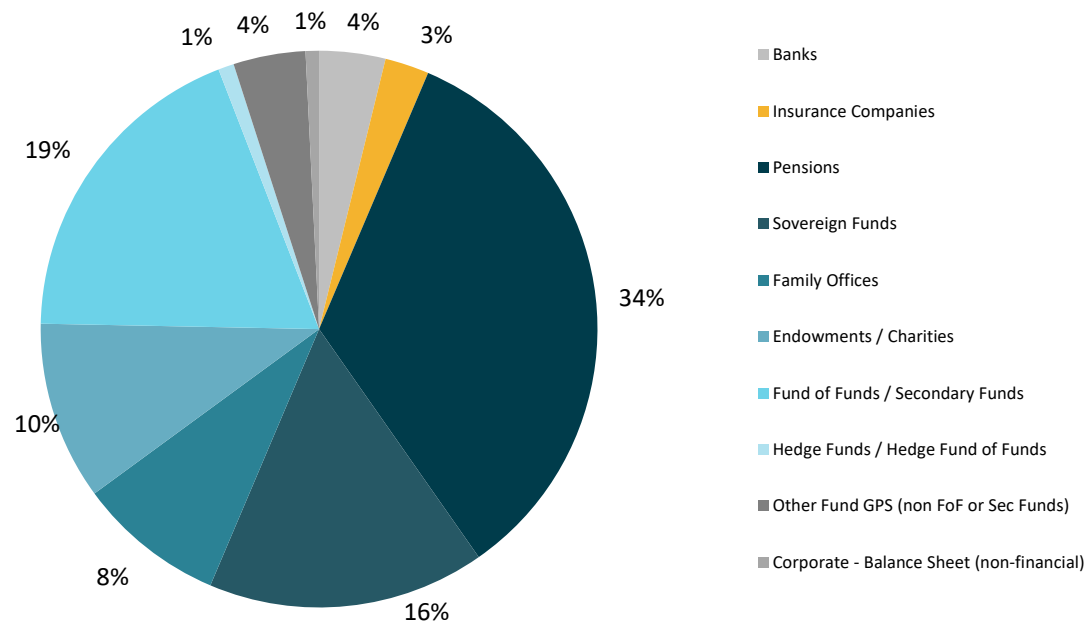
Seller profiles

Type of sellers in FY 2016



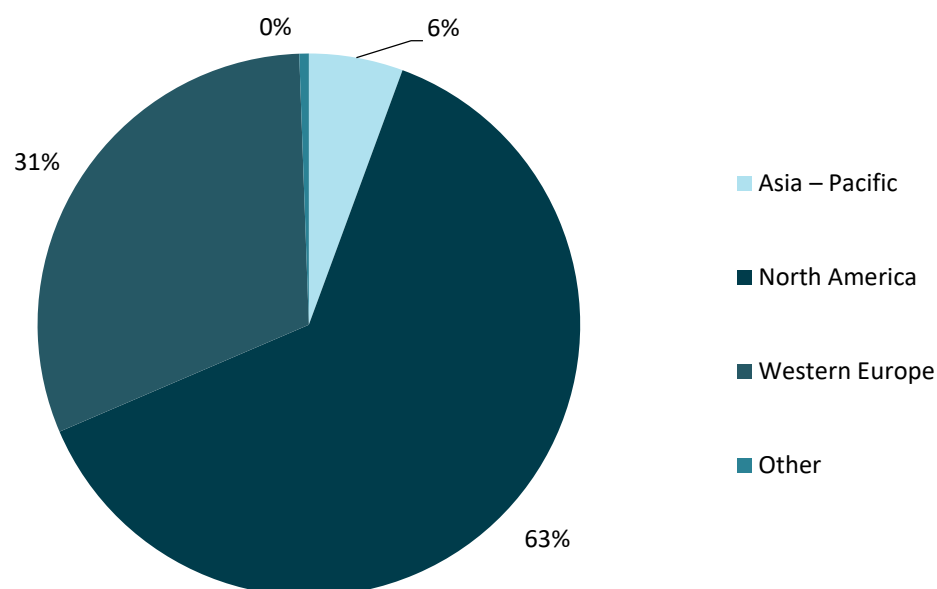
Pensions were the most active sellers in FY 2016 making up 37.3% of volume. Most buyers expect pensions to be the biggest sellers again in FY 2017, with the remaining volume coming largely from funds of funds, secondary funds, endowments and other GPs.

Expected sellers in FY 2017

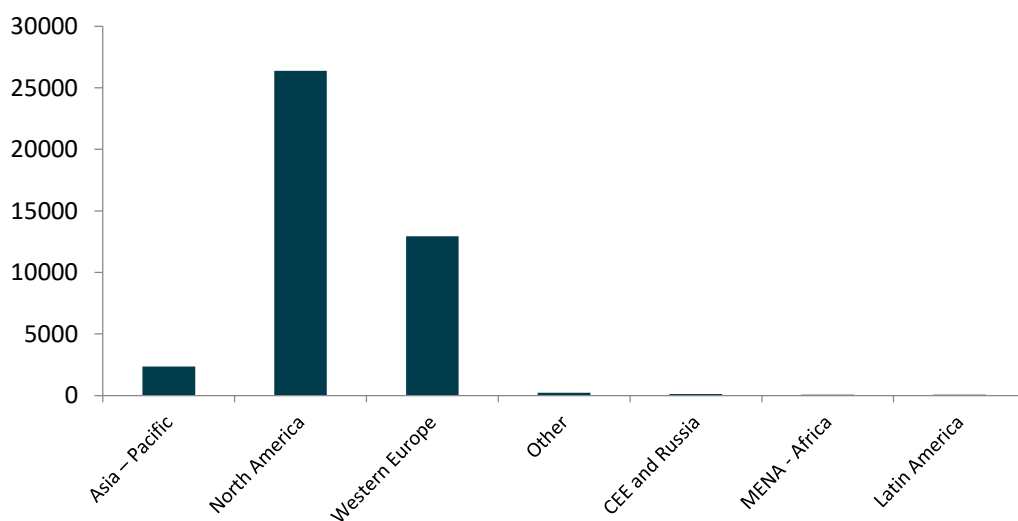


Seller location

Geography of sellers

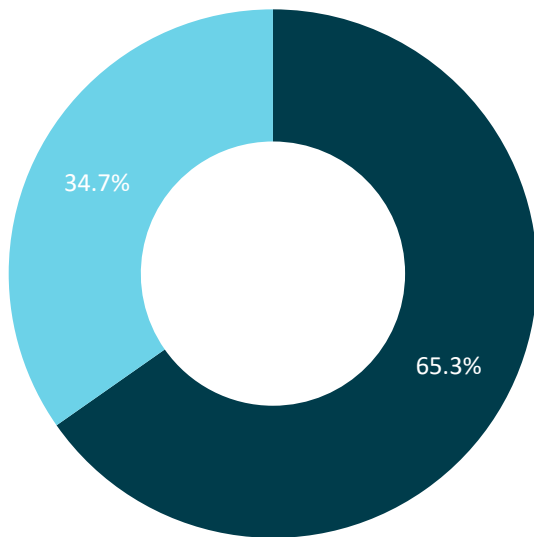


In terms of the location of sellers, North American and Western European sellers accounted for the vast majority of volume in FY 2016. North American sellers sold \$26.4billion (62.6% vs. 50.3% in FY 2015), whereas Western European sellers sold \$12.9billion (30.7% vs. 26.3% in FY 2015). Asia-Pacific sellers accounted for 5.6% of the total volume down from 20.1% in FY 2015.



Intermediation and level of competition

Volume of intermediated transactions

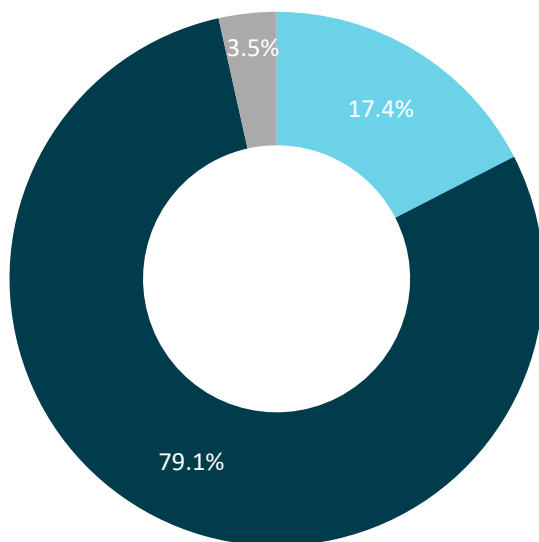


■ Total Volume Involving Intermediary
■ Total Volume Not Involving Intermediary

Approximately 65.3 % (\$27.0 billion) of total secondary volume involved an intermediary, on either the buy or sell-side, as compared to 63.0% in FY 2015.

In terms of volume, agents intermediated \$3.9 billion less in deals, a decrease of 12.4% over FY 2015.

Buyer competition for deals in FY 2016 vs. FY 2015

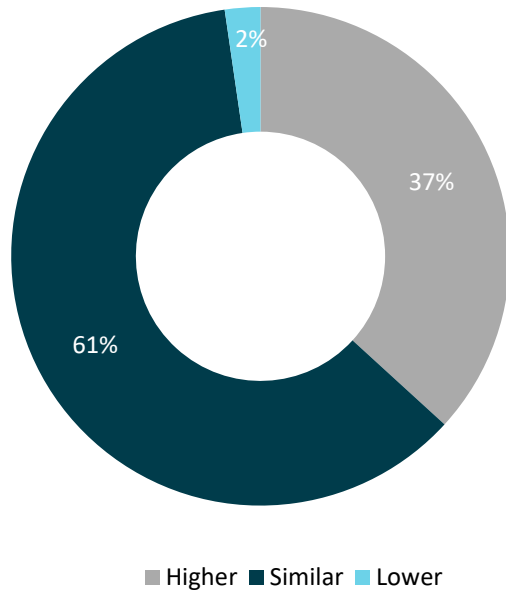


■ Higher ■ Similar ■ Lower

79.1% of respondents felt buyer competition in FY 2016, which was similar to FY 2015, while 17.4% felt buyer competition in FY 2016 was significantly higher. Only 3.5% felt buyer competition was lower in FY 2016.

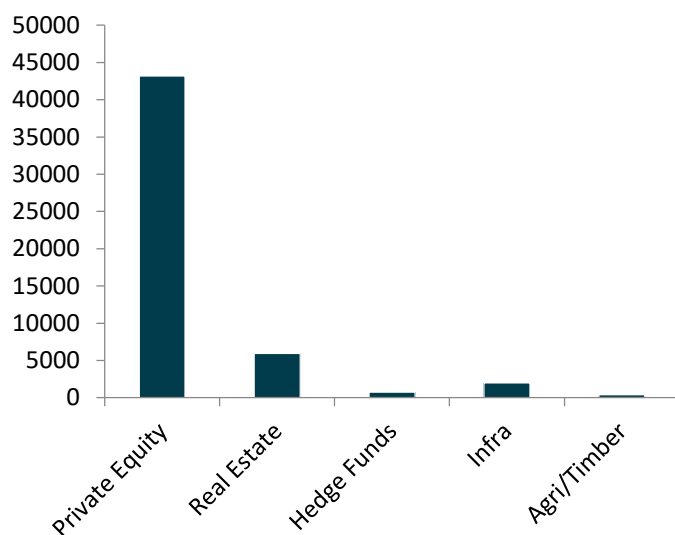
Projected volume for FY 2016

How FY 2017 volume will compare to FY 2016



61% of respondents felt that FY 2017 volume will be similar to that of FY 2016 as 37% of respondents felt that it will be significantly higher and 2% felt that it will be significantly lower.

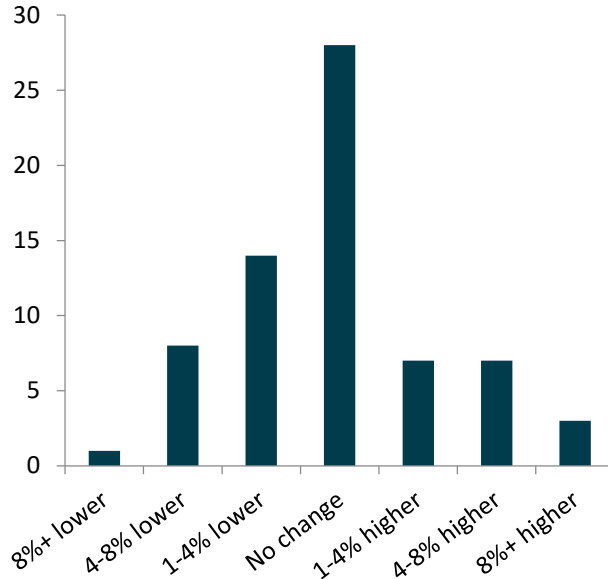
Predicted volume for FY 2017



Respondents predicted total volume for FY 2017 to be \$52.3 billion, which would represent a 25.5% increase from the \$42.15 billion transacted in FY 2016. Assuming proportions do not change in FY 2017, this suggests private equity volume will be \$43.4 billion in 2017, real estate will be \$6.0 billion, hedge funds will be \$0.75 billion, infrastructure will be \$2.0 billion and agriculture & timber will be \$0.22 billion.

Expected distribution and NAV changes in FY 2017

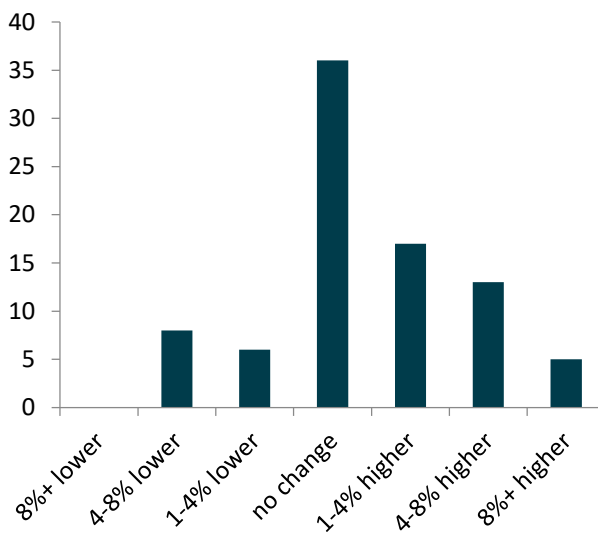
Distribution Pace in FY 2017 vs. FY 2016



Most respondents expect the pace of distributions in FY 2017 to be approximately the same as FY 2016 as the average response data suggests an expected increase of only 0.79% in FY 2017.

Respondents were, however, much more optimistic than they were in FY 2016, when they expected the pace of distributions to be 2.43% lower.

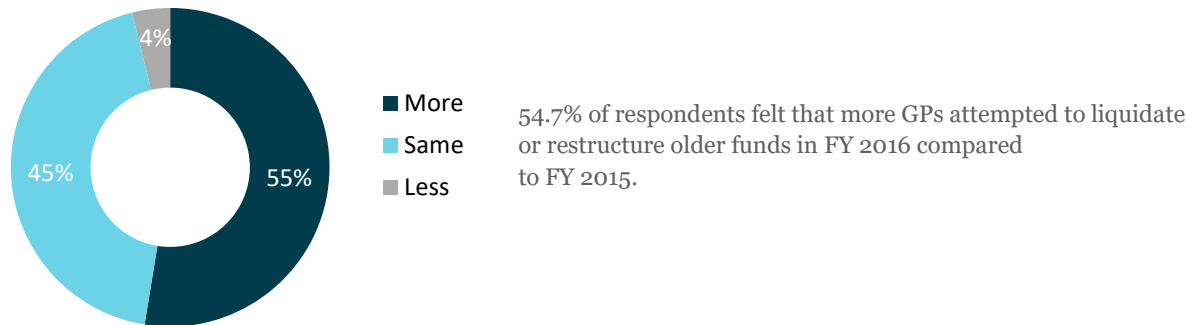
Change in NAV in FY 2017 vs. FY 2016



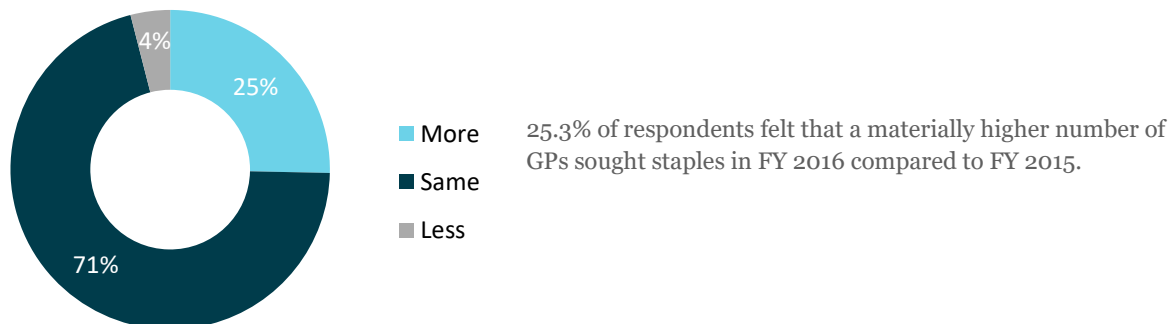
On average, respondents expect NAV valuations to increase by 1.23% in FY 2017 compared to FY 2016. This suggests that respondents are more optimistic than they were in FY 2016 when they expected NAVs to increase by only 0.53%.

General partners' approach to the secondary market

Liquidations and restructurings in FY 2016 vs. FY 2015



Staples sought by GPs in FY 2016 vs. FY 2015



GP restrictiveness on transfers in FY 2016 vs. FY 2015



Select respondents

Adams Street Partners
Adveq
AGC Equity Partners
Alpha Associates
Altamar Capital Partners
Arcano Group
Argentum
BBR Partners
BEX Capital
Canada Pension Plan
Capital Dynamics
Central Park Group
Cipio Partners
Coller Capital
Commonfund Capital
Corbin Capital Partners
Dakota Capital
DB Private Equity
Dorchester Capital
Fort Washington Capital Partners
50South Capital
GCM Grosvenor
Glenmede Trust
Golding Capital Partners
Greenspring Associates
Hamilton Lane Advisors
HarbourVest Partners
Headlands Capital
Hollyport Capital
HQ Capital
ICG Strategic Secondaries
Idinvest
Industry Ventures
International Woodland Company (IWC)
Jasper Ridge
JP Morgan
Jupiter Capital Partners

Klinehill Partners
Knightsbridge
Landmark Partners
LGT Capital Partners
Mercury Partners
Metropolitan Real Estate
Neuberger Berman
NewGlobe Capital
NewQuest Capital Partners
North Sky Capital
Northleaf Capital
Pantheon
Partners Group
Pictet Alternative Advisors SA
PineBridge Investments
Pomona Capital
Portfolio Advisors
Private Advisors
RCP Advisors
ROC Partners
17Capital
SL Capital Partners
Sobera Capital
Stafford Capital Partners
Stepstone
Strategic Partners Fund Solutions
Sturbridge Capital
Top Tier Capital Partners
TR Capital
Tyrus Capital
UBS Global Asset Management
Unigestion
Vintage Ventures
Vision Capital
W Capital Partners
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 4000 institutional LPs and GPs connect on primary due diligence and the secondary market.

Setter Capital Inc.
77 Bloor Street West, Ste 1220
Toronto, ON Canada M5S 1M2
+1 416 964 9555 Phone

settercapital.com