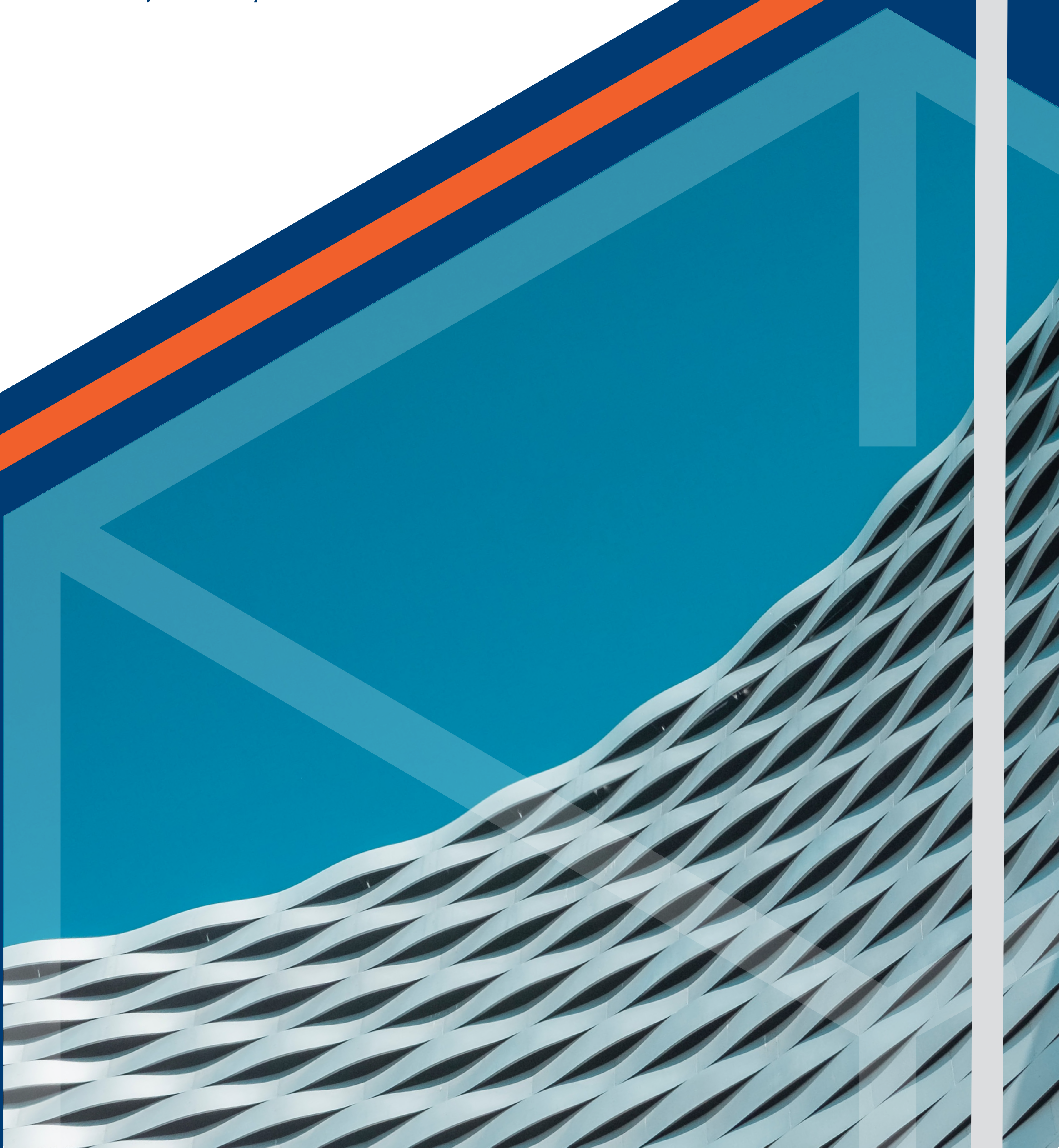
PALICO

Secondary Pricing Report

Q3 2019

October 2019 // Prepared by Palico



FUNDS SELLING AT PAR OR BETTER SEE THEIR AVERAGE PREMIUM RISE AS THEIR RELATIVE NUMBER DROPS

The typical transaction on the secondary market is valued at 100 percent of net asset value in terms of median, with the mean a touch lower at 98 percent, according to the latest Palico survey of limited partners who've successfully purchased stakes in closed funds over the last six months. Pricing has held remarkably steady despite recession concerns, supported by record amounts of dry powder. The latest survey covers 40 private equity funds of all types, encompassing buyouts, growth, venture capital, real assets, and credit.

Secondary pricings based on successful bids over the last 6 months*

Fund	Pricing (% of NAV)	Vintage
Actera Partners 2006	**96%**	2006
Advent Latin America Fund V	**88%**	2010
Anacap Financial Partners II	**87%**	2009
Apollo Investment Fund VIII	**105%**	2014
Birch Hill Equity Partners IV	**99%**	2009
Blackstone Capital Partners VII	**115%**	2015
Blackstone Property Partners I	**102%**	2015
Carlyle Asia Partners V	**97%**	2017
Charterhouse Capital Partners IX	**98%**	2008
Clayton, Dubilier and Rice VIII	**101%**	2009
Energy & Minerals Group Fund II	**92%**	2012
Fortress Investment Fund V	**94%**	2007
Gilde Buy-Out Fund IV C.V.	**90%**	2010

*Through September 30, 2019

Secondary pricings based on successful bids over the last 6 months*

Fund	Pricing (% of NAV)	Vintage
Global Infrastructure Partners II	**100%**	2012
Gores Capital Partners III, L.P.	**79%**	2010
Hellman & Friedman Capital Partners VIII	**109%**	2015
ICG Europe Fund V	**100%**	2013
Inflexion Buyout Fund IV	**100%**	2014
Insight Venture Partners IX LP	**101%**	2014
Kainos Capital Partners II	**84%**	2016
Kelso Investment Associates IX	**109%**	2016
KKR 2006 Fund	**95%**	2006
KKR North America Fund IX	**108%**	2014
Kohlberg Investors VII	**105%**	2013
Lindsay Goldberg IV LP	**104%**	2014
Matlin Patterson Global Opportunities Fund III	**80%**	2007
MBK Partners Fund III	**98%**	2012
New Mountain Capital Partners III	**97%**	2007

*Through September 30, 2019

Secondary pricings based on successful bids over the last 6 months*

Fund	Pricing (% of NAV)	Vintage
New Mountain Capital Partners IV	**103%**	2014
Pharos Capital Partners III, L.P.	**80%**	2010
Quantum Energy Partners	**96%**	2015
Rhone Partners V	**100%**	2015
Ridgewood Energy Oil & Gas Fund II	**81%**	2014
Strategic Partners VI	**97%**	2014
Thomas H. Lee Equity Fund VII LP	**120%**	2015
TowerBrook Investors Fund IV	**92%**	2013
TPG Growth III	**104%**	2015
Vista Foundation Fund II	**111%**	2013
Warburg Pincus Private Equity Fund XI	**107%**	2013
Waterland Private Equity Fund V	**106%**	2011

*Through September 30, 2019

Premiums Rise

With dry powder holding at a record of about $190 billion, according to Greenhill & Co., secondary funds and funds-of-funds feel compelled to put money to use, rather than let it lie idle and dilute returns. Secondary specialists are also calling on growing amounts of leverage to juice returns in today's intensely competitive marketplace; one secondary market adviser recently estimated that leverage in the form of loans, deferred payments and preferred equity accounts for a record 45 percent of volume this year, up from just 4 percent in 2013. Dry powder and the emergence of leverage have led to particularly strong pricing for in-demand funds. Funds selling at par or better in the last six months saw their typical price rise to a 6 percent premium above their net asset value. That's a fifth higher than in Palico's previous survey.

Half of Funds Sell at Par or Better, Down From Roughly Two-Thirds

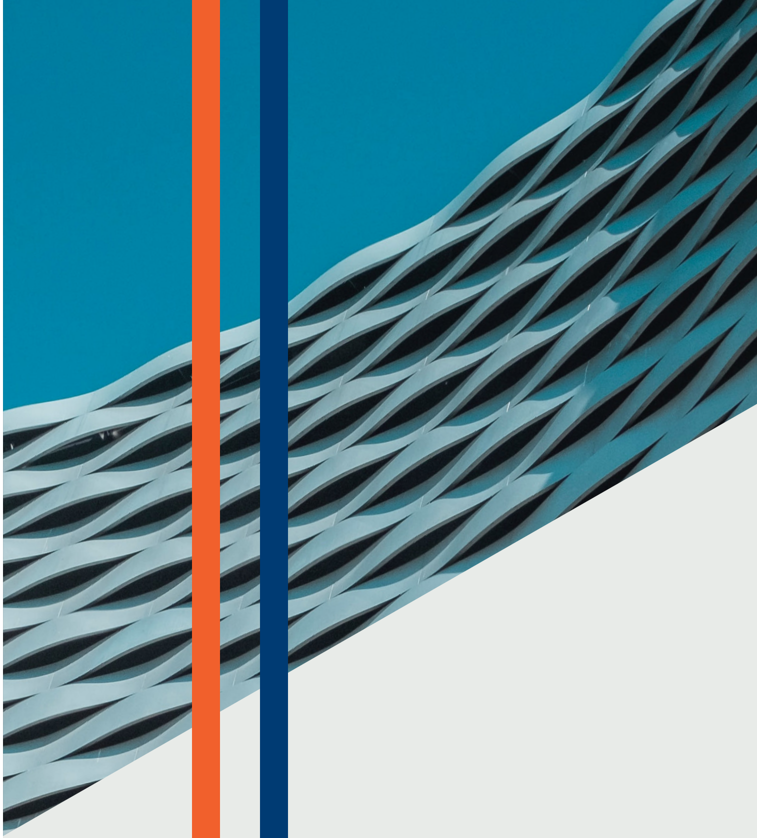
But while buyers are paying higher premiums for more transparent and more easily valued funds as recession worries rise, they are also becoming pickier. Some 50 percent of funds changing hands in secondary transactions sold at par or better over the last six months, versus 63 percent in H2 2018 and 64 percent in H1 2019. As financial markets become more volatile, the gap between in-demand funds and their less sought after peers appears to be gradually widening.

Discounts Widen

Funds selling at discount have seen their price relative to net asset value gradually decline from last year's peak. The typical portfolio selling for less than par went for 91 percent of net asset value in the last six months, falling from 93 percent and 92 percent respectively in H2 2018 and H1 2019. Over the last six months the number of tail-end funds (vehicles that are at least 10 years old) have dropped from a third of the secondary market to 24 percent. As investors become more selective, they are buying fewer tail-ends. Older funds hold fewer investments, increasing risk relative to younger more diversified portfolios. Overall, the average age of funds sold over the past six months is 6.8 years versus 7.6 in Palico's last study.

Secondaries Remain on Pace for a Record Year

Most market specialists peg half-year secondary market volume at an all-time high of some $40 billion; one preliminary estimate has nine-month volume at a record $60 billion, not far off from the $70 billion annual record achieved last year. With volume typically accelerating in the latter half of the year, most market specialists now predict annual volume of some $90 billion to $100 billion. With market participants now estimating private equity assets under management at some $5.8 trillion (this incorporates buyouts, growth, real assets, venture capital and credit strategies), annual turnover in the secondary market amounts to slightly less than 1.6 percent of the investment category's value. That's a record high, but when private equity's biggest weakness is arguably illiquidity, it certainly leaves a lot of room for growth.



> *“Funds selling at par or better in the last six months saw their typical price rise to a 6 percent premium above their net asset value.”*