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The Expanding Opportunities for Sponsor and Secondary Solutions

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Juxtaposed against the rapid growth of the broader private capital markets, the secondary market has developed into a core allocation for many sophisticated investors driven by: the growth of sub-markets in the secondary space; continued adoption of secondary sales as a tool for proactive portfolio management rather than a tool of last resort accelerating liquidity during periods of distress; and the expectation (well founded in our view) of future growth of the GP-led market.

We believe the GP-led portion of the secondary market will continue to grow due to the slowing exit environment experienced in the past five years. As GPs continue to receive pressure from their Limited Partners (LPs) to monetize investments and drive DPI (distributed to paid-in capital), GPs are increasingly turning to the secondary market as a creative and innovative route to liquidity.

Secondaries have generated strong historical performance relative to other alternative strategies on both an absolute and risk-adjusted basis, with the strategy generating a narrower dispersion of returns without giving up significant upside performance.

KEY TAKEAWAYS

- Secondaries are now a core allocation for sophisticated private markets investors.
- General Partner (GP)-led secondaries and continued private markets maturation will likely continue to drive overall secondary market growth and innovation – we believe the market will double or triple in size in the next five years.
- Distinctive attributes that drive differentiation for secondaries as a strategy – and differentiation among managers – will likely continue to persist.

During periods of dislocation, such as during and after the Great Financial Crisis and the European Debt Crisis, secondaries added resilience to private market portfolios by capitalizing on market volatility to acquire assets at attractive pricing.

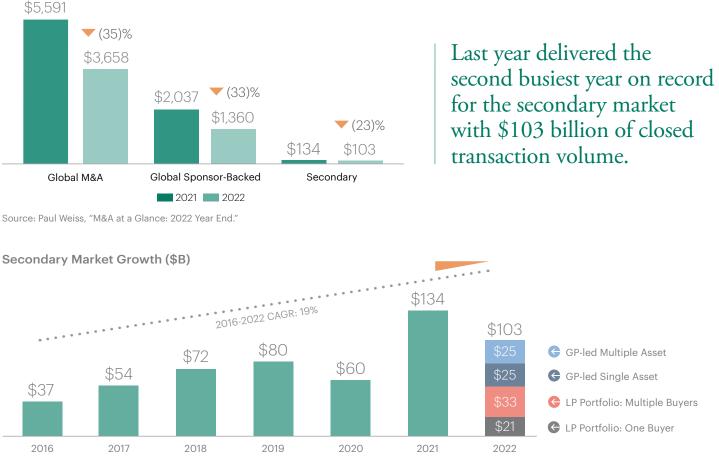
We believe future secondaries investors will continue to experience excess return per unit of risk when compared to other private market strategies due to a variety of factors including:

- The supply of investable opportunities is greater than available secondary capital.
- Availability and magnitude of discounts.
- Market inefficiencies create attractive transaction dynamics.
- Rapid deployment pace of capital particularly in times of dislocations enables outperformance through favorable entry points.
- Immediate diversification in most secondary strategies providing a ballast against idiosyncratic risk.
- Increasing ability for investors and secondary fund managers to modulate risk through accessing a broad range of opportunities across the cost of capital spectrum.

Section I 2022: Secondary Market Year in Review

Despite significant financial market and geopolitical volatility (e.g. the S&P 500 declining approximately 19%, its worst performance since 2008 and Russia's invasion of Ukraine early in the year), last year delivered the second busiest year on record for the secondary market with \$103 billion of closed transaction volume.¹ While representing a 23% decline from 2021's all-time record volume of \$134 billion, the secondary market contracted significantly less than either the Global M&A market or the Sponsor-backed M&A market which fell 35% and 33% respectively.² Over a longer time horizon, the secondary market has demonstrated significant and consistent growth, compounding at 19% annually since 2016. Importantly, the market has demonstrated resilience in years following declines, as seen in 2021 when the market more than doubled following a 25% decline in 2020.

Closed Transaction Volume: Global M&A, Sponsor-Backed and Secondaries (\$B)



Source: Jefferies PCA, "State of the Secondary Market - January 2023."

As seen above, closed transaction volume in 2022 was evenly divided among four general transaction types. For LP transactions, the majority of capital deployed involved selling the portfolio to multiple buyers (often called a "mosaic solution"), with on average four buyers divvying up the portfolio.³ An increase in mosaic solutions is common during periods of dislocation when buyers gravitate toward more targeted and higher conviction funds. In more benign environments buyers may be more comfortable "buying the market" by providing a more comprehensive solution. On the GP-led side of the ledger the split was balanced with 50% single-asset deals and 50% multi-asset transactions.

¹ Evercore, "2022 Secondary Market Synopsis."

² Paul Weiss, "M&A at a Glance: 2022 Year End Round.

³ Jefferies PCA, "State of the Secondary Market – January 2023."

Several recent secondary market trends continued to gain importance in 2022. The first is the growth of sub-markets within the secondary space, with various firms raising dedicated pools of capital to invest across the risk-return spectrum of secondary assets. From fund finance lending at relatively low loan-to-values, to credit secondaries to preferred and hybrid equity to private equity and venture capital, a growing and evolving asset class continued to raise funds with differentiated investment mandates and costs of capital. We observe that rising awareness of the flexibility and creativity of secondary capital is increasing demand among both LPs and GPs for secondary solutions, especially in an environment where more traditional exit options are challenging. Secondary managers are raising capital with different return profiles in response. We cover this phenomenon further in Section III. Another key trend is the continued adoption of direct private equity "tools" by secondary market participants. The use of consultant studies, quality of earnings reports, fairness

opinions and reps and warranty insurance all continued to become more prevalent, especially in concentrated GP-led transactions where the asset underwrite is as important as direct GP skill and alignment.

A third key trend is the continued belief in the future growth of the GP-led market. For reasons we will discuss further in the next section, there is a strong case for secondary volumes in general, and GP-led transactions in particular, to grow significantly over the next several years. This growth can create an attractive investment opportunity for well-resourced secondary managers with expertise underwriting single assets and concentrated portfolios. As a result, a number of wellestablished M&A advisors have created or expanded secondary practices to focus primarily on GP-led transactions.⁴ Virtually all M&A advisors now include secondary market transactions alongside more traditional exit strategies such as IPO and "trade sales."

Section II The Secondary Market: A Five-Year Forecast

Looking forward to 2023 and beyond, we forecast strong secondary market growth for several reasons. First is the current size and forecasted growth of the primary market. Pitchbook recently published a forecast for private capital closed-end fund assets under management (AUM) through 2027.⁵ Their base case projection is for total AUM to grow to \$13 trillion in 2027 with a high case of \$16.1 trillion and a low case of \$11.2 trillion.



Private Capital Closed-End Funds AUM (\$T) Forecast

Source: Pitchbook Analyst Note: "What the Future Holds for Private Capital – January 2023."

⁴ Examples include but not limited to Baird, Goldman Sachs, Morgan Stanley,

Raymond James, UBS and William Blair. Source: Apollo Analysts.

⁵ Source: Pitchbook Analyst Note: "What the Future Holds for Private Capital – January 2023."

Historically 1 – 2% of private markets AUM has traded in the secondary market.⁶ Given increasing familiarity and acceptance of secondary "technology" by both LPs and GPs, it is not an unreasonable expectation that future transaction volume is at the high end of that range. Combining potential AUM with potential transaction volume results in the following matrices which sensitize the potential size of the secondary market in 2027:

Potential Size of Secondary Market (2027E)

	\$11.2T	\$13.OT	\$16.1T
1.0%	\$112B	\$130B	\$161B
1.5%	\$168B	\$195B	\$242B
2.0%	\$224B	\$260B	\$322B
2.5%	\$280B	\$325B	\$403B
3.0%	\$336B	\$390B	\$483B

Source: Apollo Analysts.

Potential Annualized Growth of Secondary Market (2022 – 2027E)

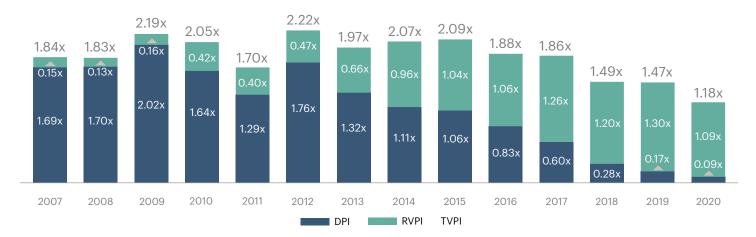
	\$11.2T	\$13.OT	\$16.1T
1.0%	2%	5%	9%
1.5%	10%	14%	19%
2.0%	17%	20%	26%
2.5%	22%	26%	31%
3.0%	27%	31%	36%

Source: Apollo Analysts.

North American Buyout RVPI & DPI (2007-2020)8

As shown in these two tables, a reasonable estimate of private market secondary activity in 2027 could be 2.0% x \$13 trillion resulting in \$260 billion of transaction volume, which, if the case, would imply a doubling of market size from 2021's all-time record of \$134 billion and a five-year annualized growth rate of over 20% from 2022 to 2027. Growth could be greater than 30% if the market trades at 3% of AUM or AUM tends towards the higher end of projections. We note that other market participants forecast similar growth, with estimates of 2027 secondary market size ranging from \$255 billion to \$295 billion.⁷

In addition to the expected growth in private market assets, another potential driver of secondary deal flow is the fact that distributions have been meaningfully less over the last few years compared to prior years. Per the chart below, Goldman Sachs estimates that funds raised in 2018 have, on average, distributed just 28% of paid in capital as of year-end 2022. Compare that figure with 2014 vintage year funds after four years' duration (i.e., in 2018) when distributions were 58%. The 30% difference applied to \$350 billion of capital invested in 2018, implies an "extra" \$105 billion of AUM that might have already achieved liquidity in a more normal exit environment. Extending this analysis to 2019 and 2020 vintage years suggests at least an incremental \$300 billion of NAV where secondary capital could be a solution.



Source: Goldman Sachs, "Observations on Private Equity Cash Flow Trends - January 2023."

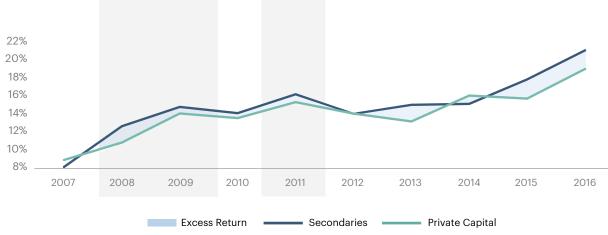
⁶ Apollo Analysts.

7 Jefferies, "State of the Secondary Market - January 2023."

⁸ RVPI stands for remaining value to paid-in capital. TVPI stands for total value to paid-in capital.

Section III The (Continuing) Case for Secondaries in a Private Markets Portfolio

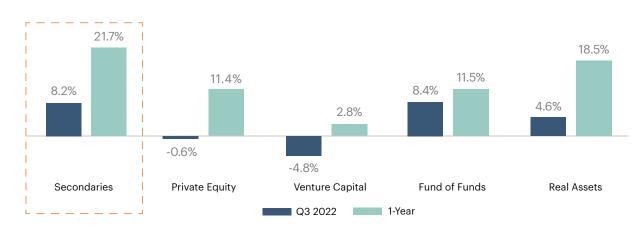
With all the historical and forecasted growth of the market, it is sensible to query whether secondaries as an asset class can continue to deliver excess return per unit of risk. In this section, we will share our reasons for why we strongly believe the answer is "yes." First, we will provide a reminder of secondaries' historical performance relative to other alternative strategies. As shown below, secondaries have generated excess return as measured by internal rate of return (IRR) over an extended period of time and especially during periods of volatility such as the Great Financial Crisis and the European Debt Crisis.⁹



Median Net IRR by Vintage Year¹⁰

Source: Preqin as of October 2022.

Recent performance has likewise been strong, with secondaries outperforming most other strategies in 3Q 2022 and over the past year:¹¹



Horizon IRRs by Strategy

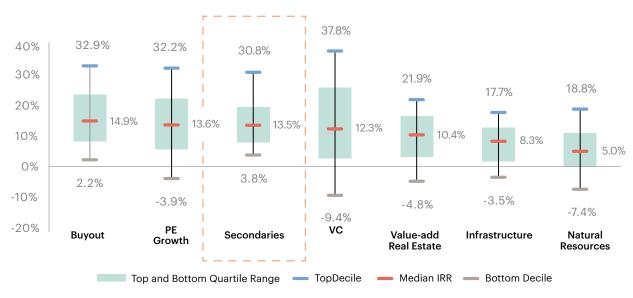
Source: PitchBook, "2022 Global Fund Performance Report."

⁹ Preqin as of October 2022.

¹⁰ Gray shaded area represents Great Financial Crisis and the European Debt Crisis.

¹¹ PitchBook, "2022 Global Fund Performance Report."

Not only has the absolute performance of secondary strategies been strong, but so too has the risk-adjusted performance, as shown below by a relatively narrower dispersion in returns, without giving up significant upside performance:¹²



Dispersion of Net IRRs by Private Capital Strategy¹³

Source: Pitchbook as of 12/31/2021.

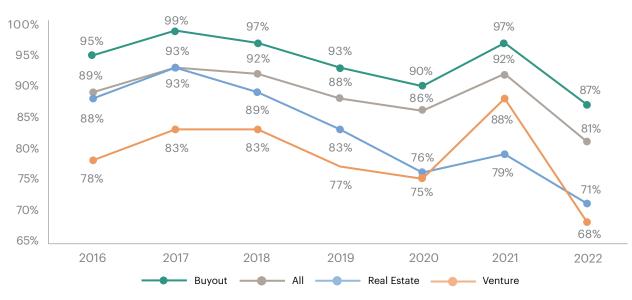
Most important for prospective investors is the question: will the factors that have made secondary strategies successful historically remain in place over the next several years? We believe the answer is "yes" for the following reasons:

• Supply / demand dynamics favor secondary buyers. While \$103 billion worth of transactions closed last year, meaningfully more than double that amount "came to market." In many cases LPs bring to market larger portfolios than they need to sell, expecting to sell just a portion of the portfolio. This dynamic can create significant optionality for secondary buyers to create high conviction, customized portfolios to pursue. The sell-side advisor Jefferies estimates that entering 2023 there is approximately \$225 billion of available secondary capital which we estimate is less than 1x the volume of available transactions and approximately 2.1x the volume of closed transactions.¹⁴ We believe these ratios of secondary market dry powder relative to actionable investment opportunities have been and continue to be very attractive relative to most other private market strategies. Secondaries remain a relatively inefficient investment strategy, characterized by complimentary objectives for buyers and sellers. While pricing is generally rational in the secondary market, it is still a market characterized by the opportunity for buyers to arbitrage time and information to help generate attractive risk-adjusted returns, while allowing sellers to actively manage their private markets portfolio and generate liquidity to recycle into new investment opportunities. Secondary LP transactions often offer very limited point in time information to secondary buyers and have short transaction timelines. As a result, well-informed buyers who can leverage the expertise across their platforms to underwrite portfolios of assets efficiently and accurately are well positioned to identify opportunities with attractive entry points.

3 Discounts are meaningful and widely available. As can be seen below, discounts widened materially in 2022 and were in fact more than twice as wide as the average of the preceding six years.¹⁵ In our view, wider discounts reflect several market dynamics including favorable buyer supply/ demand factors as mentioned above along with buyer caution regarding the macroeconomic outlook and the belief, in certain situations, that GP valuations have not declined to levels where single digit discounts make for attractive entry points. Unless and until any of these factors change, we would expect higher-than-typical discounts to remain available.

- ¹² PitchBook, "2022 Global Fund Performance Report."
- ¹³ PitchBook, "2022 Global Fund Performance Report." Dispersion of private, closed-end fund net IRRs by strategy (vintages 2002 to 2016).
- ^{14, 15} Jefferies PCA, "State of the Secondary Market January 2023."

LP Portfolio Pricing (% of NAV)



Source: Jefferies PCA, "State of the Secondary Market - January 2023."

4 Secondaries can be an effective way to capitalize

on dislocation. Secondary strategies tend to have faster investment timelines than direct private equity, allowing secondary funds to deploy more rapidly in times of dislocation. Many of the factors that cause LPs to seek early liquidity, such as regulatory requirements, leadership / CIO / strategy shifts and asset allocation ("denominator effect") issues are more prevalent reasons for seeking accelerated liquidity compared to direct private equity. The ability of secondary funds to deploy quickly in times of dislocation can be a way for private equity investors to be comfortable that capital will be deployed during times of stress and distress, achieving attractive entry valuations at the "low points" in the cycle.

Secondary strategies can provide significant diversification, providing ballast against idiosyncratic risk. Even with the increased adoption of more concentrated GP-led investments, most secondary funds seek to provide significant diversification at the portfolio company level. It is not uncommon for secondary funds to gain exposure to 1,000+ underlying companies. This diversification is advantageous on several levels including the ability for newer investors to gain "backward looking" diversification across prior vintage years as well as enhancing industry, strategy and geographic diversification. Related to point 4 above, the acquisition of diversified LP portfolios during periods of dislocation can be attractive especially because diversification reduces idiosyncratic risk inherent in individual companies and industries and often provides secondary managers the conviction to deploy capital in periods of elevated volatility.

6 A growing and evolving secondary market can allow investors to choose their risk-return profile. Secondary managers and their investment strategies can offer a wide range of risk-return profiles. The spectrum can be mapped from lower risk to higher risk by investment security, such as:

- Fund Finance: Generally speaking this strategy involves extending low loan-to-value loans to LPs and GPs; the loans are secured by a diverse pool of private market assets; the loan is priced at a spread over SOFR, typically resulting in mid-to-high single digit cost of capital.
- **Private Credit:** Acquiring LP portfolios, and to a lesser extent GP-led transactions, where the underlying assets are loans, most commonly senior direct loans to sponsor backed companies; and where the return profile is low-teens internal rate of return (IRR).
- Private Equity: Underlying strategies generally focus on buyout and growth equity assets, but certain specialist secondary managers focus on other strategies such as venture capital, real estate, distressed or special situations. Company concentration is an important consideration in the risk-return profile. Secondary managers who targets significant exposure to diversified LP portfolios will likely have a different risk-return profile from a secondary manager who focuses on single asset GP-led transactions, for example.

Section IV A Few Words on New Entrants and Differentiation

Despite robust historical and forecasted growth, the secondary market has seen relatively few new entrants at scale over the last decade. For the most part, the investor universe remains relatively concentrated with the top 4 and top 12 secondary buyers accounting for 51% and 75% of secondary market dry powder at year end.¹⁶ Interestingly the composition of these large funds has not changed significantly over the past decade. We believe the key reason for the dearth of new entrants comes down to the challenge of offering a differentiated value proposition to all stakeholders and most importantly to investors. New buy-side competitors perceived to lack differentiation may struggle to raise capital. Prospective new entrants considering launching a fund or firm, but without key differentiators, may ultimately choose not to enter the market. The concept of differentiation can be evaluated across several vectors including platform, data, investment strategy and team.

Platform capabilities that stand-alone secondary firms do not enjoy may create sustainable advantages. Wide-ranging and established LP relationships help with efficient capital formation and deal sourcing on the LP portfolio side. Secondary teams that can leverage platform-level investment judgment, specifically macroeconomic, industry, geography and assetlevel underwriting views, may enjoy both broader and deeper perspectives compared to stand-alone secondary peers. Relationships with GPs, either as investors in their funds or as lenders to their portfolio companies, can provide advantages in sourcing and being viewed as preferred partners in GP-led transactions.

Data differentiation is related to platform but deserves separate mention. Differentiated data may come in several forms. Some secondary managers highlight access to historical LP reporting as a source of "edge." Such data is certainly helpful and can provide insight into how underlying assets have performed over time. We note, though, that during more dynamic and volatile market periods (such as 2022), real-time judgment and ability to access in-depth current and forward-looking perspectives becomes critical in assessing quality of underlying net asset value and determining appropriate purchase price. Further, such historical information is less differentiated in GP-led transactions where investors are typically provided data rooms full of company-level information, access to management and time-lines allowing for proprietary due diligence. Other examples of differentiated data could include the platform being invested in and/or having evaluated investing in a wide swath of PE-backed companies across the capital structure (debt and equity) combined with the ability of the secondary team to have access to investment professionals responsible for these investments.

Investment strategy can be a differentiator to the extent the secondary manager is capable of executing transactions that are not "middle of the fairway" deals. An investment culture that embraces complexity, resulting in less competitive situations and more attractive entry valuations is one example. Another example would be a platform that provides a wide range of cost of capital, allowing for the secondary investment team to approach every GP and LP with a range of capital solutions rather than trying to "square peg – round hole" an investment into a fund with a narrower investment mandate. The ability to provide capital at scale and reduce or eliminate syndication risk could be another strategy differentiator, one that also overlaps with platform differentiation to the extent the platform can efficiently raise syndicate capital.

Finally, the *investment team* itself can be a differentiator. Platform, data and strategy are only helpful if the investment professionals exercise good judgment in how best to apply these differentiators to construct a portfolio that delivers attractive risk-adjusted returns. In certain respects, the secondary market has grown so quickly that the number of senior investment professionals with cycle-tested experience managing large secondary programs has not kept pace. While it is not impossible to recruit experienced investment professionals to new platforms, it is extremely rare to find a team of seasoned professionals who have a proven track record of working together and demonstrated investment judgment, such that the "first time team" risk is reduced or eliminated.

Taken together all the above factors help explain why there have been relatively few new entrants historically and why we would expect there to be even fewer in the years ahead.

¹⁶ Evercore, "2022 Secondary Market Review, February 2023."

Conclusion

In summary, we believe the secondary market to double or even triple in size by 2027. We expect much of that growth to be fueled simply by the growth of private market AUM. Two other factors could accelerate market growth. First, the amount of NAV "trapped" in 2018 – 2020 vintage funds creates additional secondary supply, mainly driven by GPs seeking ways to return capital to LPs. Second, investor demand (both LP and GP) for liquidity solutions with bespoke structuring and targeted cost of capital provided by specialist secondary managers can also contribute to market growth. For example, as credit strategies become a larger part of private market AUM, credit secondary managers with lower cost of capital compared to secondary private equity buyers can transact at lower discounts, unlock attractive investment opportunities and grow the overall secondary market. We believe that secondary platforms that offer a variety of liquidity solutions can create differentiated deal flow because they allow the secondary platform to engage with GPs and LPs with a solutions mindset, seeking to supply capital priced commensurate with the risk. We believe secondary managers whose toolkit includes fund finance loans, private credit, preferred equity and all manner of private equity including single asset transactions, means they can offer GPs and LPs capital solutions ranging in cost of capital from approximately 6% to 25%+.¹⁷ Other important sources of differentiation include platform capabilities, investment strategy, data and, most critically, investment team judgment.

¹⁷ Represents the views and opinions of Apollo Analysts.

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