■ Alts in aggregate
  3. Alternatives fundraising
  4. Alternatives dry powder
  5. Public and private market correlations
  6. Alternatives and inflation
  7. Alternatives and manager selection
  8. Manager dispersion
  9. Yield alternatives
  10. Equity market correlations and yields
  11. Portfolio diversification
  12. Alternatives asset class returns

■ Global real estate
  13. Global real estate investment
  14. U.S. real estate dynamics
  15. U.S. real estate: Office
  16. U.S. real estate: Retail and industrial
  17. Global real estate: Retail
  18. Global real estate: Industrial
  19. U.S. REITs and real estate
  20. U.S. REIT sector returns

■ Global infrastructure and transport
  21. Global infrastructure investment
  22. U.S. infrastructure needs
  23. Sources of global infrastructure returns
  24. Utility profitability and household spending
  25. Sources of carbon emissions
  26. Global renewable energy
  27. U.S. electricity generation
  28. Carbon pricing
  29. Vehicle sales
  30. Global trade

■ Global infrastructure and transport (cont.)
  31. Shipping trends: Orderbook
  32. Shipping trends: Port calls
  33. Natural gas trends
  34. Inland transportation
  35. Wind power
  36. Aircraft trends

■ Private markets
  37. U.S. public vs. private equity
  38. Private equity deals and multiples
  39. Private equity deal trends
  40. Middle market deals and business formation
  41. Consumer deal activity
  42. Private equity co-investments and the secondary market
  43. Private equity exit activity and IPOs
  44. Venture capital
  45. Sponsor-backed M&A
  46. Private debt fundraising
  47. Credit market participants and sources of financing
  48. Credit returns across recent economic cycles: 2004-2020
  49. Drawdown dispersion and recovery rates
  50. EBITDA, rating changes and loan defaults

■ Hedge funds
  51. Hedge fund strategy returns
  52. Hedge funds and manager selection
  53. Hedge fund flows and exposures
  54. Hedge funds and traditional portfolios
  55. Hedge funds and volatility
  56. Equity and credit dispersion
  57. Equity and fixed income positioning
  58. Asset class volatility
  59. Cryptocurrencies and electricity consumption
  60. Cryptocurrency transactions and block sizes
  61. Cryptocurrency correlations and volatility

Prepared by:
David Lebovitz, Global Market Strategist, Market Insights, J.P. Morgan Asset Management
Nimish Vyas, Analyst, Market Insights, J.P. Morgan Asset Management
### Global private capital fundraising

**Billions USD**

Source: Preqin, J.P. Morgan Asset Management.

Fundraising categories are provided by Preqin, and represent their estimate of annual capital raised in closed-end funds. Data may not sum to total due to rounding. *Natural resources include natural resources and timber funds. 2021 fundraising figures are as of August 2021.

Data is based on availability as of August 31, 2021.
Dry powder by asset class
Cumulative dry powder, billions USD

<table>
<thead>
<tr>
<th>Asset class</th>
<th>Current*</th>
<th>% of total</th>
</tr>
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<tbody>
<tr>
<td>Secondaries</td>
<td>$146</td>
<td>5%</td>
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<tr>
<td>Fund of funds</td>
<td>$119</td>
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<tr>
<td>Private debt</td>
<td>$307</td>
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</tr>
<tr>
<td>Real assets*</td>
<td>$583</td>
<td>22%</td>
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<tr>
<td>Venture capital</td>
<td>$278</td>
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<tr>
<td>Private equity</td>
<td>$1,257</td>
<td>47%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$2,690</strong></td>
<td></td>
</tr>
</tbody>
</table>

Source: Pitchbook, J.P. Morgan Asset Management. *Dry powder data is as of 12/31/2020. Percentages may not sum to 100 due to rounding. *Real assets dry powder includes real estate & infrastructure.

Data is based on availability as of August 31, 2021.
### Public and private market correlations

#### Quarterly returns

<table>
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<tr>
<th>Financial assets</th>
<th>Global Bonds</th>
<th>Global Equities</th>
<th>U.S. Core RE</th>
<th>Europe Core RE (Continental Europe)</th>
<th>APAC Core RE</th>
<th>Global Core Infra</th>
<th>Transport</th>
<th>Timber</th>
<th>Direct Lending</th>
<th>Venture Capital</th>
<th>Private Equity</th>
<th>Equity Long/Short</th>
<th>Relative Value</th>
<th>Macro</th>
<th>Bitcoin</th>
</tr>
</thead>
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<tr>
<td>Global Bonds</td>
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<td>Direct Lending</td>
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<tr>
<td>Equity Long/Short</td>
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<td>0.7</td>
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<td>Relative Value</td>
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<td>0.0</td>
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<td>0.9</td>
<td>1.0</td>
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<tr>
<td>Macro</td>
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<td>0.4</td>
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<td>-0.1</td>
<td>0.0</td>
<td>-0.1</td>
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<tr>
<td>Bitcoin</td>
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<td>0.3</td>
<td>-0.1</td>
<td>0.1</td>
<td>0.5</td>
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<td>0.1</td>
<td>0.1</td>
<td>0.2</td>
<td>0.1</td>
<td>0.0</td>
<td>1.0</td>
<td></td>
</tr>
</tbody>
</table>

Correlations between asset classes and inflation

Headline U.S. CPI y/y %


Data is based on availability as of August 31, 2021.
Private and public manager dispersion
Based on returns over a 10 year window*


Global equities (large cap) and global bonds dispersion are based on the world large stock and world bond categories, respectively. *Manager dispersion is based on the annual returns for global equities, global bonds, and U.S. core real estate over a 10 year period ending 2Q 2021. Hedge fund returns are based on annual returns from Feb. 2011 – Jan. 2021. U.S. non-core real estate, global private equity and U.S. venture capital are represented by the 10-year horizon internal rate of return (IRR) ending 1Q 2021.

Data is based on availability as of August 31, 2021.
Sources: Lipper, NCREIF, Cambridge Associates, HFRI, J.P. Morgan Asset Management. Based on returns over a 10 year window. U.S. Core real estate and infrastructure are represented by the 10-year horizon time-weighted return (TWR) ending 4Q20. Hedge fund returns are represented by the 10-year horizon time-weighted return (TWR) ending 1Q21. U.S. non-core real estate, global private equity and U.S. venture capital are represented by the 10-year horizon internal rate of return (IRR) ending 4Q 2020. Data is based on availability as of August 31, 2021.
Equity market correlations and yields
Hedge adjusted yield, last 12 months

Source: Bloomberg, Barclays, NCREIF, MSCI, FactSet, ICE, J.P. Morgan Asset Management. Fixed income shown above are represented by Bloomberg indices except for EMD and ABS – U.S. Aggregate; MBS: U.S. Aggregate Securitized - MBS; U.S. corps: U.S. Corporates; Munis: Muni Bond 10-year; U.S. HY: Corporate High Yield; TIPS: Treasury Inflation-Protected Securities (TIPS); Floating Rate: U.S. Floating Rate; Convertibles: U.S. Convertibles Composite; ABS: J.P. Morgan ABS Index; EMD ($): J.P. Morgan EMBIG Diversified Index; EMD (LCL): J.P. Morgan GBI EM Global Diversified Index; EM Corp: J.P. Morgan CEMBI Broad Diversified Index; Euro Corp: Euro Aggreate Corporate Index; Euro HY, Pan-European High Yield Index; U.S. Real Estate: NCREIF Property Index – ODCE ; Europe Real Estate: Market weighted-avg. of MSCI Global Property Fund Indices - U.K. & Cont. Europe; APAC Real Estate: MSCI Global Property Index - Asia-Pacific; Global Infra.: MSCI Global Quarterly Infrastructure Asset Index (equal weighted blend; U.S. Direct Lending: Cliffwater Direct Lending Index; Transport returns are derived from a J.P. Morgan Asset Management index; Convertibles yields is based on the U.S. portion of the Bloomberg Barclays Global Convertibles. Country yields are represented by the global aggregate for each country. Yield and return information based on bellwethers for Treasury securities. Correlations are based on quarterly return over the past 10 years through 6/30/2021, except Infra, and U.S., Europe, and APAC Real Estate, which are through 3/31/2021. International fixed income sector correlations are in hedged U.S. dollar returns except EMD local index. Yields for all indices are hedged using three-month LIBOR rates between the U.S. and international LIBOR and are a 12-month average. Alts yields except Transport and Direct Lending are through 3/31/2021. U.S. Real Estate yield is calculated using the MSCI Global Property Fund Index – North America. Data is based on availability as of August 31, 2021.
Portfolio diversification

Alternatives and portfolio risk/return
Annualized volatility and returns, 1989 – March 2021

<table>
<thead>
<tr>
<th>Portfolio allocation</th>
<th>Volatility</th>
<th>Annualized returns</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 Equities/ 60 F.I.</td>
<td>6.42%</td>
<td>8.05%</td>
</tr>
<tr>
<td>60 Equities/ 40 F.I.</td>
<td>9.37%</td>
<td>8.97%</td>
</tr>
<tr>
<td>80 Equities/ 20 F.I.</td>
<td>12.58%</td>
<td>9.77%</td>
</tr>
<tr>
<td>30 Alts/ 30 Equities / 40 F.I.</td>
<td>6.24%</td>
<td>9.04%</td>
</tr>
<tr>
<td>30 Alts/ 40 Equities / 30 F.I.</td>
<td>7.76%</td>
<td>9.51%</td>
</tr>
<tr>
<td>30 Alts/ 50 Equities / 20 F.I.</td>
<td>9.34%</td>
<td>9.95%</td>
</tr>
</tbody>
</table>

Source: FactSet, Cambridge Associates, J.P. Morgan Asset Management. Alts include hedge funds, real estate, and private equity, with each receiving an equal weight. Portfolios are rebalanced at the start of the year.
Data is based on availability as of August 31, 2021.
## Alternative asset class returns

<table>
<thead>
<tr>
<th>Year</th>
<th>U.S. Core RE</th>
<th>APAC Core RE</th>
<th>Direct Lending</th>
<th>Asset Allocation</th>
<th>Europe Core RE</th>
<th>Transport</th>
<th>Private Equity</th>
<th>Hedge Funds</th>
<th>Europe Core RE</th>
<th>Hedge Funds</th>
<th>APAC Core RE</th>
<th>Direct Lending</th>
<th>Asset Allocation</th>
<th>Europe Core RE</th>
<th>Hedge Funds</th>
<th>APAC Core RE</th>
<th>Direct Lending</th>
<th>Asset Allocation</th>
<th>Europe Core RE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>16.0%</td>
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<td>14.9%</td>
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<td>8.7%</td>
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<td>8.5%</td>
<td>7.7%</td>
<td>9.1%</td>
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<td>14.8%</td>
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</tr>
<tr>
<td>2022</td>
<td>10.2%</td>
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</tr>
<tr>
<td>2023</td>
<td>7.9%</td>
<td>12.9%</td>
<td>12.6%</td>
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<td>8.8%</td>
<td>9.1%</td>
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</tr>
<tr>
<td>2024</td>
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<td>12.6%</td>
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<td>14.8%</td>
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<td>9.1%</td>
<td>9.1%</td>
<td>14.8%</td>
<td>9.1%</td>
</tr>
</tbody>
</table>

Sources: CBRE Research, RCA (Americas), J.P. Morgan Asset Management.
APAC is Asia Pacific. EMEA is Europe, Middle East and Africa. Real estate investment data is as of June 30, 2021.
Data is based on availability as of August 31, 2021.
Source: NCREIF, NAREIT, Statista, J.P. Morgan Asset Management.
The cap rate, which is computed as the net operating income over sales price, is the rate of return on a real estate investment property. Vacancy rate data is as of June 30, 2021. Data is based on availability as of August 31, 2021.
### 2020 change in office occupancy

<table>
<thead>
<tr>
<th>City</th>
<th>% of inventory</th>
</tr>
</thead>
<tbody>
<tr>
<td>San Francisco</td>
<td>-7.8%</td>
</tr>
<tr>
<td>New York</td>
<td>-4.5%</td>
</tr>
<tr>
<td>Seattle</td>
<td>-3.1%</td>
</tr>
<tr>
<td>Atlanta</td>
<td>-0.7%</td>
</tr>
<tr>
<td>Raleigh-Durham</td>
<td>-0.7%</td>
</tr>
</tbody>
</table>

### Net absorption of office real estate by city

<table>
<thead>
<tr>
<th>City</th>
<th>10-year rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denver</td>
<td>-8%</td>
</tr>
<tr>
<td>Atlanta</td>
<td>-6%</td>
</tr>
<tr>
<td>U.S.</td>
<td>-4%</td>
</tr>
<tr>
<td>Miami</td>
<td>-2%</td>
</tr>
<tr>
<td>Dallas</td>
<td>0%</td>
</tr>
<tr>
<td>Charlotte</td>
<td>14.0%</td>
</tr>
<tr>
<td>Austin</td>
<td>24.5%</td>
</tr>
</tbody>
</table>

### Change in number of retail establishments

<table>
<thead>
<tr>
<th>Category</th>
<th>Change, percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>18.3%</td>
</tr>
<tr>
<td>Goods-producing</td>
<td>8.3%</td>
</tr>
<tr>
<td>Service-providing</td>
<td>19.9%</td>
</tr>
<tr>
<td>Department/discount</td>
<td>22.8%</td>
</tr>
<tr>
<td>Personal care/services</td>
<td>22.7%</td>
</tr>
<tr>
<td>Restaurants/bars</td>
<td>17.8%</td>
</tr>
<tr>
<td>Pharmacies and person care</td>
<td>15.3%</td>
</tr>
<tr>
<td>Automobile dealers</td>
<td>4.1%</td>
</tr>
<tr>
<td>Grocery/liquor</td>
<td>3.8%</td>
</tr>
<tr>
<td>Gas stations</td>
<td>3.5%</td>
</tr>
<tr>
<td>Clothing</td>
<td>-10.9%</td>
</tr>
<tr>
<td>Furniture/furnishings</td>
<td>-11.6%</td>
</tr>
<tr>
<td>Electronics/appliances</td>
<td>-13.7%</td>
</tr>
<tr>
<td>Entertainment goods</td>
<td>-17.3%</td>
</tr>
</tbody>
</table>

**Source:** Bureau of Labor Statistics, J.P. Morgan Asset Management. (Left) Personal care/services include nail salons, barber shops, etc. Entertainment goods include sports equipment, games, musical instruments, and book stores. Industrial property vacancy rate is as of 4Q20. Data is based on availability as of August 31, 2021.

### Industrial establishments and vacancy rate

**Thousands of square feet, percent**

- **Warehouses and storage facilities**
- **Data processing, hosting, and related services**

**Industrial property vacancy rate (%)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>'07</td>
<td>14%</td>
</tr>
<tr>
<td>'08</td>
<td>12%</td>
</tr>
<tr>
<td>'09</td>
<td>10%</td>
</tr>
<tr>
<td>'10</td>
<td>8%</td>
</tr>
<tr>
<td>'11</td>
<td>6%</td>
</tr>
<tr>
<td>'12</td>
<td>4%</td>
</tr>
<tr>
<td>'13</td>
<td>2%</td>
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<tr>
<td>'14</td>
<td>0%</td>
</tr>
<tr>
<td>'15</td>
<td>1%</td>
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<td>'16</td>
<td>3%</td>
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<td>'17</td>
<td>5%</td>
</tr>
<tr>
<td>'18</td>
<td>7%</td>
</tr>
<tr>
<td>'19</td>
<td>9%</td>
</tr>
<tr>
<td>'20</td>
<td>11%</td>
</tr>
</tbody>
</table>

Sources: (Left) Australian Bureau of Statistics, Centre for Retail Research (Germany, France, Italy, Spain), Korean Statistical Information Service, METI (Japan), National Bureau of Statistics (China), ONS (UK), Statistics of Singapore, U.S. Census Bureau. (Right) Statista, J.P. Morgan Asset Management. Online retail sales estimates are as of 2Q21, except for European countries which are 2020 forecast and Japan which is as of 2020. Retail space per capita per country data was published in November 2020 and represents retail square footage per person in 2018. Data is based on availability as of August 31, 2021.
Global office and industrial pricing
Yields, 2Q 2021

Sources: CBRE, JLL, J.P. Morgan Asset Management. London is South East for office and warehouse. Prime office for Paris is Centre West excluding CBD, Madrid is City Centre.
Data is based on availability as of August 31, 2021.
U.S. REITs and real estate

12-quarter rolling correlations, total return

Source: NAREIT, NCREIF, Standard & Poor’s, FactSet, J.P. Morgan Asset Management.

Real estate investment trusts (REITs). Indices do not include fees or operating expenses and are not available for actual investment. Past performance is not necessarily a reliable indicator for current and future performance. Correlations are as of 2Q21.

Data is based on availability as of August 31, 2021.
## U.S. REIT sector returns

### Guide to Alternatives

<table>
<thead>
<tr>
<th>Year</th>
<th>Self Storage</th>
<th>Industrial</th>
<th>Lodging/Resorts</th>
<th>Mfgd. Homes</th>
<th>Self Storage</th>
<th>Industrial</th>
<th>Data Centers</th>
<th>Mfgd. Homes</th>
<th>Data Centers</th>
<th>Regional Malls</th>
<th>Mfgd. Homes</th>
<th>Lodging/Resorts</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>35.2%</td>
<td>31.3%</td>
<td>27.2%</td>
<td>46.2%</td>
<td>30.7%</td>
<td>40.6%</td>
<td>-8.1%</td>
<td>28.4%</td>
<td>13.9%</td>
<td>21.0%</td>
<td>19.8%</td>
<td>31.4%</td>
</tr>
<tr>
<td>2012</td>
<td>20.4%</td>
<td>25.0%</td>
<td>9.5%</td>
<td>39.6%</td>
<td>25.6%</td>
<td>24.3%</td>
<td>7.6%</td>
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<td>2013</td>
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<td>16.5%</td>
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<td>21.3%</td>
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<td>21.2%</td>
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<tr>
<td>2014</td>
<td>8.3%</td>
<td>19.9%</td>
<td>31.4%</td>
<td>32.6%</td>
<td>8.6%</td>
<td>5.2%</td>
<td>26.3%</td>
<td>19.1%</td>
<td>8.3%</td>
<td>19.6%</td>
<td>18.2%</td>
<td>16.7%</td>
</tr>
<tr>
<td>2015</td>
<td>0.4%</td>
<td>2.9%</td>
<td>30.0%</td>
<td>3.7%</td>
<td>6.4%</td>
<td>4.2%</td>
<td>8.6%</td>
<td>26.3%</td>
<td>-2.5%</td>
<td>9.9%</td>
<td>16.5%</td>
<td>5.1%</td>
</tr>
<tr>
<td>2016</td>
<td>-0.8%</td>
<td>2.9%</td>
<td>28.0%</td>
<td>3.7%</td>
<td>2.8%</td>
<td>2.6%</td>
<td>3.7%</td>
<td>24.6%</td>
<td>-15.3%</td>
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<td>15.1%</td>
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<tr>
<td>2017</td>
<td>-5.2%</td>
<td>7.1%</td>
<td>-1.0%</td>
<td>3.7%</td>
<td>-7.0%</td>
<td>3.1%</td>
<td>2.9%</td>
<td>21.2%</td>
<td>-12.8%</td>
<td>15.4%</td>
<td>16.5%</td>
<td>0.5%</td>
</tr>
<tr>
<td>2018</td>
<td>0.4%</td>
<td>7.1%</td>
<td>1.0%</td>
<td>9.7%</td>
<td>2.9%</td>
<td>4.2%</td>
<td>-7.0%</td>
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<td>27.6%</td>
<td>16.5%</td>
<td>15.6%</td>
<td>15.6%</td>
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<tr>
<td>2019</td>
<td>-14.3%</td>
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<td>9.7%</td>
<td>2.9%</td>
<td>-7.0%</td>
<td>9.7%</td>
<td>2.9%</td>
<td>-12.8%</td>
<td>27.6%</td>
<td>11.4%</td>
<td>0.5%</td>
<td>15.6%</td>
</tr>
<tr>
<td>2020</td>
<td>31.4%</td>
<td>7.1%</td>
<td>9.7%</td>
<td>2.9%</td>
<td>-14.3%</td>
<td>9.7%</td>
<td>2.9%</td>
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<td>27.6%</td>
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<td>2Q21</td>
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<td>N/A</td>
<td>N/A</td>
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</tbody>
</table>

### Sources:
FTSE NAREIT, FactSet, J.P. Morgan Asset Management.

All indices are from FTSE NAREIT. Mfgd. Homes represents manufactured homes.

Data is based on availability as of August 31, 2021.
Data is based on availability as of August 31, 2021.
U.S. infrastructure needs, funding, proposals and remaining gap

Billions

$5.9 tn

Dams & Levees $174
Airports $237
Electricity $637
Schools $870
Water & waste $1,066
Surface Transportation $2,834

$3.4 tn

Waterways & Ports $42
Public Parks & Rec. $78

$0.6 tn

Airports $126
Electricity $440
Schools $490
Water & waste $625
Surface Transportation $1,615

$2.0 tn

Waterways & Ports $17
Public Parks & Rec. $10
Dams & Levees $23

Sources of global infrastructure returns

Global core infrastructure returns
Rolling 4-quarter returns from income and capital appreciation

Source: MSCI, J.P. Morgan Asset Management.
Infrastructure returns represented by the “low risk” category of the MSCI Global Quarterly Infrastructure Asset Index. Data show rolling one-year returns from income and capital appreciation. The chart shows the full index history, beginning in the first quarter of 2009, and ending in 1Q21.
Past performance is not indicative of future results. Alternative investments carry more risk than traditional investments and are recommended only for long-term investment. Some alternative investments may be highly leveraged and rely on speculative investments that can magnify the potential for loss or gain. Diversification does not guarantee investment returns or eliminate the risk of loss.
Data is based on availability as of August 31, 2021.
Utility profitability and household spending

U.S. utilities allowed returns versus inflation
Average allowed return on equity

Household utility spending
Household utility spending % of personal consumption expenditures


Data is based on availability as of August 31, 2021.
Energy related CO2 emissions
1990-2019, gigatons

Changes in annual carbon emissions by driver*
Billions USD

Source: IEA, Dr Fatih Birol, J.P. Morgan Asset Management.
*Changes in annual carbon emissions by driver under the IEA sustainable development scenario. A gigaton is equivalent to a billion metric tons.
Data is based on availability as of August 31, 2021.
Global renewable energy


2020 generating capacity is a forecast based off July 2020 data. **LCOE is levelized cost of energy, the net present value of the unit-cost of electricity over the lifetime of a generating asset. It is often taken as a proxy for the average price that the generating asset must receive in a market to break even over its lifetime. The MSCI Global Alternative Energy Index includes developed and emerging market large, mid and small cap companies that derive 50% or more of their revenues from products and services from alternative energy, sustainable water, green building, pollution prevention and energy efficiency.

Data is based on availability as of August 31, 2021.
Source: EIA, J.P. Morgan Asset Management. CAGR is compound annual growth rate. Data is based on availability as of August 31, 2021.
Global emissions covered by carbon pricing initiatives

% of global greenhouse gas emissions

<table>
<thead>
<tr>
<th>Year</th>
<th>EU ETS</th>
<th>South Korea ETS</th>
<th>Japan carbon tax</th>
<th>China ETS</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>'00</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>'02</td>
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<td>'22</td>
<td>16</td>
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<td>11</td>
<td>11</td>
<td>0</td>
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</tbody>
</table>

Source: (Left) World Bank, J.P. Morgan Asset Management. ETS is emissions trading system. (Right) International Carbon Action Partnership, J.P. Morgan Asset Management. China ETS price is based on the average of Beijing, Chongqing, Guangdong, Hubei, Shanghai, Shenzhen and Tianjin ETS prizes. CO₂ equivalent tones standardize emissions to allow for comparison between gases. One equivalent tone has the same warming effect as one tone of CO₂ over 100 years. Past performance is not a reliable indicator of current and future results.

EIA, J.P. Morgan Asset Management. CAGR is compound annual growth rate.

Data is based on availability as of August 31, 2021.
Light vehicle sales by technology/fuel

- Gasoline: 89%
- Flex fuel: 6%
- Diesel: 1%
- Battery electric: 1%
- Hybrid electric: 3%
- PHEV*: 2%
- Battery electric: 10%
- Diesel: 1%
- Flex fuel: 5%
- Other: 0%
- Electric: 1%
- Hybrid electric: 3%
- Other: 0%

2021

Gasoline: 89%

2050

Gasoline: 74%

New battery-powered vehicle sales

- Plug-in hybrid
- 200 mile EV
- Hybrid electric
- 300 mile EV
- Total EV*

Forecasts

- '10
- '14
- '18
- '22
- '26
- '30
- '34
- '38
- '42
- '46
- '50


Data is based on availability as of August 31, 2021.
Global trade

World trade volume
Year-over-year, % change, 3-month moving average, monthly

-20% -15% -10% -5% 0% 5% 10% 15% 20% 25%

'98  '00  '02  '04  '06  '08  '10  '12  '14  '16  '18  '20

Average 4.0%
May 2021: 19.9%

World seaborne trade by product
Estimated in trillion ton-miles

Dry bulk
Gas
Containers
Oil and oil products

Global fleet and orderbook

Gross tonnage

- Orderbook as a % fleet
- World fleet
- Orderbook

Idle containership capacity % fleet

Aug. 2021: 4.2%

Global fleet age

+100 gross tonnage, years

Aug. 2021: 21.5 years

Source: Clarksons Research, MSI, Sea/net, J.P. Morgan Asset Management. Idle containership capacity, world fleet and orderbook data are as of August 2021.

Data is based on availability as of August 31, 2021.
**Global port calls***
Number of calls, 7-day moving average

**U.S. port calls**
Number of calls, 7-day moving average

**Europe port calls***
Number of calls, 7-day moving average

Source: Clarksons Research, MSI, Sea/Net, J.P. Morgan Asset Management. Port calls defined as all instances of a vessel entering and leaving a defined port location, excluding instances where vessel not recorded as travelling at less than 1 knot, and combining multiple consecutive instances at the same port where the vessel has not left a buffered shape around the port. Data basis date vessel last recorded in port location. *Global Port Calls excludes calls at ports by tugs. **U.S. and Europe port calls are of deep sea cargo vessels, which only includes larger bulkers. ***Europe includes Germany, Italy, Spain, U.K. and France. Data is based on availability as of August 31, 2021.
Natural gas trends

Global energy mix
Share of primary energy

- Oil
- Coal
- Gas
- Renewables
- Other non-fossil fuels

LNG carrier engine types
Share of on-water fleet, 2020

- Diesel 2-Stroke (dual-fuel)
- Diesel electric
- Steam turbine
- Combined

LNG carrier fleet age profile
Number of vessels, 2020

Data is based on availability as of August 31, 2021.
Inland transportation

Average cost by mode of transportation

Average CO2 emissions by mode of transportation

Data is based on availability as of August 31, 2021.
Source: IEA, The Wind Power, J.P. Morgan Asset Management. *In its “main case” scenario, the IEA projects wind, solar, hydro, and other renewable sources of energy accounting for 95% of the increase in the world’s electricity generating capacity over the next 5 years.

Data is based on availability as of August 31, 2021.
Aircraft trends

Average age of major airline aircraft

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (Years)</td>
<td>10.4</td>
<td>11.8</td>
<td>12.7</td>
<td>13.3</td>
<td>13.4</td>
</tr>
</tbody>
</table>

Percent of industry wide aviation fleet leased*

<table>
<thead>
<tr>
<th></th>
<th></th>
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<tr>
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<td>40</td>
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Aircraft demand **

<table>
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<tr>
<th>Global</th>
<th>2019</th>
<th>2038</th>
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<tr>
<td>Types</td>
<td>22,682</td>
<td>47,684</td>
</tr>
<tr>
<td>CAGR</td>
<td>+4.0%</td>
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U.S. major airline fleet by status

<table>
<thead>
<tr>
<th></th>
<th>Types in service</th>
<th>Types on order</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>52</td>
<td>25</td>
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</tbody>
</table>

Source: Ascend, Airbus, U.S. Bureau of Transportation Statistics, Cirium, Statista, J.P. Morgan Asset Management. *Includes parked and in-service regional, single-aisle and widebody aircraft. ** Demand includes both passenger and freight aircrafts. Passenger aircrafts are 100+ seaters. Freighters are 10 tones+. Data is based on availability as of August 31, 2021.
Number of listed U.S. companies*

Private vs. public equity sector weights

*Number of listed U.S. companies is represented by the sum of number of companies listed on the NYSE and the NASDAQ.**Other includes real estate, utilities, energy, consumer staples, and materials. Percentages may not sum due to rounding. Sector weights are as of 12/31/2020.

Data is based on availability as of August 31, 2021.
B2B is business to business. B2C is business to consumer. Natural resources = Materials and resources and energy. Private equity data is as of 6/30/2021. Multiple data is as of 6/30/2021.

Data is based on availability as of August 31, 2021.

Source: BEA, Pitchbook, FactSet, J.P. Morgan Asset Management.

WTI oil price is a quarterly average. Software investment is represented by nonresidential fixed investment in software. Deal, exit and investment data are as of June 30, 2021.

Data is based on availability as of August 31, 2021.
Middle market deals and business formation

Bankruptcies are business bankruptcies across all chapters. Current middle market deal data, unemployment rate, bankruptcy, and business formation data are as of March 31, 2021. *Pitchbook defines the middle market (MM) as US-based deals with an enterprise value between $25 million and $1 billion.

Data is based on availability as of August 31, 2021.

Consumer deal activity

M&A activity in restaurants, hotels and leisure
Middle market private equity*


Data is based on availability as of August 31, 2021.
To calculate the weighted projected program return, the 25-year periodic return for US private equity through third quarter 2018 was used, equal to a 13.4% net IRR, and co-investment returns were projected to be 500 bps higher. Weighted portfolio returns are calculated by applying the strategy weights to long-term returns. Secondary market fundraising activity is as of June 30, 2021.

Data is based on availability as of August 31, 2021.
### Private equity exits by type

<table>
<thead>
<tr>
<th>Type</th>
<th>2Q21</th>
<th>06-'20 avg.</th>
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</thead>
<tbody>
<tr>
<td>Secondary buyout</td>
<td>18.6%</td>
<td>37.5%</td>
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<tr>
<td>IPO</td>
<td>48.2%</td>
<td>19.1%</td>
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<tr>
<td>Corporate acquisition</td>
<td>33.2%</td>
<td>43.4%</td>
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**Billions USD**

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<tr>
<th>'06</th>
<th>'07</th>
<th>'08</th>
<th>'09</th>
<th>'10</th>
<th>'11</th>
<th>'12</th>
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</tbody>
</table>

**Sources:** Pitchbook, SPACInsider, SPAC Data, J.P. Morgan Asset Management.

Private equity exit data is as of June 30, 2021.

Data is based on availability as of August 31, 2021.
**Change in share of VC investments by industry**

*2016 – 2021* vs. *2006 – 2010*

<table>
<thead>
<tr>
<th>Industry</th>
<th>% of total exits</th>
<th>2016 – 2021</th>
<th>2006 – 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer Goods &amp; Services</td>
<td>6.8%</td>
<td>0.7%</td>
<td></td>
</tr>
<tr>
<td>Software</td>
<td>6.0%</td>
<td>0.4%</td>
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</tr>
<tr>
<td>Other</td>
<td>5.3%</td>
<td>-3.7%</td>
<td></td>
</tr>
<tr>
<td>Transportation</td>
<td>4.9%</td>
<td>0.4%</td>
<td></td>
</tr>
<tr>
<td>HC Services &amp; Systems</td>
<td>3.2%</td>
<td>0.4%</td>
<td></td>
</tr>
<tr>
<td>Pharma &amp; Biotech</td>
<td>-1.3%</td>
<td>-5.5%</td>
<td></td>
</tr>
<tr>
<td>Media</td>
<td>-1.4%</td>
<td>-5.9%</td>
<td></td>
</tr>
<tr>
<td>Commercial Services</td>
<td>-2.4%</td>
<td>-11.7%</td>
<td></td>
</tr>
<tr>
<td>Energy</td>
<td>-5.5%</td>
<td>-24.4%</td>
<td></td>
</tr>
<tr>
<td>HC Devices &amp; Supplies</td>
<td>-6.1%</td>
<td>-25.3%</td>
<td></td>
</tr>
<tr>
<td>IT Hardware</td>
<td>-9.5%</td>
<td>-28.6%</td>
<td></td>
</tr>
</tbody>
</table>

Source: Pitchbook, J.P. Morgan Asset Management. Venture capital data is as of June 30, 2021. Percentages may not sum to 100 due to rounding. Data is based on availability as of August 31, 2021.

**Venture capital exits by type**

*Billions USD*

<table>
<thead>
<tr>
<th>Type</th>
<th>% of total exits</th>
<th>Avg. ‘06 - 20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buyout</td>
<td>3%</td>
<td>5%</td>
</tr>
<tr>
<td>Acquisition</td>
<td>11%</td>
<td>51%</td>
</tr>
<tr>
<td>Public listing</td>
<td>87%</td>
<td>44%</td>
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</tbody>
</table>

Source: Pitchbook, J.P. Morgan Asset Management. Venture capital exits data is as of August 31, 2021. Percentages may not sum to 100 due to rounding.
**Global M&A value by acquirer type**

<table>
<thead>
<tr>
<th></th>
<th>2Q21</th>
<th>07-'20 avg.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate M&amp;A</td>
<td>64%</td>
<td>71%</td>
</tr>
<tr>
<td>Sponsor-backed</td>
<td>36%</td>
<td>29%</td>
</tr>
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</table>

**Institutional M&A loan volume**

January – July, 2007 - 2021, billions USD

<table>
<thead>
<tr>
<th></th>
<th>07-'20 avg.</th>
<th>Jan.-Jul. 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not sponsored</td>
<td>25%</td>
<td>36%</td>
</tr>
<tr>
<td>Sponsored</td>
<td>75%</td>
<td>64%</td>
</tr>
</tbody>
</table>


2021 U.S. leveraged loan market participants data is least twelve months June 2021. *Non-banks included institutional investors and finance companies. Participant data excludes left and right agents. Percentages may not sum 100 due to rounding. Direct lending industry composition is based on the Cliffwater Direct Lending Index. 
Data is based on availability as of August 31, 2021.
Expansion
Manufacturing ISM > 50 and rising

Recession
Manufacturing ISM < 50 and falling

Late cycle cooling
Manufacturing ISM > 50 and falling

Turnaround
Manufacturing ISM < 50 and rising


Data is based on availability as of August 31, 2021.
Drawdown dispersion and recovery rates

Public and private credit drawdown dispersion
Maximum – minimum drawdown, December 2004 – June 2021, quarterly

-28% -27.5% -25.2%
-24%
-20%
-16%
-12%
-8%
-4%
0%

Leveraged loans: Credit Suisse Leveraged Loans Total Return Index. Investment grade: Bloomberg Barclays U.S. Corporate Investment Grade Total Return Index. High yield: Bloomberg Barclays U.S. Corporate High Yield Total Return Index. Direct lending: Cliffwater Direct Lending Index. Drawdowns are cumulative.

Data is based on availability as of August 31, 2021.

Corporate debt recovery rates
1987 – 2019, average discounted recovery rates

First-lien: 75%
Senior secured: 65%
Second-lien: 52%
Senior unsecured: 52%


Leveraged loans: Credit Suisse Leveraged Loans Total Return Index.
Investment grade: Bloomberg Barclays U.S. Corporate Investment Grade Total Return Index.
High yield: Bloomberg Barclays U.S. Corporate High Yield Total Return Index.
Direct Lending: Cliffwater Direct Lending Index. Drawdowns are cumulative.

Data is based on availability as of August 31, 2021.
Covenant-lite loan issuance
Percent of total leveraged loans issuance

Transactions with EBITDA adjustments
Share of total transactions

Covenant-heavy versus covenant-lite loan defaults
Default rates

Number of companies with negative EBITDA
Bloomberg Barclays U.S. Corporate HY index

Source: Bloomberg, S&P LCD, Moody’s, J.P. Morgan Markets Research, J.P. Morgan Asset Management. Media and telecom loans excluded prior to 2011. EBITDA adjusted for prospective cost savings or synergies. Covenant-lite loans are a type of financing that is issued with fewer restrictions on the borrower with regard to collateral, level of income, and loan payment terms, and fewer protections for the lender, including financial maintenance tests that measure the debt-service capabilities of the borrower. All EBITDA data are based on 12-month trailing data. Negative EBITDA company count is based on companies included in the Bloomberg Barclays U.S. Corporate HY index that publicly disclose EBITDA.

Data is based on availability as of August 31, 2021.
Hedge fund strategy returns

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<td>Equities</td>
<td>Macrao</td>
<td>Neutral</td>
<td>Arbitr</td>
<td>Bonds</td>
<td>Equities</td>
<td>Arbitr</td>
<td>Value</td>
<td>Long/Short</td>
<td>Composite</td>
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<td>10.8%</td>
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</table>

Source: MSCI, Bloomberg Barclays, HFRI, FactSet, J.P. Morgan Asset Management.

Global equities reflect the MSCI AC World Index and global bonds reflect the Bloomberg Barclays Global Aggregate Index. All hedge fund returns are from HFRI. HFRI Composite: HFRI FW Composite Index. Returns may fluctuate as hedge fund reporting occurs on a lag. Please see disclosure pages for index definitions.

Data is based on availability as of August 31, 2021.
Hedge fund manager dispersion
Based on returns from February 2011 – January 2021

Sources: HFRI, J.P. Morgan Asset Management.
Manager dispersion is based on: February 2011 to January 2021 monthly returns for hedge funds. Blue bar denotes median. All hedge funds: Fund Weighted Composite Index, Equity market neutral: Equity hedge – equity market neutral, Event-driven: Event-Driven (Total), Relative value: Relative Value (Total), Relative value multi-strategy: Relative Value Multi-Strategy, Macro total: Macro (Total), Equity hedge: Equity Hedge (Total), Emerging markets: Emerging Markets Global.
Data is based on availability as of August 31, 2021.
Hedge fund flows and exposures

Hedge fund net asset flow
Billions USD

Sector exposure of top 50 hedge funds
% of total portfolio

Hedge funds and traditional portfolios

Hedge fund correlation with a 60/40 stock-bond portfolio*
1990 – present, monthly

Sources: HFRI, Standard & Poor’s, Bloomberg, Barclays, FactSet, J.P. Morgan Asset Management.

*60/40 portfolio is 60% S&P 500 and 40% Bloomberg Barclays U.S. Aggregate. Hedge funds are represented by HFRI Macro. Correlation is calculated on a 12-month rolling basis.

Data is based on availability as of August 31, 2021.
Hedge funds and volatility

Hedge funds and volatility
Average monthly hedge fund returns by VIX level, 1990 – present

Macro hedge fund relative performance & volatility
VIX index level, y/y change in rel. perf. of HFRI Macro index

Source: HFRI, CBOE, MSCI, FactSet, J.P. Morgan Asset Management.
Historical beta is based on regression analysis, where the HFRI is the dependent variable and the MSCI AC World Index is the independent variable.
Monthly VIX reading is an average. Numbers may not sum to 100% due to rounding. Relative performance and VIX data is as of July 2021.
Data is based on availability as of August 31, 2021.
Sources: S&P Global, HFRI, FactSet J.P. Morgan Asset Management.

*Dispersion is represented by the range. For equity dispersion, the Energy sector has a negative minimum P/E ratio; however, the chart only displays positive values. Current equity dispersion data are as of July 2021. Private credit spreads are as of March 31, 2021.

Data is based on availability as of August 31, 2021.
S&P 500 E-Mini and 10-yr. U.S. Treasury Note positioning

Net noncommercial futures positions as a percent of open interest

Source: CFTC, FactSet, J.P. Morgan Asset Management.
Data is based on availability as of August 31, 2021.
Source: CBOE, ICE BofA, J.P. Morgan Index Research, FactSet, J.P. Morgan Asset Management. (Left) Equity volatility is represented by the VIX Index, interest rate volatility is represented by the MOVE Index and foreign exchange volatility is represented by the J.P. Morgan Global FX Volatility Index. Volatility data is as of August 2021. (Right) Based on company filings, SEC 606 disclosures. Data is based on availability as of August 31, 2021.
Sources: Bloomberg, J.P. Morgan Asset Management
Data is based on availability as of August 31, 2021.
Transactions processed per second

Number

- Visa: 3526
- Mastercard: 2061
- PayPal: 241
- Bitcoin: 3.3
- Ether: 3.18
- Litecoin: 0.26

Transaction fees and block sizes

Average transaction fee and block size, 2009 – present

Transaction fees (USD)

Average block size (MB)

Sources: BIS, BitInfoCharts, J.P. Morgan Asset Management
Data is based on availability as of August 31, 2021.
**Cryptocurrency correlations and volatility**

**Risk-on and risk-off assets**
12-month rolling correlations, monthly

**Bitcoin and equities volatility**
252-day trading volatility


Data is based on availability as of August 31, 2021.
**Alpha** – Is the difference between an investment’s return and its expected return, given its level of beta.

**Accredited investor** – Defined by Rule 501 of Regulation D, an individual (i.e. non-corporate) “accredited investor” is either a natural person who has individual net worth, or joint net worth with the person’s spouse, that exceeds $1 million at the time of the purchase OR a natural person with income exceeding $200,000 in each of the two most recent years or joint income with a spouse exceeding $300,000 for those years and a reasonable expectation of the same income level in the current year. For the complete definition of accredited investor, see the SEC website.

**Capital commitment** – A Limited Partner’s obligation to provide a specific amount of capital to a Closed-end Fund (defined below) for investments. The Capital Commitment is “drawn down” or “called” over time, meaning a portion of the commitment must be wired to the Closed-end Fund by a set date.

**Capital called** – The amount of capital wired to a fund that is “drawn down” over time as the General Partner selects investments.

**Carried interest (aka incentive fee)** – A fee paid to a fund manager for generating returns over a benchmark; calculated as a percentage of investment profits over a hurdle rate and charged in addition to a management fee. In Private Equity, carried interest (typically up to 20% of the profits) becomes payable once the investors have achieved repayment of their original investment in the fund, plus a defined hurdle rate.

**Catch-up** – This is a common term of the private equity partnership agreement. Once the general partner provides its limited partners with their preferred return, if any, it then typically enters a catch-up period in which it receives the majority or all of the profits until the agreed upon profit-split, as determined by the carried interest, is reached.

**Clawback** – A clawback obligation represents the general partner’s promise that, over the life of the fund, the managers will not receive a greater share of the fund’s distributions than they bargained for. Generally, this means that the general partner may not keep distributions representing more than a specified percentage (e.g., 20%) of the fund’s cumulative profits, if any. When triggered, the clawback will require that the general partner return to the fund’s limited partners an amount equal to what is determined to be “excess” distributions.

**Closed-end fund** – A fund that has a finite capital raising period and stated term (i.e. 5 years, 10 years, etc.). Clients will have the ability to commit to the fund during the set fundraising period, after which point the fund will be closed to new investors. Unlike an open-ended fund, there is limited flexibility on when a client may invest and there is no liquidity/redemption. Clients who invest are obligated to remain in the fund for the duration of the term; they will be required to fulfill capital calls during the stated commitment period and will receive periodic distributions based on underlying monetization of investments.

**Commitment period** – The period of time within which the fund can make investments as established in the Limited Partnership Agreement (“LPA”), meaning the governing document, for the fund.

**Direct co-investment** – An investment made directly in a single underlying asset of a fund. Example: The General Partner elects to invest in an operating company alongside a fund.

**Dispersion** – Difference between the best-performing and worst-performing strategies.

**Distressed** – A financial instrument in a company that is near or is currently going through bankruptcy. This usually results from a company’s inability to meet its financial obligations. As a result, these financial instruments have suffered a substantial reduction in value. Distressed securities can include common and preferred shares, bank debt, trade claims (goods owed) and corporate bonds.

**Distributions** – The total proceeds distributed by the fund to the Limited Partners, which may include both return of capital and gain distributions.

**General partner** – The managing partner of a Limited Partnership. The General Partner is managed by the asset management team responsible for making fund investments (i.e., the intermediary between investors with capital and businesses seeking capital to grow).

**Gross IRR** – The dollar-weighted internal rate of return, before management fees and carried interest generated by the fund.

**Hedge Fund strategies:**

- **Relative Value/Arbitrage** involves the simultaneous purchase and sale of similar securities to exploit pricing differentials. Strategies in this sector offer potential to generate consistent returns while minimizing directional risk.

- ** Opportunistic/Macro** strategies involve investments in a wide variety of strategies and instruments, which often have a directional stance based on the manager’s global macroeconomic views.

- **Long/Short (L/S) Equity** involves long and/or short positions in equity securities deemed to be under- or overvalued, respectively. Exposures to sectors, geographies, and market capitalizations are often flexible and will change over time.

- **Merger Arbitrage/Event Driven** strategies invest in opportunities created by significant corporate transactions and events which tend to alter a company’s financial structure or operating strategy.

- **High water mark** – The highest peak in value that an investment fund has reached. This term is often used in the context of fund manager compensation. For example, a $1,000,000 investment is made in year 1 and the fund declines by 50%, leaving $500,000 in the fund. In year 2, the fund returns 100%, bringing the investment value back to $1,000,000. If a fund has a high watermark, it will not take incentive fees on the return in year 2 since the investment has never grown. The fund will only take incentive fees if the investment grows above the initial level of $1,000,000.

- **Hurdle rate** – The rate of return that the fund manager must meet before collecting incentive fees.

- **Internal rate of return (IRR)** – The dollar-weighted internal rate of return. This return considers the daily timing of all cash flows and cumulative fair stated value, as of the end of the reported period.

- **J-Curve effect** – Occurs when funds experience negative returns for the first several years. This is a common experience, as the early years of the fund include capital drawdowns and an investment portfolio that has yet to mature. If the fund is well managed, it will eventually recover from its initial losses and the returns will form a J-curve: losses in the beginning drop down below the initial value, and later returns show profits above the initial level.

- **K-1** – Tax document issued for an investment in partnership interests to report your share of income, deductions and credits. (Note that Private Investments generally issue a Schedule K-1 instead of a Form 1099 for tax reporting. K-1s may at times be issued later than 1099s, requiring investors to file for an extension).  

- **Limited partner** – An investor in a Limited Partnership, which is a form of legal entity used for certain hedge funds, private equity funds and real estate funds.

- **Management fee** – Fee paid to a fund manager for managing the fund; typically calculated as a percentage of assets under management.

- **Mezzanine finance** – Loan finance that is half-way between equity and secured debt, either unsecured or with junior access to security. A mezzanine fund is a fund focusing on mezzanine financing.

- **Multiple of Invested Capital (MOIC)** – Calculation performed by adding the remaining (reported) value and the distributions received (cash out) and subsequently dividing that amount by the total capital contributed (cash in).

- **Net asset value (NAV)** – This is the current fair stated value for each of the investments, as reported by the administrator of the fund.

- **Net IRR** – The dollar-weighted internal rate of return, net of management fees and carried interest generated by the fund. This return considers the daily timing of all cash flows and the cumulative fair stated value, as of the end of the reported period.
Open-ended fund – As it relates to private alternatives (not mutual fund structure), an open-ended fund is a fund that has no stated term or maturity and allows clients to invest and redeem on an ongoing basis. The frequency of investments (aka subscriptions) and / or redemptions may vary. Redemptions from open-ended private alternative funds generally require advance notice in writing.

Pari Passu – At an equal rate or pace, without preference.

Portfolio company – A business entity that has secured at least one round of financing from one or more private equity funds. A company in which a given fund has invested.

Post-money valuation – The valuation of a company immediately after the most recent round of financing. For example, a venture capitalist may invest $3.5 million in a company valued at $2 million “pre-money” (before the investment was made). As a result, the startup will have a post money valuation of $5.5 million.

Pre-money valuation – The valuation of a company prior to a round of investment. This amount is determined by using various calculation methods, such as multiples to earnings or comparable to other private and/or public companies.

Preferred return – Also known as Hurdle Rate.

Private equity – Equity capital invested in a private company through a negotiated process.

Primary investment – An investment made in a newly formed limited partnership.

Real estate investment trust (REITs) – Stocks listed on an exchange that represent an interest in a pool of real estate properties.

Realized value – The amount of capital extracted from an investment.

Reported/remaining value – The current stated value for each of the investments in a fund, as reported by the General Partner of the fund.

Return on equity (RoE) - Amount of net income returned as a percentage of shareholders’ equity.

Secondary market investment – The buying and selling of pre-existing investor commitments.

Seed money – The first round of capital for a start-up business. Seed money usually takes the structure of a loan or an investment in preferred stock or convertible bonds, although sometimes it is common stock. Seed money provides startup companies with the capital required for their initial development and growth. Angel investors and early-stage venture capital funds often provide seed money.

Tax documents – See K-1.

Total value – The combination of market value and realized value of an investment. Shows the total worth of an investment.

Unfunded commitment – Money that has been committed to an investment but not yet transferred to the General Partner.

Venture capital – A specialized form of private equity, characterized chiefly by high-risk investment in new or young companies following a growth path in technology and other value-added sectors.

Vintage year – The year of fund formation and first draw-down of capital.

Write-down – A reduction in the value of an investment.
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