# SpaceX and the Modern Space Economy

**Space Exploration Technologies** ■ ***Aerospace*** ■ ***Founded: 2002*** ■ ***Funding to Date: $5.24B***

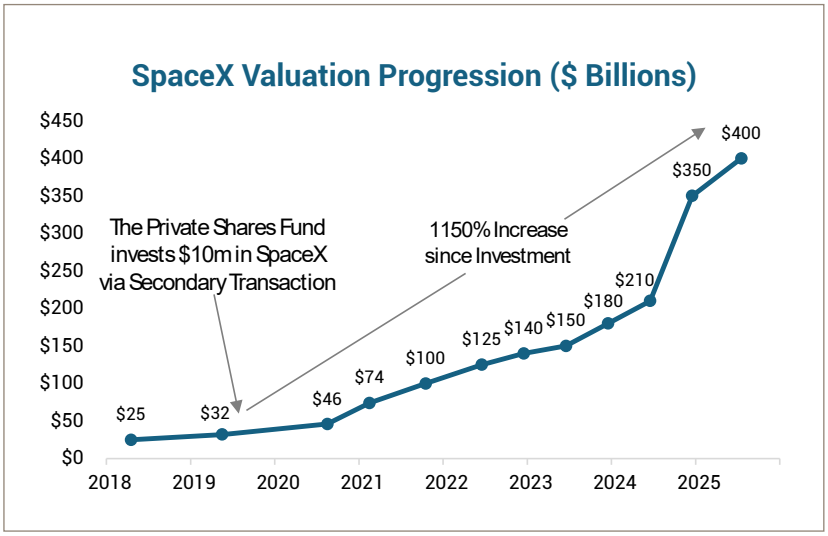
Space Exploration Technologies ("SpaceX") was founded to design, manufacture, and launch advanced rockets and spacecrafts with the ultimate goal of enabling people to live on other planets. Headquartered in Hawthorne, CA, the company was founded by Elon Musk in 2002. Though its interplanetary goals are yet to be achieved, the company currently generates revenue through commercial and government contracts. These contracts make use of SpaceX rockets for a range of objectives, including launching satellites into orbit and resupplying the International Space Station. In 2010, SpaceX demonstrated its ability of returning a spacecraft from low Earth orbit. In 2012, the company delivered cargo to and from the International Space Station via its Dragon spacecraft. Through March 2018, SpaceX has secured 100 missions to its manifest, representing over $12 billion on contract.

## 1. THE PRIVATE SHARES FUND PERSPECTIVE

As an investor in SpaceX, The Private Shares Fund has participated in the company's evolution as both a late-stage technology leader and a model for value creation in private markets. As of 9/30/25, it is the Fund's largest holding, and we believe SpaceX represents the established, innovation-focused companies that define the Fund's investment approach.

When the Fund first invested in SpaceX in 2019, the company was already a proven operator in launch services and an emerging force in broadband. The position aligned with the Fund's strategy of investing in mature, innovation-driven private companies — businesses that demonstrate visible revenue, durable margins, and long-term optionality.

SpaceX's combination of primary financings and periodic tender offers since then have provided market-based pricing indications, reflecting how operational performance can translate into rising enterprise value. For investors, these events illustrate one of the defining advantages of high-quality private exposure: observable, data-driven appreciation without reliance on daily market volatility.




Sources: 2018 and 2019 data per Pitchbook; 2020 through 2025 data per Section 6 herein

More broadly, SpaceX embodies the Fund's conviction that the most transformative technologies often mature privately before reaching public markets. SpaceX's combination of recurring revenue, vertical integration, and measurable valuation progress demonstrates how private-market infrastructure investments can deliver sustained growth over multi-year horizons.

## 2. BUILDING THE INFRASTRUCTURE FOR A SPACE ECONOMY

Over the past two decades, SpaceX has grown from an ambitious engineering project into a central player in the global technology landscape. Today it operates at the intersection of aerospace, telecommunications, and logistics. Its integrated model, spanning launch, broadband, and defense communications, brings together innovation and scale in a way few companies have matched.

The company now stands at the center of a fast-growing global space economy that analysts expect could exceed $1 trillion by 2040.[1] Its network of rockets, satellites, and data systems supports communications, transportation, and defense capabilities worldwide.

## 3. INTEGRATED DRIVERS OF GROWTH

### *Launch and Transportation*

SpaceX's Falcon 9 rocket transformed orbital access by proving that reusability can work at scale. The ability to land and relaunch boosters has reduced cost per kilogram to orbit approximately 75% compared to traditional expendable systems.[2]

In the first half of 2025, SpaceX performed more than 80 orbital launches, representing over 55% of global launch activity.[3] Its heavy-lift Falcon Heavy and crewed Dragon spacecraft expand the company's offerings across commercial, scientific, and governmental missions, while the fully reusable Starship vehicle—currently in testing—aims to deliver payloads exceeding 100 tons and enable lunar and Mars transport later this decade. These advances have turned SpaceX into both a launch service provider and a platform for future deep-space logistics.


Falcon Heavy lifts off from Kennedy Space Center
Image credit: www.spacex.com/vehicles/falcon-heavy

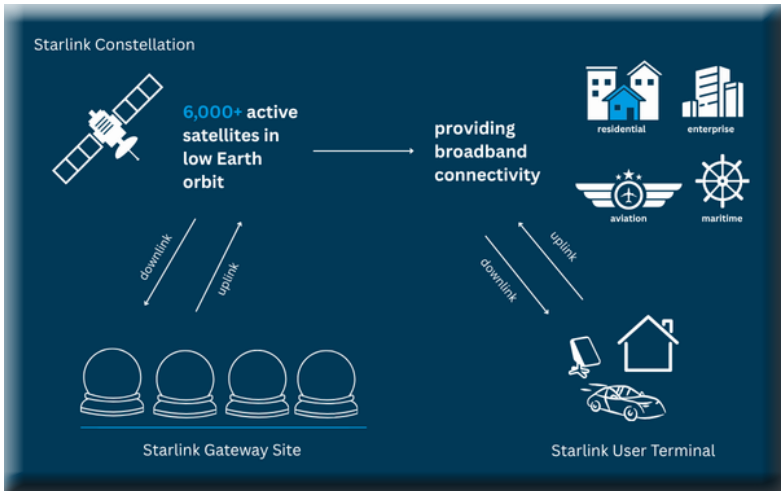
### *Starlink Broadband*

Launched in 2019, Starlink has become SpaceX's primary driver of growth. It operates the world's largest low-Earth-orbit satellite constellation, exceeding 8,000 active satellites[4] and provides broadband connectivity to residential, enterprise, aviation, and maritime customers in over 100 countries.[5]

Analysts estimate Starlink generated $8–9 billion in 2024 revenue [6], surpassing SpaceX's launch services for the first time. Its subscription model delivers recurring revenue and diversifies the company away from the cyclical launch market.

Starlink's enterprise and government segments are also expanding rapidly. Aviation and maritime connectivity contracts, as well as government agreements for emergency communications, now contribute significantly to overall growth. SpaceX now leads the industry in launch and spacecraft production and is quickly establishing itself as one of the world's leading vertically integrated communications infrastructure providers.

1 -Morgan Stanley: www.morganstanley.com/Themes/global-space-economy
2 - Patent PC: www.patentpc.com/blog/reusable-rockets-vs-disposable-rockets-market-trends-and-cost-reduction-stats
3 - BryceTech, "Global Orbital Space Launches," Q1 and Q2 2025. www.brycetech.com/reports/report-documents/bryce-briefing-2025-Q1/ and www.brycetech.com/reports/report-documents/bryce-briefing-2025-Q2/
4 - Space.com: www.space.com/spacex-starlink-satellites.html
5 - CNet: www.cnet.com/home/internet/starlink-internet-is-available-in-over-100-countries/
6 - Payload Space: www.payloadspace.com/estimating-spacexs-2024-revenue/




SpaceX's $17 billion acquisition of EchoStar's spectrum enhances its independence in direct-to-device services, expanding beyond its T-Mobile partnership and giving the company greater control over its Starlink network. As Gwynne Shotwell, SpaceX's President and COO, explained, Starlink's first-generation Direct-to-Cell satellites have already connected millions "during natural disasters … or when they would have previously been off the grid," and with exclusive spectrum, the next generation will deliver "a step change in performance" and broader global coverage.[7]

### *Starshield and Government Services*

Building on Starlink's platform, Starshield offers encrypted, defense-grade satellite communications and imaging capabilities for the U.S. government and allied agencies. In 2021, Starshield secured multiyear government contracts, including a $1.8 billion classified program with the National Reconnaissance Office[8] and a $70 million U.S. Space Force contract for specialized satellite communications,[9] These engagements provide stable, long-term revenue streams and strengthen SpaceX's alignment with national-security priorities.

### *Manufacturing and Vertical Integration*

A major competitive advantage for SpaceX lies in its vertical integration. The company designs and manufactures nearly every major component—from rocket engines and avionics to satellites and user terminals—all at its domestic facilities in California, Texas, and Washington.

This structure gives SpaceX control over production, costs, and supply chains. Its Hawthorne, California headquarters and Starbase, Texas site combine research, engineering, and manufacturing, while the Redmond, Washington facility builds Starlink satellites on fast, high-volume lines. The company functions more like an integrated manufacturer than a traditional aerospace contractor, turning out new hardware and design updates in a matter of months instead of years.

### *Operational Scale and Financial Performance*

SpaceX has reached a scale rarely seen in the private sector. By combining industrial capability with recurring revenue and steady reinvestment in technology, it has built a growth model that is unmatched in almost any company in the world, public or private.

7- PR News Wire: www.prnewswire.com/news-releases/echostar-announces-spectrum-sale-and-commercial-agreement-with-spacex-302548650.html
8 - Reuters, 2024: www.reuters.com/technology/space/musks-spacex-is-building-spy-satellite-network-us-intelligence-agency-sources-2024-03-16/
9 -CNBC, 2023: www.cnbc.com/2023/09/27/spacex-wins-first-pentagon-contract-for-starshield.html

Revenue expanded from roughly $2 billion in 2018[10] to about $13 billion in 2024[6], and is projected at approximately $15.5 billion in 2025[11] according to public statements by CEO, Elon Musk. Musk claims SpaceX's revenue will exceed NASA's budget in 2026 to over $18.8 billion[12], as Starlink and defense businesses continue to mature.

| Year | Est./Projected Revenue (USD Billions) | Primary Driver / Context |
|---|---|---|
| 2022[13] | ≈ 4.6 | Starlink rollout accelerates and launch cadence expands |
| 2023[14] | ≈ 8.7 | Continued Starlink adoption and increasing global launches |
| 2024[6] | ≈ 13.1 | Starlink broadband dominates revenue mix |
| 2025E[11] | ≈ 15.5 | Ongoing Starlink growth supported by steady launch activity |
| 2026E[12] | +18.8 | Projected Starship deployment and growing defense contracts |

2025 and 2026 estimated data may not be realized.

Starlink reportedly achieved breakeven cash flow in 2023.[15] driven by reusable hardware and rising Starlink subscriptions. Profitability allows the company to self-fund Research and Design (R&D), reducing its dependence on external capital, which is extremely unusual for a firm still privately held.

## 4. ECONOMIES OF SCALE

SpaceX's advantage comes from the way it connects design, testing, and production. Flight data feeds directly back into engineering decisions, manufacturing teams implement changes quickly, and each mission helps refine both process and cost. That integration drives faster innovation, lower expenses, and operational learning that builds over time .

*Integration drives faster innovation, lower expenses and operational learning.*

### *Reusability and Reliability*

Falcon 9 captures how SpaceX learns from every flight, turning data into better hardware and lower costs. Each recovered booster provides engineering data that informs new design and refurbishment techniques. Turnaround times have fallen from months to weeks, and individual boosters have exceeded 25 missions.[16] This capability has turned what was once a one-use asset into a repeatable, cash-efficient platform.

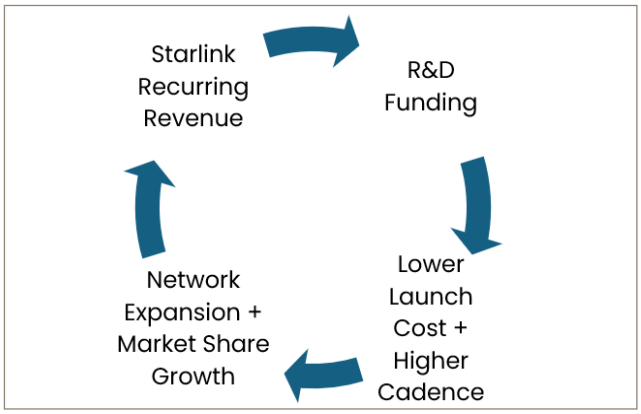
10 - CNBC, 2019: www.cnbc.com/2019/05/20/spacex-revenue-2-billion-from-rockets-last-year-jefferies-estimate.html
11 - Reuters, 2025: www.reuters.com/science/spacex-will-record-revenue-about-155-billion-2025-elon-musk-says-2025-06-03/
12 - Morningstar: www.morningstar.com/news/dow-jones/202506036792/spacex-revenue-to-exceed-nasas-budget-in-2026-elon-musk-says
13 - CNBC, 2023: www.cnbc.com/2023/08/17/spacex-reported-a-profit-in-the-first-quarter-wsj-says.html
14 -Payload Space: www.payloadspace.com/estimating-spacexs-2023-revenue/
15 - CNBC, 2023: www.cnbc.com/2023/11/02/elon-musk-spacex-starlink-breakeven-cash-flow.html
16 - Yahoo Tech: tech.yahoo.com/science/articles/spacex-rocket-sets-reuse-record-122013047.html

### *Data and Software Integration*

Every launch generates vast amounts of flight data. SpaceX analyzes that information to improve flight paths, engine performance, and satellite network efficiency. Advanced analytics and predictive modeling help identify when parts will need maintenance, applying the fast-learning cycles typical of Silicon Valley software development to aerospace hardware.

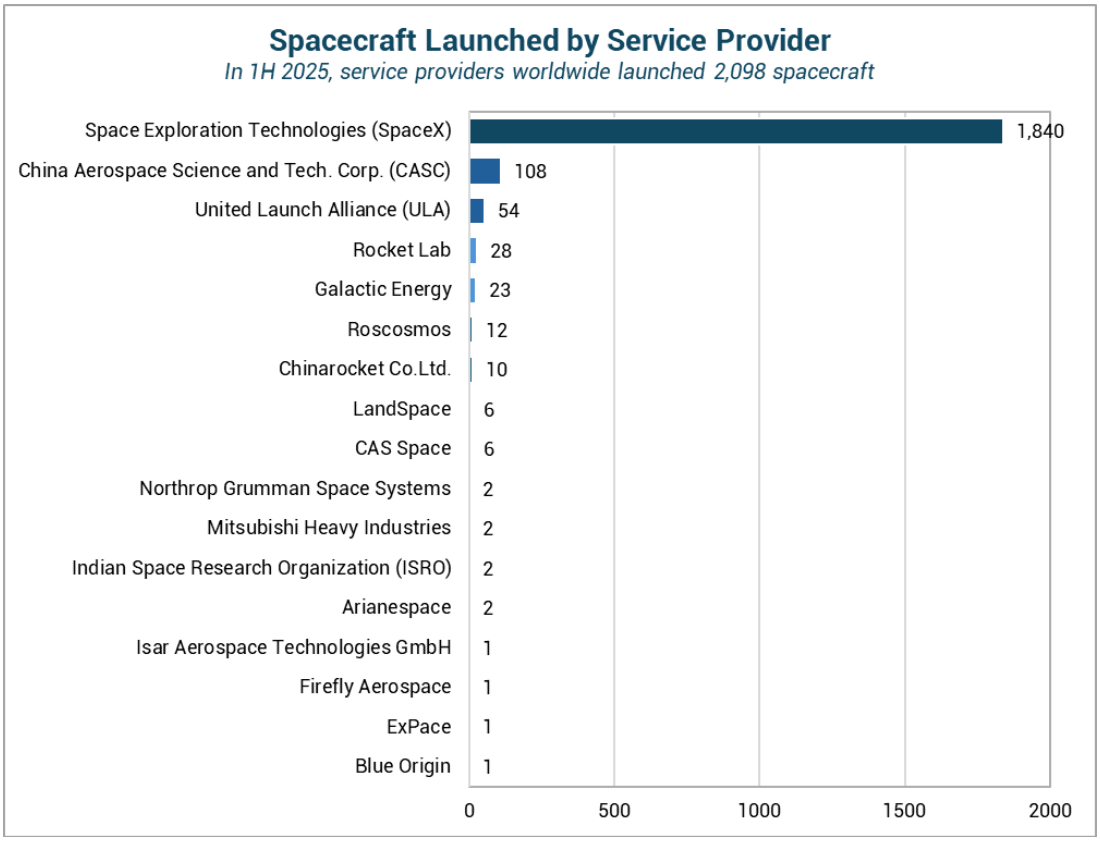
### *How Innovation Converts to Growth*

Recurring cash flow from Starlink funds research and development for Starship, propulsion upgrades, and next-generation satellites. The cycle drives reliability, lowers costs, and deepens SpaceX's lead in key markets. Its technology improvements translate quickly into stronger margins and operational scale.




## 5. STRATEGIC NATIONAL IMPORTANCE

SpaceX's scale now holds strategic importance for the United States and its position in the global space economy. In the first half of 2025, U.S. launch providers conducted 96 orbital launches, compared with 36 from China. Across that period, SpaceX accounted for more than 80 percent of all U.S. missions.[3] Without SpaceX, total American orbital activity would fall below China's levels.




Source: Bryce Tech Orbital Space Launch Briefing, Q1 2025 and Q2 2025

The company's infrastructure — spanning launch, satellite communications, and national security applications — has become critical to maintaining global connectivity and competitiveness. Its Starlink and Starshield programs generate meaningful commercial revenue while providing secure, redundant communications that support defense operations, disaster response, and connectivity in remote regions.

*In 1H 2025, SpaceX accounted for more than 80% of all U.S. space missions.*[3]

SpaceX's reliability has also changed how U.S. agencies and private operators plan missions. NASA, the Department of Defense, and commercial satellite companies now rely on its launch cadence and cost efficiency to maintain consistent access to orbit. This consistency has allowed the U.S. to expand space-based operations faster and more sustainably than any other nation. As competition from state-backed programs intensifies, especially in China, SpaceX shows how private innovation can strengthen national capability. The company's success demonstrates how commercial scale and technical leadership are now essential to sustaining U.S. leadership in space.

## 6. VALUATIONS, TENDER ACTIVITY AND PATHWAYS TO LIQUIDITY

Across the private-technology landscape, leading firms are remaining private longer, as deep late-stage capital and secondary markets reduce reliance on IPOs.

In its earlier growth phase, SpaceX raised traditional venture capital through large private rounds — notably in 2020, 2021, and 2022 — which established formal valuation baselines and attracted leading institutional investors.

Since then, the company has shifted toward periodic tender offers to provide liquidity and transparent pricing for existing shareholders. These tenders, while not primary capital raises, have become the principal mechanism by which SpaceX's enterprise value is demonstrated in the private markets. The pattern illustrates investor demand and confidence in the firm's growth trajectory.

SpaceX's valuation history reflects consistent, fundamentals-based growth tied to execution. Each step-up in value follows real progress in launches, Starlink, or defense contracts. A similar fundamentals-based pattern is emerging across leading private AI and infrastructure companies, where performance metrics and adoption milestones increasingly drive value.

Starbase, home to SpaceX Headquarters.
Image credit:www.spacex.com/vehicles/starship

| Date | Reported Valuation (USD Billions) | Type | Milestone Context |
|---|---|---|---|
| Aug. 2020[17] | ≈ 46 | Fundraise | Early Starlink deployment and demonstrated Falcon 9 reusability |
| Feb.2021[17] | ≈ 74 | Fundraise | Expansion of Starlink operations and continued Falcon 9 launch cadence |
| Oct. 2021[18] | ≈ 100 | Tender | Broader commercial and government engagement through Starlink and Dragon programs |
| Jun. 2022[19] | ≈ 125 | Fundraise | Scaling of Starlink service and global launch demand |
| Dec. 2022[20] | ≈ 140 | Tender | Advancing Starship development and network growth |
| Jun. 2023[21] | ≈ 150 | Tender | Expansion of enterprise connectivity offerings and Starship testing progress |
| Dec. 2023[22] | ≈ 180 | Tender | Introduction of Starshield and growth in government partnerships |
| Jun. 2024[23] | ≈ 210 | Tender | Continued Starlink adoption and progress toward Starship operational capability |
| Dec. 2024[23] | ≈ 350 | Tender | Broader commercial demand and strengthening private-market interest |
| Jul. 2025[24] | ≈ 400 | Tender | Ongoing global expansion across Starlink, Starshield, and launch services |

### *Potential Liquidity Outcomes*

Although SpaceX does not require a public listing to fund operations, some form of public liquidity event remains the most likely long-term outcome. Two principal pathways have drawn consistent attention from investors and analysts:

1. ***Full Company IPO***

   A full listing of SpaceX would represent one of the largest technology IPOs ever. It would provide broad liquidity for shareholders and establish a public valuation benchmark while opening access for new investors. However, going public would also bring quarterly-reporting obligations and regulatory oversight that might constrain SpaceX's long-range engineering agenda.

2. ***Starlink Spin-Off or Public Listing***

   Multiple reports have indicated that SpaceX may eventually spin off Starlink into a separate public entity.[25,26] Such a move would allow markets to value the broadband business — characterized by recurring revenue and high margins — independently from the capital-intensive space launch segment. A Starlink IPO could also unlock capital for continued infrastructure expansion while enabling SpaceX to retain majority control.

17 - CNBC, 2021: www.cnbc.com/2021/02/16/elon-musks-spacex-raised-850-million-at-419point99-a-share.html
18 - CNBC, 2021: www.cnbc.com/2021/10/08/elon-musks-spacex-valuation-100-billion.html
19 - Reuters, 2022: www.reuters.com/markets/us/elon-musks-spacex-is-poised-become-most-valuable-us-startup-2022-05-17/
20 - Interesting Engineering: www.interestingengineering.com/innovation/spacex-tender-offer-140-billion
21 - Reuters, 2023: www.reuters.com/markets/deals/spacex-tender-offer-values-company-about-150-billion-bloomberg-news-2023-06-23/
22 - CNBC, 2023: www.cnbc.com/2023/12/13/spacex-value-climbs-to-180-billion-higher-than-boeing-verizon.html
23 -CNBC, 2024: www.cnbc.com/2024/12/11/spacex-valuation-surges-to-350-billion-as-company-buys-back-stock.html
24- Tech Crunch, 2025: www.techcrunch.com/2025/07/08/spacex-in-talks-to-raise-new-funding-at-400b-valuation/
25 - Reuters, 2021: www.reuters.com/technology/musk-says-starlink-go-public-once-cash-flow-is-more-predictable-2021-06-24/
26 - CNBC, 2025: www.cnbc.com/2022/10/19/elon-musks-spacex-could-spin-off-starlink-in-ipo-by-2025-analysts.html

While timing is uncertain, either of these outcomes would represent a major inflection point for investors and for the broader private-to-public transition of late-stage technology companies.

Whether through a public listing or continued private growth, SpaceX has already reshaped expectations for what private companies can achieve at scale. Its success underscores how investors can increasingly share in that growth and upside while companies remain private.

## RISKS AND DISCLOSURES

As of September 30, 2025, SpaceX represented 7.7% of the Fund's portfolio.

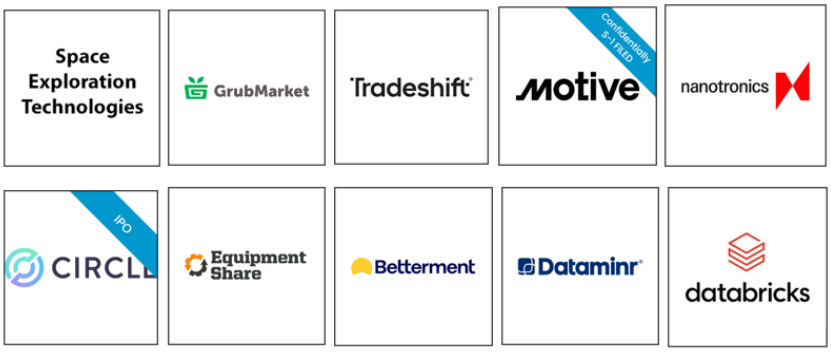
SpaceX is a privately held company that does not trade on any national securities exchange, and there is no guarantee that its shares will ever be traded on any national securities exchange.

The views expressed in this material reflect those of the Fund's Investment Advisor as of the date this is written and may not reflect its views on the date this material is first published or anytime thereafter. These views are intended to provide general information, and do not constitute investment advice or recommendation to buy or sell any security.

All current and future holdings of the Fund are subject to risk and to change. The information provided is about one security held by the Fund. As of September 30, 2025, there were 80 holdings in the Fund. A decision to invest in the Fund should consider more factors than just one holding in its portfolio.

**Enterprise value** is a measure of a company's total worth, calculated as market capitalization plus total debt, minus cash and cash equivalents.

### The Private Shares Fund Top 10 Holdings as of 9/30/25*




*Represents 43.39% of Fund holdings as of September 30, 2025. Holdings are subject to change. Not a recommendation to buy, sell, or hold any particular security. **Current and future holdings are subject to risk.** To view the Fund's complete holdings, visit privatesharesfund.com/portfolio.

***Investors should consider the investment objectives, risks, charges and expenses carefully before investing. For a prospectus with this and other information about The Private Shares Fund (the "Fund"), please download here, visit the Fund's website at PrivateSharesFund.com or call 1-855-551-5510. Read the prospectus carefully before investing.***

## ADDITIONAL RISKS AND DISCLOSURES

The Private Shares Fund is a closed-end interval fund. Investment in the Fund involves substantial risk. The Fund is not suitable for investors who cannot bear the risk of loss of all or part of their investment. The Fund is appropriate only for investors who can tolerate a high degree of risk and do not require a liquid investment. All investing involves risk including the possible loss of principal.

Shares in the Fund are highly illiquid, and can be sold by shareholders only in the quarterly repurchase program of the Fund which allows for up to 5% of the Fund's outstanding shares at NAV to be redeemed each quarter. Due to transfer restrictions and the illiquid nature of the Fund's investments, you may not be able to sell your shares when, or in the amount that, you desire. The Fund intends to primarily invest in securities of private, late-stage, venture-backed growth companies. There are significant potential risks relating to investing in such securities. Because most of the securities in which the Fund invests are not publicly traded, the Fund's investments will be valued by Liberty Street Advisors, Inc. (the "Investment Adviser") pursuant to fair valuation procedures and methodologies adopted by the Board of Trustees, as set forth in the prospectus. As a consequence, the value of the securities, and therefore the Fund's Net Asset Value (NAV), may vary.

There are significant potential risks associated with investing in venture capital and private equity-backed companies with complex capital structures. The Fund focuses its investments in a limited number of securities, which could subject it to greater risk than that of a larger, more varied portfolio. There is a greater focus in technology securities that could adversely affect the Fund's performance. The Fund's quarterly repurchase policy may require the Fund to liquidate portfolio holdings earlier than the Investment Adviser would otherwise do so and may also result in an increase in the Fund's expense ratio. Portfolio holdings of private companies that become publicly traded likely will be subject to more volatile market fluctuations than when private, and the Fund may not be able to sell shares at favorable prices. Such companies frequently impose lock-ups that would prohibit the Fund from selling shares for a period of time after an initial public offering (IPO). Market prices of public securities held by the Fund may decline substantially before the Investment Adviser is able to sell the securities.

The Fund may invest in private securities utilizing special purpose vehicles ("SPV"s), private investments in public equity ("PIPE") transactions where the issuer is a special purpose acquisition company ("SPAC"), and profit sharing agreements. The Fund will bear its pro rata portion of expenses on investments in SPVs or similar investment structures and will have no direct claim against underlying portfolio companies. PIPE transactions involve price risk, market risk, expense risk, and the Fund may not be able to sell the securities due to lock-ups or restrictions. Profit sharing agreements may expose the Fund to certain risks, including that the agreements could reduce the gain the Fund otherwise would have achieved on its investment, may be difficult to value and may result in contractual disputes. Certain conflicts of interest involving the Fund and its affiliates could impact the Fund's investment returns and limit the flexibility of its investment policies. This is not a complete enumeration of the Fund's risks. Please read the Fund prospectus for other risk factors related to the Fund.

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