



Capital Markets Landscape

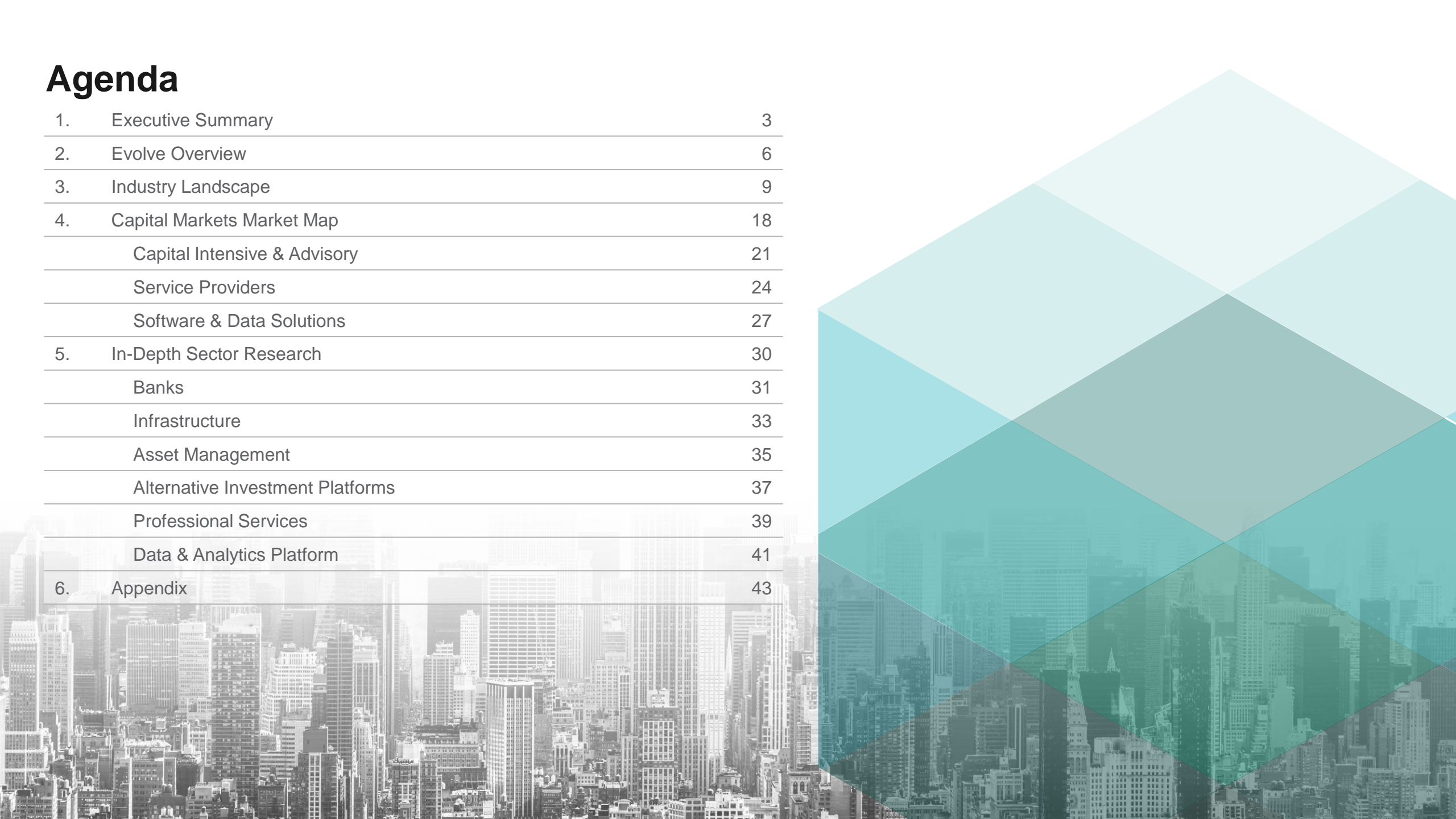
Industry Deep Dive Winter 2024 Edition



Detailed Market Segmentation of the
Capital Markets Sector

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Section 1

Executive Summary



Foreword

Evolve's Capital Markets Vertical Winter 2024 Overview

Foreword

As we turn the page on 2023, the financial landscape carries forward the challenges of the previous year—high inflation, looming recession risks, and volatile asset prices. The aggressive monetary tightening by the Federal Reserve throughout 2022 and early 2023 has had dramatic effects on the capital markets sector, which has outsized exposure to interest rates compared to other sectors.

The banking sector's volatility witnessed in the earlier part of the year has abated, yielding to a phase of relative equilibrium and strong macroeconomic performance. This environment underpins the Federal Reserve's assertive stance on monetary policy contraction to mitigate inflationary pressures.

In the wake of inflation's peak in mid-2022, the year 2023 witnesses a steady retreat following a series of 11 interest rate hikes. M&A and financing transactions remained depressed across all sectors. Yet, the IPO market offers a glimmer of resurgence in the third quarter, marking the first increase in quarterly IPOs since the end of 2021. This period accounted for 27 public market debuts totaling \$22 billion, albeit at the lowest median valuations in a decade—a testament to a cooled investor appetite.

In contrast, the M&A sector experienced a modest rise in median valuations, indicating a preference for established, high-performing companies. However, acquirers are facing increased challenges in securing debt financing for these investments, marking a complex scenario in the current financial landscape.

The sector witnessed an internal “flight to quality,” as investors and consumers alike flocked to leading companies with defensible business models. Direct-to-consumer companies such as Robinhood stumbled through market volatility, while core, mission-critical B2B service and technology companies continued to enjoy robust performance and investor interest.

Banks, the core of the capital markets industry have faced a mix of headwinds and tailwinds. Net interest margins initially increased across the industry as rates increased, but began to contract in early 2023 as depositories were forced to increase deposit costs to retain customers, who now have access to various high-yielding debt investments in the Treasury and money markets. Investment banking fees plummeted in the face of reduced market activity and transaction volume. That being said, leading institutions with robust balance sheets continued to invest in technology and market share via acquisitions.

At Evolve, we understand the importance of staying informed of the capital markets to provide high-impact and highly tailored advisory services in a swiftly changing environment. To underscore the dynamics and critical trends within the capital markets industry and their impact on each industry segment, we have assembled this industry deep-dive report which lends our view on the space, with market maps, in-depth research, and transaction updates.

Our Motivations

- For us to serve our clients better, we strive to constantly update our understanding of our focus priority areas. This report is part of our research coverage, which includes our monthly and quarterly newsletters, and executive research notes.
- Our Evolve insurance special report was published earlier this year, and we have released several research notes on various trends and segments of the capital markets industry.
 - [Coverage of the spring 2023 banking crisis and its impact on the Capital Markets vertical](#) (August 2023)
 - [Update on the M&A advisory landscape: rise of the boutique investment bank](#) (April 2023)
- We believe our research displayed in this report will help you and your firm better understand your position in the capital markets ecosystem, thereby solidifying your ideas on strategy and valuation. We also highlighted current trends with each sub-sector to inform or reinforce your current thoughts.
- For entrepreneurs or those operating sponsor-backed firms, we hope to play a small part in helping you consider different potential strategic options, such as a sale vs. a capital raise.

The capital markets space is large, dynamic, and quickly evolving, but we attempted to segment the industry and provide our opinions based on our unique perspective and focus. We hope you enjoy this report and as always, thank you for your continued support.

Evolve Capital Banking Team

Evolve Capital Markets Industry Summary Map

Evolve’s Perspective: Dynamics of the Capital Markets Ecosystem

How Evolve Segments Capital Markets

The capital markets sector is broad and dynamic (i.e., there is no concrete definition). The below and this report lend a perspective into how Evolve scopes and segments the industry.

CAPITAL INTENSIVE & ADVISORY

Capital Intensive: at the core of the broad capital markets ecosystem are “balance sheet” companies, who directly invest in or hold assets as part of their services to individuals and institutional clients (e.g., banking, asset management, alternative investments), as well as provide lending services to corporations or individuals. Such companies often have fiduciary duties, thereby are tightly regulated.

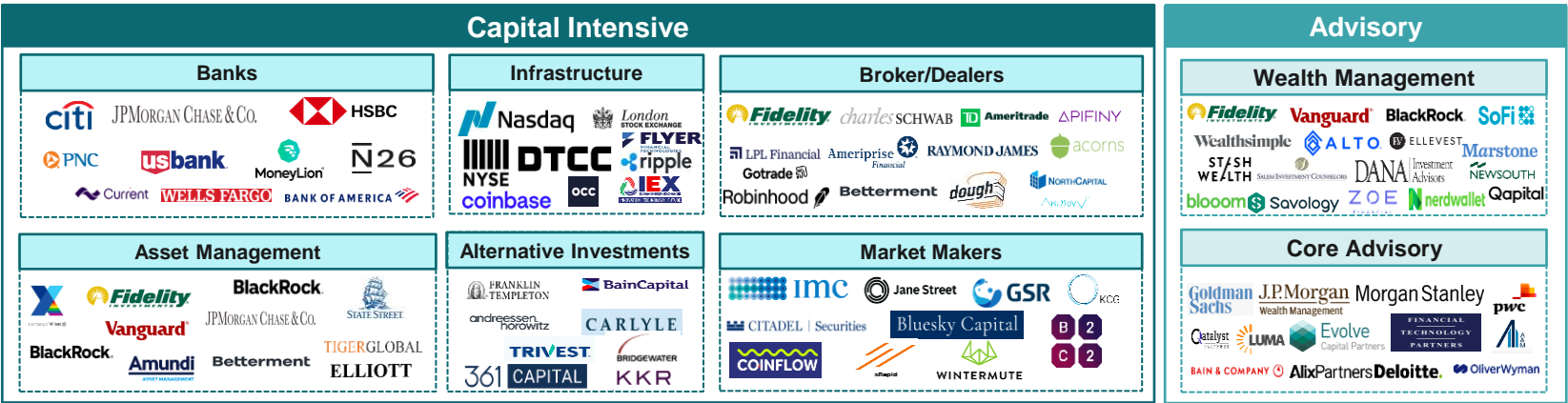
Advisory: we further segment advisory into core services (transaction advisory, accounting, etc.) and wealth management. The advisory client base has traditionally comprised of institutions and high-net worth individuals; however, expanding retail interest in investing and financial markets have led to the rise of both specialized / niche and broad financial advisory services aimed at retail investors.

SUPPORTING FUNCTIONS

Service Providers: companies in this segment serve the “core group”. Services range from content, back-office support, to marketplaces, and ancillary services.

Software & Data Solutions: the capital markets ecosystem is increasingly using data platforms, analytics and specialized software to automate processes and enhance decision-making.

Core Functions



Section 2

Evolve Overview



Evolve Capital Partners Overview

We Focus Exclusively On Finance & Technology-Related Firms

About Evolve

- Evolve Capital Partners (“Evolve”) is a specialized investment bank focused on the Insurance and Capital Markets sectors.
- Evolve was established in 2012 and we are based in New York, NY. Our location provides access to numerous strategic and financial partners who participate in and shape the financial services sector.
- Since inception, we have completed dozens of transactions and professionals of the firm have advised on over \$10B of M&A and financing transactions across their professional careers.

Our Clients



Small and
Medium Size
Businesses &
Corporations



Management
Teams



Venture Capital
& Private
Equity Funds



Independent
Directors/
Boards

Evolve by the “Numbers”

~1,500

Strategic Acquirers

~1,250

Investors

~8,500

Monthly Newsletter
Readers

~85%

Sell Side Close
Rate

~30%

Sell Side Valuation
Gains

Team Experience from Reputable Banking Institutions

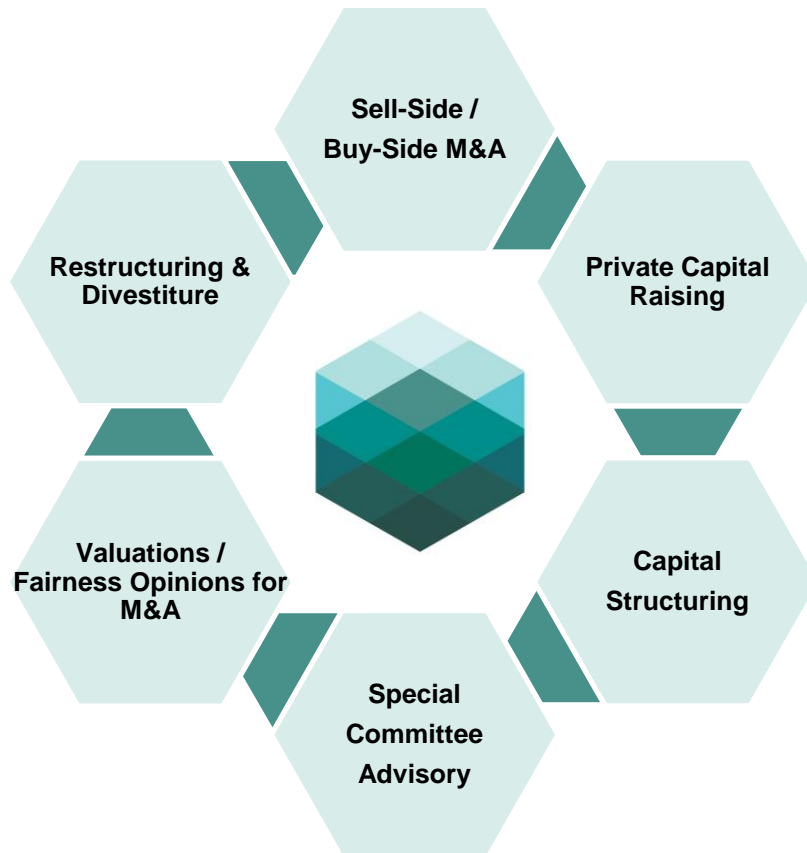


Dedicated “high-touch” investment bank focused exclusively on financial services and technology firms with extremely nimble and highly connected team with deep reach into strategic and financial investors globally. Our team is comprised of bankers with deep experience at bulge brackets, private equity funds and strategic companies in the space.

Evolve Capital Partners Overview

We Focus Exclusively On Finance & Technology-Related Firms

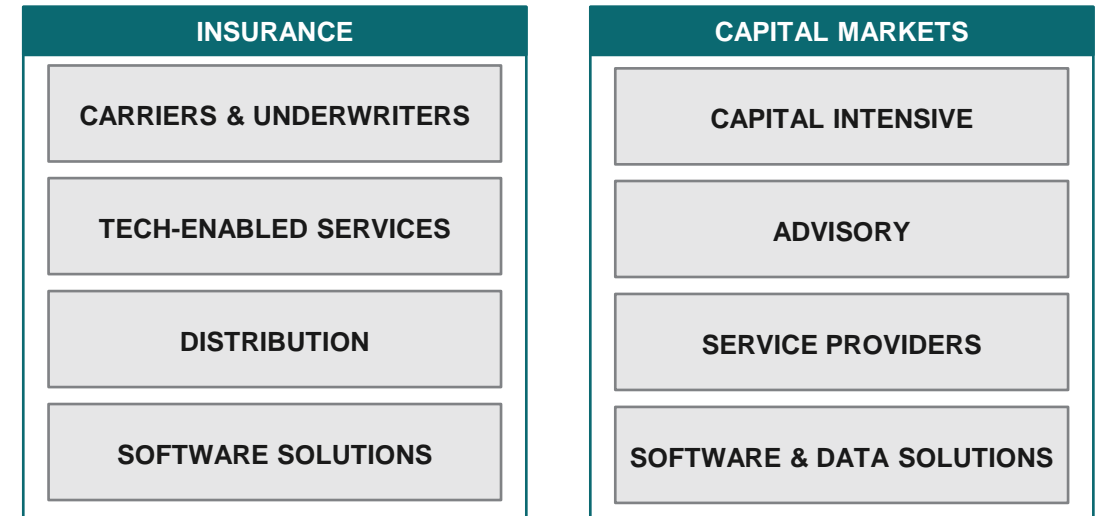
Our Advisory Products



Our Value Proposition

- We are a dedicated, creative, and fully independent investment bank that advises private and public companies on merger, divestiture and acquisition transactions, and capital raising through private placements.
- Our industry-leading research on transaction trends across the finance & technology sector positions Evolve as a thought leader in the Capital Markets and Insurance verticals.

Focused Industry Coverage within Two Primary Sectors



Section 3

Industry Landscape



Trend 1: Elevated Inflation & Interest Rates

U.S. Capital Markets – Key Trends

Central Banks Have Increased Rates In Response to 40-Year High Inflation

- **Central banking authorities have drastically increased interest rates in an attempt to combat inflation**
 - The US Federal Reserve began raising rates in March 2022 to combat decades-high inflation (7.9% YoY CPI growth at time of first rate increase)
 - Since then, the Fed has increased rates 11 times, bringing the current federal funds rate target range to 5.25 – 5.50%, the highest since 2001
 - Inflation has moderated in the second half of 2023 (August 2023 CPI increased 3.7% YoY), leading to the Federal Reserve adopting a “wait-and-see” approach to rate increases
 - Despite increasing rates, consumer spend and job creation have remained surprisingly robust; the US economy added 366,000 new jobs in September 2023, and consumer spending increased 3% YoY

Capital Markets: Winners & Losers (Share Price Since Initial Rate Hike⁽¹⁾)

Winners: Alternative Investments

Alternative investors with effective debt strategies and limited exposure to real estate investments have seen significant gains over the last 18 months, driving by higher yielding corporate debt and ample opportunity for value investments



Losers: Banks

Bank stocks have performed well below the S&P 500, driven by a combination of rising interest rates payouts on deposits, reduced investment banking & capital markets fees, and uncertainty around recovery in commercial real estate / return-to-office



Inflation & Federal Funds Rate



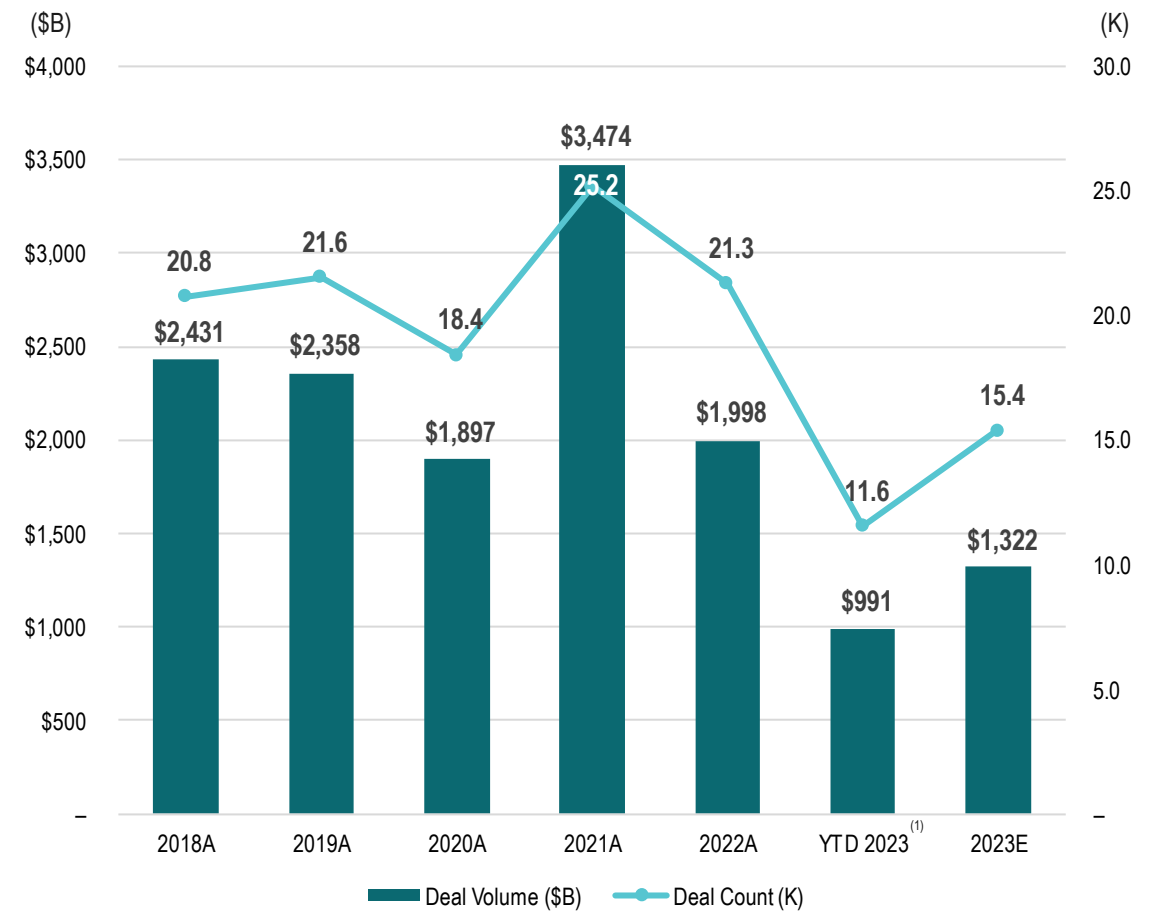
Trend 2: Normalization of Global Capital Markets & Transaction Activity

U.S. Capital Markets – Key Trends

Capital Markets Activity Down From COVID Highs

- **Transaction volumes across M&A and financings have normalized in 2022 and 2023, as investors grappled rising interest rates, elevated inflation, and recessionary risk**
 - M&A volumes are expected to remain depressed (\$1.3B in 2023E transaction volume compared to \$2.0B in 2022)
 - IPO and SPAC markets dried up, as companies and investors decided to wait for more stable and positive stock market sentiment; total IPO issuances fell from 1,000 in 2021 to 180 by October YTD 2023
 - Investment banking fees in the first three quarters of 2023 declined 12% YoY following a 36% decline in 2022 from 2021, significantly impacting profitability of banks and brokerages
- **Investors and acquirors have extended diligence timelines and decreased buyside valuations, creating expectation mismatches with sellers**
 - Investors have added several dimensions to the due diligence process in light of recent high-profile fraud (Frank / JP Morgan and FTX Global) and the fall from grace of several industry segments that had attracted significant investor interest in recent years (digital health, insurtech) before seeing valuations collapse in the past 18 months
 - Additional diligence frameworks include corporate governance and risk management, business model exposure to eternal factors, and interconnected risks within third-party ecosystems
 - In the private markets, buyers have significantly reduced valuations from 2021 highs and refocused capital towards profitable or near-profitable businesses with defensible, cyclical business models
 - Sellers have been sluggish in reacting to changing market conditions, leading to significant valuation mismatches that have slowed the pace of completed transactions
 - Valuations remain robust in defensible B2B service industries such as professional services, which are less impacted by market and economic conditions

M&A Transactions Have Normalized From 2021 Highs



Trend 3: Private Markets Going Mainstream

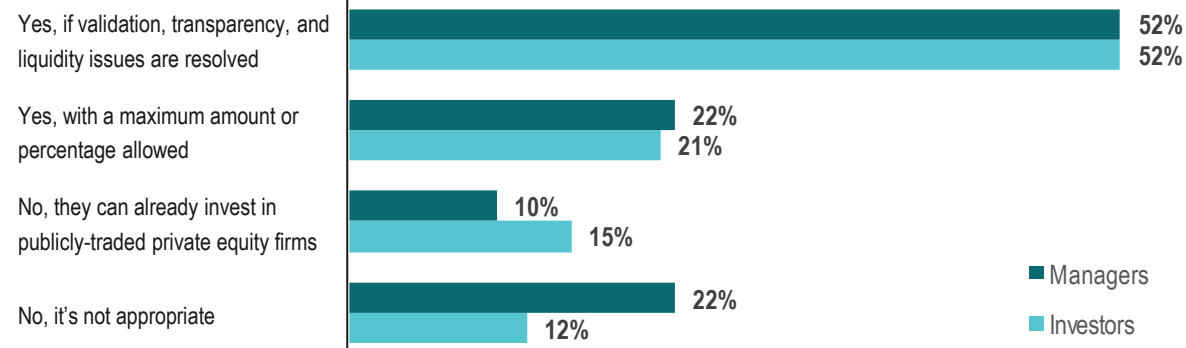
U.S. Capital Markets – Key Trends

Increased Demand from Investors for Private Market Access












- **Retail and HNW / UHNW investors are increasingly interested in accessing private capital markets**
 - Private capital markets represent a way for investors to diversify their overall asset allocation and hedge against public market volatility
 - Private debt has attracted outsized interest in recent years, driven by the boom in debt-backed private equity transactions and general withdrawal of banks from the sponsor financing space; private credit AUM tripled from \$500B in 2012 to \$1.5T in 2022
 - Retail investors are increasingly interested in private equity products due to an overall increase in awareness and interest in direct investing during the pandemic
 - Increasing retail and institutional investor interest in private capital has led to increased regulatory scrutiny, with focus around the opaque nature of valuating privately-held companies, which can often mislead investors
 - In November 2023, White Wolf Capital Advisors filed to launch the first publicly listed private equity and commercial real estate ETFs focused on investing in publicly traded private capital investors

Investors and Managers are Aligned On Increasing Access⁽¹⁾

Question: Do you think retail investors should have more access to private markets?



Private Markets Investment Platforms

Company	Target Market	Founded	Asset Classes
 Arrived	Retail	2020	Fractional single family real estate
	Retail	2019	AI-selected wine portfolios and individual wine collections
 public.com	Retail	2019	Stocks, ETFs, cryptocurrency, collectibles
 sweater	Retail	2019	Venture capital
 Percent	Accredited	2018	Private credit (consumer loans, trade receivables, cash advances, leases, corporate loans)
 EquityBee	Accredited	2018	Private equity (marketplace for employees with stock options and accredited investors)
 acretrader	Accredited	2018	Farmland
 MASTERWORKS	Retail	2017	High-end contemporary art
 YIELDSTREET	Accredited	2015	Real estate, art, crypto, private equity & credit, short-term notes, transportation, venture capital
 CADRE	Accredited	2014	Commercial real estate
 FUNDRISE	Retail	2012	Residential & commercial real estate

M&A Transaction Activity

Slowdown in M&A Activity Continues in 2023; Banking Crisis Led to Several Significant Transactions

(USD, in millions)

Market Activity Overview

- Overall M&A activity slowed in 2022 and 2023 as central banks around the world increased interest rates and a number of bank failures fueled market uncertainty; however, the capital markets sector is still significantly in need for transformation in the face of regulatory pressures, growing ESG concerns, and disruption from emergent technologies
- Consumer spending, unemployment, and other economic indicators have held up despite rate increases, with interest rate hikes being the main contributor to depressed M&A activity
- Transaction volume will likely remain depressed through the fourth quarter of 2023, before picking up in 2024
 - Investment banks report larger and more robust transaction pipelines in 4Q:23 compared to the beginning of the year, indicating positive momentum for the year ahead

M&A Activity Drivers and Trends












- Trend 1: Bank M&A focuses on profitable companies that provide cost-saving solutions**
Banks and other financial institutions have shifted their M&A strategy from acquiring disruptive technology to service providers that are immediately accretive to the bottom line.
- Trend 2: Increased regulatory scrutiny – headwind to large transactions**
The Biden administration has adopted an aggressive stance to antitrust enforcement, filing complaints against a record 13 transactions from June 2022 to May 2023, chilling large deals.
- Trend 3: Valuations have normalized from COVID-fueled highs**
Pickier buyers and the absence of cheap debt to fuel acquisitions has led to material contractions in valuations across both public and private markets.
- Trend 4: Bank consolidation driven by banking crisis**
Several banking units changed hands over the past year, including retail banks and depositories affected by the banking crisis in the spring (SVB, First Republic, Credit Suisse) and global investment banks looking for boutique assets to strengthen their presence in specific sub-niches (7 Mile Advisors, Greenhill)

M&A Transaction Activity in Key Segments

(USD, in billions)

Key Segments	2022 Transactions		2023YTD ⁽¹⁾ Transactions	
	Count	Volume	Count	Volume
Banks	1,033	\$160	694	\$170
Wealth Management	438	\$35	351	\$62
Investment Management	346	\$54	295	\$59

Notable Acquirors in Capital Markets

Acquiror	Acquisitions Count 2023YTD ⁽¹⁾	Recent Acquisitions
 TPG	5	 ANGELO GORDON  ELITE
J.P.Morgan	5	 CAPITEC  aumni <small>a J.P.Morgan company</small>
 ARES	4	 Crescent Point  bluecove
MOODY's	1	 SCR
 Nasdaq	1	 Adenza

Financing Transaction Activity

Decrease in Financing Volumes as Investors Look for Profitability

Market Activity Overview

- While financing activity in the capital markets space has overall slowed, investment activity in B2B capital markets service providers has remained resilient as investors search for market-resilient, mission-critical business services companies
 - In September 2023, AlphaSense, a provider of market intelligence services to financial institutions raised \$150M at a \$2.5B post-money valuation in a Series E led by BOND Capital with participation from CapitalG, Viking Global Investors, and Goldman Sachs
 - In April 2023, Velocity Trade, a non-bank tech-enabled prime brokerage raised \$270M at a \$2B post-money valuation in a second round of Series B funding led by Prysm Capital

Key Growth Verticals

Market Intelligence & Insights

Increasing adoption of technology and remote work has increased demand for flexible, innovative market and financial intelligence solutions to compete against legacy providers (S&P Capital IQ, Bloomberg, Pitchbook).

AI / Machine Learning

Advancements in machine learning and generative AI catalyze the emergence of disruptive solutions in reporting, risk, and compliance across banks, asset managers and advisory firms.

Open Banking

Consumers increasingly demand easy-to-use, digital connectivity within their personal finances. Open banking solutions allow consumers to easily link financial data with third party providers, enabling seamless data and money transfers between organizations.

Consumerization & Gamification

A natural evolution from loyalty and bonus programs that have become ubiquitous within personal financial services, gamification allows financial services providers to retain and attract younger customers. Consumers are awarded badges, digital rewards, and other in-app features for completing certain financial achievements and tasks.


Financing Activity In Key Segments

(USD, in millions)

Key Segments	2022 Transactions		2023YTD ⁽¹⁾ Transactions	
	Count	Volume	Count	Volume
Asset Management	169	\$2,630	65	\$1,600
Commercial Banks	121	\$3,410	36	\$477
Investment Management	92	\$1,550	47	\$1,110

Key Financing Transactions

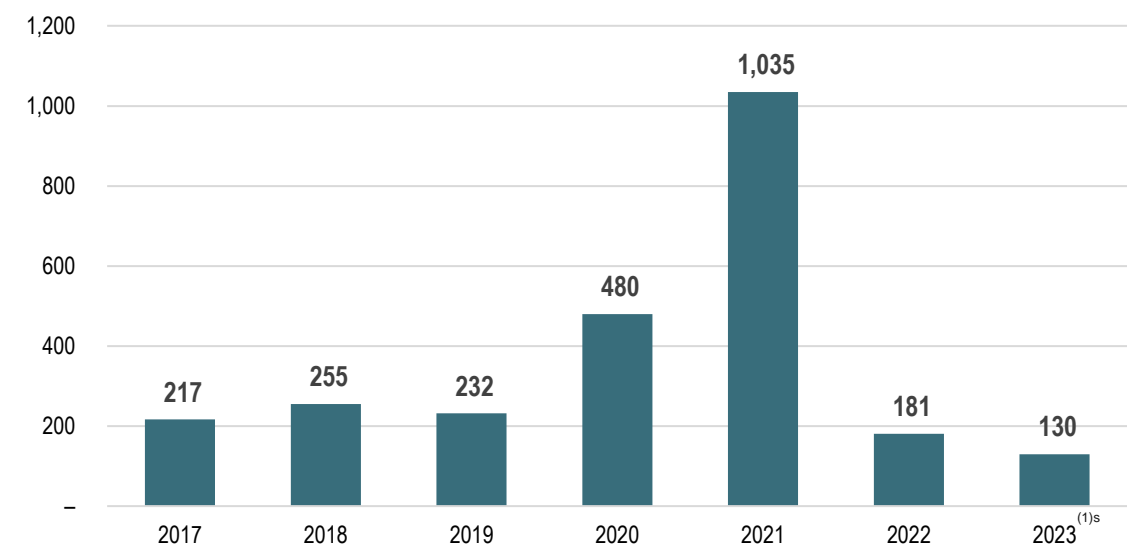
(USD, in millions)

Closing Date	Target	Key Investor(s)	Amount Raised
9/28/23	 AlphaSense	BOND CapitalG  	\$150
9/14/23	 VELOCITY TRADE	WEDBUSH	ND
8/18/23	 Teamshares ¹	QED INVESTORS	\$245
4/11/23	 Clear Street	 PRYSM CAPITAL	\$270
3/21/23	 eToro	 SPARK CAPITAL  SoftBank	\$250

IPO Transaction Activity

Significant Downturn in IPO Volumes Amidst Global Market Volatility


Limited Activity During Global IPO Chill



- Despite moderating inflation and a lull in rate hikes, IPO activity has remained depressed in 2023 (130 IPOs as of October 2023) as companies continue to put any IPO plans on hold until more favorable market conditions
- After an all-time record 1,035 US IPOs in 2021, activity chilled in 2022 with 181 transactions (83% YoY decrease) as companies and investors grappled with the uncertainty of a potential recession, interest rate hikes, inflation, and the war in Ukraine
- Capital markets IPOs have been concentrated in defensible, durable industries well positioned for high interest rates such as alternative investments (TPG) and insurance / retirement management (Corebridge)

IPO Highlight: Corebridge

Company:



Date:

September 2022

Valuation:

\$29.9 billion



Company Details & “By the Numbers”

- Provider of retirement solutions and insurance products in the US
- Corebridge offers a broad set of products and services through four segments: Individual Retirement, Group Retirement, Life Insurance, and Institutional Markets
- Cordbridge leverages partnerships with financial professionals and institutions to help individuals plan, save for, and achieve retirement and secure financial futures
- Revenues are generated from insurance premiums, policy fees, and advisory fees for registered investment advisory services

Stats as of September 2022:

\$30B

LTM Revenue

\$8.8B

LTM Premium

4.4M

Life Insurance Policies-in-Force







\$345B

Assets Under Management & Administration

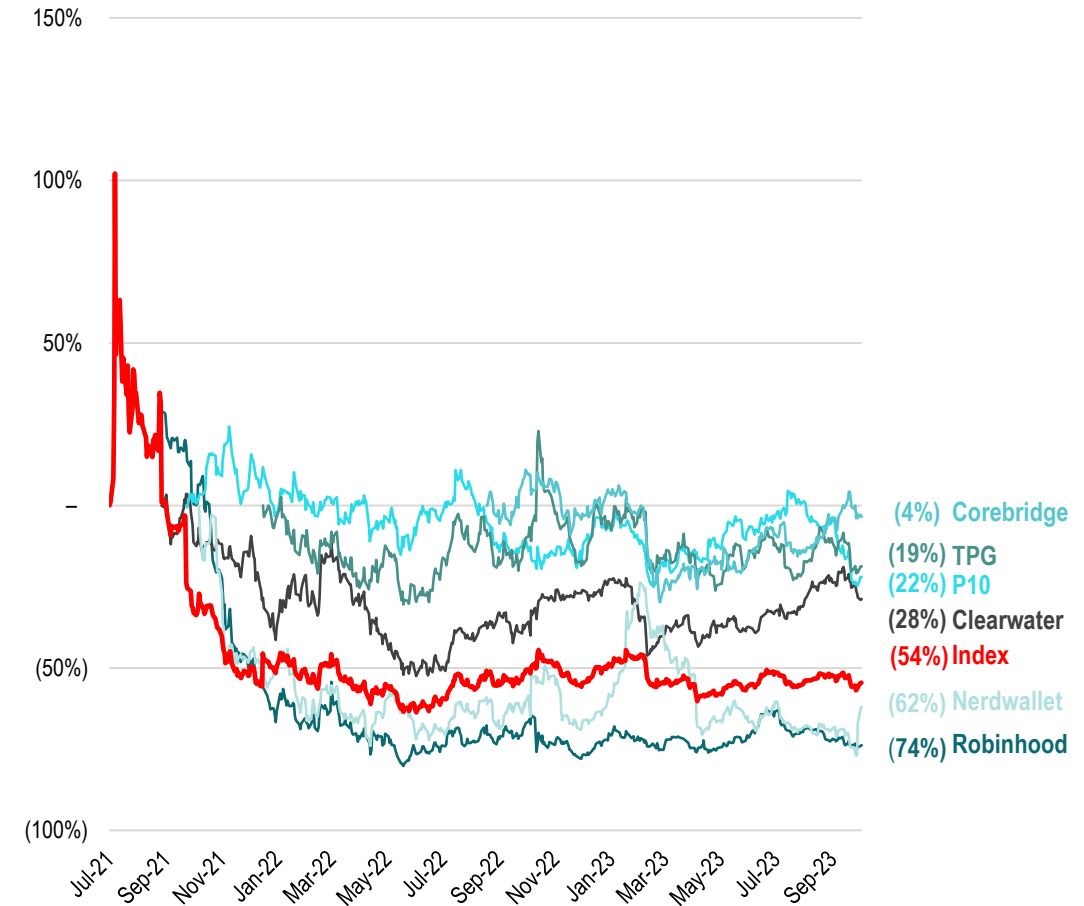
Select Capital Markets IPOs

Transaction Highlights

(USD, in millions)

Listing Date	Company	Description	IPO Valuation	% Return ⁽¹⁾
09/15/22	 corebridge financial	Provider of retirement solutions and insurance products in the US	\$13,400	(4%)
01/13/22	 TPG	Operates as an alternative asset manager in the US and internationally. It offers investment management services to TPG Funds, limited partners, and other vehicles	\$9,100	(19%)
10/21/21	 P10	Provider of Multi-asset class private market solutions in the alternative asset management industry	\$2,000	(22%)
9/24/21	 CLEARWATER ANALYTICS	Provider of SaaS solution for automated investment data aggregation, reconciliation, accounting and reporting services	\$4,200	(28%)
11/04/21	 nerdwallet	Provider of free tool to help find the best credit cards, cd rates, savings, checking accounts, scholarships, healthcare, personal loans and airlines.	\$1,200	(62%)
7/29/21	 Robinhood	Provider of financial services platform. It designs its own products and services and delivers them through a single, app-based cloud platform supported by proprietary technology	\$32,000	(74%)







Stock Performance Since IPO Listing Date⁽²⁾



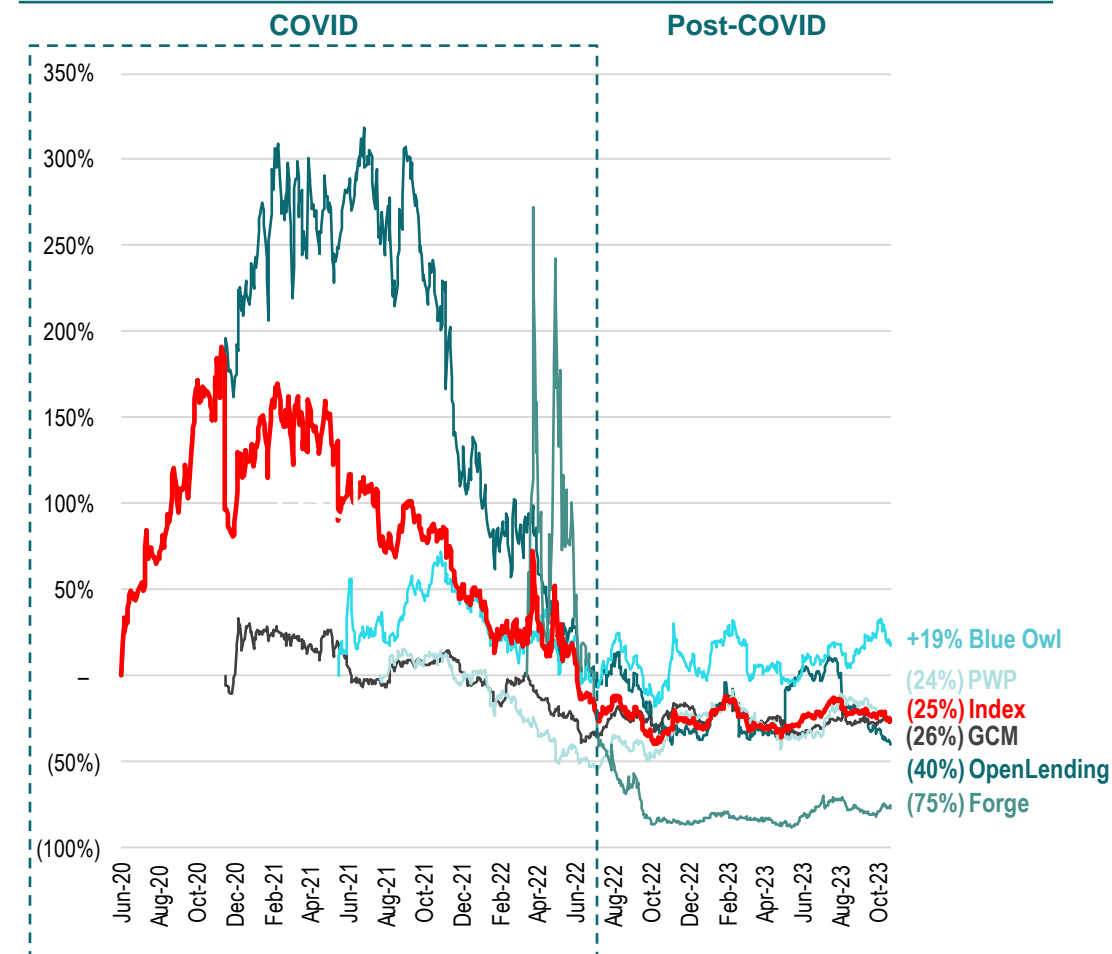
Select Capital Markets SPACs

Transaction Highlights

(USD, in millions)

Closing Date	Company	Description	MV at Closing	% Return ⁽¹⁾
5/20/21	 BLUE OWL	Two leading alternate asset managers, Owl Rock and Dyal, with a combined \$45 billion in AUM merged via a SPAC to trade as Blue Owl. The Owl Rock and Dyal businesses operate autonomously but complement each other and allow Blue Owl to provide a holistic solutions around direct lending and GP capital.	\$12,500	+19%
6/24/21	 P / W / P PERELLA WEINBERG PARTNERS	The company plans on using the funds to expand their client base globally and broaden their advisory services.	\$975	(24%)
11/17/20	 GCM GROSVENOR	Chicago-based alternative asset management firm with over \$59 billion in AUM merged with a SPAC to go public.	\$2,000	(26%)
6/11/20	 OpenLending Say YES to more automotive loans.	Open Lending is a leading provider of lending enablement and risk analytics solutions to financial institutions.	\$1,700	(40%)
3/22/22	 Forge	Proceeds from the transaction will help Forge continue to build its platform and expand investor base to serve the rapidly growing crowdfunding market supported by recent regulatory changes in Regulation CF and Regulation A by the SEC.	\$2,000	(70%)
11/11/20	 TRITERRAS	The Singapore-based company serves commodity traders and offers a blockchain-enabled end-to-end global trade and trade finance platform. The company was de-listed from the NASDAQ in March 2022.	\$956	(99%)

Stock Performance Since SPAC Close Date⁽²⁾



Section 4



Capital Markets Market Map





1. Capital Intensive & Advisory
2. Service Providers
3. Software & Data Solutions



How Evolve Segments Our Capital Markets Industry Coverage

Segmenting the Industry into Key Areas of Interest













Evolve Nomenclature

	Region	Industry
	City	Sub-Sector (or Sub-Industry)
	Neighborhood	Product Type
	Zip Code	Product

How to Navigate Our Market Map

- Each of the three sub-sectors (i.e., cities) is color coded and all underneath neighborhoods and zip codes are colored accordingly
- Each city has a detailed market map with summary market overview, followed by a detailed research into trends and capital markets activity.
- In-depth research on neighborhoods and zip codes of interest is displayed in the next chapter.

Directory

Area	Location
Broad Sub-Sector Market Map & Overview	
Core Functions > Capital Intensive & Advisory 	Page 21
Supporting Functions > Service Providers 	Page 24
Supporting Functions > Software & Data Solutions 	Page 27
Evolve Areas of Interest: Deep Sector Research	
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	> Infrastructure  Page 33
	> Asset Management  Page 35
	> Alternative Investments  Page 37
 SERVICE PROVIDERS	> Professional Services  Page 39
 SOFTWARE & DATA SOLUTIONS	> Data & Analytics  Page 41

Capital Markets From Our Lenses

- The capital markets industry spans the entire ecosystem of supply and demand of capital, including investments, trading, and banking.
- Every aspect of the capital markets has shifted dramatically with the advent of **disruptive technology and sweeping regulatory change**.

- In recent years, financial institutions have experienced significant transformation in back office operations, primarily driven by digitization. Automation of routine and repetitive tasks has become a priority for players in the space.

- Another notable trend is the adoption of cloud computing, which firms are increasingly leveraging to improve scalability and integration, as well as enhance risk management and fraud detection systems.

- **Regulatory Change:**

- Firms have increased interest towards regulatory technology, which improves compliance efficiency and effectiveness via software
- Regulators are also increasingly adopting a data-driven approach to oversight to combat money laundering and financing of terrorism worldwide

Capital Intensive

<h3>Banks</h3>	<h3>Infrastructure</h3>	<h3>Broker/Dealers</h3>
<h3>Asset Management</h3>	<h3>Alternative Investments</h3>	<h3>Market Makers</h3>

Advisory

Wealth Management

Fidelity Vanguard BlackRock SoFi

Wealthsimple ALTO ELLEVest

ST/SH WEALTH SALVAGE INVESTMENT CONSULTING DANA Investment Advisors MARSTONE NEW SOUTH WEALTH Capital

bloom Savology Nerdwallet

Core Advisory

Goldman Sachs J.P.Morgan Morgan Stanley

Wealth Management

Catalyst LUMA Evolve Capital Partners

FINANCIAL TECHNOLOGY PARTNERS

pwc

BAIN & COMPANY AlixPartners Deloitte Oliver Wyman

Supporting Functions

Service Providers

Financial Content Providers

WELLS FARGO UBS Citi CBINSIGHTS S&P Global Bloomberg dealogic TV TradingView
Market Intelligence
AXONI atom KINGS CROWD Moody's WSJ MARKETS
MORNING BREW STRUCTLY BEACON STREET ZACKS CNBC
iStock! dun & bradstreet Credit Benchmark CORTERA
BIT SIGHT EQUIFAX Experian knowledge@mcquay-norris

Platforms

SP CircleUp Netcapital AngelList KICKSTARTER ES
EquityNet QJ CITYZEN GROUND FLOOR CADRE roofstock seed&spark INDIEGOGO
AXIAL acoreader S&C Trumid Deal Blocks Patch of Land
REAL CROWD FUNDABLE MASTERWORKS CITYVEVE AURIGIN
CAPTAR FUNDRAISER PERSONAL INVESTMENTS ZESTIMATE ZENTRA
ONEVEST NEALCOM MICROVENTURES

Professional Services

usbank Genpact OX TECHNOLOGY SOLUTIONS ss&c Kasisto
Capgemini CITCO Mindtree UMB Fundania
Global Response LiveAgent Finn AI HEDGE SERV
SEI Professional Services tcs ULTIMUS replicant
NORTHERN TRUST RDI Digital Genius 24/7.ai Pulley

Ancillary Services

EY pwc KPMG LATHAM & WATKINS
BLACK KITE
Capgemini BITSIGHT SecurityScorecard
KIRKLAND & ELLIS MITRATECH
Freshfields Bruckhaus Deringer Well elevate

Software & Data Solutions

The diagram illustrates the market structure of fintech, categorized into three main segments: Data & Platforms, Analytics, and Specialized Software. Each segment contains a grid of company logos.

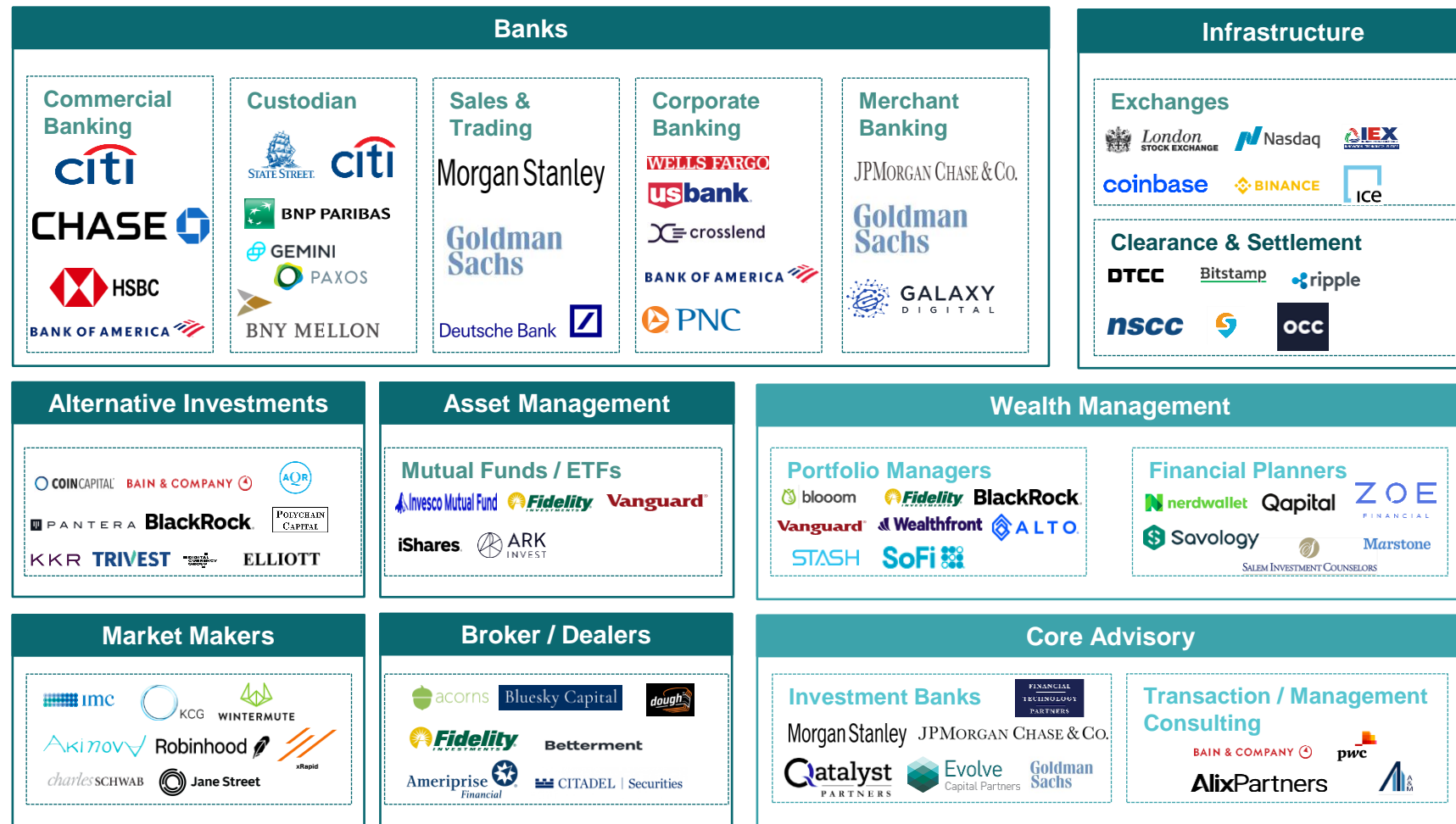
- Data & Platforms:** Includes logos for Bloomberg, S&P Global, Factset, Yewno, Morningstar, Dealogic, PitchBook, Finapic, Refinitiv, AlphaSense, Crunchbase, SourceCrunch, Dynamio, Qpreqin, Accern, Neudata, Infotrie, Technsys, Finxact, and Pico.
- Analytics:** Includes logos for Factset, Novus, Vestserve, Backstop Solutions, S&P Global, Fathom, Finmason, Incorta, Carta, Riskalyze, Ripshot, Tableau, Kwanti, Sugarcrm, Fyrix, Lendly, Microsoft, Dynamo, Nexj, Zeno, Qualtrics, HubSpot, DealCloud, Intapp, Bloomberg, ActiveCampaign, StratFi, and AlphaSense.
- Specialized Software:** Includes logos for Morningstar, Bloomberg, Verafin, S&P Global, LT SE, SEI, Global Shares, Forcepoint, Clearpool, Shareworks, NetGuardians, Caplinked, Pindrop, S&S, Shift, Carta, Certifid, Valuant, Signix, Insights, Eventus, Secureworks, Zenefits, Gusto, Northwest, Digital Reasoning, SmartRoom, ADP, Securedocs, Onfido, Jacobus, Feedzai, Intapp, Bankify, Pulley, AdvisorEngine, Messenger, Capbase Advantage, Appzen, Datasite, Abside, Fis, Fiserv, Citrix, Comply, Entreda, Fenergo, SAP, Aladdin, MindLink, Navatar, and Tiger.

Public Company Comparables
See Appendix

Capital Intensive & Advisory Landscapes

The Capital Markets Industry: Core Functions Face Headwinds

- The capital markets sector is facing several headwinds, which has accelerated the industry's transformation and digitization
- The current macroeconomic environment presents several challenges, including rising interest rates and inflationary pressures, which have increased the cost of debt and reduced investment and trading activity
- Geopolitical tensions and trade disruptions have injected volatility and uncertainty into international markets
- The accelerated pace of regulatory changes and regulators' adoption of technology has pushed institutions to improve internal controls through technology
- Digital transformation brings both opportunities and challenges, especially as disruptive fintechs enable rapid change
- The increasing sophistication of cyber threats introduce a dual challenge: institutions must protect sensitive data and maintain the trust of clients, while maintaining compliance with evolving regulatory requirements



Capital Intensive & Advisory Markets Overview

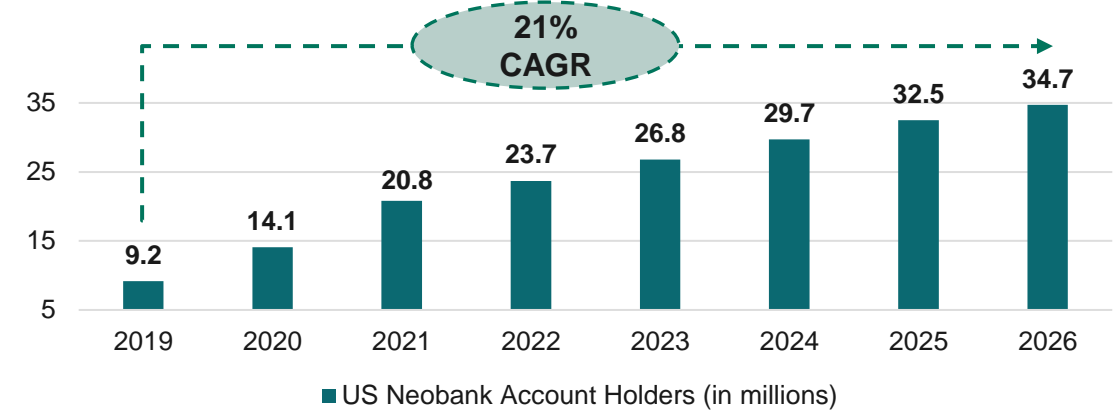
Background

- The core of the capital markets industry has experienced significant change with increasing regulatory scrutiny and break-through technological innovation.
 - US regulators have proposed a July 2025 compliance date for new Basel III Endgame (“B3E”) regulatory capital requirements, in the most significant update to the financial regulatory regime since Dodd-Frank Act of 2010
- Banks and broker-dealers have similarly shifted focus, with mobile banking and low-cost investing becoming a major focus for the new wave of consumers.
- Since the 2008 financial crisis, banks and other institutions have undergone sweeping consolidation as legacy business models struggled to adapt to a new landscape.
 - The new pressure resulted in specialization by product or end-user among banks, asset managers, and wealth managers alike.

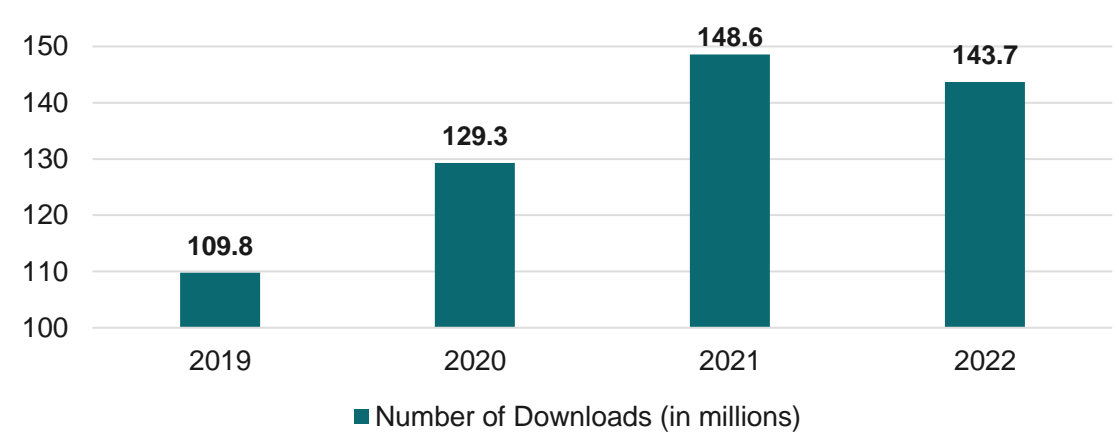
Capital Intensive Trends

Trends	Explanation	Opportunities
Investments in Digital Banking Technology	Rising interest in remote interactions drive advancements in digital banking technology.	Major financial institutions can continue to build out technology supporting this new ecosystem.
High Interest Rates Environment	Elevated interest rates in the US are expected to remain as the Fed continues to battle inflation	Banks can access significant levels of capital through deposits after years of low interest rates. Market volatility may also lead to increased deposits.
Democratizing Access	Deeper demand from consumers to gain access to their finances, from investment options to banking resources.	Banking platforms can offer mobile apps and investment platforms can provide products previously unavailable to most individuals.

The Emergence of Digital-only Banks (“Neobanks”) in Capital Markets















Mobile Banking App Downloads in the United States



Capital Intensive & Advisory Markets Overview

Key Recent M&A Transactions

(USD, in millions)

Announce Date	Target	Buyer	Transaction Size	Target Revenue	Target NI	Target MV/ Revenue	P/E
9/12/2023	 7iM	 ONTARIO TEACHERS' PENSION PLAN	\$525	NA	NA	NA	NA
7/25/2023	 AMERICAN NATIONAL BANKSHARES INC.	 Atlantic Union Bankshares	\$417	\$107	\$34	3.9x	12.4x
7/25/2023	 PacWest Bancorp	 BANC OF CALIFORNIA	\$1,100	\$1,033	Neg.	1.1x	NMF
7/10/2023	 7 MILE ADVISORS	 Houlihan Lokey	NA	NA	NA	NA	NA
6/18/2023	 svb Securities	THE BAUPOST GROUP	\$91	NA	NA	NA	NA
6/8/2023	 KREOS CAPITAL	 BlackRock	\$400	NA	NA	NA	NA
5/22/2023	 Greenhill	 MIZUHO	\$385	\$244	Neg.	1.6x	NMF
5/18/2023	 ANGELO GORDON	 TPG	\$2,700	NA	NA	NA	22.1x
5/1/2023	 FIRST REPUBLIC BANK	J.P.Morgan	Not Applicable				
3/19/2023	 CREDIT SUISSE	 UBS	\$3,234	\$15,726	Neg.	0.2x	NMF
8/2/2022	 COWEN	 TD Securities	\$1,300	\$1,428	\$145	0.9x	9.0x

Driver of M&A / Observations

- Transaction volume among larger investment banks grew significantly as a result of banking crises during the early part of 2023.
- Asset managers continue to consolidate in a push towards fixed income investing – one of the biggest transactions included TPG's \$2.7 billion acquisition of Angelo Gordon, growing its credit investment arm.
- Asset and wealth managers were very active in the M&A space; many large firms have been acquiring smaller wealth managers in different regions of the country.

Top Acquirors In The Asset / Wealth Management Sector

Acquiror	Acquisitions Sept. '21 to Aug '23	Recent Acquisitions
 MERCER ADVISORS	28	 AEM ANDENA FINANCIAL  EMPYRION WEALTH MANAGEMENT  REGIS MANAGEMENT A MERCER ADVISORS COMPANY
 Wealth Enhancement Group	25	 QCI Asset Management Inc.  BTR CAPITAL MANAGEMENT, INC.  LEGACY FINANCIAL PLANNING
 BEACON POINTE	16	 CENTURY WEALTH MANAGEMENT  TELARRAY  WIPFLI FINANCIAL ADVISORS

Public Company Comparables
See Appendix

Service Providers Landscape

Service Providers in the Capital Markets : Outsourcing to optimize efficiency

- Service providers to the capital markets sector are contending with a rapidly evolving business environment
 - Providers are investing in advanced technologies to meet growing demands of digital transformation: real-time data, predictive analytics, and risk management
 - Cybersecurity and data privacy are increasing in importance to both regulators and consumers
 - Sustainability and ESG factors continue to be influential, and institutions are leaning on service providers to integrate ESG considerations into operational models and improve reporting, investing analytics, and carbon neutral strategies
 - There is heightened focus on operational resilience – in the wake of disruptive global events, including the COVID-19 pandemic and the wars in Ukraine and the Middle East, service providers are under pressure to ensure they and their clients have robust contingency plans and are resilient to rapidly changing global environments

Financial Content Providers

Research Providers



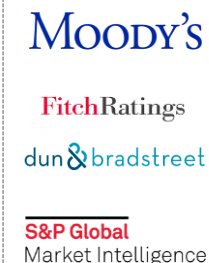
Market Analytics



News & Publications



Risk Services



Professional Services

IT Consulting



Call Center Outsourcing



Fund Admin



Platforms

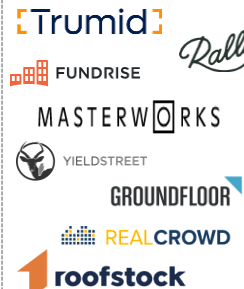
Private Capital



Crowd Funding



Alternatives



Transaction Sourcing



Ancillary Professional Services

Risk Management & Advisory



Legal Advisory



Service Providers Market Overview

Background

- As capital markets evolve in response to changes in the macroeconomic and regulatory environments, service providers play critical roles by offering expert advice in technology and operations to drive modernization and optimization of capital markets functions.
- The continued pace of digitization introduces multiple opportunities for service providers: legacy financial services adapting to a digital world, new startups competing at scale, and growing complexity of regulations in response to emerging cybersecurity risk are all potential entry points for service providers to serve the financial services industry.

Service Providers Trends

Trends	Current Situation	Opportunities
Digital Transformation Exerting Competitive Pressure	Traditional capital markets are being threatened by competition from the explosion of the fintech industry. Uncertainty in the economy is also driving firms to optimize costs.	BPO firms can aid established financial service providers to innovate and compete while maintaining low costs. For disruptors, BPOs enable competition at scale while minimizing costs.
Increasing Complexity of Regulations	Financial regulators are turning their attention to potential risks introduced by the reliance of financial institutions on cloud service providers.	Providers armed with greater understanding of regulations can better develop products compliant with emerging regulatory requirements
Asset Class and Access Expansion	Shift of wealth to younger investors, historically positive macroeconomic trends, and accessibility of investing platforms are driving greater interest in different asset classes	Opportunities such as alternative asset classes and wealth management which were historically provided only to a subset of investors now have a broader market to tap into



Capital Markets Service Providers Map: May 2023



Service Providers Market Overview

Key Recent M&A Transactions



(USD, in millions)

Announce Date	Target	Buyer	Transaction Size	Target Revenue	Target EBITDA	Target EV / Revenue	Target EV / EBITDA
9/11/23			NA	NA	NA	NA	NA
6/26/23			\$4,600	NA	NA	NA	NA
6/13/23			\$4,600	NA	NA	NA	NA
1/12/23			NA	NA	NA	NA	NA
10/27/22			\$500	NA	NA	NA	NA
9/30/22			\$340	NA	NA	NA	NA
5/19/22			\$515	\$143	\$41	3.6x	12.6x
2/22/22			\$515	\$143	\$41	3.6x	12.6x

Driver of M&A / Observations

- As big data continues to penetrate deeper in the financial services industry, consulting service providers have been acquiring data consulting companies to diversify their product offerings and stay relevant.
- Rapidly evolving regulatory landscape leads to strong interest in risk and compliance consulting companies as acquisition targets – a representative example is Nasdaq's acquisition of Adenza (announced June 2023)
- SS&C's acquisition of Tier1 Financial Solutions is an example of the increased investments in the customer relationship management space.

Top Service Providers Acquirors

Acquiror	Acquisitions Sept '21 – Aug '23	Recent Acquisitions
	9	  
	9	  
	7	  

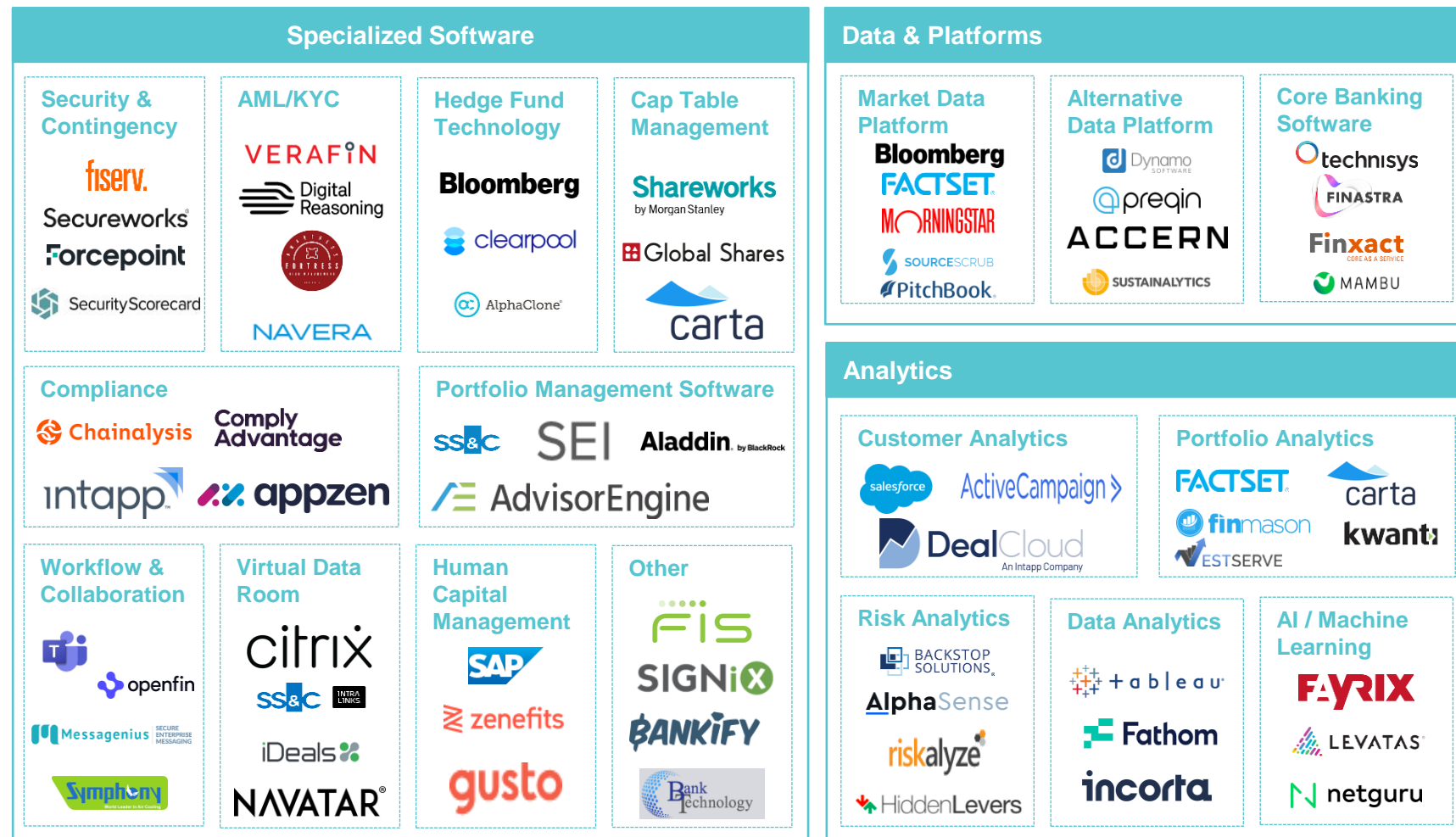


Public Company Comparables
See Appendix

Software & Data Solutions Landscape

Software and Data in the Capital Markets: Technological expertise through partnership

- Software and data firms serving the capital market vertical are at the nexus of a transformative wave, driven by the sector's increasing reliance on sophisticated analytics and automation.
- The industry's highly regulated nature and complex needs represent unique challenges and opportunities for software and technology service providers
- There is an accelerating shift towards implementing practical usage of artificial intelligence (AI) and machine learning (ML) to provide deeper insights towards market trends, risk management, and consumer behavior
 - Disruptive AI-based technologies are significantly enhancing workflows in algorithmic trading, asset management, and personalized financial services
- As various software and data providers in the capital markets space mature, interoperability has become increasingly important as firms look to streamline internal operations and mission-critical third-party vendors



Software & Data Solutions Market Overview

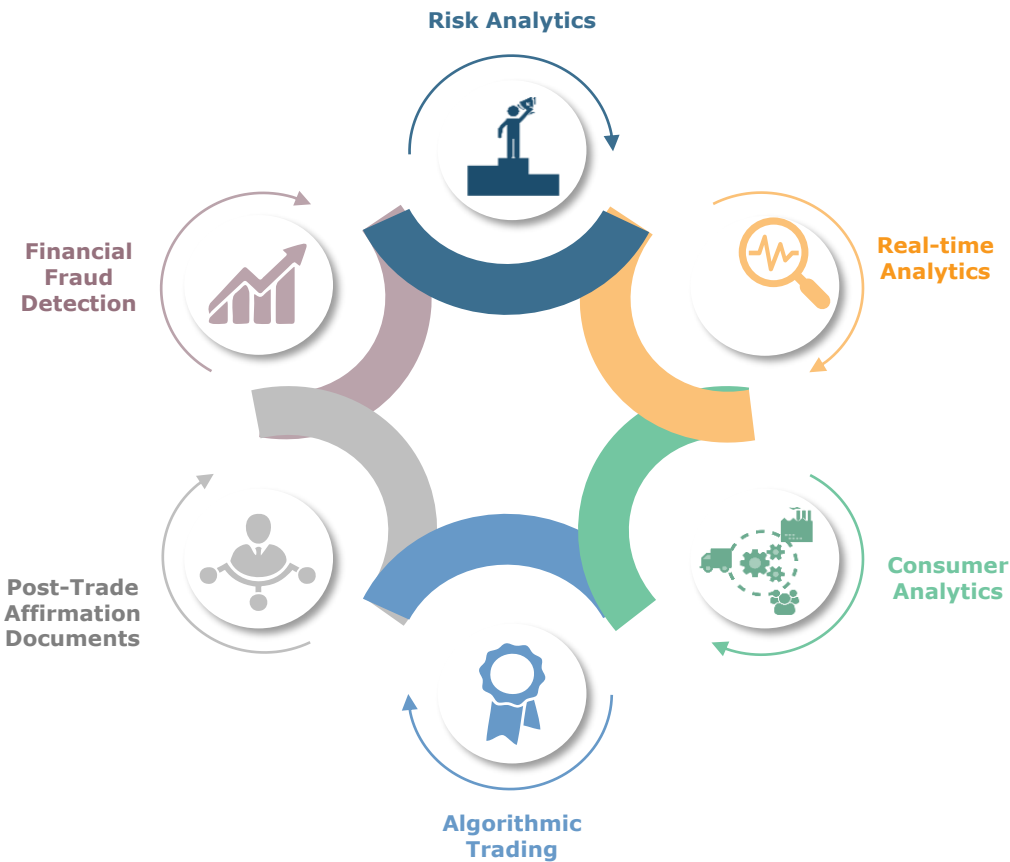
Background

- Software and data solutions elevate the entire capital markets value chain, from customer service to data analytics, ultimately improving the end-customer experience and profitability.
- Firms across the space are increasingly adopting software for process enhancements, evolving into tech-enabled banking, research, or risk management.
- Larger, legacy players are utilizing both organic, internal R&D and acquisitions to add disruptive new technologies to their suite of services.

Software Solutions Trends

Trends	Explanation	Opportunities
Artificial Intelligence: Backend Processes	Advancements in artificial intelligence allow for more advanced algorithms capable of providing useful insights based on broader, fragmented data sources.	Technology such as NLP and machine learning provide opportunity for firms with disruptive solutions, such AlphaSense, to emerge, innovating the market intelligence space.
Artificial Intelligence: Customer-Facing Processes	Recent breakthroughs in machine learning and large language models allow AI to assume many customer-facing responsibilities	Banks and other capital markets companies are implementing AI-driven chatbots and other customer service tools to streamline the customer experience and improve efficiency
Open Banking & Data Transparency	Customers increasingly demand higher transparency in data privacy and usage by service providers, as well as the ability to seamlessly share data with third parties	Disruptive data integration companies such as Plaid have significantly streamlined data sharing between financial institutions, allowing customers to spend less time on administrative processes

Primary Use Cases of Software And Data In Capital Markets



Software & Data Solutions Market Overview

Key Recent M&A Transactions









(USD, in millions)

Announce Date	Target	Buyer	Transaction Size	Target Revenue	Target EBITDA	Target EV / Revenue	Target EV / EBITDA
6/12/23	 Adenza	 Nasdaq	\$10,500	NA	\$340	NA	30.9x
4/23/23	 SimCorp	 DEUTSCHE BÖRSE GROUP	\$4,310	\$633	\$173	6.8x	24.9x
5/16/22	 GoldenSource	 GEMSPRING	NA	NA	NA	NA	NA
4/27/22	 digitalprime TECHNOLOGIES	 South Street SECURITIES	NA	NA	NA	NA	NA
3/29/22	 nextcapital	 Goldman Sachs Asset Management	\$110	NA	NA	NA	NA
3/1/22	 AdvantageData	 SOLVE	NA	NA	NA	NA	NA
2/22/22	 Verisk	 TransUnion	\$515	\$143	\$41	3.6x	12.6x
12/27/21	 CUSIP GLOBAL SERVICES	 FACTSET	\$1,925	\$175	NA	11.0x	NA
11/15/21	 MainBloq	 FERNHILL	NA	NA	NA	NA	NA

Driver of M&A / Observations

- M&A activity in the Software & Data Solutions vertical remained strong during the period from the latter parts of 2021 until the 2nd half of 2023.
- Data has been identified as a key differentiating factor to develop an advantage over the competition. This can come in the form of better data on customer preferences or as unique data that can be sold.
- Introduction of new technology to capital markets processes has also opened up the industry to additional risks, leading to the growing demand in risk assessment and analytics solutions as acquisition targets.
 - Nasdaq's \$10.5 billion acquisition of Adenza in June 2023 has been one of the largest transactions in the last 12 months.

Top Acquirors In The Software & Data Solutions Sector

Acquiror	Acquisitions Sept '21 – Aug '23	Recent Acquisitions
 salesforce	8	 TROOPS  phenecs  Traction on Demand
 S&P Global Market Intelligence	7	 TruSight  Cosaic  THETRADENET

Section 5

In-Depth Sector Research





Public Company Comparables
See Appendix

Banks – Market Overview

Core Functions > Capital Intensive > Banks

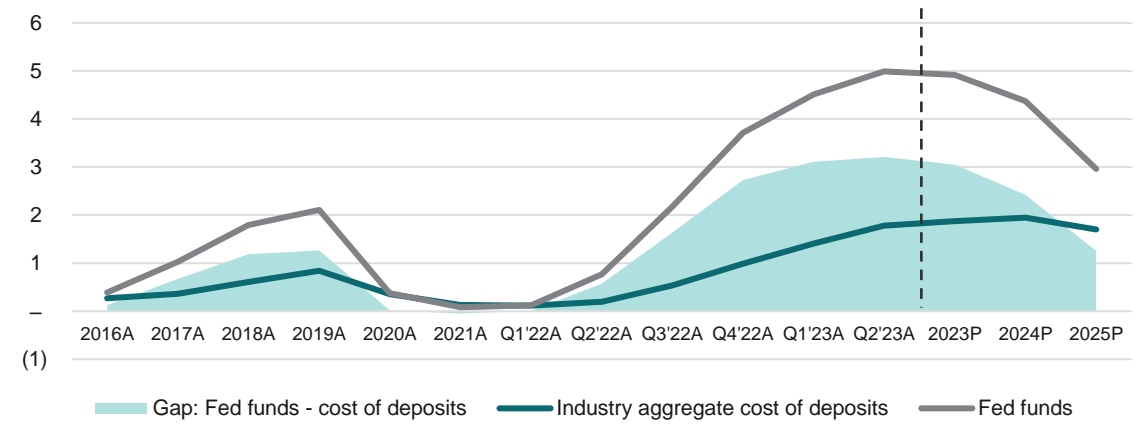
Banking Market Activity

- Net interest margins (NIM) decreased in 1H:23 following a sharp rise during 2022, when the Federal Reserve hiked interest rates 11 times to combat ongoing inflation
 - Deposit outflows accelerated in 2022 as banks competed against other depositories and high-yielding alternatives in the Treasury and money markets, leading to deposit costs rising to 1.8% in 2Q:23, an increase of 0.4% from the first quarter
 - The spread between deposit costs and federal funds rate – historically wide in 2022 – began to narrow in 2023, slowing deposit outflows
- Investment banking fees continued to skid in through 2023, with transaction fees (total \$78B) in the first 3 quarters of 2023 falling 12% YoY
- Bank liquidity remains an ongoing area of focus for the investment and regulatory community in the wake of several high-profile bank failures in Spring 2023

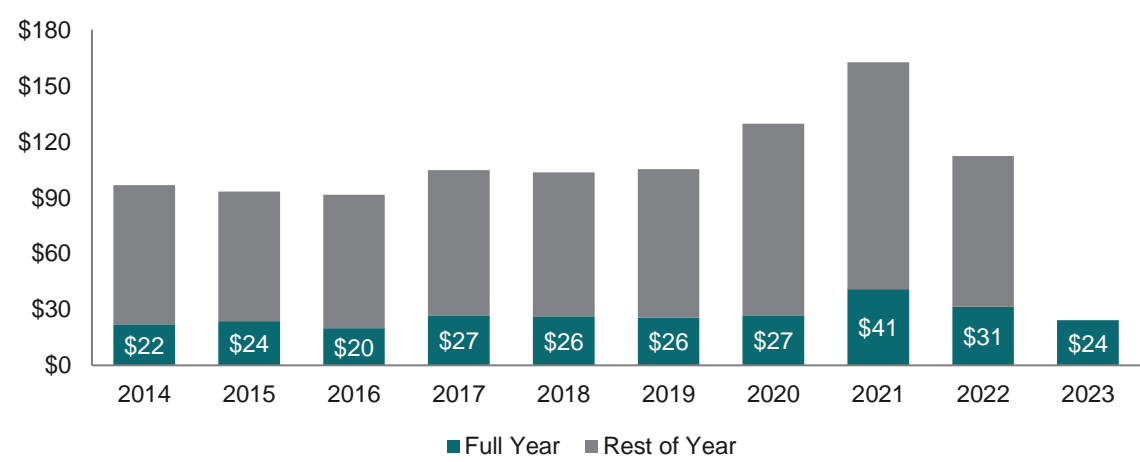
Market Trends

Increased Revenue from High Interest Rates	The new era of high interest rates initially increased bank interest income and margins, but growing deposit outflows have increased deposit funding costs and compressed margins.
Decreasing Asset and Wealth Management Fees	Asset management and wealth management fees have been diminished, as increased regulation, lower-cost competition, and new entrants are disrupting value chains.
Lower Investment Banking Revenues	Investment banking fees in the first 3 quarters of 2023 fell 12% YoY as M&A activity contracted due to volatile markets and unfavorable valuations for sellers
Increasing Popularity of Neobanks	Digital-only banks, also known as neobanks, offer banking services in modern mobile apps, gaining market share from incumbents that are slower to adapt.
Increasing Retail Trading Volume	Retail trading hit an all-time high in 2023 amid a strong start to 2023 for equities, surpassing 2021's high-profile, meme-driven surge in day trading.

Deposit Costs - Fed Funds Rate Spread (%)



Global Investment Banking Fees (\$B)





Public Company Comparables
See Appendix

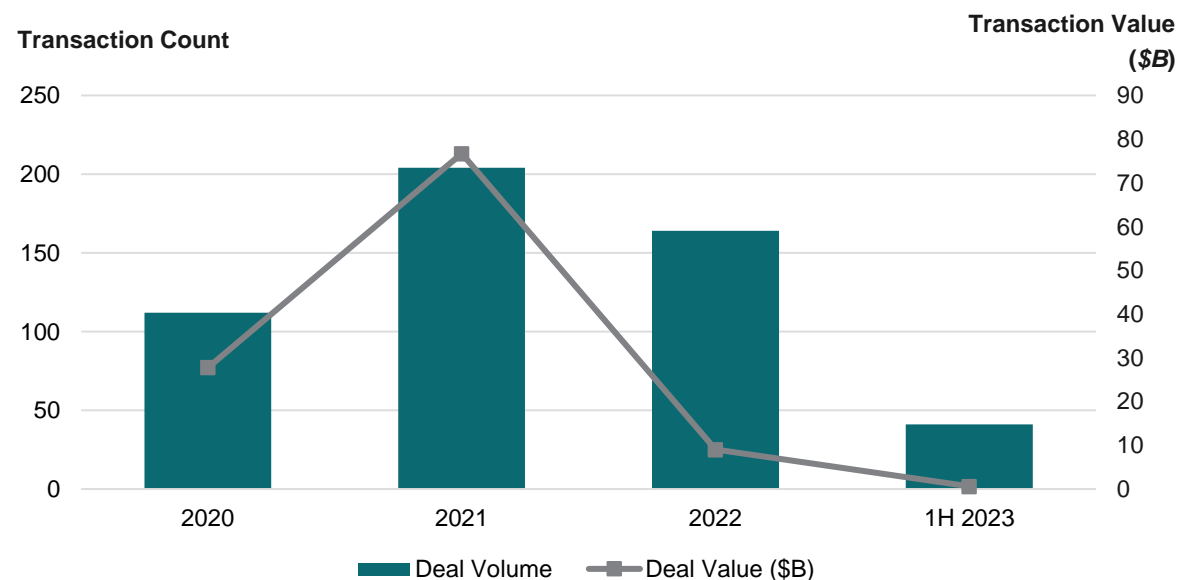
Banks – Transaction Activity

Core Functions > Capital Intensive > Banks

M&A Activity overview

- **M&A activity fell in 2022 and 2023 across banks in the US**, with 41 announced transactions in 1H:2023, compared to 164 in 2022 and 204 in 2021
 - Spring to summer 2023 saw several significant transactions from the fallout of the banking crisis (SVB / Baupost, First Republic / JPM, Credit Suisse / UBS)
- **Transaction multiples have normalized from all-time highs in 2021**; the median transaction value-to-tangible common equity ratio of the 20 most recent US bank deals⁽¹⁾ was 119.2%, compared to 152.2% in 2021

US Bank M&A Activity



Recent M&A transactions

(USD, in millions)

Announce Date	Target	Acquiror	TV	TV / Tangible Common Equity (%)	TV / Deposits (%)
7/25/2023	AMERICAN NATIONAL BANKSHARES INC.	Atlantic Union Bankshares	\$417	173.52%	15.72%
7/25/2023	BANC OF CALIFORNIA	PacWest Bancorp	\$1,100	54.78%	3.94%
7/10/2023	7 MILE ADVISORS	Houlihan Lokey	NA	NA	NA
6/18/2023	svb Securities	THE BAUPOST GROUP	\$91	NA	NA
5/22/2023	Greenhill	MIZUHO	\$385	(259.55%)	NA
5/1/2023	FIRST REPUBLIC BANK	J.P.Morgan	Not Applicable		
3/19/2023	CREDIT SUISSE	UBS	\$3,234	7.09%	NA
2/15/2023	MAXIM GROUP	FREEDOM HOLDING CORP.	\$400	NA	NA



Public Company Comparables
See Appendix

Infrastructure – Market Overview

Core Functions > Capital Intensive > Infrastructure

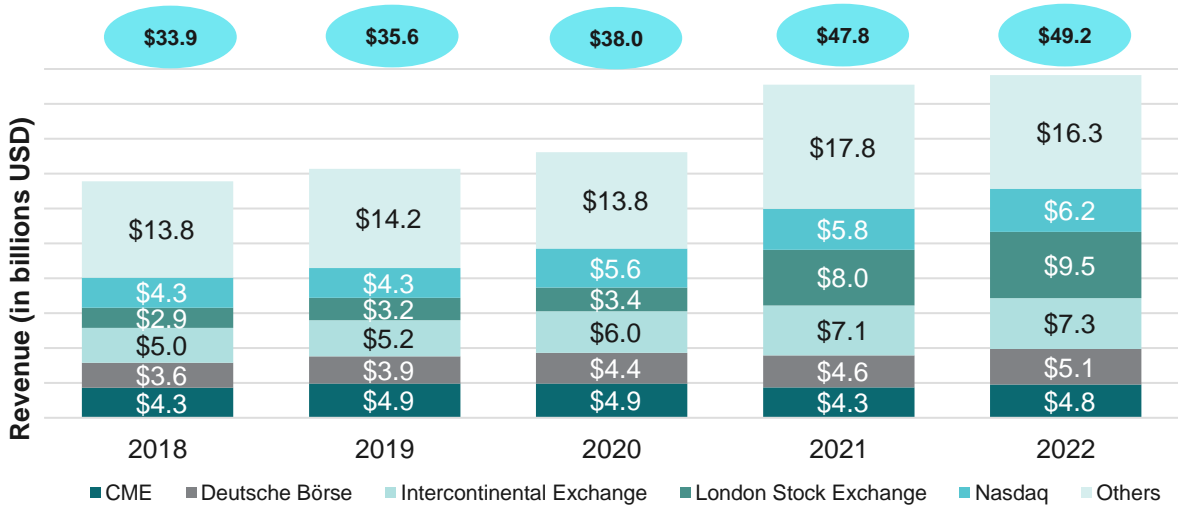
Infrastructure Market Activity

- Infrastructure is a highly consolidated space with 67% of the industry’s \$49 billion revenues in 2022 attributed to the top five exchange operators – CME, Intercontinental Exchange (“ICE”), London Stock Exchange Group, Deutsche Börse and Nasdaq
- Exchanges are investing in data and analytics via internal developments and acquisitions; Deutsche Börse’s acquisition of SIMCorp and Intercontinental Exchange’s acquisition of Black Knight are two examples of the large-scale investments into data and analytics.
- To support the growing investments into data and analytics, several large exchanges have migrated data platforms and technology infrastructure to the cloud. Notable examples include the strategic partnerships between CME and Google in November 2021 and London Stock Exchange Group and Microsoft in December 2022
 - In addition to the scale and resilience provided by cloud infrastructure, exchange operators also gain capabilities to develop innovative products for risk management and advanced data analytics

Market Trends

Alternative exchanges	New platforms are being developed to cater to growing investor demand in alternative investments such as private assets and secondaries
Demand for Sustainability Solutions	As investor and regulatory place greater focus on sustainability, infrastructure startups have started offering solutions for managing and analyzing sustainable investments
Technological optimization	Financial market infrastructure companies are exploring technologies to optimize settlement cycles and reduce risks and costs to better protect investors and maintain regulatory compliance

Infrastructure - Market Statistics



Select disruptive infrastructure platforms

 Exchange platform for environmental commodities; backed by Blackstone, GS, BofA	 Trading platform designed to offer stock trading services with the help of Machine Learning	 Exchange platform that aims to execute at most recent price to protect investors from price instability	 Tech-first prime brokerage enabling clients to improve speed, access, and service
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Public Company Comparables
See Appendix

Infrastructure – Transaction Activity

Core Functions > Capital Intensive > Infrastructure

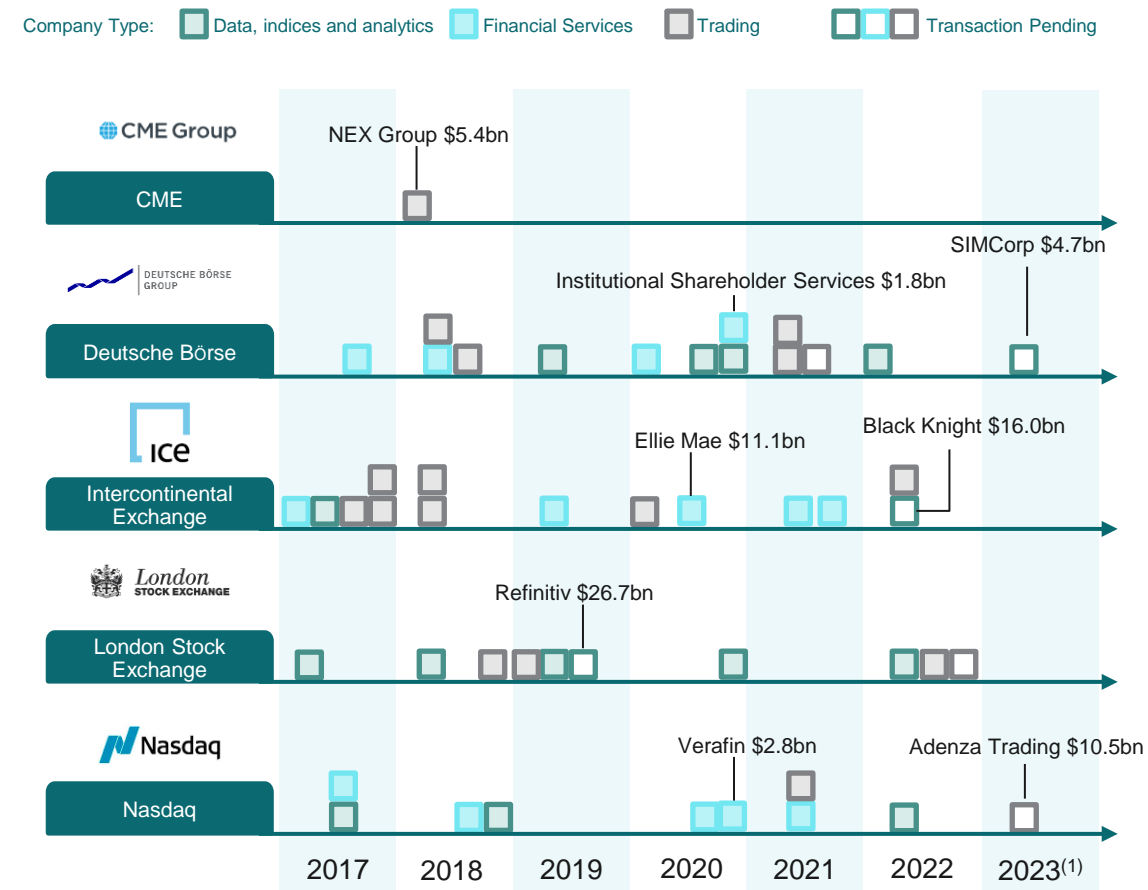
M&A Activity Overview

- M&A activity in the infrastructure space was resilient in 2022 before slowing in the first half of 2023. However, deals still show that capital markets infrastructure companies continue their push for digitization and search for capabilities in the data analytics space.

Notable Recent Transactions

- On June 12, 2023, Nasdaq announced its \$10.5 billion acquisition of Adenza Trading. The acquisition of Adenza will enhance Nasdaq's offerings in regulatory technology, compliance, and risk management solutions.
- On April 27, 2023, Deutsche Börse announced its \$4.7 billion acquisition of SIMCorp. Deutsche Börse intends to merge SIMCorp with its data analytics and ESG data provider subsidiaries to build a full-scope Investment Management Solutions segment.
- Deutsche Börse completed its acquisition of Kneip Communication on March 31, 2022. Kneip is a leader in fund data management and reporting solutions for the asset management industry. The transaction was valued at approximately €190 million.
 - The transaction expands Deutsche Börse's push into the data management space. Kneip's integration brings additional data and post-trade services to the exchange's Clearstream business.
- On May 4, 2022, Intercontinental Exchange announced its acquisition of Black Knight, a software, data, and analytics serving the real estate market. The transaction is valued at an enterprise value of \$16 billion with a fully synergized EBITDA multiple of approximately 15x.
 - The acquisition will provide ICE end-to-end capabilities throughout the life of mortgages; unique data and analytics across loan origination and servicing workflows; and a market expansion opportunity for its loan servicing solutions.

M&A Transactions Undertaken By Five Large Exchanges





Public Company Comparables
See Appendix

Asset Management – Market Overview

Core Functions > Capital Intensive > Asset Management

Asset Management Market Activity

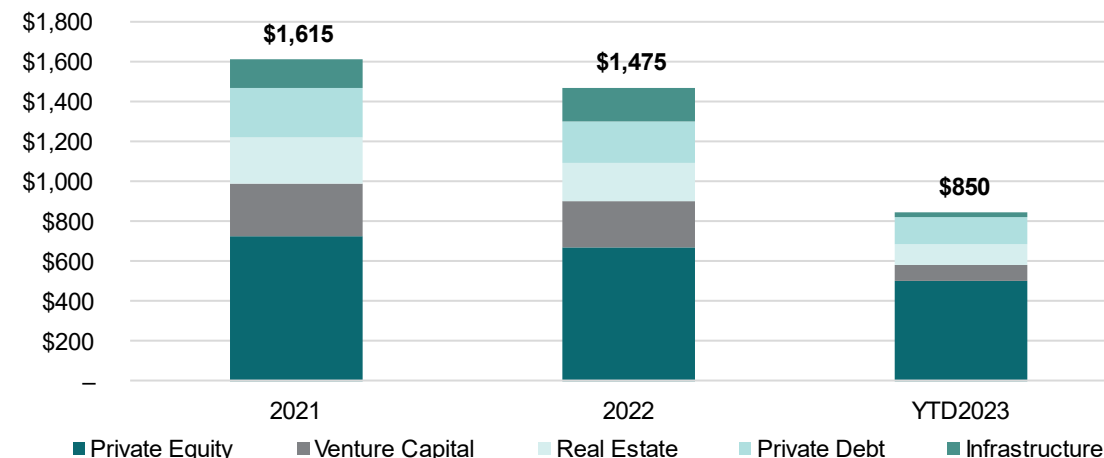
- Investors continue to allocate capital to private investments, with assets under management by private equity funds projected to grow from \$5.9 trillion in 2022 to \$9 trillion by 2025
 - US private capital fundraising continued to stumble through volatility and rising cost of borrowing, with YTD October 2023 fundraising levels (\$850B) tracking well behind 2022
 - Venture capital fundraising is on track to fall to less than half of 2022's collections
- Managers will continue increasing their ESG AUM, as 80% of millennial investors value ESG as a top investment priority
 - ESG-focused AUM exceeded \$100 billion in 2022 for the first time
 - The continued growth in ESG AUM will be critical in supporting the transition to a low-carbon economy
- Hedge funds and other alternative asset managers are making investments supporting digital finance infrastructure – research suggests that institutional investors are confident in the long-term value of blockchain and digital assets despite recent volatility

Market Trends

Private Capital Consolidation	Many firms in the private capital industry are moving towards increased consolidation; Brookfield Asset Management increased its stake in Oaktree Capital Management in 2Q:23
Compliance	Asset managers are focusing on changes to interest rates and SEC regulation following the collapse of multiple banks in early 2023
Increased Private Market Access	The investment landscape is moving towards increasing access to private capital markets for retail and accredited non-institutional investors, driven by increasing public interest in investing
Responsible Investing	Asset managers continue to focus on responsible investing as investors are becoming increasingly interested in ESG issues

Private Capital Fundraising

(USD, in millions)



Select Asset Managers Disrupting The Market



wealthfront

Robo-advisor for automated financial planning and investment management

bloom

Leverages fintech to offer investment strategies, risk allocation, fund strategies



Savology

Financial planning platform designed for working professionals to meet post-retirement goals

Wealthsimple

Developer of financial platform that offers simple investing services at affordable fees



Public Company Comparables
See Appendix

Asset Management – Transaction Activity

Core Functions > Capital Intensive > Asset Management

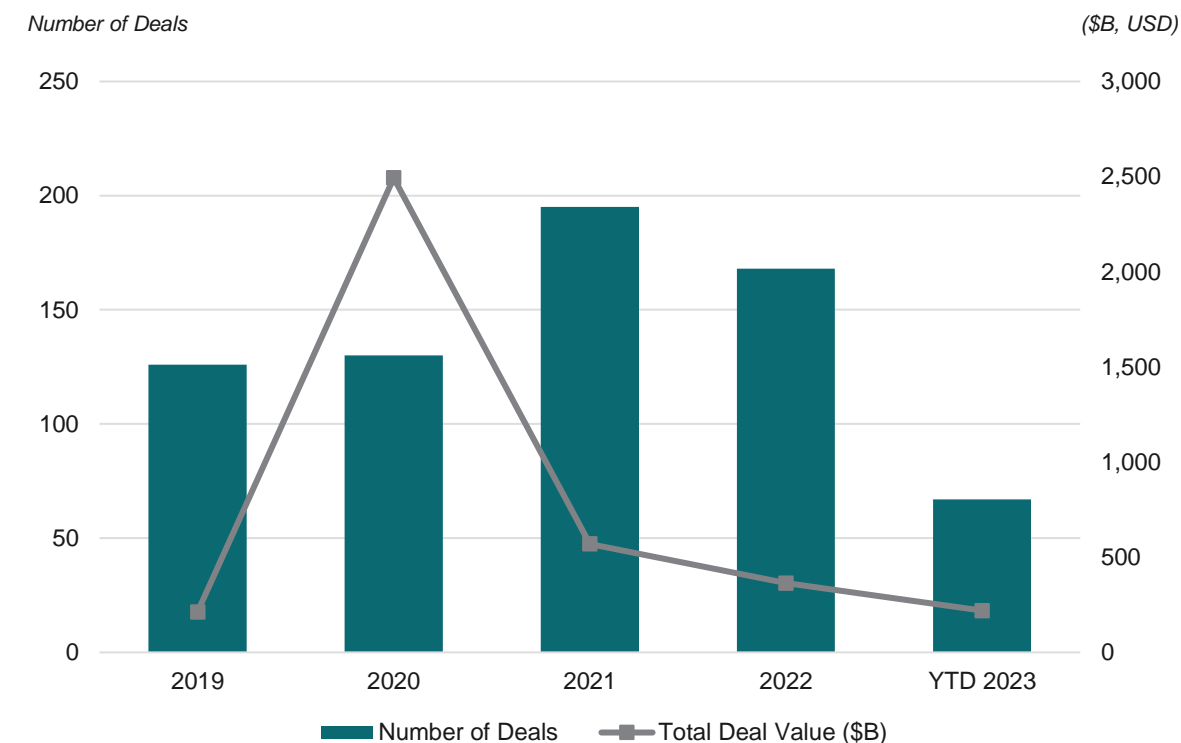
Capital Markets Overview

- The macroeconomic environment continued depress transaction market activity in 2023
 - From January to July 2023, 67 deals were announced covering a total target AUM of \$220 billion and total deal value of \$1.3 billion, compared to 83 deals in the same period in 2022
- In addition to achieving greater scale, the managers are looking to diversify their offering to clients and asset diversity through acquisitions of niche asset managers
 - In May 2023, TPG, a diversified, multi-national private equity group acquired Angelo Gordon, a credit and real estate-focused investment manager
 - In April 2022, Carlyle, a diversified, multi-national private equity group acquired Abingworth, a specialized investor in the life sciences sector with \$2 billion in AUM

Select U.S. Asset Management Transactions

Announce Date	Target	Acquiror	Transaction Value (\$M)	EV / Revenue	EV / EBITDA
6/8/2023	KREOS CAPITAL	BlackRock	\$400	NA	NA
5/18/2023	ANGELO GORDON	TPG	\$2,700	NA	NA
4/11/2022	ABINGWORTH	CARLYLE	NA	NA	NA
11/1/2021	Lexington Partners	FRANKLIN TEMPLETON	\$1,000	NA	NA

U.S. Asset Management Transaction Trends



Transaction volume in 2023 remains depressed due to macroeconomic conditions



Public Company Comparables
See Appendix

Alternative Investment Platforms – Market Overview

Core Functions > Capital Intensive > Alternative Investment Platforms

Alternative Investment Platforms Market Activity

- Sustained outperformance of alternative investments over public equities and the potential for diversification they offer have led to growing interest in alternative assets. At the same time, private equity managers see non-institutional investors as a growth engine for their funds.
- Platforms are being launched to give non-institutional investors access to alternative asset classes. Startups are also offering educational products to bridge the knowledge gap between retail and institutional investors.
- Regulators have expressed support for facilitating access to alternative investments. The U.S. government has given guidance that 401(k) plans can invest in private equity, and the European Parliament has voted to relax rules on restricting access to alternative asset classes.
- Technology-based solutions are also being developed to broaden access to capital. ProducePay, for example, operates an online marketplace providing produce farmers with working capital to complete their harvest.

Select Alternative Investment Platforms

Arrived

Investment platform for fractional real estate investments for retail investors

vino vest

Investments in AI selected wine portfolios and individual wine collections for retail investors

sweater

Venture capital investment platform for retail investors

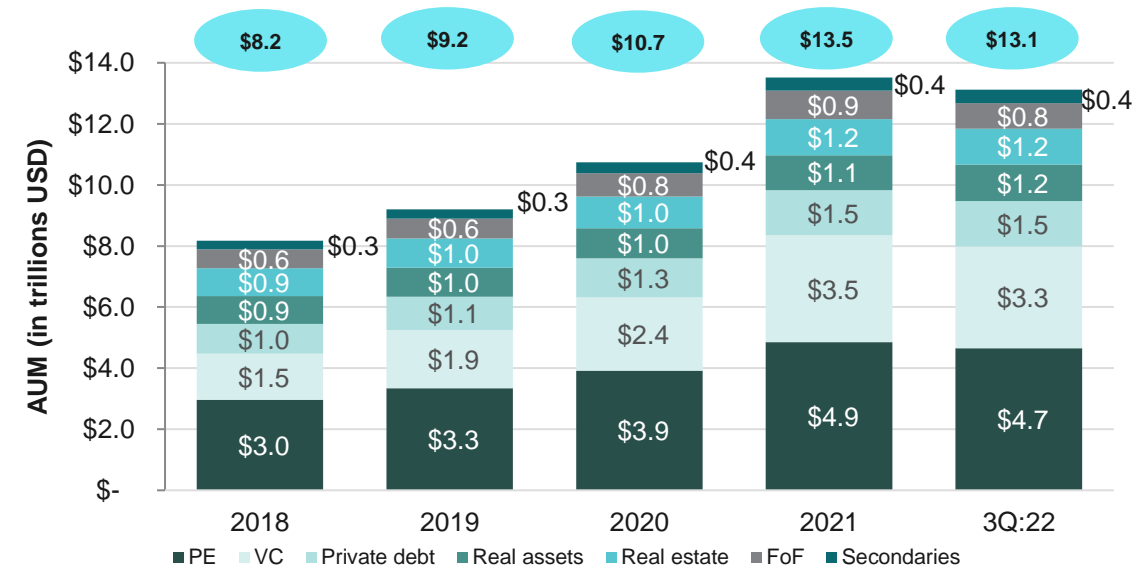
EquityBee

Marketplace for employees with stock options to sell to accredited investors

Market Statistics

- \$850B was raised for private capital managers in the first 3 quarters of 2023, trending well behind 2022; private equity took the lion's share, with \$505B of the total amount
- Private equity's share of private capital fundraising in early 2023 increased to a 10-year record as capital inflows into venture capital and real assets contracted due to elevated interest rates and inflation; secondaries and private debt also saw material boosts in fundraising
- Non-institutional investors' allocation to alternative investments is at 6%, far below the 26% allocated by institutional investors
- Based on indices from Cambridge Associates, the 10-year IRR in the public markets¹ as of June 2022 was 10.5%, trailing private equity's 16.6%

Private Capital Assets Under Management





Public Company Comparables
See Appendix

Alternative Investment Platforms – Transaction Activity

Core Functions > Capital Intensive > Alternative Investment Platforms

Capital Markets Overview

- A continuing theme in the space in 2023 is the displacement of core legacy technologies by disruptive solutions. Clear Street, a cloud-native prime brokerage platform that seeks to improve market access by replacing legacy capital markets infrastructure, raised \$270 million in February 2023 in a Series B round that valued the company at \$2 billion.
 - Investors mindsets have shifted from looking to deploy capital as fast as possible to backing high-growth companies with secular tailwinds and path to profitability.
- 2022 saw record high levels of transaction value compared to previous years except 2021, when a confluence of favorable factors led to a great increase in activity. Venture-backed exit values increased by 36% to \$902 million, largely through acquisitions such as Coinbase's acquisition of FairX, a futures exchange.
 - In June 2022, LTSE raised over \$100 million in funding. As an operator of a stock exchange focused on long-term innovation, LTSE capitalized on investors' growing interest in non-traditional factors such as ESG.

Select Financial Investors

Financial Groups			
Illustrative Portfolio Companies			

Recent financing transactions

(USD, in millions)

Announce Date	Target	Key Investor(s)	Amount Raised
7/26/2023			\$7
2/20/2023			\$40
4/11/2023			\$270
10/28/2022			\$130
7/1/2022			\$21
2/11/2022			\$200
1/12/2022			\$6
11/8/2021			\$150



Professional Services – Market Overview

Supporting Functions > Service Providers > Professional Services

Professional Services Market Activity

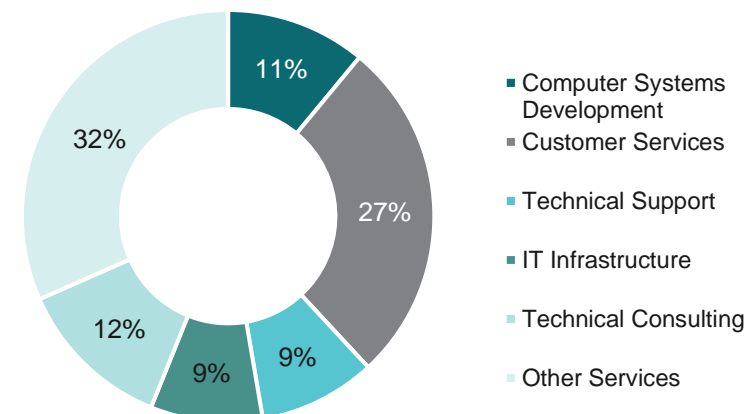
- The IT services and consulting services industry is estimated to generate over \$650 billion in annual revenue, and primarily supports clients with improving business efficiencies.
 - Revenues for the industry in the U.S. are expected to grow at 2.2% annually until 2028
 - Financial service companies comprise the second largest market segment for IT consulting services, contributing an estimated 21% of industry revenue.
- 2023 started off with a flurry of 3 transactions in the fund administration services in January, indicating positive momentum in the sector. The industry saw 15 transactions in 2022, down from 22 in 2021 due to a challenging macroeconomic and regulatory environment.
 - The expected growth in alternative assets and overall rise in global wealth (number of millionaires is expected to reach 87% by 2026, up 40% from 2021) will continue to be tailwinds for the industry, along with the growing needs of clients in the areas of compliance and digitization.

Market Trends




Implementation of open banking	A move to open banking standards may require banks to seek the help of outside experts to modernize infrastructure for communication with other financial institutions or third-parties
Increased regulatory reporting	Greater attention placed by regulators on sustainability and anti-money laundering reporting requirements will require fund administrators to expand their services in these areas to serve the needs of their clients
Growing interest in alternative assets	As private equity expands their capital base to include retail investors, fund managers will increasingly require the services of fund administrators to streamline administrative processes

Products and Services Segmentation – U.S

Estimated IT Consulting % of Industry Revenue for 2023



Select Companies Disrupting the Market

Allocations Funding platform designed for investors to raise and deploy capital quickly	 NYMBUS Developer of a core banking platform enabling traditional banks to digitize operations	 parloa Developer of conversational AI platform for automating customer contact centers	 Agio Digital is a developer of a digital asset platform offering web3 fund administration solutions
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Professional Services – Transaction Activity

Supporting Functions > Service Providers > Professional Services

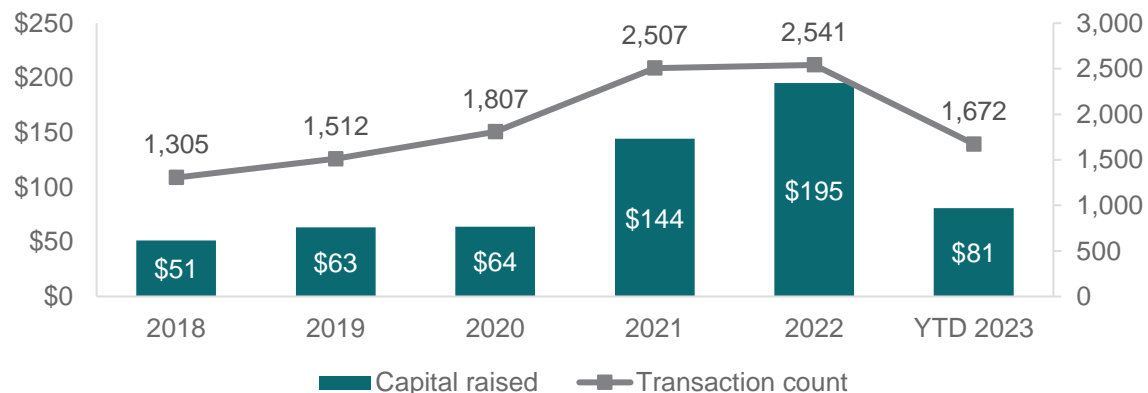
Capital Markets Overview

- 2023 saw significant M&A activity in the professional services sector across strategic and investor acquirors
 - Strategic investors looked to augment core capabilities with acquisitions to fuel growth in new business lines and geographies (Moody's acquired GCR Ratings, an African credit rating agency in 2022)
 - In the aftermath of the global pandemic and current macroeconomic environment of historic inflation, elevated rates, and market volatility, investors have gravitated towards counter-cyclical, mission-critical B2B industries
 - As of October YTD 2023, \$81 billion in capital was deployed across 1,672 transactions in the IT Services and Consulting industry, significantly outpacing pre-COVID levels
- M&A activity in the IT services and consulting space rose sharply in the past three years, as large incumbents like Accenture, Dell, and IBM purchased smaller tech-enabled players

US IT Services and Consulting Industry Transaction Activity

Capital Invested (USD, in billions)

Transaction Count



Key M&A Transactions

(USD, in millions)

Announce Date	Target	Buyer	Transaction Size	Target Revenue	Target EBITDA	Target EV / Revenue	Target EV / EBITDA
9/11/2023	EOM INDEXES	VettaFi	NA	NA	NA	NA	NA
6/26/2023	APPTIO	IBM	\$4,600	NA	NA	NA	NA
6/13/2023	F2 STRATEGY	RENOVUS CAPITAL	NA	NA	NA	NA	NA
1/12/2023	CFRA	ENDICOTT GROUP	NA	NA	NA	NA	NA
10/27/2022	Ness Digital Engineering	KKR	\$500	NA	NA	NA	NA
9/30/2022	longevity HOLDINGS	CORNELL CAPITAL	\$340	NA	NA	NA	NA
5/19/2022	GCR RATINGS	MOODY'S	\$515	\$143	\$41	3.6x	12.6x
2/22/2022	Verisk	TransUnion	\$515	\$143	\$41	3.6x	12.6x



Data and Analytics Platforms – Market Overview

Supporting Functions > Software & Data Solutions > Data and Analytics Platforms

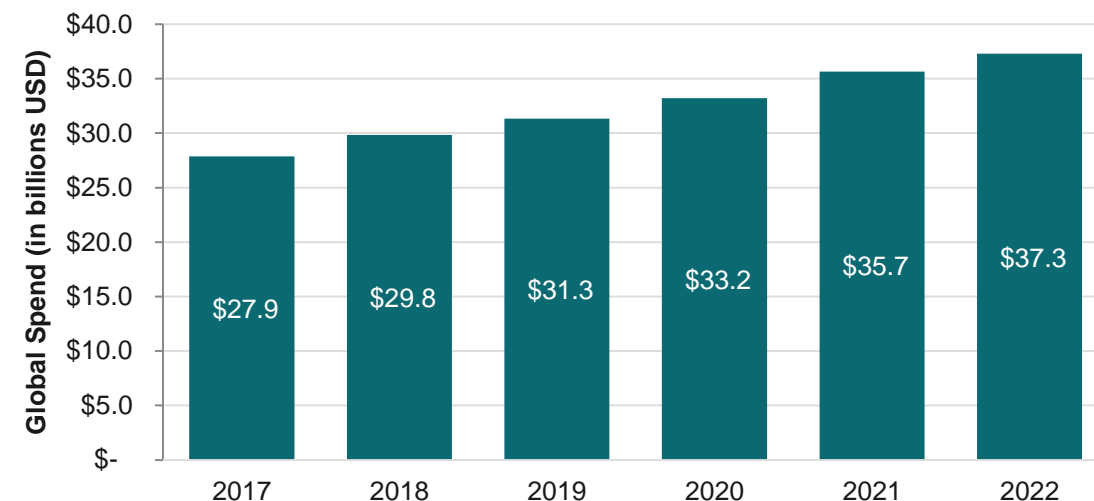
Market Overview

- The global market data / analysis industry generated of \$37 billion of revenue in 2022, and is projected to grow at 5% or greater in 2023
 - 2022 growth was primarily driven by the Americas (+8.3% YoY), compared to +1.8% in Asia and +1.0% in EMEA
 - Real-time trading and data spending accounts for a plurality of the market, alongside strong demand for pricing, reference, and valuation data
- With data being generated from various sources, the capital markets industry requires solutions for aggregating, structuring, and gaining clarity from the data's contents.
- Integration of data feeds incorporating traditional and alternative data sets with an investor's systems can help build investing strategies.

Market Trends

"Datafication"	Digitization of transaction processes will allow for collection of more data that can be used to inform investment decisions
Passive investing	Passing investing strategies, which are growing in preference, rely on indices that are fueled by data products. Further demand in passive investing will accelerate the need for data and analytics solutions
Rise of retail trading	Data products enable efficient workflow leading to low-cost trading even for transactions with high volume
Alternative data	Demand for alternative data, including on ESG, is driving the growth of news and pricing, reference, and valuation data products

Global Spend in Financial Markets Data



Select Companies Disrupting The Analytics Space

AlphaSense

Market intelligence search engine using AI to extract insights from large data sets



Data intelligence platform digitalizing management of large property portfolios



EMMI

Engine that helps measure, monitor, and manage carbon emissions from investments



Smart research tool leveraging alternative data to support investment decisions



Public Company Comparables
See Appendix

Data and Analytics Platforms – Transaction Activity

Supporting Functions > Software & Data Solutions > Data and Analytics Platforms

Capital Markets Overview

- Large incumbents continue to acquire disruptive new entrants and technologies in order to remain relevant in an ever-changing capital markets industry landscape
 - Exchange operators continued their pursuit of data and analytics capabilities through deals such as the ICE-BlackKnight and Deutsche Börse-SIMCorp acquisitions
 - JPMorgan Chase's acquired Aumni, a developer of software that tracks and analyzes legal and economic terms of private market transactions
 - BlackRock, the world's largest asset manager, announced in 2022 continuing development of its Aladdin platform through a partnership with Clarity AI

Select Transaction: Deutsche Boerse Acquires SimCorp



DEUTSCHE BÖRSE
GROUP



SimCorp

- In April 2023, German stock exchange operator Deutsche Boerse announced a \$4.3B takeover offer for Denmark's SimCorp, a provider of software solutions to asset managers and an investment management platform
- SimCorp was one of the few remaining independent trading system providers, with prominent independent competitors including Enfusion, Flextrade, and Linedata
- SimCorp complements Deutsche Boerse's data analytics business, and the acquisition is part of an initiative to create a unified, multi-service platform for investment management alongside recent acquisitions of Axioma, Kneip, and ISS, all service providers within the investment management space

Key M&A Transactions

(USD, in millions)

Announce Date	Target	Acquiror	Purchase Price	Target EV / Revenue	Target EV / EBITDA
6/12/2023	Adenza	Nasdaq	\$10,500	NA	30.9x
4/23/2023	SimCorp	DEUTSCHE BÖRSE GROUP	\$4,310	6.8x	24.9x
5/16/2022	GoldenSource	GEMSPRING	NA	NA	NA
4/27/2022	digitalprime TECHNOLOGIES	South Street SECURITIES	NA	NA	NA
3/29/2022	nextcapital	Goldman Sachs Asset Management	\$110	NA	NA
3/1/2022	AdvantageData	SOLVE	NA	NA	NA
2/22/2022	Verisk	TransUnion	\$515	3.6x	12.6x



Evolve

Capital Partners

Source(s): PitchBook, Press Releases

Appendix



Public Comparable Companies – Banks

Core Functions > Capital Intensive > Banks

(All figures in millions of USD, except per share data. Data as of October 31, 2023)

Company Information		Market Data			Operating Performance						Valuation Multiples							
Company	Stock Price	% of 52-Wk. High	Market Value	Total Assets	LTM		Growth Rates:		Earnings LT	LTM Net Income %	MV / Rev.			P / E			Price Book	ROE %
					Revenue	Net Income	Revenue	Revenue			LTM	CY 2023	CY 2024	LTM	CY 2023	CY 2024		
JPMorgan Chase & Co.	\$139.06	87.3%	\$404,120	\$3,898,333	\$142,431	\$49,486	31%	(1%)	(2%)	35%	2.8x	2.5x	2.5x	8.2x	8.3x	9.4x	1.4x	18%
Bank of America Corporation	\$26.34	68.2%	\$208,448	\$3,153,090	\$96,772	\$28,932	9%	(0%)	(3%)	30%	2.2x	2.1x	2.1x	7.2x	7.6x	8.1x	0.8x	12%
Wells Fargo & Company	\$39.77	81.4%	\$144,430	\$1,909,261	\$76,492	\$17,204	14%	(2%)	(2%)	22%	1.9x	1.8x	1.8x	8.4x	7.6x	8.3x	0.9x	11%
Citigroup Inc.	\$39.49	74.2%	\$76,046	\$2,368,477	\$72,548	\$12,301	13%	(1%)	(11%)	17%	1.0x	1.0x	1.0x	6.2x	6.6x	6.8x	0.4x	7%
U.S. Bancorp	\$31.88	63.8%	\$49,636	\$668,039	\$24,598	\$5,138	27%	(1%)	(3%)	21%	2.0x	1.8x	1.8x	9.7x	7.9x	7.9x	1.1x	12%
The PNC Financial Services Gr	\$114.47	67.2%	\$45,588	\$557,334	\$20,974	\$5,787	4%	(0%)	(2%)	28%	2.2x	2.1x	2.1x	7.9x	8.1x	9.1x	1.1x	14%
Truist Financial Corporation	\$28.36	53.2%	\$37,823	\$542,707	\$21,896	\$5,325	6%	(2%)	(8%)	24%	1.7x	1.6x	1.6x	7.1x	7.4x	8.1x	0.7x	10%
The Bank of New York Mellon C	\$42.50	81.3%	\$33,098	\$405,248	\$17,054	\$3,401	7%	1%	3%	20%	1.9x	1.9x	1.9x	9.7x	8.6x	8.8x	0.9x	10%
State Street Corporation	\$64.63	68.2%	\$19,944	\$284,415	\$12,021	\$2,345	(1%)	1%	(4%)	20%	1.7x	1.7x	1.7x	8.5x	8.2x	9.1x	0.9x	10%
Fifth Third Bancorp	\$23.71	62.3%	\$16,144	\$212,967	\$8,229	\$2,417	12%	(1%)	(4%)	29%	2.0x	1.8x	1.9x	6.7x	6.7x	7.4x	1.1x	17%
Huntington Bancshares Incorpoi	\$9.65	61.3%	\$13,974	\$186,650	\$7,221	\$2,219	7%	(0%)	0%	31%	1.9x	1.9x	1.9x	6.3x	6.9x	7.7x	0.9x	14%
MEAN							12%	(1%)	(3%)	25%	1.9x	1.8x	1.8x	7.8x	7.6x	8.2x	0.9x	12%
MEDIAN							9%	(1%)	(3%)	24%	1.9x	1.8x	1.9x	7.9x	7.6x	8.1x	0.9x	12%

LTM = Latest Twelve Months

Enterprise Value = (Market Value) + (Debt + Preferred Stock + Minority Interest) – (Cash & Equivalents)

EBITDA = Earnings Before Interest, Taxes, Depreciation and Amortization

NMF = Not meaningful

Source: Capital IQ, SEC filings, Pitchbook

Public Comparable Companies – Infrastructure

Core Functions > Capital Intensive > Infrastructure

(All figures in millions of USD, except per share data. Data as of October 31, 2023)

Company Information		Market Data			Operating Performance							Valuation Multiples					
Company	Stock Price	% of 52-Wk. High	Market Value	Enterprise Value	LTM		Growth Rates:			LTM Margins:		EV / Revenue			EV / EBITDA		
					Revenue	EBITDA	Revenue:		Earnings LT	Gross	EBITDA	LTM	CY 2023	CY 2024	LTM	CY 2023	CY 2024
							CY 2023	CY 2024									
CME Group Inc.	\$213.46	96.3%	\$76,792	\$78,281	\$5,338	\$3,585	10%	4%	10%	NA	67%	14.7x	14.2x	13.7x	21.8x	20.7x	19.8x
Intercontinental Exchange, Inc.	\$107.44	90.4%	\$60,199	\$83,020	\$7,555	\$4,696	10%	13%	6%	NA	62%	11.0x	10.3x	9.1x	17.7x	16.0x	14.5x
Hong Kong Exchanges and Clearing	\$35.15	71.9%	\$44,474	\$15,019	\$2,647	\$1,857	13%	7%	2%	96%	70%	5.7x	5.7x	5.3x	8.1x	7.7x	7.0x
Deutsche Börse AG	\$163.97	83.3%	\$30,128	\$39,634	\$6,175	\$2,786	(6%)	9%	15%	82%	45%	6.4x	7.5x	6.9x	14.2x	12.8x	12.1x
Nasdaq, Inc.	\$49.60	71.7%	\$24,369	\$29,091	\$5,999	\$2,027	(40%)	23%	8%	61%	34%	4.8x	7.8x	6.3x	14.4x	14.1x	11.8x
Cboe Global Markets, Inc.	\$163.89	92.4%	\$17,293	\$18,517	\$3,810	\$1,176	(52%)	6%	8%	49%	31%	4.9x	9.7x	9.1x	15.7x	15.2x	14.6x
Japan Exchange Group, Inc.	\$19.57	92.8%	\$10,180	\$9,850	\$964	\$639	7%	5%	NA	53%	66%	10.2x	10.4x	9.9x	15.4x	15.9x	15.3x
Singapore Exchange Limited	\$6.91	94.9%	\$7,395	\$7,145	\$872	\$454	8%	6%	5%	87%	52%	8.2x	7.9x	7.5x	15.8x	13.8x	13.1x
ASX Limited	\$35.52	76.7%	\$6,876	\$5,694	\$889	\$484	(2%)	(13%)	1%	78%	55%	6.4x	7.3x	8.4x	11.8x	13.5x	13.4x
TMX Group Limited	\$20.79	93.4%	\$5,772	\$6,451	\$1,979	\$1,593	(36%)	5%	3%	97%	80%	3.3x	7.5x	7.1x	4.1x	13.8x	12.8x
MEAN							(9%)	7%	6%	75%	56%	7.6x	8.8x	8.3x	13.9x	14.3x	13.4x
MEDIAN							2%	6%	6%	80%	58%	6.4x	7.8x	8.0x	14.9x	13.9x	13.3x

LTM = Latest Twelve Months

Enterprise Value = (Market Value) + (Debt + Preferred Stock + Minority Interest) – (Cash & Equivalents)

EBITDA = Earnings Before Interest, Taxes, Depreciation and Amortization

NMF = Not meaningful

Source: Capital IQ, SEC filings, Pitchbook

Public Comparable Companies – Asset Management

Core Functions > Capital Intensive > Asset Management

(All figures in millions of USD, except per share data. Data as of October 31, 2023)

Company Information			Market Data		Operating Performance							Valuation Multiples						
Company	Stock Price	% of 52-Wk. High	Market Value	Total Assets	LTM		Growth Rates:			LTM Net Income %	MV / Rev.			P / E			Price	
					Revenue	Net Income	Revenue		Earnings		LTM	CY 2023	CY 2024	LTM	CY 2023	CY 2024	Book	ROE %
							CY 2023	CY 2024	LT									
BlackRock, Inc.	\$612.28	77.9%	\$91,168	\$118,585	\$17,565	\$5,386	(0%)	7%	1%	31%	5.2x	5.1x	4.8x	16.9x	16.4x	16.2x	2.4x	14%
The Bank of New York Mellon Cc	\$42.50	81.3%	\$33,098	\$405,248	\$17,054	\$3,401	7%	1%	3%	20%	1.9x	1.9x	1.9x	9.7x	8.6x	8.8x	0.9x	10%
Ameriprise Financial, Inc.	\$314.57	87.9%	\$32,283	\$165,136	\$15,660	\$2,238	7%	3%	6%	14%	2.1x	2.1x	2.0x	14.4x	10.2x	9.7x	8.3x	63%
T. Rowe Price Group, Inc.	\$90.50	67.2%	\$20,224	\$12,557	\$6,343	\$1,578	(1%)	(2%)	(15%)	25%	3.2x	3.2x	3.2x	12.8x	12.2x	13.4x	2.2x	17%
State Street Corporation	\$64.63	68.2%	\$19,944	\$284,415	\$12,021	\$2,345	(1%)	1%	(4%)	20%	1.7x	1.7x	1.7x	8.5x	8.2x	9.1x	0.9x	10%
Northern Trust Corporation	\$65.91	65.7%	\$13,644	\$146,331	\$6,729	\$1,096	3%	1%	(3%)	16%	2.0x	2.0x	1.9x	12.4x	10.7x	11.3x	1.2x	10%
Franklin Resources, Inc.	\$22.79	66.3%	\$11,372	\$30,235	\$7,849	\$883	(2%)	7%	(8%)	11%	1.4x	1.4x	1.3x	12.9x	8.7x	9.0x	1.0x	8%
Amundi S.A.	\$52.00	76.0%	\$10,575	\$35,616	\$6,328	\$1,171	(47%)	3%	0%	19%	1.7x	3.1x	3.1x	9.0x	8.2x	8.0x	0.9x	10%
Schroders plc	\$4.48	72.8%	\$7,054	\$26,111	\$3,632	\$533	(19%)	4%	(3%)	15%	1.9x	2.4x	2.3x	13.2x	11.1x	10.6x	1.4x	10%
Invesco Ltd.	\$12.97	63.1%	\$5,831	\$29,432	\$5,746	\$596	(28%)	0%	(13%)	10%	1.0x	1.3x	1.3x	9.8x	8.9x	7.9x	0.5x	5%
MEAN							(8%)	3%	(4%)	18%	2.2x	2.4x	2.4x	12.0x	10.3x	10.4x	2.0x	16%
MEDIAN							(1%)	2%	(3%)	17%	1.9x	2.0x	2.0x	12.6x	9.5x	9.4x	1.1x	10%

LTM = Latest Twelve Months

Enterprise Value = (Market Value) + (Debt + Preferred Stock + Minority Interest) – (Cash & Equivalents)

EBITDA = Earnings Before Interest, Taxes, Depreciation and Amortization

NMF = Not meaningful

Source: Capital IQ, SEC filings, Pitchbook

Public Comparable Companies – Alternative Investment Platforms

Core Functions > Capital Intensive > Alternative Investment Platforms

(All figures in millions of USD, except per share data. Data as of October 31, 2023)

Company Information			Market Data		Operating Performance						Valuation Multiples							
Company	Stock Price	% of 52-Wk. High	Market Value	Total Assets	LTM		Growth Rates:			LTM Net Income %	MV / Rev.			P / E			Price	
					Revenue	Net Income	Revenue		Earnings LT		LTM	CY 2023	CY 2024	LTM	CY 2023	CY 2024	Book	ROE %
							CY 2023	CY 2024										
Blackstone Inc.	\$92.35	79.1%	\$66,348	\$41,664	\$8,244	\$3,025	26%	33%	7%	37%	8.0x	6.6x	4.9x	21.9x	13.0x	9.4x	9.3x	41%
Kohlberg Kravis Roberts & Co. L	\$55.40	85.5%	\$47,515	\$288,733	\$15,297	\$2,442	1%	44%	6%	16%	3.1x	8.5x	5.9x	19.5x	15.8x	11.5x	2.4x	13%
Apollo Global Management, Inc.	\$77.44	83.1%	\$43,900	\$283,235	\$25,756	\$1,566	(71%)	14%	29%	6%	1.7x	13.7x	12.0x	28.0x	11.0x	9.0x	6.2x	NMF
3i Group plc	\$23.46	91.7%	\$22,587	\$23,830	\$5,676	\$5,441	(6%)	(4%)	3%	96%	4.0x	4.3x	4.5x	4.2x	4.8x	5.0x	1.0x	28%
Ares Management Corporation	\$98.59	87.9%	\$18,224	\$23,384	\$3,516	\$398	(0%)	31%	11%	11%	5.2x	6.0x	4.6x	45.7x	26.8x	19.3x	NMF	25%
EQT Corporation	\$42.38	93.7%	\$17,432	\$24,555	\$6,272	\$900	(49%)	23%	75%	14%	2.8x	2.9x	2.3x	19.4x	18.5x	9.7x	1.2x	8%
The Carlyle Group Inc.	\$27.54	71.9%	\$9,913	\$20,957	\$3,688	\$410	(20%)	32%	(2%)	11%	2.7x	3.0x	2.3x	24.2x	8.6x	6.8x	1.7x	7%
TPG Inc.	\$27.64	62.2%	\$2,226	\$7,383	\$2,225	\$104	(36%)	48%	19%	5%	1.0x	1.7x	1.2x	21.4x	4.2x	2.5x	4.2x	20%
MEAN							(20%)	28%	19%	25%	3.6x	5.8x	4.7x	23.0x	12.8x	9.1x	3.7x	20%
MEDIAN							(13%)	31%	9%	13%	2.9x	5.1x	4.5x	21.7x	12.0x	9.2x	2.4x	20%

LTM = Latest Twelve Months

Enterprise Value = (Market Value) + (Debt + Preferred Stock + Minority Interest) – (Cash & Equivalents)

EBITDA = Earnings Before Interest, Taxes, Depreciation and Amortization

NMF = Not meaningful

Source: Capital IQ, SEC filings, Pitchbook

Public Comparable Companies – Professional Services

Core Functions > Capital Intensive > Professional Services

(All figures in millions of USD, except per share data. Data as of October 31, 2023)

Company Information			Market Data		Operating Performance							Valuation Multiples					
Company	Stock Price	% of 52-Wk. High	Market Value	Enterprise Value	LTM		Growth Rates:			LTM Margins:		EV / Revenue			EV / EBITDA		
					Revenue	EBITDA	Revenue:		Earnings	Gross	EBITDA	LTM	CY 2023	CY 2024	LTM	CY 2023	CY 2024
							CY 2023	CY 2024									
Accenture plc	\$297.09	89.9%	\$186,457	\$181,322	\$64,112	\$11,201	4%	5%	9%	32%	17%	2.8x	2.8x	2.7x	16.2x	14.7x	14.0x
Infosys Limited	\$16.43	81.8%	\$68,020	\$66,298	\$18,539	\$4,298	7%	7%	9%	30%	23%	3.6x	3.6x	3.4x	15.4x	15.2x	13.8x
Capgemini SE	\$175.91	87.7%	\$30,242	\$35,245	\$24,018	\$3,244	3%	4%	12%	27%	14%	1.5x	1.5x	1.4x	10.9x	10.6x	9.6x
Wipro Limited	\$4.59	86.1%	\$23,921	\$22,028	\$11,021	\$2,030	3%	5%	4%	30%	18%	2.0x	2.0x	1.9x	10.8x	11.0x	10.1x
Booz Allen Hamilton Holding Corporati	\$119.93	92.0%	\$15,637	\$18,723	\$10,031	\$665	13%	8%	8%	23%	7%	1.9x	1.8x	1.7x	28.2x	16.9x	15.6x
Genpact Limited	\$33.54	69.0%	\$6,081	\$7,077	\$4,433	\$719	2%	5%	7%	35%	16%	1.6x	1.6x	1.5x	9.9x	8.6x	8.0x
CorVel Corporation	\$193.94	84.7%	\$3,319	\$3,262	\$751	\$120	NA	NA	NA	22%	16%	4.3x	NA	NA	27.1x	NA	NA
Korn Ferry	\$45.52	76.0%	\$2,399	\$2,379	\$2,839	\$355	0%	2%	(3%)	23%	13%	0.8x	0.9x	0.8x	6.7x	5.9x	6.0x
Veradigm Inc.	\$13.19	66.7%	\$1,441	\$1,167	\$1,529	\$115	4%	6%	NA	51%	8%	0.8x	1.8x	1.7x	10.1x	7.0x	6.7x
Conduent Incorporated	\$3.19	64.5%	\$695	\$1,918	\$3,755	\$272	(3%)	3%	(52%)	22%	7%	0.5x	0.5x	0.5x	7.1x	5.4x	4.7x
MEAN							4%	5%	(1%)	29%	14%	2.0x	1.8x	1.7x	14.2x	10.6x	9.8x
MEDIAN							3%	5%	7%	28%	15%	1.7x	1.8x	1.7x	10.9x	10.6x	9.6x

LTM = Latest Twelve Months

Enterprise Value = (Market Value) + (Debt + Preferred Stock + Minority Interest) – (Cash & Equivalents)

EBITDA = Earnings Before Interest, Taxes, Depreciation and Amortization

NMF = Not meaningful

Source: Capital IQ, SEC filings, Pitchbook

Public Comparable Companies – Financial Content Providers

Core Functions > Capital Intensive > Financial Content Providers

(All figures in millions of USD, except per share data. Data as of October 31, 2023)

Company Information			Market Data		Operating Performance							Valuation Multiples					
Company	Stock Price	% of 52-Wk. High	Market Value	Enterprise Value	LTM		Growth Rates:			LTM Margins:		EV / Revenue			EV / EBITDA		
					Revenue	EBITDA	Revenue:		Earnings	Gross	EBITDA	LTM	CY 2023	CY 2024	LTM	CY 2023	CY 2024
							CY 2023	CY 2024									
S&P Global Inc.	\$349.31	81.5%	\$111,150	\$125,223	\$12,282	\$5,532	11%	7%	11%	66%	45%	10.2x	10.1x	9.4x	22.6x	21.4x	19.4x
RELX PLC	\$34.78	96.2%	\$65,503	\$73,628	\$11,016	\$3,463	8%	7%	11%	64%	31%	6.7x	6.6x	6.1x	21.3x	17.3x	16.0x
Moody's Corporation	\$308.00	84.8%	\$56,366	\$61,993	\$5,726	\$2,451	8%	10%	(0%)	71%	43%	10.8x	10.5x	9.5x	25.3x	23.6x	20.6x
Thomson Reuters Corporation	\$119.60	88.5%	\$54,468	\$56,416	\$6,744	\$2,016	3%	5%	17%	40%	30%	8.4x	8.3x	7.9x	28.0x	21.2x	20.2x
MSCI Inc.	\$471.55	82.4%	\$37,295	\$41,024	\$2,415	\$1,408	11%	12%	12%	82%	58%	17.0x	16.4x	14.7x	29.1x	27.5x	24.8x
Gartner, Inc.	\$332.04	80.5%	\$26,173	\$28,005	\$5,826	\$1,329	8%	8%	7%	68%	23%	4.8x	4.7x	4.4x	21.1x	19.2x	18.2x
FactSet Research Systems Inc.	\$431.89	91.1%	\$16,407	\$17,786	\$2,086	\$761	11%	7%	11%	53%	36%	8.5x	8.3x	7.8x	23.4x	22.0x	20.4x
Morningstar, Inc.	\$253.24	95.0%	\$10,802	\$11,678	\$1,975	\$320	8%	10%	10%	58%	16%	5.9x	5.8x	5.2x	36.5x	27.5x	22.2x
CRISIL Limited	\$49.21	92.0%	\$3,597	\$3,521	\$366	\$94	14%	12%	16%	44%	26%	9.6x	9.3x	8.3x	37.5x	35.6x	31.5x
Forrester Research, Inc.	\$23.20	59.4%	\$446	\$424	\$500	\$48	(11%)	(3%)	(2%)	58%	10%	0.8x	0.9x	0.9x	8.9x	6.9x	7.6x
Value Line, Inc.	\$40.95	58.6%	\$386	\$327	\$39	\$13	NA	NA	NA	86%	33%	8.3x	NA	NA	25.2x	NA	NA
MEAN							7%	7%	9%	63%	32%	8.3x	8.1x	7.4x	25.4x	22.2x	20.1x
MEDIAN							8%	7%	11%	64%	31%	8.4x	8.3x	7.8x	25.2x	21.7x	20.3x

LTM = Latest Twelve Months

Enterprise Value = (Market Value) + (Debt + Preferred Stock + Minority Interest) – (Cash & Equivalents)

EBITDA = Earnings Before Interest, Taxes, Depreciation and Amortization

NMF = Not meaningful

Source: Capital IQ, SEC filings, Pitchbook

Public Comparable Companies – Software & Data Solutions

Core Functions > Capital Intensive > Software & Data Solutions

(All figures in millions of USD, except per share data. Data as of October 31, 2023)

Company Information			Market Data		Operating Performance							Valuation Multiples					
Company	Stock Price	% of 52-Wk. High	Market Value	Enterprise Value	LTM		Growth Rates:			LTM Margins:		EV / Revenue			EV / EBITDA		
					Revenue	EBITDA	Revenue:		Earnings	Gross	EBITDA	LTM	CY 2023	CY 2024	LTM	CY 2023	CY 2024
							CY 2023	CY 2024									
SS&C Technologies Holdings, Inc.	\$50.25	77.9%	\$12,466	\$19,155	\$5,430	\$1,800	4%	4%	1%	48%	33%	3.5x	3.5x	3.4x	10.6x	9.1x	8.5x
Temenos AG	\$71.60	79.5%	\$5,155	\$5,895	\$980	\$213	4%	9%	0%	64%	22%	6.0x	6.0x	5.5x	27.7x	14.9x	13.5x
Clearwater Analytics Holdings, Inc.	\$18.08	87.2%	\$3,637	\$3,491	\$352	(\$3)	21%	20%	36%	71%	(1%)	9.9x	9.5x	7.9x	NMF	33.5x	26.3x
Intapp, Inc.	\$34.20	67.8%	\$2,372	\$2,250	\$373	(\$48)	25%	18%	NMF	68%	(13%)	6.0x	5.8x	4.9x	NMF	NMF	54.7x
Envestnet, Inc.	\$37.00	53.5%	\$2,018	\$2,974	\$1,211	\$221	0%	8%	5%	63%	18%	2.5x	2.4x	2.2x	13.5x	12.1x	9.8x
MeridianLink, Inc.	\$16.42	72.4%	\$1,337	\$1,665	\$300	\$105	6%	8%	14%	63%	35%	5.6x	5.5x	5.1x	15.9x	15.6x	14.0x
IntegraFin Holdings plc	\$2.65	65.3%	\$879	\$654	\$161	\$39	2%	8%	2%	84%	24%	4.0x	4.0x	3.7x	16.7x	9.6x	9.1x
Iress Limited	\$3.16	45.4%	\$579	\$860	\$396	\$61	2%	1%	(10%)	26%	15%	2.2x	2.2x	2.1x	14.0x	11.5x	10.3x
MEAN							8%	10%	7%	61%	17%	5.0x	4.8x	4.3x	16.4x	15.2x	18.3x
MEDIAN							4%	8%	2%	64%	20%	4.8x	4.7x	4.3x	14.9x	12.1x	11.9x

LTM = Latest Twelve Months

Enterprise Value = (Market Value) + (Debt + Preferred Stock + Minority Interest) – (Cash & Equivalents)

EBITDA = Earnings Before Interest, Taxes, Depreciation and Amortization

NMF = Not meaningful

Source: Capital IQ, SEC filings, Pitchbook