

TPG RE Finance Trust, Inc.

Too many questions remain, downgrade to Underperform

Rating Change: UNDERPERFORM | PO: 6.50 USD | Price: 7.55 USD

Cautious on CRE mREITs broadly in 2024

[We are moving to a more cautious outlook for the CRE mREIT sector](#) and are downgrading TPG RE Finance Trust (TRTX) to an Underperform rating (Neutral prior). CRE mREITs outperformed other financial stocks in 2023 (Exhibit 1), but we think the fundamental headwinds CRE faces are likely to persist throughout 2024. While TRTX has taken meaningful steps to improve portfolio credit, we think the next few quarters may be choppy and risks are to the downside. Additionally, we think TRTX's dividend may be at risk due to a 30% decline in portfolio size in '23 which reduced earnings potential.

Progressing on turnaround, but credit still a question

TRTX's portfolio has underperformed peers in terms of credit since COVID, but in 2023 TRTX took decisive action and resolved all credit challenged loans through repayments, asset sales, and foreclosures, a large portion of which occurred in 4Q (at 3Q non-accruals were still \$318M or 8% of the portfolio). While it is positive that management has cleaned up the legacy loan book, we think more credit issues may arise given the difficult backdrop for CRE and want to see several quarters of solid credit before we declare TRTX "all clear" on credit. At 4Q, TRTX has no specific CECL reserves and the general reserve was \$70M, or 1.9% of the portfolio.

Portfolio cleanup weighs on EPS & could prompt div cut

While TRTX has cleaned up portfolio credit, the portfolio now stands 30% below its YE2022 levels, which we think will weigh on earnings and increases the likelihood of a dividend cut. TRTX has under-earned the dividend for 4 consecutive quarters and we do not expect earnings to cover the \$0.24/share quarterly dividend at any point in 2024. Positively, in the longer-term, we think the excess liquidity position can be used by TRTX to originate aggressively. As of 4Q, TRTX had leverage of 2.5x (peer avg ~2.8x).

PO to \$6.50; we est weak earnings + div cut in '24

TRTX shares currently trade at ~0.65x BVPS, slightly above the post-COVID average of ~0.6x. Larger peers STWD & BXMT currently trade 15% below their post-COVID average. In our view, given credit uncertainty and a weaker earnings outlook, a discount valuation for TRTX is warranted. We raise our PO to \$6.50 (\$6 prior), based on an approximate 0.55x BVPS multiple (0.5x prior). Our updated '24/'25 EPS ests of \$0.56/\$0.84 (\$0.80/\$0.81 prior) under-earn the dividend, prompting us to forecast a 25% cut to the quarterly dividend in 2Q24, bringing it to \$0.18/quarter.

Estimates (Dec) (US\$)	2022A	2023A	2024E	2025E	2026E
EPS	1.12	(2.99)	0.56	0.84	0.89
GAAP EPS	(0.95)	(1.69)	0.41	0.69	0.74
EPS Change (YoY)	2.8%	NM	NM	50.0%	6.0%
Consensus EPS (Bloomberg)			0.64	0.99	0.92
DPS	0.96	0.96	0.78	0.72	0.72
Valuation (Dec)					
P/E	6.7x	NM	13.5x	9.0x	8.5x
GAAP P/E	NM	NM	18.4x	10.9x	10.2x
Dividend Yield	12.7%	12.7%	10.3%	9.5%	9.5%

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Timestamp: 04 March 2024 06:00AM EST

04 March 2024

Equity

Key Changes

(US\$)	Previous	Current
Inv. Opinion	C-2-8	C-3-8
Inv. Rating	NEUTRAL	UNDERPERFORM
Price Obj.	6.00	6.50
2024E DPS	0.72	0.78

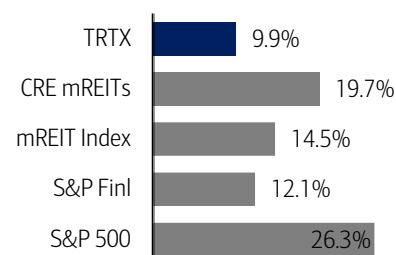
Eric Dray, CFA
Research Analyst
BofAS
+1 646 855 5780
eric.dray@bofa.com

Derek Hewett
Research Analyst
BofAS
derek.hewett@bofa.com

Stock Data

Price	7.55 USD
Price Objective	6.50 USD
Date Established	4-Mar-2024
Investment Opinion	C-3-8
52-Week Range	4.65 USD -8.81 USD
Mrkt Val / Shares Out (mn)	588 USD / 77.9
Free Float	78.7%
Average Daily Value	5.75 USD
BofA Ticker / Exchange	TRTX / NYS
Bloomberg / Reuters	TRTX US / TRTX.N
ROE (2024E)	3.9%
ESGMeter™	Medium

ESGMeter is not indicative of a company's future stock price performance and is not an investment recommendation or rating. ESGMeter is independent of BofA Global Research's equity investment rating, volatility risk rating, income rating, and price objective for that company. For full details, refer to "BofA ESGMeter Methodology".

Exhibit 1: CRE mREITs outperformed in '23
TRTX lagged in '23 due to credit issues

Source: Bloomberg, BofA Global Research
BofA GLOBAL RESEARCH

iQprofileSM TPG RE Finance Trust, Inc.

Income Statement Data (Dec)

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Net Interest Income	142	89	58	93	111
% change	-8.4%	-37.6%	-34.6%	60.4%	18.9%
Net Fee Income	NA	NA	NA	NA	NA
Securities Gains / (Losses)	NA	NA	NA	NA	NA
Total Operating Income	142	89	58	93	111
Operating Expenses	(204)	(225)	(41)	(43)	(47)
% change	1,176.7%	10.1%	-81.6%	3.7%	9.5%
Provisions Expense	NA	NA	NA	NA	NA
% change	NA	NA	NA	NA	NA
Operating Pre-Tax Income	(60)	(109)	57	75	74
Operating Net Income to Comm S/Hold.	(69)	(115)	49	67	66
GAAP Net Income	87	(232)	44	65	69

Balance Sheet Data (Dec)

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Total Assets	5,545	4,214	5,205	6,551	6,451
Average Interest Earning Assets	NA	NA	NA	NA	NA
Total Gross Customer Loans	4,781	3,410	4,324	5,601	5,675
% change	-1.8%	-28.7%	26.8%	29.5%	1.3%
Total Customer Deposits	NA	NA	NA	NA	NA
% change	NA	NA	NA	NA	NA
Tangible Equity	NA	NA	NA	NA	NA
Common Shareholders' Equity	1,121	924	895	892	894

Key Metrics (Dec)

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Net Interest Margin	NA	NA	NA	NA	NA
Effective Tax Rate	NM	NM	0.5%	0.3%	0.4%
Loan / Deposit Ratio	NA	NA	NA	NA	NA
Tangible Common Equity / Assets	0%	0%	0%	0%	0%
ROA	1.6%	-4.7%	1.0%	1.1%	1.1%
ROE	6.2%	-19.0%	3.9%	6.0%	6.3%
RoTE	NA	NA	NA	NA	NA
Dividend Payout Ratio	NA	NA	123.7%	84.1%	85.5%
Efficiency Ratio (Cost / Income Ratio)	143.9%	254.0%	71.5%	46.2%	42.5%

Quality of Earnings (Dec)

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Total Non-Interest Inc / Operating Inc	0%	0%	0%	0%	0%
NPLs plus Foreclosed Real Estate / Loans	0%	0%	0%	0%	0%
Loan Loss Reserves / NPLs	0%	0%	0%	0%	0%
Loan Loss Reserves / Total Loans	0%	0%	0%	0%	0%

Company Sector

Mortgage Finance

Company Description

TRTX is an externally managed self-originating mortgage real estate investment trust (mREIT) focused on senior floating-rate commercial mortgage loans and is managed by a subsidiary of TPG.

Investment Rationale

We rate TRTX as Underperform. We think the risks associated with credit, elevated defaults, and concerns about CRE values more than offsets a high current yield, the current CECL reserve, and a discount valuation.

Stock Data

Average Daily Volume 761,978

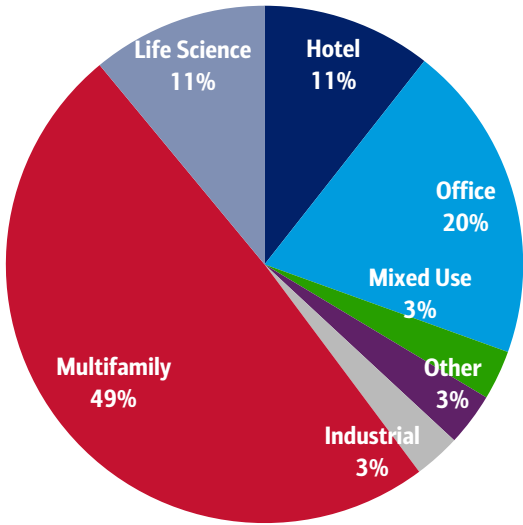
Quarterly Earnings Estimates

	2023	2024
Q1	0.17A	0.13E
Q2	0.23A	0.13E
Q3	-1.33A	0.13E
Q4	-2.05A	0.16E

Re-vamped portfolio focused on multifamily, some office

With TRTX’s portfolio cleanup largely completed, the portfolio at 4Q was 49% multifamily and 20% office (Exhibit 2). 45% of multifamily loans (22% of total portfolio) are located in the Sunbelt, an area facing a supply glut which is weighing on rental incomes (Exhibit 3). Office loans are majority in the northeast (56% of office loans, 11% of total portfolio) (Exhibit 4).

Exhibit 2: TRTX’s portfolio is nearly half multifamily
TRTX portfolio allocation by property type



Source: Company reports, BofA Global Research

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Exhibit 3: TRTX’s multifamily portfolio is largely in the Sunbelt
% CRE mREIT multifamily allocation by geography

	Multifamily % of portfolio						Total % of Portfolio
	Northeast	Sunbelt	West	Midwest	International	Diversified	
ACRE	7%	13%	3%	3%	0%	0%	26%
BXMT**	4%	10%	4%	1%	3%	0%	22%
STWD*	Not disclosed						37%
ARI	7%	0%	0%	1%	3%	2%	13%
BRSP*	1%	41%	11%	0%	0%	0%	53%
LADR*	Not disclosed						37%
TRTX	13%	22%	10%	5%	0%	0%	49%

Source: Company reports, BofA Global Research

* Loan portfolio only

** Based on 150 largest loans

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Exhibit 4: TRTX office exposure largely in northeast, some sunbelt

% CRE mREIT office allocation by geography

	Office % of loan portfolio						Total % of Portfolio
	US office					Int'l Office	
	Northeast	Sunbelt	West	Midwest	Diversified		
ACRE	7%	12%	2%	13%	6%	0%	39%
BXMT**	12%	6%	9%	3%	0%	5%	34%
STWD*				Not disclosed			22%
ARI	5%	0%	0%	2%	0%	10%	19%
BRSP*	7%	12%	13%	0%	0%	0%	33%
LADR*				Not disclosed			28%
TRTX	11%	6%	3%	0%	0%	0%	20%

Source: Company reports, BofA Global Research

* Loan portfolio only

** Based on 150 largest loans

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Originations in low-rate environment may carry added risk

By our math, TRTX originated ~74% of its loan portfolio post-COVID and ~60% of loans were originated with fed funds below 2.0% (Exhibits 5 & 6). This matters not only because higher rates weigh on property valuations, but also because CRE mREIT loans are floating rate, and borrowers purchase rate caps to hedge against the risk of rate spikes which expire at loan maturity. Given the sharp move higher in rates, these rate caps have been important in keeping interest expenses in check. As loans mature, new rate caps will need to be purchased at prohibitive prices.

Exhibit 5: ~74% of TRTX's loan portfolio originated post-COVID

Origination vintage as a % of total loan portfolio

	Vintage by year						
	2017 or prior	2018	2019	2020	2021	2022	2023
ACRE	2%	5%	10%	14%	35%	28%	5%
BXMT	2%	17%	17%	4%	39%	21%	0%
STWD				Not disclosed			
ARI	7%	3%	19%	7%	27%	32%	5%
BRSP*	2%	12%	10%	2%	43%	31%	0%
LADR*		14%		0%	57%	29%	0%
TRTX	1%	4%	17%	3%	42%	27%	6%

Source: Company reports, BofA Global Research

* Loan portfolio only

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Exhibit 6: 82% of TRTX's portfolio originated with FF rates below 2.0%

% of portfolio originated at or below given FF rate

	FF Rate below...			
	1.00%	2.00%	3.00%	4.00%
ACRE	68%	82%	92%	95%
BXMT	52%	75%	94%	94%
STWD			Not disclosed	
ARI	55%	74%	92%	92%
BRSP	63%	82%	100%	100%
LADR			Not disclosed	
TRTX	47%	60%	95%	96%

Source: Company reports, BofA Global Research

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We forecast run-rate EPS below the current \$0.24/qtr div

TRTX under-earned its \$0.24/share dividend in each quarter of 2023. Management commentary on the 4Q call pointed to optimism that the cleaned up portfolio can generate run-rate earnings in excess of the dividend. However, unless the portfolio scales quickly or net interest income expands materially, we struggle to see how TRTX can earn the dividend in 2024. We model a 25% reduction (to \$0.18/qtr) in the quarterly dividend to occur in 2Q24.

Exhibit 7: We forecast a dividend reduction in 2024

TRTX summary income statement

(\$000s)	2022A	2023A	1Q24E	2Q24E	3Q24E	4Q24E	2024E	2025E	2026E
Income statement									
Total interest income	302,860	362,550	74,773	73,807	74,242	79,734	302,556	368,335	406,025
Interest expense	160,755	273,862	60,862	60,001	60,281	63,415	244,558	275,309	295,459
Net interest income	142,105	88,688	13,912	13,805	13,962	16,320	57,998	93,026	110,566
Other income	2,849	27,704	10,230	10,230	10,230	10,230	40,920	25,000	10,000
Total revenue	144,954	116,392	24,142	24,035	24,192	26,550	98,918	118,026	
Total expenses	204,490	232,763	12,997	12,957	12,929	12,905	51,788	48,968	47,830
Income before income taxes	(59,536)	(116,371)	11,145	11,078	11,263	13,645	47,130	69,058	72,736
Income tax provision (benefit)	530	259	65	65	65	65	260	260	260
Net Income	(60,066)	(116,630)	11,080	11,013	11,198	13,580	46,870	68,798	72,476
Preferred Dividends	(13,578)	(14,275)	(3,749)	(3,749)	(3,749)	(3,749)	(14,996)	(14,996)	(14,996)
Other									
Net income available to common	(73,644)	(130,905)	7,331	7,264	7,449	9,831	31,874	53,802	57,480
Core net income	86,699	(231,924)	10,290	10,209	10,384	12,757	43,640	65,541	69,671
Pre-IPO Shares (Includes 9.5M stock dividend)									
EOP shares	77,410	77,869	77,869	77,869	77,869	77,869	77,869	77,869	77,869
Diluted EPS	(\$0.95)	(\$1.69)	\$0.09	\$0.09	\$0.10	\$0.13	\$0.41	\$0.69	\$0.74
Core EPS	\$1.12	(\$2.99)	\$0.13	\$0.13	\$0.13	\$0.16	\$0.56	\$0.84	\$0.89
Dividends (PS)	\$0.96	\$0.96	\$0.24	\$0.18	\$0.18	\$0.18	\$0.78	\$0.72	\$0.72
Core dividend payout	85.6%	-32.1%					139.2%	85.5%	80.5%

Source: Company filings, BofA Global Research

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Price objective basis & risk

TPG RE Finance Trust, Inc. (TRTX)

Our \$6.50 PO is based on an approximate 0.55x multiple to BV, which, in our opinion, is justified given credit concerns and questions around run-rate earnings potential. Peers are currently trading at about 0.7x book value, and we believe TRTX should trade at a discount to peers given credit concerns.

Upside risks to achieving our price objective are: 1) material strengthening in the CRE market, 2) a significant pickup in investment activity, 3) an improving macroeconomic environment, and 4) stronger-than-expected investment performance.

Analyst Certification

I, Eric Dray, CFA, hereby certify that the views expressed in this research report accurately reflect my personal views about the subject securities and issuers. I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or view expressed in this research report.

North America - Banks Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
BUY				
	Ares Capital Corporation	ARCC	ARCC US	Derek Hewett
	Bank of Montreal	BMO	BMO US	Ebrahim H. Poonawala
	Bank of Montreal	YBMO	BMO CN	Ebrahim H. Poonawala
	Barings BDC Inc	BBDC	BBDC US	Derek Hewett
	Blue Owl Capital Corporation	OBDC	OBDC US	Derek Hewett
	Carlyle Secured Lending Inc	CGBD	CGBD US	Derek Hewett
	Citigroup Inc.	C	C US	Ebrahim H. Poonawala
	Compass Diversified Holdings	CODI	CODI US	Derek Hewett
	Crescent Capital BDC	CCAP	CCAP US	Derek Hewett
	Cullen/Frost Bankers Inc	CFR	CFR US	Ebrahim H. Poonawala
	East West Bancorp, Incorporated	EWBC	EWBC US	Ebrahim H. Poonawala
	Fifth Third Bank	FITB	FITB US	Ebrahim H. Poonawala
	First Bancorp Puerto Rico	FBP	FBP US	Brandon Berman
	First Horizon Corporation	FHN	FHN US	Ebrahim H. Poonawala
	FNB Corporation of Pennsylvania	FNB	FNB US	Brandon Berman
	Goldman Sachs	GS	GS US	Ebrahim H. Poonawala
	JPMorgan Chase & Co.	JPM	JPM US	Ebrahim H. Poonawala
	KeyCorp	KEY	KEY US	Ebrahim H. Poonawala
	M&T Bank	MTB	MTB US	Ebrahim H. Poonawala
	Morgan Stanley	MS	MS US	Ebrahim H. Poonawala
	New Mountain Finance Corporation	NMFC	NMFC US	Derek Hewett
	Northern Trust Corporation	NTRS	NTRS US	Ebrahim H. Poonawala
	Nuveen Churchill Direct Lending	NCDL	NCDL US	Derek Hewett
	Royal Bank of Canada	RY	RY US	Ebrahim H. Poonawala
	Royal Bank of Canada	YRY	RY CN	Ebrahim H. Poonawala
	Safehold, Inc	SAFE	SAFE US	Derek Hewett
	Sixth Street Specialty Lending, Inc	TSLX	TSLX US	Derek Hewett
	Synovus Financial Corp.	SNV	SNV US	Ebrahim H. Poonawala
	The Bank of New York Mellon Corporation	BK	BK US	Ebrahim H. Poonawala
	Truist Financial	TFC	TFC US	Ebrahim H. Poonawala
	U.S. Bancorp	USB	USB US	Ebrahim H. Poonawala
	Webster Financial Corp.	WBS	WBS US	Brandon Berman
	Wells Fargo & Company	WFC	WFC US	Ebrahim H. Poonawala
	Western Alliance Bancorp	WAL	WAL US	Ebrahim H. Poonawala
NEUTRAL				
	AGNC Investment Corp	AGNC	AGNC US	Derek Hewett
	Ally Financial	ALLY	ALLY US	Brandon Berman
	Annaly Capital Management	NLY	NLY US	Derek Hewett
	Associated Banc-Corp	ASB	ASB US	Brandon Berman
	Bain Capital Specialty Finance, Inc.	BCSF	BCSF US	Derek Hewett

North America - Banks Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
	Bank of Nova Scotia	YBNS	BNS CN	Ebrahim H. Poonawala
	Bank of Nova Scotia	BNS	BNS US	Ebrahim H. Poonawala
	Blackstone Mortgage Trust Inc	BXMT	BXMT US	Eric Dray, CFA
	Blackstone Secured Lending Fund	BXSL	BXSL US	Derek Hewett
	Canadian Imperial Bank of Commerce	CM	CM US	Ebrahim H. Poonawala
	Canadian Imperial Bank of Commerce	YCM	CM CN	Ebrahim H. Poonawala
	Citizens Financial Group	CFG	CFG US	Ebrahim H. Poonawala
	Comerica Incorporated	CMA	CMA US	Brandon Berman
	Commerce Bancshares Inc.	CBSH	CBSH US	Brandon Berman
	Goldman Sachs BDC, Inc.	GSBD	GSBD US	Derek Hewett
	Golub Capital BDC, Inc.	GBDC	GBDC US	Derek Hewett
	Huntington Bancshares Inc.	HBAN	HBAN US	Ebrahim H. Poonawala
	Ladder Capital Corp	LADR	LADR US	Eric Dray, CFA
	New York Community Bancorp	NYCB	NYCB US	Ebrahim H. Poonawala
	Palmer Square Capital BDC	PSBD	PSBD US	Derek Hewett
	PennyMac Mortgage Investment Trust	PMT	PMT US	Derek Hewett
	Popular Inc	BPOP	BPOP US	Brandon Berman
	Regions Financial	RF	RF US	Ebrahim H. Poonawala
	Starwood Property Trust	STWD	STWD US	Eric Dray, CFA
	The PNC Financial Services Group, Inc.	PNC	PNC US	Ebrahim H. Poonawala
	Toronto-Dominion Bank	TD	TD US	Ebrahim H. Poonawala
	Toronto-Dominion Bank	YTD	TD CN	Ebrahim H. Poonawala

UNDERPERFORM

	Apollo Commercial Real Estate Finance	ARI	ARI US	Eric Dray, CFA
	Ares Commercial Real Estate Corporation	ACRE	ACRE US	Eric Dray, CFA
	Bank of Hawaii Corp.	BOH	BOH US	Brandon Berman
	BrightSpire Capital Inc.	BRSP	BRSP US	Eric Dray, CFA
	First Hawaiian Inc.	FHB	FHB US	Brandon Berman
	Guild Holdings Company	GHLD	GHLD US	Derek Hewett
	Invesco Mortgage Capital, Inc.	IVR	IVR US	Derek Hewett
	loanDepot Inc	LDI	LDI US	Derek Hewett
	MidCap Financial Investment Co	MFIC	MFIC US	Derek Hewett
	Prosperity Bancshares Inc	PB	PB US	Ebrahim H. Poonawala
	State Street Corporation	STT	STT US	Ebrahim H. Poonawala
	Texas Capital Bancshares Inc.	TCBI	TCBI US	Brandon Berman
	TPG RE Finance Trust, Inc.	TRTX	TRTX US	Eric Dray, CFA
	Zions Bancorp	ZION	ZION US	Brandon Berman

IQmethodSM Measures Definitions

Business Performance

Return On Capital Employed

Return On Equity

Operating Margin

Earnings Growth

Free Cash Flow

Numerator

NOPAT = (EBIT + Interest Income) × (1 – Tax Rate) + Goodwill Amortization

Net Income

Operating Profit

Expected 5 Year CAGR From Latest Actual

Cash Flow From Operations – Total Capex

Denominator

Total Assets – Current Liabilities + ST Debt + Accumulated Goodwill

Amortization

Shareholders' Equity

Sales

N/A

N/A

Quality of Earnings

Cash Realization Ratio

Asset Replacement Ratio

Tax Rate

Net Debt-To-Equity Ratio

Interest Cover

Numerator

Cash Flow From Operations

Capex

Tax Charge

Net Debt = Total Debt – Cash & Equivalents

EBIT

Denominator

Net Income

Depreciation

Pre-Tax Income

Total Equity

Interest Expense

Valuation Toolkit

Price / Earnings Ratio

Price / Book Value

Dividend Yield

Free Cash Flow Yield

Enterprise Value / Sales

EV / EBITDA

Numerator

Current Share Price

Current Share Price

Annualised Declared Cash Dividend

Cash Flow From Operations – Total Capex

EV = Current Share Price × Current Shares + Minority Equity + Net Debt +

Other LT Liabilities

Enterprise Value

Denominator

Diluted Earnings Per Share (Basis As Specified)

Shareholders' Equity / Current Basic Shares

Current Share Price

Market Cap = Current Share Price × Current Basic Shares

Sales

Basic EBIT + Depreciation + Amortization



Valuation Toolkit

Numerator

Denominator

*IQmethod*SM is the set of BofA Global Research standard measures that serve to maintain global consistency under three broad headings: Business Performance, Quality of Earnings, and validations. The key features of iQmethod are: A consistently structured, detailed, and transparent methodology. Guidelines to maximize the effectiveness of the comparative valuation process, and to identify some common pitfalls.

IQdatabase[®] is our real-time global research database that is sourced directly from our equity analysts' earnings models and includes forecasted as well as historical data for income statements, balance sheets, and cash flow statements for companies covered by BofA Global Research.

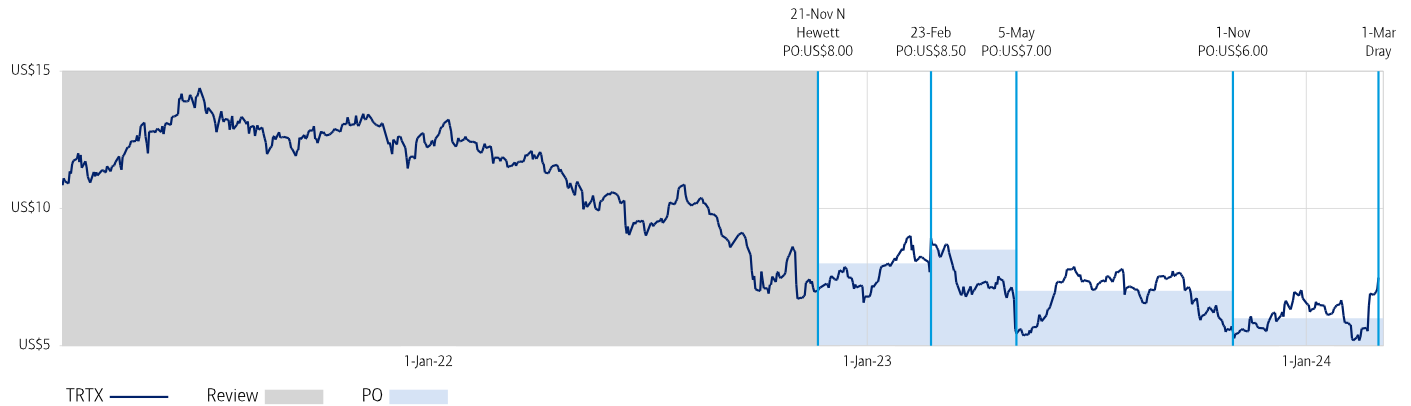
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Disclosures

Important Disclosures

TPG RE. (TRTX) Price Chart



B: Buy, N: Neutral, U: Underperform, PO: Price Objective, NA: No longer valid, NR: No Rating

The Investment Opinion System is contained at the end of the report under the heading "Fundamental Equity Opinion Key". Dark grey shading indicates the security is restricted with the opinion suspended. Medium grey shading indicates the security is under review with the opinion withdrawn. Light grey shading indicates the security is not covered. Chart is current as of a date no more than one trading day prior to the date of the report.

Equity Investment Rating Distribution: Financial Services Group (as of 31 Dec 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships ^{R1}	Count	Percent
Buy	156	53.79%	Buy	94	60.26%
Hold	72	24.83%	Hold	48	66.67%
Sell	62	21.38%	Sell	35	56.45%

Equity Investment Rating Distribution: Global Group (as of 31 Dec 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships ^{R1}	Count	Percent
Buy	1895	53.62%	Buy	1083	57.15%
Hold	832	23.54%	Hold	454	54.57%
Sell	807	22.84%	Sell	383	47.46%

^{R1} Issuers that were investment banking clients of BofA Securities or one of its affiliates within the past 12 months. For purposes of this Investment Rating Distribution, the coverage universe includes only stocks. A stock rated Neutral is included as a Hold, and a stock rated Underperform is included as a Sell.

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Investment rating	Total return expectation (within 12-month period of date of initial rating)	Ratings dispersion guidelines for coverage cluster ^{R2}
Buy	≥ 10%	≤ 70%
Neutral	≥ 0%	≤ 30%
Underperform	N/A	≥ 20%

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