How did Goldman Sachs determine the intrinsic value of Twitter?

CASE STUDY

VALUATION MASTER CLASS

by A. Stotz INVESTMENT RESEARCH

Valuation Master Class

What's interesting about Twitter is that Goldman Sachs evaluated Elon Musk's offer as fair

CASE STUDY

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This information is for learning purposes only.

This is not investment advice or a recommendation.

Ask Ajarn Andrew

Twitter's Schedule 14A from SEC.GOV

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

SCHEDULE 14A

PROXY STATEMENT PURSUANT TO SECTION 14(a) OF THE SECURITIES EXCHANGE ACT OF 1934

Filed by the Registrant ☒

Filed by a Party other than the Registrant ☐

Check the appropriate box:

- ☒ Preliminary Proxy Statement
- ☐ Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))
- ☐ Definitive Proxy Statement
- ☐ Definitive Additional Materials
- ☐ Soliciting Material under §240.14a-12

TWITTER, INC.
(Name of Registrant as Specified In Its Charter)

Payment of Filing Fee (Check all boxes that apply):

- ☐ No fee required.
- ☐ Fee paid previously with preliminary materials.
- ☒ Fee computed on table in exhibit required by Item 25(b) per Exchange Act Rules 14a-6(i)(1) and 0-11.

Goldman Sachs opinion on Twitter

Opinion of Goldman Sachs & Co. LLC

At a meeting of the Twitter Board held on April 25, 2022, Goldman Sachs rendered its oral opinion, subsequently confirmed by delivery of its written opinion, dated April 25, 2022, to the Twitter Board that, as of the date of the written opinion and based upon and subject to limitations, qualifications and assumptions set forth therein, the $54.20 in cash per share of our common stock to be paid to the holders (other than Parent, Mr. Musk and their respective affiliates) of such shares pursuant to the merger agreement was fair from a financial point of view to such holders.

The full text of the written opinion of Goldman Sachs, dated April 25, 2022, which sets forth assumptions made, procedures followed, matters considered and limitations on the review undertaken in connection with the opinion, is attached as Annex C to this proxy statement. Goldman Sachs provided advisory services and its opinion for the information and assistance of the Twitter Board in connection with its consideration of the merger. The Goldman Sachs opinion is not a recommendation as to how any holder of our common stock should vote with respect to the merger or any other matter.

Sources: A. Stotz Investment Research, company data

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Elon Musk's offer price is 67% above 52 weeks low, but 24% below 52-weeks high

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Common Stock Reference Price	Implied Premium Represented by $54.20 in Cash per Share of Twitter Common Stock
Undisturbed Share Price of $39.31	38%
Current Share Price of $48.93	11%
52-Week High of $71.69	(24)%
52-Week Low $32.42	67%
30-day Undisturbed VWAP $35.89	51%
1-year Undisturbed Average of $53.91	1%

Sources: A. Stotz Investment Research, company data

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Goldman Sachs used different methods to calculate the fair value

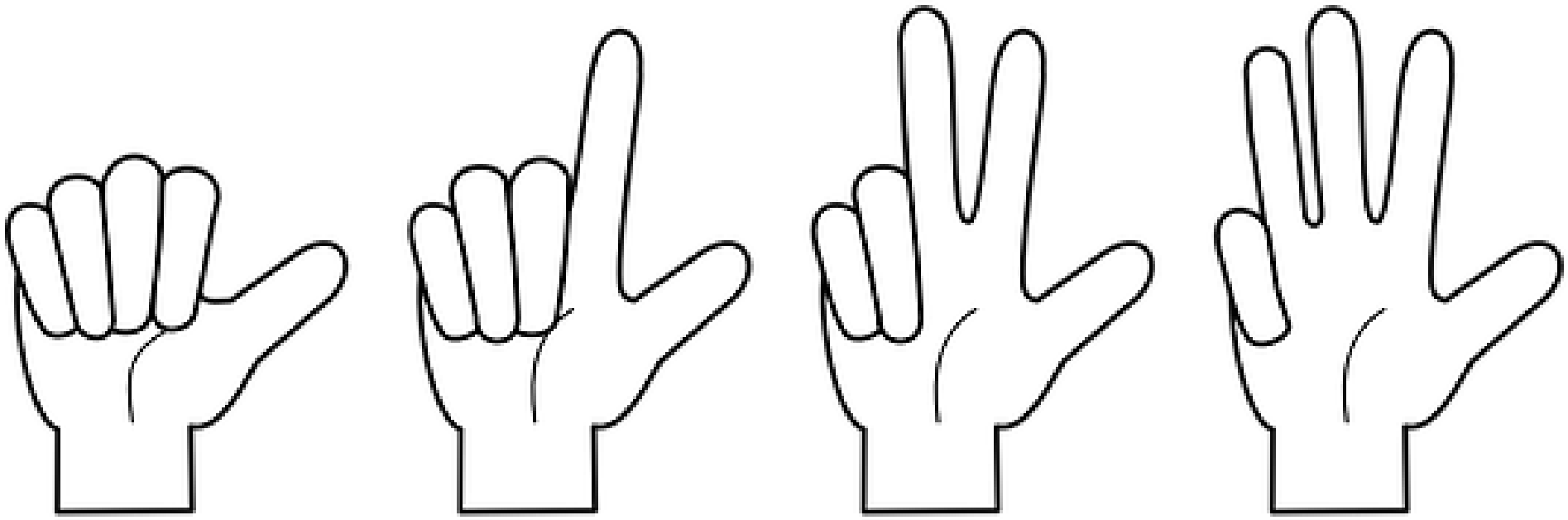
VALUATION MASTER CLASS

Illustrative future value

Discounted cash flow

Precedent transactions

Selected comparable



Sources: A. Stotz Investment Research, company data

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Method 1: Illustrative future value of share

VALUATION MASTER CLASS

Step 1: Forecast future implied enterprise value through EBITDA multiple

Goldman Sachs performed an illustrative analysis of the implied present value of an illustrative future value per share of Twitter common stock, which is designed to provide an indication of the present value of a theoretical future value of Twitter's equity as a function of Twitter's financial multiples. For this analysis, Goldman Sachs used the Forecasts for each of the fiscal years 2022 to 2025. Goldman Sachs first calculated the implied future enterprise value of Twitter as of December 31, 2022, 2023 and 2024, by applying a range of enterprise value to one-year forward EBITDA estimates (which are referred to for purposes of this section of the proxy statement as "**forward EV/EBITDA**") multiples of 15.0x to 17.5x to the EBITDA estimates contained in the Forecasts for each of Twitter's fiscal years 2023, 2024 and 2025. These illustrative multiples were derived by Goldman Sachs utilizing its professional judgment and experience, taking into account, among other things, current and historical average forward EV/EBITDA multiples for Twitter and certain selected internet companies described in the section below captioned "—*Selected Public Company Comparables*."

Sources: A. Stotz Investment Research, company data

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Method 1: Illustrative future value of share

VALUATION MASTER CLASS

Step 2: Add cash and equity investments to enterprise value + subtract debt to derive equity value

Goldman Sachs then added the amount of Twitter's estimated total cash and cash equivalents and equity investments and subtracted the amount of Twitter's estimated total debt, as of December 31, 2022, 2023 and 2024, each as provided by management of Twitter and approved for Goldman Sachs' use by the management of Twitter, to the range of implied enterprise values to derive a range of illustrative equity values as of December 31, 2022, 2023 and 2024. Goldman Sachs then divided these implied equity values by the projected number of fully diluted outstanding shares of Twitter, as provided by management of Twitter and approved for Goldman Sachs' use by the management of Twitter, to derive a range of implied future equity values per share of Twitter common stock. Goldman Sachs then

Sources: A. Stotz Investment Research, company data

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Method 1: Illustrative future value of share

VALUATION MASTER CLASS

Step 3: Use CAPM to derive equity cost and discount estimated equity value to today's value

management of Twitter, to derive a range of implied future equity values per share of Twitter common stock. Goldman Sachs then discounted these implied equity values per share to December 31, 2021, using an illustrative discount rate of 11.4%, reflecting an estimate of Twitter's cost of equity. Goldman Sachs derived such discount rate by application of the Capital Asset Pricing Model (which we refer to for purposes of this section of the proxy statement as "**CAPM**"), which requires certain company-specific inputs, including a beta for Twitter, as well as certain financial metrics for the United States financial markets generally. This analysis resulted in a range of implied present values per share of Twitter common stock, rounded to the nearest $0.10, of $45.50 to $60.10.

Sources: A. Stotz Investment Research, company data

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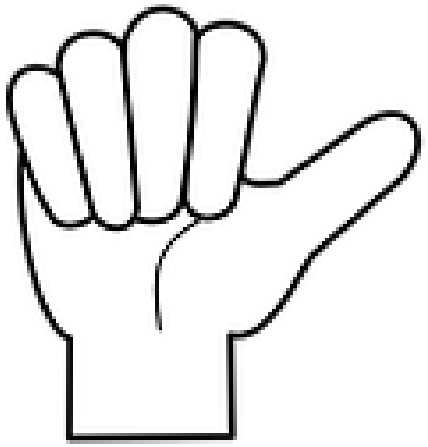
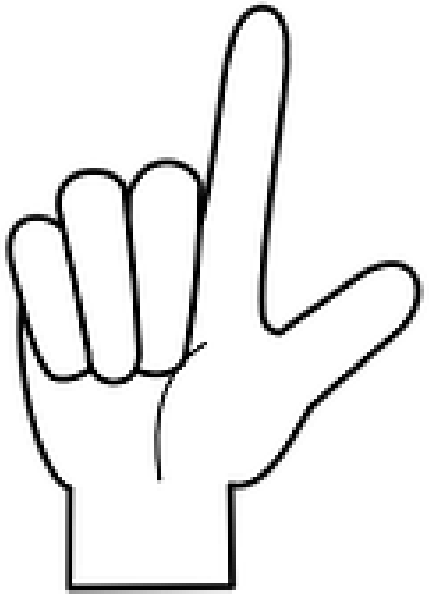
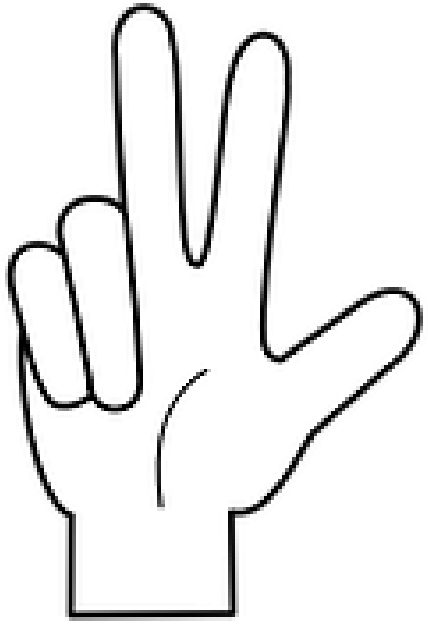
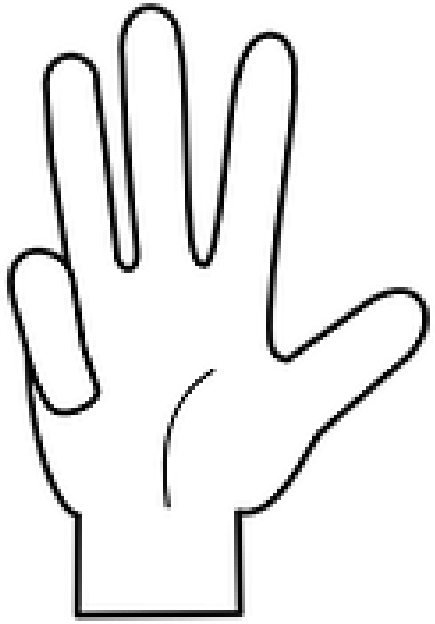
Goldman Sachs used different methods to calculate the fair value

Illustrative future value	Discounted cash flow	Precedent transactions	Selected comparable
			
US$46 - 60			

Sources: A. Stotz Investment Research, company data

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Method 2: Discounted cash flow analysis

VALUATION MASTER CLASS

Step 1: Forecast free cash flows and determine exit multiple for terminal value

Using the Forecasts, Goldman Sachs performed an illustrative discounted cash flow analysis on Twitter to derive a range of illustrative present values per share of Twitter common stock. Using the mid-year convention for discounting cash flows and discount rates ranging from 10.0% to 12.0%, reflecting estimates of Twitter's weighted average cost of capital, Goldman Sachs discounted to present value as of December 31, 2021 (i) estimates of unlevered free cash flow for Twitter for the fiscal years 2022 through 2027 as reflected in the Forecasts and referred to as Unlevered Free Cash Flow (less stock-based compensation expenses) in the section of this proxy statement captioned "*—Unaudited Prospective Financial Information*" and (ii) a range of illustrative terminal values for Twitter, which were calculated by applying illustrative exit terminal year EV/EBITDA multiples ranging from 10.0x to 15.0x to a terminal year estimate of EBITDA, as reflected in the Forecasts (which analysis implied perpetuity growth rates ranging from 5.6% to 9.0%). Goldman Sachs derived such

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Method 2: Discounted cash flow analysis

VALUATION MASTER CLASS

Step 2: Add cash and equity investments to enterprise value + subtract debt to derive equity value

Goldman Sachs derived a range of illustrative enterprise values for Twitter by adding the ranges of present values it derived as described above. Goldman Sachs then added to the range of illustrative enterprise values it derived for Twitter the amount of Twitter's estimated total cash and cash equivalents and equity investments and subtracted the amount of Twitter's estimated total debt as of December 31, 2021, adjusted for any subsequent publicly announced changes to those figures, as provided by the management of Twitter and approved for Goldman Sachs' use by the management of Twitter, to derive a range of illustrative equity values for Twitter. Goldman Sachs then divided the range of illustrative equity values it derived by the number of fully diluted outstanding shares of Twitter as of March 31, 2022, as provided by the management of Twitter and approved for Goldman Sachs' use by the management of Twitter, to derive a range of illustrative present values per share of Twitter common stock, rounded to the nearest $0.10, of $39.10 to $60.90.

Sources: A. Stotz Investment Research, company data

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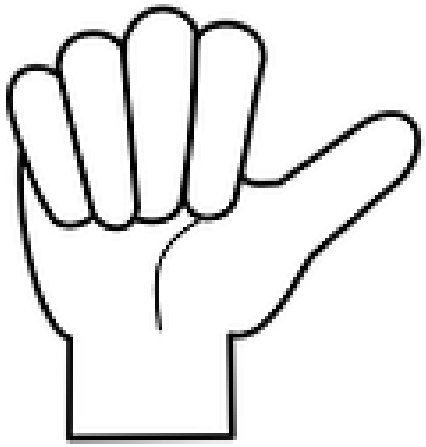
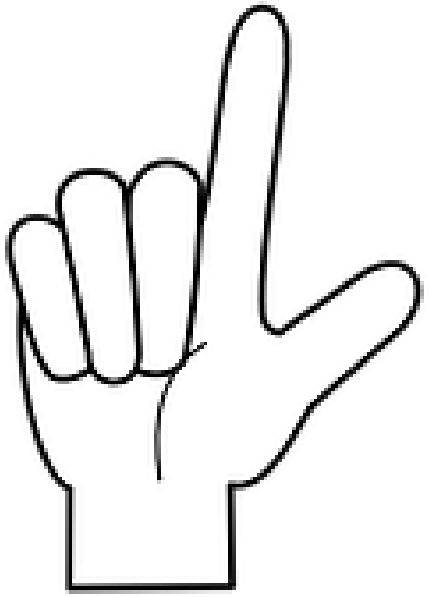
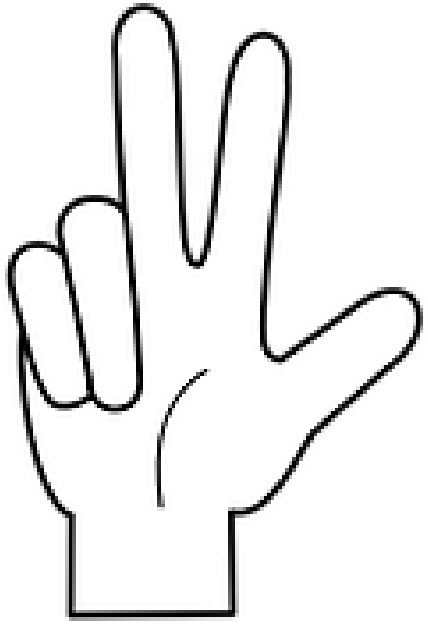
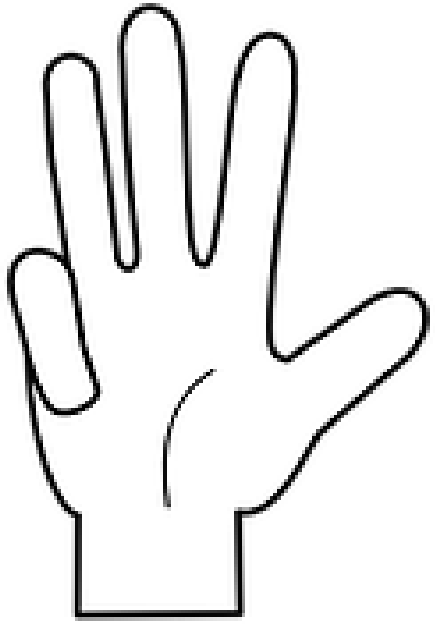
Goldman Sachs used different methods to calculate the fair value

VALUATION MASTER CLASS

Illustrative future value	Discounted cash flow	Precedent transactions	Selected comparable
			
US$46 - 60	US$39-61		

Sources: A. Stotz Investment Research, company data

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Method 3: Selected Precedent analysis

VALUATION MASTER CLASS

Step 1: Identify similar past transactions

Announcement Date	Acquiror	Target	EV/LTM EBITDA
Feb 2021	Magnite, Inc.	SpotX, Inc.	33.4x
Jun 2020	Just Eat Takeaway.com N.V.	Grubhub Inc.	47.4x
Dec 2019	Hellman & Friedman LLC	AutoScout24	26.1x
May 2018	Silver Lake	ZPG Plc	21.5x
Jun 2016	Microsoft Corporation	LinkedIn Corporation	31.2x
Nov 2015	Expedia, Inc.	HomeAway, Inc.	36.4x
Aug 2015	Liberty Interactive Corporation	zulily, inc.	50.6x
Jul 2014	Zillow, Inc.	Trulia, Inc.	NM(1)
Jun 2014	The Priceline Group Inc.	OpenTable, Inc.	29.9x
Nov 2012	priceline.com Incorporated	KAYAK Software Corporation	27.6x
May 2011	Microsoft Corporation	Skype Global S. à r.l.	32.2x

Sources: A. Stotz Investment Research, company data

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Method 3: Selected Precedent analysis

VALUATION MASTER CLASS

Step 2: Apply EV/EBITDA multiple to Twitter

The foregoing analysis indicated a 25th percentile EV/LTM EBITDA multiple of 28.2x and a 75th percentile EV/LTM EBITDA multiple of 35.7x. Using this analysis and its professional judgment and experience, Goldman Sachs applied a range of illustrative EV/EBITDA multiples of 28.2x to 35.7x to Twitter's last twelve months Adjusted EBITDA (adjusted to exclude a one-time litigation-related net charge of $766 million) as of December 31, 2021, as provided by the management of Twitter and approved for Goldman Sachs' use by the management of Twitter, to derive a range of implied enterprise values for Twitter. Goldman Sachs then added to the range of implied enterprise values the amount of Twitter's estimated total cash and cash equivalents and equity investments and subtracted the amount of Twitter's estimated total debt, as of December 31, 2021, adjusted for any subsequent publicly announced changes to those figures, as provided by the management of Twitter and approved for Goldman Sachs' use by the management of Twitter, to derive a range of illustrative equity values for Twitter. Goldman Sachs divided the range of illustrative equity values by the number of fully diluted outstanding shares of Twitter as of March 31, 2022, as provided by the management of Twitter and approved for Goldman Sachs' use by the management of Twitter, to derive a range of implied values per share of Twitter common stock, rounded to the nearest $0.10, of $50.30 to $62.90.

Sources: A. Stotz Investment Research, company data

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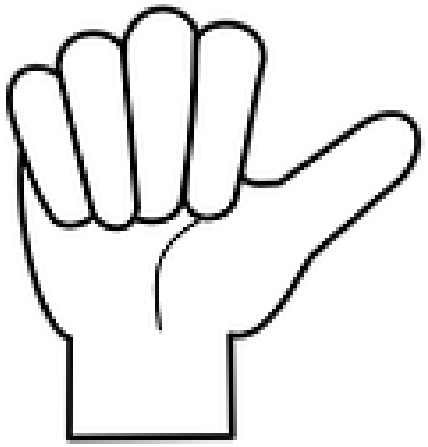
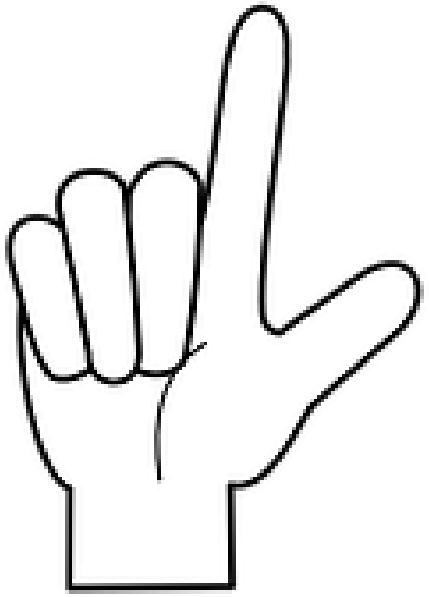
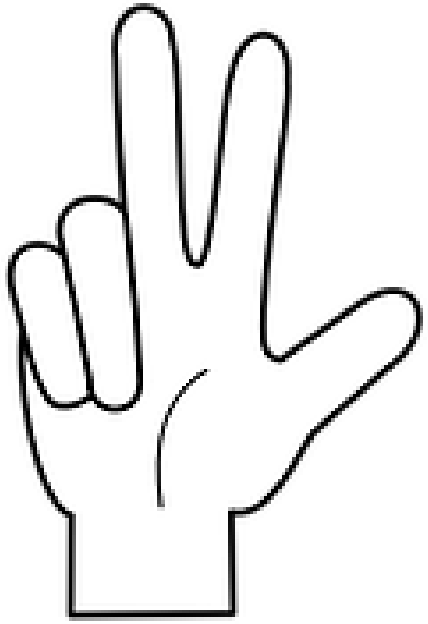
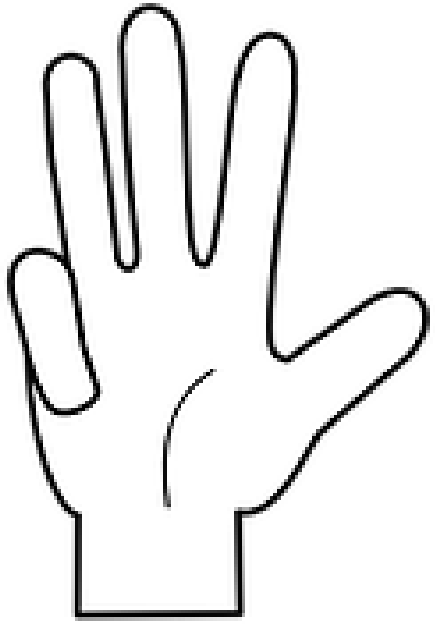
Goldman Sachs used different methods to calculate the fair value

VALUATION MASTER CLASS

Illustrative future value	Discounted cash flow	Precedent transactions	Selected comparable
			
US$46 - 60	US$39-61	US$50-63	

Sources: A. Stotz Investment Research, company data

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Method 4: Selected company comparable

VALUATION MASTER CLASS

Step 1: Identify the closest peers

	2022E EV/EBITDA	2023E EV/EBITDA
Alphabet Inc.	12.0x	10.4x
Meta Platforms, Inc.	7.8x	6.7x
Pinterest, Inc.	16.2x	11.2x
Snap Inc.	62.8x	30.2x
Twitter (based on the Forecasts)	19.6x	11.7x
Twitter (based on IBES Estimates)	21.8x	16.9x

Sources: A. Stotz Investment Research, company data

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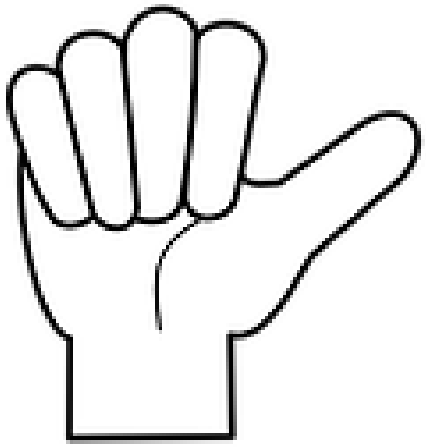
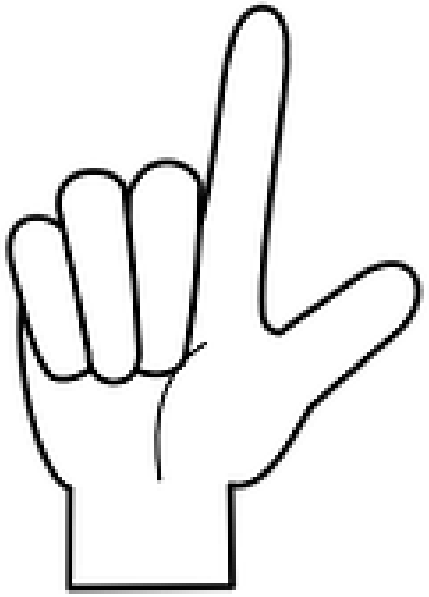
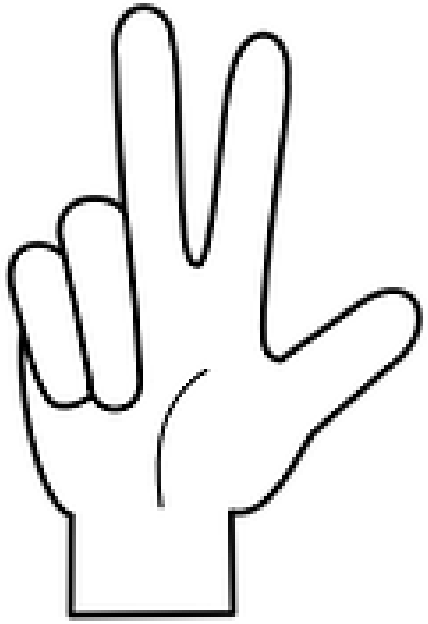
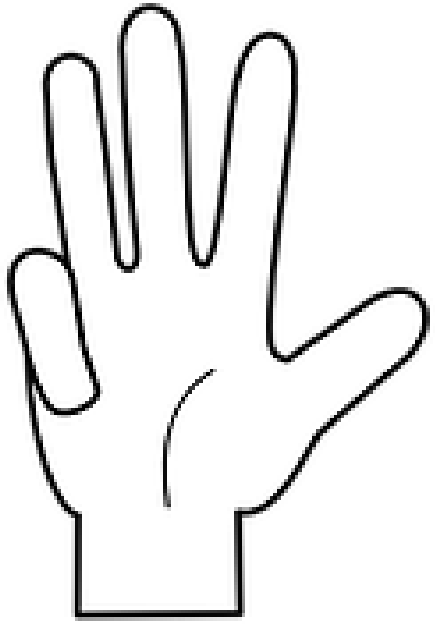
Goldman Sachs used different methods to calculate the fair value

VALUATION MASTER CLASS

Illustrative future value	Discounted cash flow	Precedent transactions	Selected comparable
			
US$46 - 60	US$39-61	US$50-63	Rather expensive

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