



Subject to Completion. Dated August 6, 2021.

## GS Finance Corp.

\$

Index-Linked Notes due

guaranteed by

## The Goldman Sachs Group, Inc.

**The notes do not bear interest.** The amount that you will be paid on your notes on the stated maturity date (expected to be August 27, 2026) is based on the lesser performing of the EURO STOXX 50<sup>®</sup> Index and the STOXX<sup>®</sup> Europe 600 Index as measured from the trade date (expected to be August 20, 2021) to and including the determination date (expected to be August 20, 2026).

If the final level of each index on the determination date is *greater than* or *equal to* 80% of its initial level (set on the trade date), the return on your notes will be positive.

**If the final level of any index is less than 80% of its initial level, the return on your notes will be negative.**

The amount that you will be paid on your notes at maturity is based on the performance of the index with the lowest index return. The index return for each index is the percentage increase or decrease in the final level of such index from its initial level. On the stated maturity date, for each \$1,000 face amount of your notes, you will receive an amount in cash equal to:

- if the index return of each index is *greater than* or *equal to* -20% (the final level of each index is *greater than* or *equal to* 80% of its initial level), the greater of (i) the threshold settlement amount of \$1,378 and (ii) the *sum* of (a) \$1,000 *plus* (b) the *product* of (1) \$1,000 *times* (2) the lesser performing index return; or
- if the index return of any index is *less than* -20% (the final level of any index is *less than* 80% of its initial level), the *sum* of (i) \$1,000 *plus* (ii) the *product* of (a) the lesser performing index return *times* (b) \$1,000. **You will receive less than 80% of the face amount of your notes.**

**You should read the disclosure herein to better understand the terms and risks of your investment, including the credit risk of GS Finance Corp. and The Goldman Sachs Group, Inc. See page PS-10.**

*The estimated value of your notes at the time the terms of your notes are set on the trade date is expected to be between \$885 and \$925 per \$1,000 face amount. For a discussion of the estimated value and the price at which Goldman Sachs & Co. LLC would initially buy or sell your notes, if it makes a market in the notes, see the following page.*

<b>Original issue date:</b>	expected to be August 27, 2021	<b>Original issue price:</b>	100% of the face amount
<b>Underwriting discount:</b>	% of the face amount*	<b>Net proceeds to the issuer:</b>	% of the face amount

\* In addition, the underwriting discount paid by us also includes a structuring fee of up to % and a marketing fee of %, in each case, of the face amount. See "Supplemental Plan of Distribution; Conflicts of Interest" on page PS-28.

**Neither the Securities and Exchange Commission nor any other regulatory body has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus. Any representation to the contrary is a criminal offense. The notes are not bank deposits and are not insured by the Federal Deposit Insurance Corporation or any other governmental agency, nor are they obligations of, or guaranteed by, a bank.**

## Goldman Sachs & Co. LLC

Pricing Supplement No. dated , 2021.

The information in this preliminary pricing supplement is not complete and may be changed. This preliminary pricing supplement is not an offer to sell nor does it seek an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

The issue price, underwriting discount and net proceeds listed above relate to the notes we sell initially. We may decide to sell additional notes after the date of this pricing supplement, at issue prices and with underwriting discounts and net proceeds that differ from the amounts set forth above. The return (whether positive or negative) on your investment in notes will depend in part on the issue price you pay for such notes.

GS Finance Corp. may use this prospectus in the initial sale of the notes. In addition, Goldman Sachs & Co. LLC or any other affiliate of GS Finance Corp. may use this prospectus in a market-making transaction in a note after its initial sale. **Unless GS Finance Corp. or its agent informs the purchaser otherwise in the confirmation of sale, this prospectus is being used in a market-making transaction.**

### Estimated Value of Your Notes

*The estimated value of your notes at the time the terms of your notes are set on the trade date (as determined by reference to pricing models used by Goldman Sachs & Co. LLC (GS&Co.) and taking into account our credit spreads) is expected to be between \$885 and \$925 per \$1,000 face amount, which is less than the original issue price. The value of your notes at any time will reflect many factors and cannot be predicted; however, the price (not including GS&Co.'s customary bid and ask spreads) at which GS&Co. would initially buy or sell notes (if it makes a market, which it is not obligated to do) and the value that GS&Co. will initially use for account statements and otherwise is equal to approximately the estimated value of your notes at the time of pricing, plus an additional amount (initially equal to \$ per \$1,000 face amount).*

*Prior to \_\_\_\_\_, the price (not including GS&Co.'s customary bid and ask spreads) at which GS&Co. would buy or sell your notes (if it makes a market, which it is not obligated to do) will equal approximately the sum of (a) the then-current estimated value of your notes (as determined by reference to GS&Co.'s pricing models) plus (b) any remaining additional amount (the additional amount will decline to zero on a straight-line basis from the time of pricing through \_\_\_\_\_). On and after \_\_\_\_\_, the price (not including GS&Co.'s customary bid and ask spreads) at which GS&Co. would buy or sell your notes (if it makes a market) will equal approximately the then-current estimated value of your notes determined by reference to such pricing models.*

### About Your Prospectus

The notes are part of the Medium-Term Notes, Series F program of GS Finance Corp. and are fully and unconditionally guaranteed by The Goldman Sachs Group, Inc. This prospectus includes this pricing supplement and the accompanying documents listed below. This pricing supplement constitutes a supplement to the documents listed below, does not set forth all of the terms of your notes and therefore should be read in conjunction with such documents:

- [General terms supplement no. 2,913 dated June 17, 2021](#)
- [Underlier supplement no. 22 dated July 26, 2021](#)
- [Prospectus supplement dated March 22, 2021](#)
- [Prospectus dated March 22, 2021](#)

The information in this pricing supplement supersedes any conflicting information in the documents listed above. In addition, some of the terms or features described in the listed documents may not apply to your notes.

We refer to the notes we are offering by this pricing supplement as the “offered notes” or the “notes”. Each of the offered notes has the terms described below. Please note that in this pricing supplement, references to “GS Finance Corp.”, “we”, “our” and “us” mean only GS Finance Corp. and do not include its subsidiaries or affiliates, references to “The Goldman Sachs Group, Inc.”, our parent company, mean only The Goldman Sachs Group, Inc. and do not include its subsidiaries or affiliates and references to “Goldman Sachs” mean The Goldman Sachs Group, Inc. together with its consolidated subsidiaries and affiliates, including us. The notes will be issued under the senior debt indenture, dated as of October 10, 2008, as supplemented by the First Supplemental Indenture, dated as of February 20, 2015, each among us, as issuer, The Goldman Sachs Group, Inc., as guarantor, and The Bank of New York Mellon, as trustee. This indenture, as so supplemented and as further supplemented thereafter, is referred to as the “GSFC 2008 indenture” in the accompanying prospectus supplement.

The notes will be issued in book-entry form and represented by master note no. 3, dated March 22, 2021.

## TERMS AND CONDITIONS

**CUSIP / ISIN:** 40057J6U5 / US40057J6U51

**Company (Issuer):** GS Finance Corp.

**Guarantor:** The Goldman Sachs Group, Inc.

**Underliers (each individually, an underlier):** the EURO STOXX 50<sup>®</sup> Index (current Bloomberg symbol: "SX5E Index"), or any successor underlier, and the STOXX<sup>®</sup> Europe 600 Index (current Bloomberg symbol: "SXXP Index"), or any successor underlier, as each may be modified, replaced or adjusted from time to time as provided herein

**Face amount:** \$ \_\_\_\_\_ in the aggregate on the original issue date; the aggregate face amount may be increased if the company, at its sole option, decides to sell an additional amount on a date subsequent to the trade date

**Authorized denominations:** \$1,000 or any integral multiple of \$1,000 in excess thereof

**Principal amount:** On the stated maturity date, the company will pay, for each \$1,000 of the outstanding face amount, an amount, if any, in cash equal to the cash settlement amount.

**Cash settlement amount:**

- if the final underlier level of each underlier is *greater than* or *equal to* its trigger buffer level, the greater of (i) the threshold settlement amount and (ii) the *sum* of (a) \$1,000 *plus* (b) the *product* of (1) \$1,000 *times* (2) the lesser performing underlier return; or
- if the final underlier level of any underlier is *less than* its trigger buffer level, the *sum* of (i) \$1,000 *plus* (ii) the product of (a) \$1,000 *times* (b) the lesser performing underlier return

**Initial underlier level (set on the trade date):** with respect to an underlier, the closing level of such underlier on the trade date

**Final underlier level:** with respect to an underlier, the closing level of such underlier on the determination date, subject to adjustment as provided in "—Consequences of a market disruption event or non-trading day" and "— Discontinuance or modification of an underlier" below

**Underlier return:** with respect to an underlier, the *quotient* of (i) its final underlier level *minus* its initial underlier level *divided by* (ii) its initial underlier level, expressed as a percentage

**Threshold settlement amount:** \$1,378

**Lesser performing underlier return:** the underlier return of the lesser performing underlier

**Lesser performing underlier:** the underlier with the lowest underlier return

**Trigger buffer level:** for each underlier, 80% of its initial underlier level

**Trade date:** expected to be August 20, 2021

**Original issue date (set on the trade date):** expected to be August 27, 2021

**Determination date (set on the trade date):** expected to be August 20, 2026, unless the calculation agent determines that, with respect to any underlier, a market disruption event occurs or is continuing on that day or that day is not otherwise a trading day. In the event the originally scheduled determination date is a non-trading day with respect to any underlier, the determination date will be the first day thereafter that is a trading day for all underliers (the "first qualified trading day") provided that no market disruption event occurs or is continuing with respect to an underlier on that day. If a market disruption event with respect to an underlier occurs or is continuing on the originally scheduled determination date or the first qualified trading day, the determination date will be the first following trading day on which the calculation agent determines that each underlier has had at least one trading day (from and including the originally scheduled determination date or the first qualified trading day, as applicable) on which no market disruption event has occurred or is continuing and the closing level of each underlier will be determined on or prior to the postponed determination date as set forth under "— Consequences of a market disruption event or a non-trading day" below. (In such case, the determination date may differ from the date on which the level of an underlier is determined for the purpose of the calculations to be performed on the determination date.) In no event, however, will the determination date be postponed to a date later than the originally scheduled stated maturity date or, if the originally scheduled stated maturity date is not a business day, later than the first

business day after the originally scheduled stated maturity date, either due to the occurrence of serial non-trading days or due to the occurrence of one or more market disruption events. On such last possible determination date, if a market disruption event occurs or is continuing with respect to an underlier that has not yet had such a trading day on which no market disruption event has occurred or is continuing or if such last possible day is not a trading day with respect to such underlier, that day will nevertheless be the determination date.

**Stated maturity date (set on the trade date):** expected to be August 27, 2026, unless that day is not a business day, in which case the stated maturity date will be postponed to the next following business day. The stated maturity date will also be postponed if the determination date is postponed as described under “— Determination date” above. In such a case, the stated maturity date will be postponed by the same number of business day(s) from but excluding the originally scheduled determination date to and including the actual determination date.

**Closing level:** on any trading day, with respect to an underlier, the official closing level of such underlier or any successor underlier published by the underlier sponsor on such trading day for such underlier

**Trading day:** with respect to an underlier, a day on which such underlier is calculated and published by the underlier sponsor

**Successor underlier:** with respect to an underlier, any substitute underlier approved by the calculation agent as a successor as provided under “— Discontinuance or modification of an underlier” below

**Underlier sponsor:** with respect to an underlier, at any time, the person or entity, including any successor sponsor, that determines and publishes such underlier as then in effect. The notes are not sponsored, endorsed, sold or promoted by any underlier sponsor or any affiliate thereof and no underlier sponsor or affiliate thereof makes any representation regarding the advisability of investing in the notes.

**Underlier stocks:** with respect to an underlier, at any time, the stocks that comprise such underlier as then in effect, after giving effect to any additions, deletions or substitutions

**Market disruption event:** With respect to any given trading day, any of the following will be a market disruption event with respect to an underlier:

- a suspension, absence or material limitation of trading in underlier stocks constituting 20% or more, by weight, of such underlier on their respective primary markets, in each case for more than two consecutive hours of trading or during the one-half hour before the close of trading in that market, as determined by the calculation agent in its sole discretion,
- a suspension, absence or material limitation of trading in option or futures contracts relating to such underlier or to underlier stocks constituting 20% or more, by weight, of such underlier in the respective primary markets for those contracts, in each case for more than two consecutive hours of trading or during the one-half hour before the close of trading in that market, as determined by the calculation agent in its sole discretion, or
- underlier stocks constituting 20% or more, by weight, of such underlier, or option or futures contracts, if available, relating to such underlier or to underlier stocks constituting 20% or more, by weight, of such underlier do not trade on what were the respective primary markets for those underlier stocks or contracts, as determined by the calculation agent in its sole discretion,

and, in the case of any of these events, the calculation agent determines in its sole discretion that such event could materially interfere with the ability of the company or any of its affiliates or a similarly situated person to unwind all or a material portion of a hedge that could be effected with respect to this note.

The following events will not be market disruption events:

- a limitation on the hours or numbers of days of trading, but only if the limitation results from an announced change in the regular business hours of the relevant market, and
- a decision to permanently discontinue trading in option or futures contracts relating to such underlier or to any underlier stock.

For this purpose, an “absence of trading” in the primary securities market on which an underlier stock is traded, or on which option or futures contracts relating to such underlier or an underlier stock are traded, will not include any time when that market is itself closed for trading under ordinary circumstances. In contrast, a suspension or limitation of trading in an underlier stock or in option or futures contracts, if available, relating to such underlier or an underlier stock in the primary market for that stock or those contracts, by reason of:

- a price change exceeding limits set by that market,

- an imbalance of orders relating to that underlier stock or those contracts, or
- a disparity in bid and ask quotes relating to that underlier stock or those contracts,

will constitute a suspension or material limitation of trading in that stock or those contracts in that market.

A market disruption event with respect to one underlier will not, by itself, constitute a market disruption event for any unaffected underlier.

**Consequences of a market disruption event or a non-trading day:** With respect to any underlier, if a market disruption event occurs or is continuing on a day that would otherwise be the determination date, or such day is not a trading day, then the determination date will be postponed as described under “— Determination date” above. If the determination date is postponed to the last possible date due to the occurrence of serial non-trading days, the level of each underlier will be the calculation agent’s assessment of such level, in its sole discretion, on such last possible postponed determination date. If the determination date is postponed due to a market disruption event with respect to any underlier, the final underlier level with respect to the determination date will be calculated based on (i) for any underlier that is not affected by a market disruption event on the originally scheduled determination date or the first qualified trading day thereafter (if applicable), the closing level of the underlier on that date, (ii) for any underlier that is affected by a market disruption event on the originally scheduled determination date or the first qualified trading day thereafter (if applicable), the closing level of the underlier on the first following trading day on which no market disruption event exists for such underlier and (iii) the calculation agent’s assessment, in its sole discretion, of the level of any underlier on the last possible postponed determination date with respect to such underlier as to which a market disruption event continues through the last possible postponed determination date. As a result, this could result in the final underlier level on the determination date of each underlier being determined on different calendar dates. For the avoidance of doubt, once the closing level for an underlier is determined for the determination date, the occurrence of a later market disruption event or non-trading day will not alter such calculation.

**Discontinuance or modification of an underlier:** If an underlier sponsor discontinues publication of an underlier and such underlier sponsor or anyone else publishes a substitute underlier that the calculation agent determines is comparable to such underlier and approves as a successor underlier, or if the calculation agent designates a substitute underlier, then the calculation agent will determine the cash settlement amount on the stated maturity date by reference to such successor underlier.

If the calculation agent determines that the publication of an underlier is discontinued and there is no successor underlier, the calculation agent will determine the cash settlement amount on the stated maturity date by a computation methodology that the calculation agent determines will as closely as reasonably possible replicate such underlier.

If the calculation agent determines that (i) an underlier, the underlier stocks comprising such underlier or the method of calculating such underlier is changed at any time in any respect — including any addition, deletion or substitution and any reweighting or rebalancing of such underlier or the underlier stocks and whether the change is made by the underlier sponsor under its existing policies or following a modification of those policies, is due to the publication of a successor underlier, is due to events affecting one or more of the underlier stocks or their issuers or is due to any other reason — and is not otherwise reflected in the level of the underlier by the underlier sponsor pursuant to the then-current underlier methodology of the underlier or (ii) there has been a split or reverse split of the underlier, then the calculation agent will be permitted (but not required) to make such adjustments in such underlier or the method of its calculation as it believes are appropriate to ensure that the levels of such underlier used to determine the cash settlement amount on the stated maturity date is equitable.

All determinations and adjustments to be made by the calculation agent with respect to an underlier may be made by the calculation agent in its sole discretion. The calculation agent is not obligated to make any such adjustments.

**Calculation agent:** Goldman Sachs & Co. LLC (“GS&Co.”)

**Tax characterization:** The holder, on behalf of itself and any other person having a beneficial interest in this note, hereby agrees with the company (in the absence of a change in law, an administrative determination or a judicial ruling to the contrary) to characterize this note for all U.S. federal income tax purposes as a pre-paid derivative contract in respect of the underliers.

**Overdue principal rate:** the effective Federal Funds rate

## HYPOTHETICAL EXAMPLES

The following examples are provided for purposes of illustration only. They should not be taken as an indication or prediction of future investment results and are intended merely to illustrate the impact that various hypothetical closing levels of the underliers on the determination date could have on the cash settlement amount at maturity assuming all other variables remain constant.

The examples below are based on a range of underlier levels that are entirely hypothetical; no one can predict what the closing level of any underlier will be on any day throughout the life of your notes and what the final underlier level of the lesser performing underlier will be on the determination date. The underliers have been highly volatile in the past — meaning that the underlier levels have changed substantially in relatively short periods — and their performance cannot be predicted for any future period.

The information in the following examples reflects hypothetical rates of return on the offered notes assuming that they are purchased on the original issue date at the face amount and held to the stated maturity date. If you sell your notes in a secondary market prior to the stated maturity date, your return will depend upon the market value of your notes at the time of sale, which may be affected by a number of factors that are not reflected in the examples below, such as interest rates, the volatility of the underliers, the creditworthiness of GS Finance Corp., as issuer, and the creditworthiness of The Goldman Sachs Group, Inc., as guarantor. In addition, the estimated value of your notes at the time the terms of your notes are set on the trade date (as determined by reference to pricing models used by GS&Co.) is less than the original issue price of your notes. For more information on the estimated value of your notes, see “Additional Risk Factors Specific to Your Notes — The Estimated Value of Your Notes At the Time the Terms of Your Notes Are Set On the Trade Date (as Determined By Reference to Pricing Models Used By GS&Co.) Is Less Than the Original Issue Price Of Your Notes” on page PS-10 of this pricing supplement. The information in the examples also reflects the key terms and assumptions in the box below.

<b>Key Terms and Assumptions</b>	
Face amount	\$1,000
Threshold settlement amount	\$1,378
Trigger buffer level	with respect to each underlier, 80% of its initial underlier level
Neither a market disruption event nor a non-trading day occurs on the originally scheduled determination date	
No change in or affecting any of the underlier stocks or the method by which the applicable underlier sponsor calculates any underlier	
Notes purchased on original issue date at the face amount and held to the stated maturity date	

Moreover, we have not yet set the initial underlier levels that will serve as the baseline for determining the amount that we will pay on your notes, if any, at maturity. We will not do so until the trade date. As a result, the actual initial underlier levels may differ substantially from the underlier levels prior to the trade date. They may also differ substantially from the underlier levels at the time you purchase your notes.

For these reasons, the actual performance of the underliers over the life of your notes, as well as the amount payable at maturity, if any, may bear little relation to the hypothetical examples shown below or to the historical underlier levels shown elsewhere in this pricing supplement. For information about the underlier levels during recent periods, see “The Underliers — Historical Closing Levels of the Underliers” on page PS-16. Before investing in the notes, you should consult publicly available information to determine the underlier levels between the date of this pricing supplement and the date of your purchase of the notes.

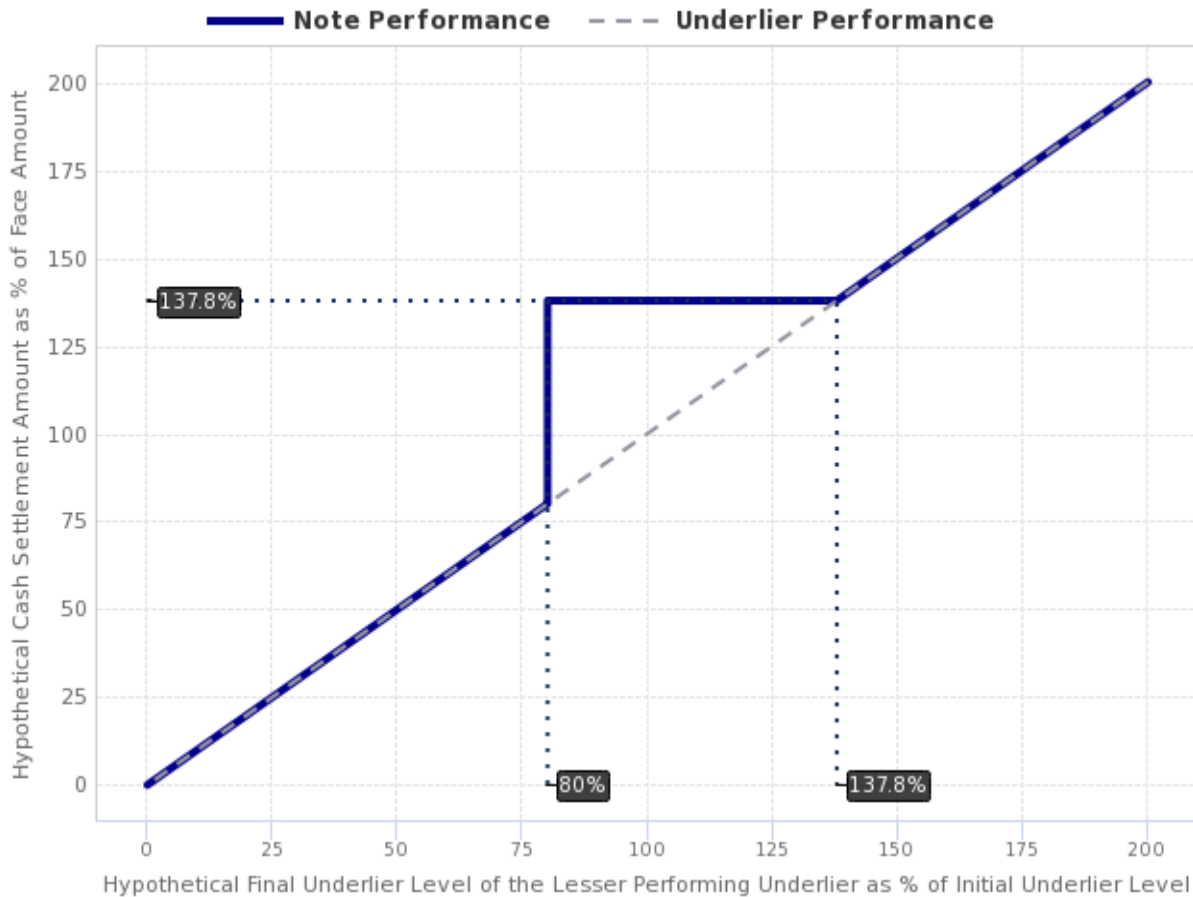
Also, the hypothetical examples shown below do not take into account the effects of applicable taxes. Because of the U.S. tax treatment applicable to your notes, tax liabilities could affect the after-tax rate of return on your notes to a comparatively greater extent than the after-tax return on the underlier stocks.

The levels in the left column of the table below represent hypothetical final underlier levels of the lesser performing underlier and are expressed as percentages of the initial underlier level of the lesser performing underlier. The amounts in the right column represent the hypothetical cash settlement amounts, based on the corresponding hypothetical final underlier level of the lesser performing underlier, and are expressed as percentages of the face amount of a note (rounded to the nearest one-thousandth of a percent). Thus, a hypothetical cash settlement amount of 100.000% means that the value of the cash payment that we would deliver for each \$1,000 of the outstanding face amount of the offered notes on the stated maturity date would equal 100.000% of the face amount of a note, based on the corresponding hypothetical final underlier level of the lesser performing underlier and the assumptions noted above.

Hypothetical Final Underlier Level of the Lesser Performing Underlier (as Percentage of Initial Underlier Level)	Hypothetical Cash Settlement Amount at Maturity (as Percentage of Face Amount)
160.000%	160.000%
150.000%	150.000%
<b>137.800%</b>	<b>137.800%</b>
120.000%	137.800%
115.000%	137.800%
<b>100.000%</b>	<b>137.800%</b>
90.000%	137.800%
85.000%	137.800%
<b>80.000%</b>	<b>137.800%</b>
79.999%	79.999%
50.000%	50.000%
30.000%	30.000%
20.000%	20.000%
<b>0.000%</b>	<b>0.000%</b>

If, for example, the final underlier level of the lesser performing underlier were determined to be 20.000% of its initial underlier level, the cash settlement amount that we would deliver on your notes at maturity would be 20.000% of the face amount of your notes, as shown in the table above. As a result, if you purchased your notes on the original issue date at the face amount and held them to the stated maturity date, you would lose 80.000% of your investment (if you purchased your notes at a premium to face amount you would lose a correspondingly higher percentage of your investment).

The following chart shows a graphical illustration of the hypothetical cash settlement amounts that we would pay on your notes on the stated maturity date, if the final underlier level of the lesser performing underlier were any of the hypothetical levels shown on the horizontal axis. The hypothetical cash settlement amounts in the chart are expressed as percentages of the face amount of your notes and the hypothetical final underlier levels of the lesser performing underlier are expressed as percentages of its initial underlier level. The chart shows that any hypothetical final underlier level of the lesser performing underlier of less than 80.000% (the section left of the 80.000% marker on the horizontal axis) would result in a hypothetical cash settlement amount of less than 100.000% of the face amount of your notes (the section below the 100.000% marker on the vertical axis) and, accordingly, in a loss of principal to the holder of the notes.



The cash settlement amounts shown above are entirely hypothetical; they are based on market prices for the underlier stocks that may not be achieved on the determination date and on assumptions that may prove to be erroneous. The actual market value of your notes on the stated maturity date or at any other time, including any time you may wish to sell your notes, may bear little relation to the hypothetical cash settlement amounts shown above, and these amounts should not be viewed as an indication of the financial return on an investment in the offered notes. The hypothetical cash settlement amounts on notes held to the stated maturity date in the examples above assume you purchased your notes at their face amount and have not been adjusted to reflect the actual issue price you pay for your notes. The return on your investment (whether positive or negative) in your notes will be affected by the amount you pay for your notes. If you purchase your notes for a price other than the face amount, the return on your investment will differ from, and may be significantly lower than, the hypothetical returns suggested by the above examples. Please read “Additional Risk Factors Specific to Your Notes — The Market Value of Your Notes May Be Influenced by Many Unpredictable Factors” on page PS-12.

Payments on the notes are economically equivalent to the amounts that would be paid on a combination of other instruments. For example, payments on the notes are economically equivalent to a combination of an interest-bearing bond bought by the holder and one or more options entered into between the holder and us (with one or more implicit option premiums paid over time). The discussion in this paragraph does not modify or affect the terms of the notes or the U.S. federal income tax treatment of the notes, as described elsewhere in this pricing supplement.



*We cannot predict the actual final underlier levels or what the market value of your notes will be on any particular trading day, nor can we predict the relationship between the closing levels of the underliers and the market value of your notes at any time prior to the stated maturity date. The actual amount that you will receive, if any, at maturity and the rate of return on the offered notes will depend on the actual initial underlier levels, which we will set on the trade date, and the actual final underlier levels determined by the calculation agent as described above. Moreover, the assumptions on which the hypothetical returns are based may turn out to be inaccurate. Consequently, the amount of cash to be paid in respect of your notes, if any, on the stated maturity date may be very different from the information reflected in the examples above.*

## **Additional Risk Factors Specific to Your Notes**

*An investment in your notes is subject to the risks described below, as well as the risks and considerations described in the accompanying prospectus, in the accompanying prospectus supplement, under “Additional Risk Factors Specific to the Securities” in the accompanying underlier supplement no. 22 and under “Additional Risk Factors Specific to the Notes” in the accompanying general terms supplement no. 2,913. You should carefully review these risks and considerations as well as the terms of the notes described herein and in the accompanying prospectus, the accompanying prospectus supplement, the accompanying underlier supplement no. 22 and the accompanying general terms supplement no. 2,913. Your notes are a riskier investment than ordinary debt securities. Also, your notes are not equivalent to investing directly in the underlier stocks, i.e., with respect to an underlier to which your notes are linked, the stocks comprising such underlier. You should carefully consider whether the offered notes are appropriate given your particular circumstances.*

### **Risks Related to Structure, Valuation and Secondary Market Sales**

#### **The Estimated Value of Your Notes At the Time the Terms of Your Notes Are Set On the Trade Date (as Determined By Reference to Pricing Models Used By GS&Co.) Is Less Than the Original Issue Price Of Your Notes**

The original issue price for your notes exceeds the estimated value of your notes as of the time the terms of your notes are set on the trade date, as determined by reference to GS&Co.'s pricing models and taking into account our credit spreads. Such estimated value on the trade date is set forth above under “Estimated Value of Your Notes”; after the trade date, the estimated value as determined by reference to these models will be affected by changes in market conditions, the creditworthiness of GS Finance Corp., as issuer, the creditworthiness of The Goldman Sachs Group, Inc., as guarantor, and other relevant factors. The price at which GS&Co. would initially buy or sell your notes (if GS&Co. makes a market, which it is not obligated to do), and the value that GS&Co. will initially use for account statements and otherwise, also exceeds the estimated value of your notes as determined by reference to these models. As agreed by GS&Co. and the distribution participants, this excess (i.e., the additional amount described under “Estimated Value of Your Notes”) will decline to zero on a straight line basis over the period from the date hereof through the applicable date set forth above under “Estimated Value of Your Notes”. Thereafter, if GS&Co. buys or sells your notes it will do so at prices that reflect the estimated value determined by reference to such pricing models at that time. The price at which GS&Co. will buy or sell your notes at any time also will reflect its then current bid and ask spread for similar sized trades of structured notes.

In estimating the value of your notes as of the time the terms of your notes are set on the trade date, as disclosed above under “Estimated Value of Your Notes”, GS&Co.'s pricing models consider certain variables, including principally our credit spreads, interest rates (forecasted, current and historical rates), volatility, price-sensitivity analysis and the time to maturity of the notes. These pricing models are proprietary and rely in part on certain assumptions about future events, which may prove to be incorrect. As a result, the actual value you would receive if you sold your notes in the secondary market, if any, to others may differ, perhaps materially, from the estimated value of your notes determined by reference to our models due to, among other things, any differences in pricing models or assumptions used by others. See “— The Market Value of Your Notes May Be Influenced by Many Unpredictable Factors” below.

The difference between the estimated value of your notes as of the time the terms of your notes are set on the trade date and the original issue price is a result of certain factors, including principally the underwriting discount and commissions, the expenses incurred in creating, documenting and marketing the notes, and an estimate of the difference between the amounts we pay to GS&Co. and the amounts GS&Co. pays to us in connection with your notes. We pay to GS&Co. amounts based on what we would pay to holders of a non-structured note with a similar maturity. In return for such payment, GS&Co. pays to us the amounts we owe under your notes.

In addition to the factors discussed above, the value and quoted price of your notes at any time will reflect many factors and cannot be predicted. If GS&Co. makes a market in the notes, the price quoted by GS&Co. would reflect any changes in market conditions and other relevant factors, including any deterioration in our creditworthiness or perceived creditworthiness or the creditworthiness or perceived

creditworthiness of The Goldman Sachs Group, Inc. These changes may adversely affect the value of your notes, including the price you may receive for your notes in any market making transaction. To the extent that GS&Co. makes a market in the notes, the quoted price will reflect the estimated value determined by reference to GS&Co.'s pricing models at that time, plus or minus its then current bid and ask spread for similar sized trades of structured notes (and subject to the declining excess amount described above).

Furthermore, if you sell your notes, you will likely be charged a commission for secondary market transactions, or the price will likely reflect a dealer discount. This commission or discount will further reduce the proceeds you would receive for your notes in a secondary market sale.

There is no assurance that GS&Co. or any other party will be willing to purchase your notes at any price and, in this regard, GS&Co. is not obligated to make a market in the notes. See "Additional Risk Factors Specific to the Notes —Your Notes May Not Have an Active Trading Market" on page S-7 of the accompanying general terms supplement no. 2,913.

**The Underwriting Discount and Commissions, Including the Structuring Fee and Marketing Fee, and Other Expenses, Result in Less Favorable Economic Terms of the Notes and Could Adversely Affect Any Secondary Market Price for the Notes**

The economic terms of the notes, as well as the difference between the estimated value of your notes as of the time the terms of your notes are set on the trade date and the original issue price, take into consideration, among other expenses, the underwriting discount and commissions, including the structuring fee and marketing fee, paid in connection with the notes. Therefore, the economic terms of the notes are less favorable to you than they would have been if these expenses had not been paid or had been lower. Further, the price, if any, at which GS&Co. will buy or sell your notes (if GS&Co. makes a market, which it is not obligated to do) at any time will reflect, among other things, the economic terms of the notes. Therefore, the secondary market price for the notes could also be adversely affected by the underwriting discount and commissions, including the structuring fee and marketing fee, and other expenses paid in connection with the notes. See "The Estimated Value of Your Notes At the Time the Terms of Your Notes Are Set On the Trade Date (as Determined By Reference to Pricing Models Used By GS&Co.) Is Less Than the Original Issue Price Of Your Notes" above

**The Notes Are Subject to the Credit Risk of the Issuer and the Guarantor**

Although the return on the notes will be based on the performance of each underlier, the payment of any amount due on the notes is subject to the credit risk of GS Finance Corp., as issuer of the notes, and the credit risk of The Goldman Sachs Group, Inc. as guarantor of the notes. The notes are our unsecured obligations. Investors are dependent on our ability to pay all amounts due on the notes, and therefore investors are subject to our credit risk and to changes in the market's view of our creditworthiness. Similarly, investors are dependent on the ability of The Goldman Sachs Group, Inc., as guarantor of the notes, to pay all amounts due on the notes, and therefore are also subject to its credit risk and to changes in the market's view of its creditworthiness. See "Description of the Notes We May Offer — Information About Our Medium-Term Notes, Series F Program — How the Notes Rank Against Other Debt" on page S-5 of the accompanying prospectus supplement and "Description of Debt Securities We May Offer — Guarantee by The Goldman Sachs Group, Inc." on page 68 of the accompanying prospectus.

**You May Lose Your Entire Investment in the Notes**

You can lose your entire investment in the notes. The cash settlement amount on your notes, if any, on the stated maturity date will be based on the performance of the lesser performing of the underliers as measured from their initial underlier levels set on the trade date to their closing levels on the determination date. If the final underlier level of any underlier is *less than* its trigger buffer level, you will have a loss for each \$1,000 of the face amount of your notes equal to the *product* of (i) \$1,000 times (ii) the lesser performing underlier return. Thus, you may lose your entire investment in the notes, which would include any premium to face amount you paid when you purchased the notes.

Also, the market price of your notes prior to the stated maturity date may be significantly lower than the purchase price you pay for your notes. Consequently, if you sell your notes before the stated maturity date, you may receive far less than the amount of your investment in the notes.

### **The Amount Payable on Your Notes Is Not Linked to the Levels of the Underliers at Any Time Other than the Determination Date**

The final underlier level of each underlier will be based on the closing level of such underlier on the determination date (subject to adjustment as described elsewhere in this pricing supplement). Therefore, if the closing level of one underlier dropped precipitously on the determination date, the cash settlement amount for your notes may be significantly less than it would have been had the cash settlement amount been linked to the closing level of the underlier prior to such drop. Although the actual closing levels of the underliers on the stated maturity date or at other times during the life of your notes may be higher than the closing levels of the underliers on the determination date, you will not benefit from the closing levels of the underliers at any time other than on the determination date.

### **The Cash Settlement Amount Will Be Based Solely on the Lesser Performing Underlier**

The cash settlement amount will be based on the lesser performing underlier without regard to the performance of the other underlier. As a result, you could lose all or some of your initial investment if the lesser performing underlier return is negative, even if there is an increase in the level of the other underlier. This could be the case even if the other underlier increased by an amount greater than the decrease in the lesser performing underlier.

### **The Market Value of Your Notes May Be Influenced by Many Unpredictable Factors**

When we refer to the market value of your notes, we mean the value that you could receive for your notes if you chose to sell them in the open market before the stated maturity date. A number of factors, many of which are beyond our control, will influence the market value of your notes, including:

- the levels of the underliers;
- the volatility – i.e., the frequency and magnitude of changes – in the closing levels of the underliers;
- the dividend rates of the underlier stocks;
- economic, financial, regulatory, political, military, public health and other events that affect stock markets generally and the underlier stocks, and which may affect the closing level of the underlier or underliers;
- interest rates and yield rates in the market;
- the time remaining until your notes mature; and
- our creditworthiness and the creditworthiness of The Goldman Sachs Group, Inc., whether actual or perceived, and including actual or anticipated upgrades or downgrades in our credit ratings or the credit ratings of The Goldman Sachs Group, Inc. or changes in other credit measures.

Without limiting the foregoing, the market value of your notes may be negatively impacted by increasing interest rates. Such adverse impact of increasing interest rates could be significantly enhanced in notes with longer-dated maturities, the market values of which are generally more sensitive to increasing interest rates.

These factors may influence the market value of your notes if you sell your notes before maturity, including the price you may receive for your notes in any market making transaction. If you sell your notes prior to maturity, you may receive less than the face amount of your notes. You cannot predict the future performance of the underliers based on their historical performance.

### **The Return on Your Notes May Change Significantly Despite Only a Small Change in the Level of the Lesser Performing Underlier**

If the final underlier level of the lesser performing underlier is less than its trigger buffer level, you will receive less than the face amount of your notes and you could lose all or a substantial portion of your investment in the notes. This means that while a decrease in the final underlier level of the lesser performing underlier to its trigger buffer level will not result in a loss of principal on the notes, a decrease in the final underlier level of the lesser performing underlier to less than its trigger buffer level will result in

a loss of a significant portion of the face amount of the notes despite only a small change in the level of the lesser performing underlier.

#### **Your Notes Do Not Bear Interest**

You will not receive any interest payments on your notes. As a result, even if the cash settlement amount payable for your notes on the stated maturity date exceeds the face amount of your notes, the overall return you earn on your notes may be less than you would have earned by investing in a non-indexed debt security of comparable maturity that bears interest at a prevailing market rate.

#### **If You Purchase Your Notes at a Premium to Face Amount, the Return on Your Investment Will Be Lower Than the Return on Notes Purchased at Face Amount and the Impact of Certain Key Terms of the Notes Will Be Negatively Affected**

The cash settlement amount will not be adjusted based on the issue price you pay for the notes. If you purchase notes at a price that differs from the face amount of the notes, then the return on your investment in such notes held to the stated maturity date will differ from, and may be substantially less than, the return on notes purchased at face amount. If you purchase your notes at a premium to face amount and hold them to the stated maturity date, the return on your investment in the notes will be lower than it would have been had you purchased the notes at face amount or a discount to face amount. In addition, the impact of the threshold settlement amount on the return on your investment will depend upon the price you pay for your notes relative to face amount. For example, if you purchase your notes at a premium to face amount, the threshold settlement amount will permit a lower positive return on your investment in the notes than would have been the case for notes purchased at face amount or a discount to face amount.

#### **You Have No Shareholder Rights or Rights to Receive Any Underlier Stock**

Investing in your notes will not make you a holder of any of the underlier stocks. Neither you nor any other holder or owner of your notes will have any rights with respect to the underlier stocks, including any voting rights, any right to receive dividends or other distributions, any rights to make a claim against the underlier stocks or any other rights of a holder of the underlier stocks. Your notes will be paid in cash and you will have no right to receive delivery of any underlier stocks.

#### **We May Sell an Additional Aggregate Face Amount of the Notes at a Different Issue Price**

At our sole option, we may decide to sell an additional aggregate face amount of the notes subsequent to the date of this pricing supplement. The issue price of the notes in the subsequent sale may differ substantially (higher or lower) from the issue price you paid as provided on the cover of this pricing supplement.

#### **Additional Risks Related to the Underliers**

##### **An Investment in the Offered Notes Is Subject to Risks Associated with Foreign Securities**

The value of your notes is linked to underliers that are comprised of stocks from one or more foreign securities markets. Investments linked to the value of foreign equity securities involve particular risks. Any foreign securities market may be less liquid, more volatile and affected by global or domestic market developments in a different way than are the U.S. securities market or other foreign securities markets. Both government intervention in a foreign securities market, either directly or indirectly, and cross-shareholdings in foreign companies, may affect trading prices and volumes in that market. Also, there is generally less publicly available information about foreign companies than about those U.S. companies that are subject to the reporting requirements of the U.S. Securities and Exchange Commission. Further, foreign companies are subject to accounting, auditing and financial reporting standards and requirements that differ from those applicable to U.S. reporting companies.

The prices of securities in a foreign country are subject to political, economic, financial and social factors that are unique to such foreign country's geographical region. These factors include: recent changes, or the possibility of future changes, in the applicable foreign government's economic and fiscal policies; the possible implementation of, or changes in, currency exchange laws or other laws or restrictions applicable to foreign companies or investments in foreign equity securities; fluctuations, or the possibility of fluctuations, in currency exchange rates; and the possibility of outbreaks of hostility, political instability, natural disaster or adverse public health developments. The United Kingdom ceased to be a member of

the European Union on January 31, 2020 (an event commonly referred to as “Brexit”). The effects of Brexit are uncertain, and, among other things, Brexit has contributed, and may continue to contribute, to volatility in the prices of securities of companies located in Europe (or elsewhere) and currency exchange rates, including the valuation of the euro and British pound in particular. Any one of these factors, or the combination of more than one of these factors, could negatively affect such foreign securities market and the price of securities therein. Further, geographical regions may react to global factors in different ways, which may cause the prices of securities in a foreign securities market to fluctuate in a way that differs from those of securities in the U.S. securities market or other foreign securities markets. Foreign economies may also differ from the U.S. economy in important respects, including growth of gross national product, rate of inflation, capital reinvestment, resources and self-sufficiency, which may have a positive or negative effect on foreign securities prices.

**Government Regulatory Action, Including Legislative Acts and Executive Orders, Could Result in Material Changes to the Composition of an Underlier with Underlier Stocks from One or More Foreign Securities Markets and Could Negatively Affect Your Investment in the Notes**

Government regulatory action, including legislative acts and executive orders, could cause material changes to the composition of an underlier with underlier stocks from one or more foreign securities markets and could negatively affect your investment in the notes in a variety of ways, depending on the nature of such government regulatory action and the underlier stocks that are affected. For example, recent executive orders issued by the United States Government prohibit United States persons from purchasing or selling publicly traded securities of certain companies that are determined to operate or have operated in the defense and related materiel sector or the surveillance technology sector of the economy of the People’s Republic of China, or publicly traded securities that are derivative of, or that are designed to provide investment exposure to, those securities (including indexed notes). If the prohibitions in those executive orders (or prohibitions under other government regulatory action) become applicable to underlier stocks that are currently included in an underlier or that in the future are included in an underlier, such underlier stocks may be removed from an underlier. If government regulatory action results in the removal of underlier stocks that have (or historically have had) significant weight in an underlier, such removal could have a material and negative effect on the level of such underlier and, therefore, your investment in the notes. Similarly, if underlier stocks that are subject to those executive orders or subject to other government regulatory action are not removed from an underlier, the value of the notes could be materially and negatively affected, and transactions in, or holdings of, the notes may become prohibited under United States law. Any failure to remove such underlier stocks from an underlier could result in the loss of a significant portion or all of your investment in the notes, including if you attempt to divest the notes at a time when the value of the notes has declined.

**Risks Related to Tax**

**The Tax Consequences of an Investment in Your Notes Are Uncertain**

The tax consequences of an investment in your notes are uncertain, both as to the timing and character of any inclusion in income in respect of your notes.

The Internal Revenue Service announced on December 7, 2007 that it is considering issuing guidance regarding the tax treatment of an instrument such as your notes, and any such guidance could adversely affect the value and the tax treatment of your notes. Among other things, the Internal Revenue Service may decide to require the holders to accrue ordinary income on a current basis and recognize ordinary income on payment at maturity, and could subject non-U.S. investors to withholding tax. Furthermore, in 2007, legislation was introduced in Congress that, if enacted, would have required holders that acquired instruments such as your notes after the bill was enacted to accrue interest income over the term of such instruments even though there will be no interest payments over the term of such instruments. It is not possible to predict whether a similar or identical bill will be enacted in the future, or whether any such bill would affect the tax treatment of your notes. We describe these developments in more detail under “Supplemental Discussion of U.S. Federal Income Tax Consequences – United States Holders – Possible Change in Law” below. You should consult your tax advisor about this matter. Except to the extent otherwise provided by law, GS Finance Corp. intends to continue treating the notes for U.S. federal income tax purposes in accordance with the treatment described under “Supplemental Discussion of U.S. Federal Income Tax Consequences” on page PS-24 below unless and until such time as Congress, the

Treasury Department or the Internal Revenue Service determine that some other treatment is more appropriate. Please also consult your tax advisor concerning the U.S. federal income tax and any other applicable tax consequences to you of owning your notes in your particular circumstances.

**Foreign Account Tax Compliance Act (FATCA) Withholding May Apply to Payments on Your Notes, Including as a Result of the Failure of the Bank or Broker Through Which You Hold the Notes to Provide Information to Tax Authorities**

Please see the discussion under “United States Taxation — Taxation of Debt Securities — Foreign Account Tax Compliance Act (FATCA) Withholding” in the accompanying prospectus for a description of the applicability of FATCA to payments made on your notes.

## THE UNDERLIERS

### EURO STOXX 50® Index

The EURO STOXX 50® Index is a free-float market capitalization-weighted index of 50 European blue-chip stocks. The 50 stocks included in the EURO STOXX 50® Index are allocated to one of the following Eurozone countries based on their country of incorporation, primary listing and largest trading volume: Austria, Belgium, Finland, France, Germany, Ireland, Italy, Luxembourg, the Netherlands, Portugal and Spain. For more details about the EURO STOXX 50® Index, the underlier sponsor and license agreement between the underlier sponsor and the issuer, see “The Underliers — EURO STOXX 50® Index” on page S-35 of the accompanying underlier supplement no. 22.

The EURO STOXX 50® is the intellectual property of STOXX Limited, Zurich, Switzerland and/or its licensors (“Licensors”), which is used under license. The securities or other financial instruments based on the index are in no way sponsored, endorsed, sold or promoted by STOXX and its Licensors and neither STOXX nor its Licensors shall have any liability with respect thereto.

### STOXX® Europe 600 Index

The STOXX® Europe 600 Index, which we also refer to in this description as the “index”:

- is an equity index, and therefore cannot be invested in directly;
- does not file reports with the SEC because it is not an issuer;
- was first published on June 15, 1998, based on an initial index value of 100 as of December 31, 1991; and
- was created and is sponsored and maintained by STOXX Limited.

The STOXX® Europe 600 Index is a free float capitalization-weighted index of 600 stocks. The STOXX® Europe 600 Index is designed to provide a broad yet investable representation of the largest (by free float market capitalization) companies of 17 European countries (Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom) and contains a fixed number of 600 components with a weighting cap of 20%. The level of the STOXX® Europe 600 Index is disseminated on the STOXX Limited website. We are not incorporating by reference the STOXX Limited website or any material it includes in this pricing supplement. STOXX Limited is under no obligation to continue to publish the STOXX® Europe 600 Index and may discontinue publication of the STOXX® Europe 600 Index at any time.

#### *Component Selection*

The composition of the STOXX® Europe 600 Index is reviewed by STOXX Limited quarterly and changes are typically implemented on the third Friday of every March, June, September and December, with effect on the next trading day. If the third Friday of the relevant month is not a trading day, then the implementation occurs on the next trading day, with effect on the following trading day. In connection with the quarterly review, the eligible stocks in the STOXX® Europe Total Market Index are ranked in terms of free float market capitalization to produce the selection list for the STOXX® Europe 600 Index. The STOXX® Europe Total Market Index consists of the top 95% (subject to applicable buffer rules) by free-float market capitalization of the total equity having a country assignment in one of the 17 countries listed above (based on the country of incorporation, the primary listing and the country with the largest trading volume).

The selection list for the STOXX® Europe 600 Index is updated and published on a monthly basis according to the review component selection process in case a replacement is needed for a deletion. To create the selection list for the STOXX® Europe 600 Index, for each company having more than one eligible class of stock, only the most liquid class is eligible, and a liquidity screen of a 3-month average daily trading volume of greater than one million Euros is applied to the eligible stocks. The eligible stocks remaining after application of the liquidity screen are ranked by their free float market capitalizations.



At the quarterly review, the largest 550 stocks on the selection list qualify for selection for the STOXX® Europe 600 Index. The remaining 50 stocks for the STOXX® Europe 600 Index are selected from the current components ranked between 551 and 750 that meet all of the criteria (including the liquidity screen). If the number of stocks selected is still below 600, the largest (by free float market capitalization) stocks on the selection list are selected until there are 600 stocks.

#### *Ongoing Maintenance*

The component stocks of the STOXX® Europe 600 Index are monitored on an ongoing monthly basis for deletion and quarterly basis for addition. Changes to the composition of the STOXX® Europe 600 Index due to corporate actions (including mergers and takeovers, spin-offs, sector changes and bankruptcy) are announced immediately, implemented two trading days later and become effective on the next trading day after implementation.

Any component stocks that are not traded for 10 consecutive days, are suspended from trading for 10 consecutive days, are officially delisted or are the subject of ongoing bankruptcy proceeds will be deleted from the STOXX® Europe 600 Index. A deleted stock is replaced by the highest-ranked non-component on the selection list in the STOXX Europe Total Market Index to maintain the fixed number of stocks in the STOXX® Europe 600 Index.

In the case of a spin-off, if the original stock was a component stock, then each spin-off stock qualifies for addition to the STOXX® Europe 600 Index if it is equal to or above 550 on the latest selection list. The largest qualifying spin-off stock replaces the original component stock, while the next qualifying spin-off stock replaces the lowest ranked component stock and likewise for other qualifying spin-off stocks. Additions and deletions in connection with a quarterly review are announced on the first trading day of the review implementation month.

The free float factors and outstanding number of shares for each index stock that STOXX Limited uses to calculate the STOXX® Europe 600 Index, as described below, are reviewed, calculated and implemented on a quarterly basis and are fixed until the next quarterly review. These changes are announced five trading days before they are implemented. Certain extraordinary adjustments to the factors and/or the number of outstanding shares are implemented and made effective more quickly. The timing depends on the magnitude of the change. The free float factor reduces the index stock's number of shares to the actual amount available on the market. All holdings that are larger than five percent of the total outstanding number of shares and held on a long-term basis are excluded from the STOXX® Europe 600 Index calculation (including, but not limited to, stock owned by the company itself, stock owned by governments, stock owned by certain individuals or families, and restricted shares). In addition, the weight of each component in the STOXX® Europe 600 Index is capped at 20% of the STOXX® Europe 600 Index's total free float market capitalization.

#### *STOXX® Europe 600 Index Calculation*

STOXX Limited calculates the STOXX® Europe 600 Index using the "Laspeyres formula," which measures the aggregate price changes in the index stocks against a fixed base quantity weight. The discussion below describes the "price return" calculation of the STOXX® Europe 600 Index. The formula for calculating the STOXX® Europe 600 Index value can be expressed as follows:

$$\text{STOXX® Europe 600 Index} = \frac{\text{Free Float Market Capitalization of the STOXX® Europe 600 Index}}{\text{Divisor}}$$

The "free float market capitalization of the STOXX® Europe 600 Index" is equal to the sum of the product of the price, the number of shares, the free float factor and the weighting cap factor for each index stock as of the time the STOXX® Europe 600 Index is being calculated. Where any index component stock price is unavailable on any trading day, the index sponsor will generally use the last reported price for such component stock. If an index stock trades in a currency other than Euros, its stock price is converted into Euros using the midpoint between the latest real-time bid and ask prices for that currency. The closing index level is calculated by converting non-Euro stock prices to Euros using fixed foreign exchange rates (WM fixed exchange rates).

In case the investability and tradability of the STOXX® Europe 600 Index and index based products is affected by an upcoming market or company event that is considered significant or “extreme” by the STOXX Management Board, the following actions or a combination of the following actions are taken. For all such changes a minimum notification period of two full trading days will be observed. The action scope may include but is not limited to:

- application of expert judgment for index component pricing data,
- adjustment of operational procedures,
- postponement of index adjustments,
- adjustment of selection lists,
- change of weights of index constituents by adjusting the number of shares, free-float factors or weighting cap-factors, or
- adjustment of index compositions.

#### *STOXX® Europe 600 Index Divisor*

The STOXX® Europe 600 Index is calculated using a divisor that helps to maintain the continuity of the STOXX® Europe 600 Index’s value so that corporate actions do not artificially increase or decrease the level of the STOXX® Europe 600 Index. The divisor is calculated by starting with the previous divisor in effect for the STOXX® Europe 600 Index (which we call the “original divisor value”) and multiplying it by a fraction, the numerator of which is the previous free float market capitalization of the STOXX® Europe 600 Index, plus or minus the difference between the closing market capitalization of the STOXX® Europe 600 Index and the adjusted closing market capitalization of the STOXX® Europe 600 Index, and the denominator of which is the previous free float market capitalization of the STOXX® Europe 600 Index. The adjusted free float market capitalization is calculated for stocks of companies that have experienced a corporate action of the type described below as of the time the new divisor value is being calculated using the free float market capitalization calculated with adjusted closing prices, the new number of shares, and the new free float factor minus the free float market capitalization calculated with that stock’s original closing price, number of shares, and free float factor, in each case as used in calculating the original divisor value. Errors in divisor calculation are corrected on an intraday basis if discovered on the same day the new divisor is effective. If the error is discovered later, the error is corrected on an intraday basis if feasible and only if the error is considered significant by the STOXX Limited Management Board.

#### *Divisor Adjustments*

STOXX Limited adjusts the divisor for the STOXX® Europe 600 Index to maintain the continuity of the index values across changes due to corporate actions. Changes in weights due to corporate actions are distributed proportionally across all STOXX® Europe 600 Index components and equal an investment into the portfolio. The following is a summary of the adjustments to any index stock made for corporate actions and the effect of such adjustments on the divisor, where shareholders of the index stock will receive “B” new shares for every “A” share held (where applicable). All adjusted prices consider withholding taxes based on the new shares being distributed, using “B \* (1 – withholding tax where applicable)”.

##### *(1) Special cash dividend:*

Adjusted price = closing price – dividend announced by the company \* (1 - withholding tax if applicable)

Divisor: decreases

##### *(2) Split and reverse split:*

Adjusted price = closing price \* A / B

New number of shares = old number of shares \* B / A

Divisor: no change

##### *(3) Rights offering:*

Adjusted price = (closing price \* A + subscription price \* B) / (A + B)

New number of shares = old number of shares \* (A + B) / A

Divisor: increases

If the subscription price is not available or if the subscription price is equal to or greater than the closing price on the day before the effective date, then no adjustment is made.

If the subscription price is available as a price range and not as a fixed price, the price and share adjustment is performed only if both lower and upper range are in the money. The average value between lower and upper range will be used as a subscription price.

Extremely dilutive rights issues having a share ratio larger or equal to 2000% ( $B / A > 20$ ) are treated as follows:

STOXX will announce the deletion of the company from the STOXX® Europe 600 Index following the standard rules for STOXX® Europe 600 Index replacements if sufficient notice of two trading days before the ex-date can be given.

The company may enter the STOXX® Europe 600 Index again at the next periodic index review, but only after the new rights issue shares have been listed.

Extremely dilutive rights issues for which two trading days' notice before the ex-date cannot be given, and all highly dilutive rights issues having a share ratio larger or equal to 200% ( $B / A > 2$ ) are treated as follows:

- The rights issue shares are included into the STOXX® Europe 600 Index with a theoretical price on the ex-date;
- The rights issue shares must be listed on an eligible stock exchange and tradable starting on the ex-date, otherwise, only a price adjustment is made and the rights are not included;
- The rights issue shares will have the same parameters as the parent company;
- The rights issue shares will be removed at the close of the day they start to trade with traded price being available; and
- The number of shares and weighting factors will be increased after the new rights issue shares have been listed.

(4) *Stock dividend:*

Adjusted price = closing price \* A / (A + B)

New number of shares = old number of shares \* (A + B) / A

Divisor: no change

(5) *Stock dividend from treasury stock if treated as extraordinary dividend:*

Adjusted close = close – close \* B / (A + B)

Divisor: decreases

(6) *Stock dividend (from redeemable shares) if treated as extraordinary dividend.*

Stock dividends from redeemable shares will be adjusted as cash dividends. In such a case redeemable shares are considered as:

- A separated share line with a fixed price
- Ordinary shares that are self-tendered on the same ex-date

Adjusted close = close - close \* B / (A + B)

Divisor: decreases

(7) *Stock dividend of another company:*

Adjusted price = (closing price \* A – price of other company \* B) / A

Divisor: decreases

(8) *Return of capital and share consolidation:*

Adjusted price = [closing price – capital return announced by company \* (1– withholding tax)] \* A / B

New number of shares = old number of shares \* B / A

Divisor: decreases

(9) *Repurchase of shares / self-tender:*

Adjusted price = [(price before tender \* old number of shares) – (tender price \* number of tendered shares)] / (old number of shares – number of tendered shares)

New number of shares = old number of shares – number of tendered shares

Divisor: decreases

(10) *Spin-off:*

Adjusted price = (closing price \* A – price of spun-off shares \* B) / A

Divisor: decreases

(11) *Combination stock distribution (dividend or split) and rights offering:*

For this corporate action, the following additional assumptions apply:

Shareholders receive B new shares from the distribution and C new shares from the rights offering for every A share held; and

If A is not equal to one, all the following “new number of shares” formulae need to be divided by A.

If rights are applicable after stock distribution (one action applicable to another):

Adjusted price = [closing price \* A + subscription price \* C \* (1 + B / A)] / [(A + B) \* (1 + C / A)]

New number of shares = old number of shares \* [(A + B) \* (1 + C / A)] / A

Divisor: increases

If stock distribution is applicable after rights (one action applicable to another):

Adjusted price = (closing price \* A + subscription price \* C) / [(A + C) \* (1 + B / A)]

New number of shares = old number of shares \* [(A + C) \* (1 + B / A)]

Divisor: increases

Stock distribution and rights (neither action is applicable to the other):

Adjusted price = (closing price \* A + subscription price \* C) / (A + B + C)

New number of shares = old number of shares \* (A + B + C) / A

Divisor: increases

(12) *Addition/deletion of a company*

No price adjustments are made. The net change in market capitalization determines the divisor adjustment.

(13) *Free float and shares changes*

No price adjustments are made. The net change in market capitalization determines the divisor adjustment.

- *License Agreement between STOXX Limited and Goldman Sachs*
- STOXX and its licensors (the “Licensors”) have no relationship to GS Finance Corp., other than the licensing of the STOXX® Europe 600 Index and the related trademarks for use in connection with the notes.
- STOXX and its Licensors do not:
- Sponsor, endorse, sell or promote the notes.
- Recommend that any person invest in the notes or any other securities.
- Have any responsibility or liability for or make any decisions about the timing, amount or pricing of the notes.
- Have any responsibility or liability for the administration, management or marketing of the notes.
- Consider the needs of the notes or the owners of the notes in determining, composing or calculating the STOXX® Europe 600 Index or have any obligation to do so.

**STOXX and its Licensors will not have any liability in connection with the notes. Specifically,**

- **STOXX and its Licensors do not make any warranty, express or implied and disclaim any and all warranty about:**
  - **The results to be obtained by the notes, the owner of the notes or any other person in connection with the use of the STOXX® Europe 600 Index and the data included in the STOXX® Europe 600 Index;**
  - **The accuracy or completeness of the STOXX® Europe 600 Index and its data;**
  - **The merchantability and the fitness for a particular purpose or use of the STOXX® Europe 600 Index and its data;**
- **STOXX and its Licensors will have no liability for any errors, omissions or interruptions in the STOXX® Europe 600 Index or its data;**
- **Under no circumstances will STOXX or its Licensors be liable for any lost profits or indirect, punitive, special or consequential damages or losses, even if STOXX or its Licensors knows that they might occur.**

**The licensing agreement between Goldman Sachs International and STOXX is solely for their benefit, and the benefit of certain affiliates of Goldman Sachs International, and not for the benefit of the owners of the notes or any other third parties.**

### Historical Closing Levels of the Underliers

The closing levels of the underliers have fluctuated in the past and may, in the future, experience significant fluctuations. **In particular, the underliers have recently experienced extreme and unusual volatility.** Any historical upward or downward trend in the closing level of any underlier during the period shown below is not an indication that such underlier is more or less likely to increase or decrease at any time during the life of your notes.

**You should not take the historical closing levels of an underlier as an indication of the future performance of an underlier, including because of the recent volatility described above.** We cannot give you any assurance that the future performance of any underlier or the underlier stocks will result in you receiving the outstanding face amount of your notes on the stated maturity date.

Neither we nor any of our affiliates make any representation to you as to the performance of the underliers. Before investing in the offered notes, you should consult publicly available information to determine the relevant underlier levels between the date of this pricing supplement and the date of your purchase of the offered notes **and, given the recent volatility described above, you should pay particular attention to recent levels of the underliers.** The actual performance of an underlier over the life of the offered notes, as well as the cash settlement amount at maturity may bear little relation to the historical levels shown below.

The graphs below show the daily historical closing levels of each underlier from January 1, 2016 through August 4, 2021. As a result, the following graphs do not reflect the global financial crisis which began in 2008, which had a materially negative impact on the price of most equity securities and, as a result, the level of most equity indices. We obtained the levels in the graphs below from Bloomberg Financial Services, without independent verification.

#### Historical Performance of the EURO STOXX 50® Index



### Historical Performance of the STOXX® Europe 600 Index



## SUPPLEMENTAL DISCUSSION OF U.S. FEDERAL INCOME TAX CONSEQUENCES

The following section supplements the discussion of U.S. federal income taxation in the accompanying prospectus supplement.

The following section is the opinion of Sidley Austin LLP, counsel to GS Finance Corp. and The Goldman Sachs Group, Inc. In addition, it is the opinion of Sidley Austin LLP that the characterization of the notes for U.S. federal income tax purposes that will be required under the terms of the notes, as discussed below, is a reasonable interpretation of current law.

This section does not apply to you if you are a member of a class of holders subject to special rules, such as:

- a dealer in securities or currencies;
- a trader in securities that elects to use a mark-to-market method of accounting for your securities holdings;
- a bank;
- a life insurance company;
- a tax exempt organization;
- a partnership;
- a regulated investment company;
- an accrual method taxpayer subject to special tax accounting rules as a result of its use of financial statements;
- a person that owns a note as a hedge or that is hedged against interest rate risks;
- a person that owns a note as part of a straddle or conversion transaction for tax purposes; or
- a United States holder (as defined below) whose functional currency for tax purposes is not the U.S. dollar.

Although this section is based on the U.S. Internal Revenue Code of 1986, as amended, its legislative history, existing and proposed regulations under the Internal Revenue Code, published rulings and court decisions, all as currently in effect, no statutory, judicial or administrative authority directly addresses how your notes should be treated for U.S. federal income tax purposes, and as a result, the U.S. federal income tax consequences of your investment in your notes are uncertain. Moreover, these laws are subject to change, possibly on a retroactive basis.

*You should consult your tax advisor concerning the U.S. federal income tax and any other applicable tax consequences of your investments in the notes, including the application of state, local or other tax laws and the possible effects of changes in federal or other tax laws.*

### United States Holders

This section applies to you only if you are a United States holder that holds your notes as a capital asset for tax purposes. You are a United States holder if you are a beneficial owner of each of your notes and you are:

- a citizen or resident of the United States;
- a domestic corporation;
- an estate whose income is subject to U.S. federal income tax regardless of its source; or
- a trust if a United States court can exercise primary supervision over the trust's administration and one or more United States persons are authorized to control all substantial decisions of the trust.

*Tax Treatment.* You will be obligated pursuant to the terms of the notes — in the absence of a change in law, an administrative determination or a judicial ruling to the contrary — to characterize your notes for all tax purposes as pre-paid derivative contracts in respect of the underliers. Except as otherwise stated below, the discussion herein assumes that the notes will be so treated.



Upon the sale, exchange or maturity of your notes, you should recognize capital gain or loss equal to the difference, if any, between the amount of cash you receive at such time and your tax basis in your notes. Your tax basis in the notes will generally be equal to the amount that you paid for the notes. If you hold your notes for more than one year, the gain or loss generally will be long-term capital gain or loss. If you hold your notes for one year or less, the gain or loss generally will be short-term capital gain or loss. Short-term capital gains are generally subject to tax at the marginal tax rates applicable to ordinary income.

**No statutory, judicial or administrative authority directly discusses how your notes should be treated for U.S. federal income tax purposes. As a result, the U.S. federal income tax consequences of your investment in the notes are uncertain and alternative characterizations are possible. Accordingly, we urge you to consult your tax advisor in determining the tax consequences of an investment in your notes in your particular circumstances, including the application of state, local or other tax laws and the possible effects of changes in federal or other tax laws.**

*Alternative Treatments.* There is no judicial or administrative authority discussing how your notes should be treated for U.S. federal income tax purposes. Therefore, the Internal Revenue Service might assert that a treatment other than that described above is more appropriate. For example, the Internal Revenue Service could treat your notes as a single debt instrument subject to special rules governing contingent payment debt instruments. Under those rules, the amount of interest you are required to take into account for each accrual period would be determined by constructing a projected payment schedule for the notes and applying rules similar to those for accruing original issue discount on a hypothetical noncontingent debt instrument with that projected payment schedule. This method is applied by first determining the comparable yield – i.e., the yield at which we would issue a noncontingent fixed rate debt instrument with terms and conditions similar to your notes – and then determining a payment schedule as of the issue date that would produce the comparable yield. These rules may have the effect of requiring you to include interest in income in respect of your notes prior to your receipt of cash attributable to that income.

If the rules governing contingent payment debt instruments apply, any gain you recognize upon the sale, exchange or maturity of your notes would be treated as ordinary interest income. Any loss you recognize at that time would be ordinary loss to the extent of interest you included as income in the current or previous taxable years in respect of your notes, and, thereafter, capital loss.

If the rules governing contingent payment debt instruments apply, special rules would apply to a person who purchases notes at a price other than the adjusted issue price as determined for tax purposes.

It is also possible that your notes could be treated in the manner described above, except that any gain or loss that you recognize at maturity would be treated as ordinary gain or loss. You should consult your tax advisor as to the tax consequences of such characterization and any possible alternative characterizations of your notes for U.S. federal income tax purposes.

It is possible that the Internal Revenue Service could seek to characterize your notes in a manner that results in tax consequences to you that are different from those described above. You should consult your tax advisor as to the tax consequences of any possible alternative characterizations of your notes for U.S. federal income tax purposes.

### ***Possible Change in Law***

On December 7, 2007, the Internal Revenue Service released a notice stating that the Internal Revenue Service and the Treasury Department are actively considering issuing guidance regarding the proper U.S. federal income tax treatment of an instrument such as the offered notes, including whether holders should be required to accrue ordinary income on a current basis and whether gain or loss should be ordinary or capital. It is not possible to determine what guidance they will ultimately issue, if any. It is possible, however, that under such guidance, holders of the notes will ultimately be required to accrue income currently and this could be applied on a retroactive basis. The Internal Revenue Service and the Treasury Department are also considering other relevant issues, including whether foreign holders of such instruments should be subject to withholding tax on any deemed income accruals and whether the special “constructive ownership rules” of Section 1260 of the Internal Revenue Code might be applied to such instruments. Except to the extent otherwise provided by law, we intend to continue treating the notes for U.S. federal income tax purposes in accordance with the treatment described above under “Tax Treatment” unless and until such time as Congress, the Treasury Department or the Internal Revenue Service determine that some other treatment is more appropriate.

Furthermore, in 2007, legislation was introduced in Congress that, if enacted, would have required holders that acquired instruments such as your notes after the bill was enacted to accrue interest income over the term of such instruments even though there will be no interest payments over the term of such instruments. It is not possible to predict whether a similar or identical bill will be enacted in the future, or whether any such bill would affect the tax treatment of your notes.

It is impossible to predict what any such legislation or administrative or regulatory guidance might provide, and whether the effective date of any legislation or guidance will affect notes that were issued before the date that such legislation or guidance is issued. You are urged to consult your tax advisor as to the possibility that any legislative or administrative action may adversely affect the tax treatment of your notes.

### ***Backup Withholding and Information Reporting***

You will be subject to generally applicable information reporting and backup withholding requirements as discussed in the accompanying prospectus under “United States Taxation — Taxation of Debt Securities — Backup Withholding and Information Reporting — United States Holders” with respect to payments on your notes and, notwithstanding that we do not intend to treat the notes as debt for tax purposes, we intend to backup withhold on such payments with respect to your notes unless you comply with the requirements necessary to avoid backup withholding on debt instruments (in which case you will not be subject to such backup withholding) as set forth under “United States Taxation — Taxation of Debt Securities — United States Holders” in the accompanying prospectus. Please see the discussion under “United States Taxation — Taxation of Debt Securities — Backup Withholding and Information Reporting—United States Holders” in the accompanying prospectus for a description of the applicability of the backup withholding and information reporting rules to payments made on your notes.

### **Non-United States Holders**

This section applies to you only if you are a non-United States holder. You are a non-United States holder if you are the beneficial owner of notes and are, for U.S. federal income tax purposes:

- a nonresident alien individual;
- a foreign corporation; or
- an estate or trust that in either case is not subject to U.S. federal income tax on a net income basis on income or gain from the notes.

You will be subject to generally applicable information reporting and backup withholding requirements as discussed in the accompanying prospectus under “United States Taxation — Taxation of Debt Securities — Backup Withholding and Information Reporting — Non-United States Holders” with respect to payments on your notes at maturity and, notwithstanding that we do not intend to treat the notes as debt for tax purposes, we intend to backup withhold on such payments with respect to your notes unless you comply with the requirements necessary to avoid backup withholding on debt instruments (in which case you will not be subject to such backup withholding) as set forth under “United States Taxation — Taxation of Debt Securities — Non-United States Holders” in the accompanying prospectus.

As discussed above, alternative characterizations of the notes for U.S. federal income tax purposes are possible. Should an alternative characterization of the notes, by reason of a change or clarification of the law, by regulation or otherwise, cause payments at maturity with respect to the notes to become subject to withholding tax, we will withhold tax at the applicable statutory rate and we will not make payments of any additional amounts. Prospective non-United States holders of the notes should consult their tax advisors in this regard.

Furthermore, on December 7, 2007, the Internal Revenue Service released Notice 2008-2 soliciting comments from the public on various issues, including whether instruments such as your notes should be subject to withholding. It is therefore possible that rules will be issued in the future, possibly with retroactive effect, that would cause payments on your notes to be subject to withholding, even if you comply with certification requirements as to your foreign status.

In addition, the Treasury Department has issued regulations under which amounts paid or deemed paid on certain financial instruments (“871(m) financial instruments”) that are treated as attributable to U.S.-source dividends could be treated, in whole or in part depending on the circumstances, as a “dividend equivalent” payment that is subject to tax at a rate of 30% (or a lower rate under an applicable treaty), which in the case of any amounts you receive upon the sale, exchange or maturity of your notes, could be collected via withholding. If these regulations were to apply to the notes, we may be required to withhold such taxes if any U.S.-source dividends are paid on the stocks included in the underliers during the term of the notes. We could also require you to make certifications (e.g., an applicable Internal Revenue Service Form W-8) prior to the maturity of the notes in order to avoid or minimize withholding obligations, and we could withhold accordingly (subject to your potential right to claim a refund from the

Internal Revenue Service) if such certifications were not received or were not satisfactory. If withholding was required, we would not be required to pay any additional amounts with respect to amounts so withheld. These regulations generally will apply to 871(m) financial instruments (or a combination of financial instruments treated as having been entered into in connection with each other) issued (or significantly modified and treated as retired and reissued) on or after January 1, 2023, but will also apply to certain 871(m) financial instruments (or a combination of financial instruments treated as having been entered into in connection with each other) that have a delta (as defined in the applicable Treasury regulations) of one and are issued (or significantly modified and treated as retired and reissued) on or after January 1, 2017. In addition, these regulations will not apply to financial instruments that reference a “qualified index” (as defined in the regulations). We have determined that, as of the issue date of your notes, your notes will not be subject to withholding under these rules. In certain limited circumstances, however, you should be aware that it is possible for non-United States holders to be liable for tax under these rules with respect to a combination of transactions treated as having been entered into in connection with each other even when no withholding is required. You should consult your tax advisor concerning these regulations, subsequent official guidance and regarding any other possible alternative characterizations of your notes for U.S. federal income tax purposes.

#### **Foreign Account Tax Compliance Act (FATCA) Withholding**

Pursuant to Treasury regulations, Foreign Account Tax Compliance Act (FATCA) withholding (as described in “United States Taxation—Taxation of Debt Securities—Foreign Account Tax Compliance Act (FATCA) Withholding” in the accompanying prospectus) will generally apply to obligations that are issued on or after July 1, 2014; therefore, the notes will generally be subject to the FATCA withholding rules.

## **SUPPLEMENTAL PLAN OF DISTRIBUTION; CONFLICTS OF INTEREST**

See “Supplemental Plan of Distribution” on page S-49 of the accompanying general terms supplement no. 2,913 and “Plan of Distribution — Conflicts of Interest” on page 129 of the accompanying prospectus. GS Finance Corp. estimates that its share of the total offering expenses, excluding underwriting discounts and commissions, will be approximately \$ .

GS Finance Corp. will sell to GS&Co., and GS&Co. will purchase from GS Finance Corp., the aggregate face amount of the offered notes specified on the front cover of this pricing supplement. GS&Co. proposes initially to offer the notes to the public at the original issue price set forth on the cover page of this pricing supplement. Each securities dealer will receive from us a structuring fee of up to % of the face amount of each such note.

GS&Co. has engaged InspereX LLC to provide certain marketing services from time to time relating to notes of this series. InspereX LLC will receive a fee of % of the face amount of each note offered hereby from us in connection with such service. GS&Co. is an affiliate of GS Finance Corp. and The Goldman Sachs Group, Inc. and, as such, will have a “conflict of interest” in this offering of notes within the meaning of Financial Industry Regulatory Authority, Inc. (FINRA) Rule 5121. Consequently, this offering of notes will be conducted in compliance with the provisions of FINRA Rule 5121. GS&Co. will not be permitted to sell notes in this offering to an account over which it exercises discretionary authority without the prior specific written approval of the account holder

We have been advised that GS&Co. will also pay a fee in connection with the distribution of the notes to SIMON Markets LLC, a broker-dealer affiliated with GS Finance Corp.

We expect to deliver the notes against payment therefor in New York, New York on August 27, 2021. Under Rule 15c6-1 of the Securities Exchange Act of 1934, trades in the secondary market generally are required to settle in two business days, unless the parties to any such trade expressly agree otherwise. Accordingly, purchasers who wish to trade notes on any date prior to two business days before delivery will be required to specify alternative settlement arrangements to prevent a failed settlement.

We have been advised by GS&Co. that it intends to make a market in the notes. However, neither GS&Co. nor any of our other affiliates that makes a market is obligated to do so and any of them may stop doing so at any time without notice. No assurance can be given as to the liquidity or trading market for the notes.

The notes will not be listed on any securities exchange or interdealer quotation system.

We have not authorized anyone to provide any information or to make any representations other than those contained or incorporated by reference in this pricing supplement, the accompanying general terms supplement no. 2,913, the accompanying underlier supplement no. 22, the accompanying prospectus supplement or the accompanying prospectus. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. This pricing supplement, the accompanying general terms supplement no. 2,913, the accompanying underlier supplement no. 22, the accompanying prospectus supplement and the accompanying prospectus is an offer to sell only the notes offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. The information contained in this pricing supplement, the accompanying general terms supplement no. 2,913, the accompanying underlier supplement no. 22, the accompanying prospectus supplement and the accompanying prospectus is current only as of the respective dates of such documents.

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## **GS Finance Corp.**

Index-Linked Notes due

guaranteed by

**The Goldman Sachs  
Group, Inc.**



**Goldman Sachs & Co. LLC**