

GOLDMAN SACHS GROUP INC

Form 424B2

April 02, 2019

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**The information in this preliminary prospectus supplement is not complete and may be changed. This preliminary prospectus 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.**

Subject to Completion. Dated April 1, 2019.

**GS Finance Corp.**

\$

Autocallable Fixed Coupon Index-Linked Notes due

guaranteed by

**The Goldman Sachs Group, Inc.**

Unless your notes are called, you will receive on the applicable coupon payment date (expected to be the quarterly dates specified on page S-5 of this prospectus supplement) a coupon for each \$1,000 face amount of your notes equal to between \$20.25 and \$22.75 (set on the trade date, expected to be April 30, 2019) and the return on your notes on the stated maturity date (expected to be August 6, 2020) will be based on the performances of the NASDAQ-100 Index<sup>®</sup> and the Russell 2000<sup>®</sup> Index.

Your notes will be automatically called if the closing level of each index on any call observation date (expected to be October 30, 2019, January 30, 2020 and April 30, 2020) is *greater than* or *equal to* its initial level (set on the trade date). If your notes are called, on the applicable call payment date (expected to be the coupon payment dates occurring on November 6, 2019, February 6, 2020 and May 7, 2020) you will receive the face amount of your notes *plus* the coupon then due.

If your notes have not been called and a trigger event has not occurred, at maturity you will receive the face amount of your notes, plus the final coupon. A trigger event will occur if the closing level of either index is *less than* its trigger level of 75% of its initial level on any day during the measurement period (the period from, but excluding, the trade date to, and including, the determination date, which is expected to be July 30, 2020). **Regardless of the level of the indexes on the determination date, you will never receive more than the face amount of your notes at maturity, plus the final coupon. A trigger event may occur on any trading day during the measurement period.**

If your notes have not been called and a trigger event has occurred, at maturity you will receive an amount based on the index with the lowest index return (the percentage increase or decrease in the final level of such index on the determination date from its initial level), plus the final coupon. **If a trigger event has occurred, you will lose the**

face amount of your notes on a one-for-one basis based on any negative return of the lesser performing index (a 10% negative index return on the lesser performing index will result in the loss of 10% of the face amount of your notes at maturity).

A purchaser of these notes in the secondary market should determine if a trigger event has already occurred. The occurrence of a trigger event could affect both the secondary market trading price of these notes or the amount that a holder of the notes will receive at maturity. In order to determine if a trigger event has occurred, see page S-21.

At maturity, if your notes have not been called, for each \$1,000 face amount of your notes you will receive the following in addition to the final coupon:

If a trigger event has not occurred, \$1,000; or

If a trigger event has occurred, either:

- o If the index return of each index is greater than or equal to zero, \$1,000.
- o If the index return of one or more indexes is negative, (a) \$1,000, *plus* (b) \$1,000 *multiplied by* the lowest of such index returns. **You could lose a significant portion 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 S-9.**

*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 \$960 and \$990 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.*

**Original issue date:** expected to be May 3, 2019 **Original issue price:** 100% of the face amount

**Underwriting discount:** % of the face amount\* **Net proceeds to the issuer:** % of the face amount

\* This includes (i) a selling concession of % of the face amount that we have agreed to pay to the dealer, (ii) a fee of % of the face amount that we have agreed to pay to the dealer's affiliate in connection with certain services provided directly by such affiliate to the dealer and (iii) a fee of % of the face amount that we have agreed to pay to a third party in connection with certain marketing services.

**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**

Prospectus Supplement No. dated , 2019.

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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 prospectus 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 \$960 and \$990 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 E program of GS Finance Corp., and are fully and unconditionally guaranteed by The Goldman Sachs Group, Inc. This prospectus includes this prospectus supplement and the accompanying documents listed below. This prospectus supplement constitutes a supplement to the documents listed below and should be read in conjunction with such documents:

Prospectus supplement dated July 10, 2017

Prospectus dated July 10, 2017

The information in this prospectus 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.

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**SUMMARY INFORMATION**

*We refer to the notes we are offering by this prospectus supplement as the offered notes or the notes. Each of the offered notes has the terms described below and under Specific Terms of Your Notes on page S-19. Please note that in this prospectus 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. Also, references to the accompanying prospectus mean the accompanying prospectus, dated July 10, 2017, and references to the accompanying prospectus supplement mean the accompanying prospectus supplement, dated July 10, 2017, for Medium-Term Notes, Series E, in each case of GS Finance Corp. and The Goldman Sachs Group, Inc. References to the indenture in this prospectus supplement mean 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.*

**Investment Thesis**

The notes are designed for investors who:

believe that the closing level of each index will be *greater than* or *equal to* 75% of its initial index level on every trading day during the measurement period, but will be less than 100% of its initial index level on each call observation date and the determination date; and

want to receive a fixed coupon in exchange for bearing the risk of:

- o receiving a maturity payment that in the best case will equal the face amount of the notes and that in the worst case will result in a complete loss of principal (in each case, excluding the final coupon); and
- o having the notes automatically called prior to the stated maturity date if, on any call observation date, the closing level of each index is *greater than* or *equal to* its initial index level.

Call observation dates, on which dates it is determined if the notes are automatically called, occur once quarterly. However, the measurement period, during which period it will be determined if the investors' principal is at risk, is every trading day from but excluding the trade date to and including the determination date.

If the notes have not been automatically called and (i) the index return of each index is *greater than* or *equal to* 0%, or (ii) the closing level of each index has not declined by more than 25% relative to its initial index level on any trading day during the measurement period, at maturity investors will receive the face amount of their notes.

If the notes have not been automatically called and (i) the closing level of any index declined by more than 25% relative to its initial index level on any trading day during the measurement period (referred to throughout this prospectus supplement as a "trigger event") and (ii) the index return of any index is *less than* 0%, at maturity investors will be fully exposed on a one-to-one basis to the decline of the index with the lowest index return and could lose a significant portion of the face amount of their notes.

### Key Terms

**Issuer:** GS Finance Corp.

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

**Indices:** the NASDAQ-100 Index® (Bloomberg symbol, NDX Index), as published by Nasdaq, Inc., and the Russell 2000® Index (Bloomberg symbol, RTY Index), as published by FTSE Russell; see "The Indices" on page S-28

**Specified currency:** U.S. dollars ( \$ )

**Face amount:** each note will have a face amount equal to \$1,000; \$\_\_\_\_\_ in the aggregate for all the offered notes; the aggregate face amount of the offered notes may be increased if the issuer, at its sole option,

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decides to sell an additional amount of the offered notes on a date subsequent to the date of this prospectus supplement

**Denominations:** \$1,000 and integral multiples of \$1,000 in excess thereof

**Purchase at amount other than face amount:** the amount we will pay you for your notes on a call payment date or the stated maturity date, as the case may be, will not be adjusted based on the issue price you pay for your notes, so if you acquire notes at a premium (or discount) to face amount and hold them to a call payment date or the stated maturity date, it could affect your investment in a number of ways. The return on your investment in such notes will be lower (or higher) than it would have been had you purchased the notes at face amount. See *Additional Risk Factors Specific to Your Notes* *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* on page S-12 of this prospectus supplement

**Supplemental discussion of U.S. federal income tax consequences:** 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 each note for all tax purposes as an income-bearing pre-paid derivative contract in respect of the indices, as described under *Supplemental Discussion of Federal Income Tax Consequences* herein. Pursuant to this approach, it is the opinion of Sidley Austin LLP that it is likely that coupon payments will be taxed as ordinary income in accordance with your regular method of accounting for U.S. federal income tax purposes. If you are a United States alien holder of the notes, we intend to withhold on coupon payments made to you at a 30% rate or at a lower rate specified by an applicable income tax treaty. In addition, upon the sale, exchange, redemption or maturity of your notes, it would be reasonable for you to recognize capital gain or loss equal to the difference, if any, between the amount of cash you receive at such time (excluding amounts attributable to coupon payments) and your tax basis in your notes.

**Automatic call feature:** if, as measured on any call observation date, the closing level of each index is *greater than* or *equal to* its initial index level, your notes will be automatically called; if your notes are automatically called on any call observation date, on the corresponding call payment date, in addition to the coupon then due, you will receive an amount in cash equal to \$1,000 for each \$1,000 face amount of your notes

**Cash settlement amount (on any call payment date):** if your notes are automatically called on a call observation date because the closing level of each index is *greater than* or *equal to* its initial index level, for each \$1,000 face amount of your notes, on the related call payment date, we will pay you an amount in cash equal to the *sum* of (i) \$1,000 *plus* (ii) the coupon then due

**Cash settlement amount (on the stated maturity date):** if your notes are not automatically called, for each \$1,000 face amount of your notes, in addition to the final coupon, we will pay you on the stated maturity date an amount in cash equal to:

If a trigger event has not occurred, \$1,000; or

If a trigger event has occurred, either:

- o If the index return of each index is greater than or equal to zero, \$1,000.
- o

If the index return of one or more indices is negative, (a) \$1,000, *plus* (b) \$1,000 *multiplied by* the lesser performing index return. **You could lose a significant portion of the face amount of your notes.**

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

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

**Coupon (to be set on the trade date):** subject to the automatic call feature, on each coupon payment date, for each \$1,000 face amount of your notes, we will pay you an amount in cash equal to between \$20.25 and \$22.75.

**Initial index level (to be set on the trade date):** with respect to each index, the closing level of such index on the trade date

**Final index level:** with respect to each index, the closing level of such index on the determination date, except in the limited circumstances described under Specific Terms of Your Notes Consequences of a Market Disruption Event or a Non-Trading Day on page S-22

**Closing level:** with respect to each index on any trading day, the closing level of such index, as further described under Specific Terms of Your Notes Special Calculation Provisions Closing Level on page S-24

**Index return:** with respect to each index on the determination date, the *quotient* of (i) the final index level *minus* the initial index level *divided by* (ii) the initial index level, expressed as a positive or negative percentage



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**Measurement period:** the period from but excluding the trade date to and including the determination date, *excluding* any date or dates on which the calculation agent determines that a market disruption event with respect to any index occurs or is continuing or that the calculation agent determines is not a trading day with respect to any index, as further described under *Specific Terms of Your Notes* *Payment of Principal on Stated Maturity Date* on page S-20

**Trigger event:** the closing level of any index has declined, as compared to its initial index level, by more than the trigger buffer amount on any trading day during the measurement period

**Trigger buffer amount:** 25%

**Defeasance:** not applicable

**No listing:** the offered notes will not be listed or displayed on any securities exchange or interdealer market quotation system

**Business day:** as described under *Specific Terms of Your Notes* *Special Calculation Provisions* *Business Day* on page S-24

**Trading day:** as described under *Specific Terms of Your Notes* *Special Calculation Provisions* *Trading Day* on page S-24

**Trade date:** expected to be April 30, 2019

**Original issue date (settlement date) (to be set on the trade date):** expected to be May 3, 2019

**Stated maturity date (to be set on the trade date):** expected to be August 6, 2020, subject to adjustment as described under *Specific Terms of Your Notes* *Stated Maturity Date* on page S-21

**Determination date (to be set on the trade date):** expected to be July 30, 2020, subject to adjustment as described under *Specific Terms of Your Notes* *Determination Date* on page S-21

**Call observation dates (to be set on the trade date):** expected to be the dates specified in the table below, subject to adjustment as described under *Specific Terms of Your Notes* *Call Observation Dates* on page S-22

### Call Observation Dates

October 30, 2019  
January 30, 2020  
April 30, 2020

**Call payment dates (to be set on the trade date):** expected to be the coupon payment dates occurring on November 6, 2019, February 6, 2020 and May 7, 2020, subject to adjustment as described under *Specific Terms of Your Notes* *Call Payment Dates* on page S-22

**Coupon payment dates (to be set on the trade date):** expected to be the dates specified in the table below, subject to adjustment as described under *Specific Terms of Your Notes* *Coupon and Coupon Payment Dates* on page S-21

**Coupon Payment Dates**

August 6, 2019  
November 6, 2019  
February 6, 2020  
May 7, 2020  
August 6, 2020

**Regular record dates:** the scheduled business day immediately preceding the day on which payment is to be made

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

**CUSIP no.:** 40056FAY1

**ISIN no.:** US40056FAY16

**FDIC:** 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

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**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 lesser performing index 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 index levels that are entirely hypothetical; no one can predict what the index level of any index will be on any day throughout the life of your notes, what the closing level of any index will be on any call observation date and what the final index level of the lesser performing index will be on the determination date. The indices have been highly volatile in the past meaning that the index 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 the 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 a call payment date or the stated maturity date. If you sell your notes in a secondary market prior to a call payment date or the stated maturity date, as the case may be, 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 indices, whether a trigger event has occurred, 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 S-9 of this prospectus supplement. The information in the examples also reflect the key terms and assumptions in the box below.

**Key Terms and Assumptions**

Face amount	\$1,000
Trigger buffer amount	25%
The notes are not automatically called, unless otherwise indicated below	

Neither a market disruption event nor a non-trading day occurs on any originally scheduled call observation date or the originally scheduled determination date

No change in or affecting any of the index stocks or the method by which the applicable index sponsor calculates any index

The effect of the coupons have been excluded

Notes purchased on original issue date at the face amount and held to a call payment date or the stated maturity date

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

For these reasons, the actual performance of the indices over the life of your notes and the actual index levels on any call observation date may bear little relation to the hypothetical examples shown below or to the historical index levels shown elsewhere in this prospectus supplement. For information about the index levels during recent periods, see *The Indices Historical Closing Levels of the Indices* on page S-42. Before investing in the notes, you should consult publicly available information to determine the index levels between the date of this prospectus 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 index stocks.

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If the notes are **not** automatically called on any call observation date (i.e., on each call observation date the closing level of any index is *less than* its initial index level), the cash settlement amount we would deliver for each \$1,000 face amount of your notes on the stated maturity date will depend on the performance of the lesser performing index on the determination date, as shown in the table below. The table below assumes that **the notes have not been automatically called on a call observation date**, does not include the final coupon and reflects hypothetical cash settlement amounts that you could receive on the stated maturity date.

The levels in the left column of the table below represent hypothetical final index levels of the lesser performing index and are expressed as percentages of the initial index level of the lesser performing index. The amounts in the middle column represent the hypothetical cash settlement amounts, based on the corresponding hypothetical final index level of the lesser performing index, assuming that **a trigger event does not occur** (i.e., the closing level of each index has not declined, as compared to the initial index level, by more than the trigger buffer amount during the measurement period), and are expressed as percentages of the face amount of a note (rounded to the nearest one-thousandth of a percent). The amounts in the right column represent the hypothetical cash settlement amounts, based on the corresponding hypothetical final index level of the lesser performing index, assuming that **a trigger event occurs** (i.e., the closing level of any index has declined, as compared to the initial index level, by more than the trigger buffer amount during the measurement period), 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 index level of the lesser performing index and the assumptions noted above.

The Notes Have <u>Not</u> Been Automatically Called		
Hypothetical Final Index Level of the Lesser		Hypothetical Cash Settlement Amount at Maturity
Performing Index (as Percentage of Initial Index Level)		(as Percentage of Face Amount)*
	Trigger Event Has Not Occurred	Trigger Event Has Occurred
175.000%	100.000%	100.000%
150.000%	100.000%	100.000%
125.000%	100.000%	100.000%
100.000%	100.000%	100.000%
99.999%	100.000%	99.999%
85.000%	100.000%	85.000%
80.000%	100.000%	80.000%
75.000%	100.000%	75.000%
74.999%	N/A	74.999%
40.000%	N/A	40.000%
25.000%	N/A	25.000%
20.000%	N/A	20.000%
10.000%	N/A	10.000%
0.000%	N/A	0.000%

\*Does not include the final coupon

If, for example, **a trigger event has occurred** and the notes have not been automatically called on a call observation date and the final index level of the lesser performing index were determined to be 25.000% of its initial index level, the cash settlement amount that we would deliver on your notes at maturity would be 25.000% 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 75.000% of your investment (if you purchased your notes at a premium to face amount you would lose a correspondingly higher percentage of your investment).

If, for example, **a trigger event has not occurred** and the final index level of the lesser performing index were determined to be 80.000% of its initial index level, the cash settlement amount that we would deliver on your notes at maturity would be 100.000% of the face amount of your notes, as shown in the table above. In addition, if the final index level of the lesser performing index were determined to be 175.000% of its initial index level, the cash settlement amount that we would deliver on your notes at maturity would be limited to 100.000% of each \$1,000 face amount of your notes, as shown in the table above. As a result, if you held your notes to the stated maturity date, you would not benefit from any increase in the final index level over the initial index level.

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The cash settlement amounts shown above are entirely hypothetical; they are based on market prices for the index 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 S-11.

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 prospectus supplement.

*We cannot predict the actual closing levels of the indices on any day, the final index level of the indices 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 indices and the market value of your notes at any time prior to the stated maturity date. The actual amount that you will receive at maturity and the rate of return on the offered notes will depend on whether or not the notes are called, the actual initial index levels and coupon, which we will set on the trade date, and on the actual closing levels of the indices during the measurement period and on the call observation dates and the actual final index levels determined by the calculation agent as described above. Moreover, the assumptions on which the hypothetical examples are based may turn out to be inaccurate. Consequently, the cash amount to be paid in respect of your notes on the stated maturity date, if any, may be very different from the information reflected in the examples above.*

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**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 and in the accompanying prospectus supplement. You should carefully review these risks and considerations as well as the terms of the notes described herein and in the accompanying prospectus and the accompanying prospectus supplement. Your notes are a riskier investment than ordinary debt securities. Also, your notes are not equivalent to investing directly in the index stocks, i.e., with respect to an index to which your notes are linked, the stocks comprising such index. You should carefully consider whether the offered notes are suited to your particular circumstances.*

**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

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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 **Your Notes May Not Have an Active Trading Market** below.

### **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 index, 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 E Program** **How the Notes Rank Against Other Debt** on page S-4 of the accompanying prospectus supplement and **Description of Debt Securities We May Offer** **Guarantee by The Goldman Sachs Group, Inc.** on page 42 of the accompanying prospectus.

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

You can lose your entire investment in the notes. Assuming your notes are not automatically called, the cash settlement amount on your notes, if any, on the stated maturity date will be based on (i) the performances of the NASDAQ-100 Index® and the Russell 2000® Index during the measurement period and (ii) the performance of the lesser performing of the NASDAQ-100 Index® and the Russell 2000® Index as measured from their initial index levels set on the trade date to their closing levels on the determination date. If a trigger event has occurred (i.e., the closing level of any index is less than 75% of its initial index level on any trading day during the measurement period) and the final index level of any index is *less than* the initial index level you will have a loss for each \$1,000 of the face amount of your notes equal to the *product* of the lesser performing index return *times* \$1,000. 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 a call payment date or the stated maturity date, as the case may be, 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.

### **Your Notes Are Subject to Automatic Redemption**

We will automatically call and redeem all, but not part, of your notes on a call payment date if, as measured on any call observation date, the closing level of each index is greater than or equal to its initial index level. Therefore, the term for your notes may be reduced to approximately six months after the original issue date. You will not receive any additional coupon payments after the notes are automatically called and you may not be able to reinvest the proceeds from an investment in the notes at a comparable return for a similar level of risk in the event the notes are

automatically called prior to maturity.

**The Coupon is Fixed and Does Not Reflect the Actual Performance of the Indices**

Subject to the automatic call feature, the notes will pay a fixed coupon on each coupon payment date. The coupon for each quarterly coupon payment date is different from, and may be significantly less than, a coupon that is based on the performance of the indices. You will not participate in any appreciation of any index. Accordingly, the coupons on the notes may be significantly less than the return you could earn on another instrument linked to the indices that pay coupons based on the performance of the indices.

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

If the notes are not automatically called, the cash settlement amount will be based on the lesser performing index without regard to the performance of the other index. As a result, you could lose all or some of your initial investment if the lesser performing index return is negative, even if there is an increase in the level of the other index. This could be the case even if the other index increased by an amount greater than the decrease in the lesser performing index.

In addition, if a trigger event occurs (i.e., the closing level of any index is less than 75% of its initial index level on any trading day during the measurement period), at maturity you will be exposed to the downside performance of each index. For example, if a trigger event occurs because the closing level of the NASDAQ-100 Index<sup>®</sup> declines below its initial index level by more than the trigger buffer amount during the measurement period, but the level of the NASDAQ-100 Index<sup>®</sup> increases and is greater than its initial index level on the determination date, you will still receive less than the face amount of your notes if the level of the Russell 2000<sup>®</sup> Index declines below its initial index level on the determination date. As a result, if a trigger event occurs, the downside performance of any index will result in you receiving less than the face amount at maturity.

**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 indices;

the volatility i.e., the frequency and magnitude of changes in the closing levels of the indices;

the dividend rates of the index stocks;

economic, financial, regulatory, political, military and other events that affect stock markets generally and the index stocks, and which may affect the closing levels of the indices;

interest rates and yield rates in the market;

whether a trigger event has occurred;

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.

These factors, and many other factors, will influence the price you will receive 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 before maturity, you may receive less than the face amount of your notes.

You cannot predict the future performance of the indices based on their historical performance. The actual performance of the indices over the life of the offered notes and the cash settlement amount paid on a call payment date or the stated maturity date, as the case may be, may bear little or no relation to the historical closing levels of the indices or to the hypothetical examples shown elsewhere in this prospectus supplement.

**As Compared to Other Index Sponsors, Nasdaq, Inc. Retains Significant Control and Discretionary Decision-Making Over the NASDAQ-100 Index®, Which May Have an Adverse Effect on the Level of the NASDAQ-100 Index® and on Your Notes**

Pursuant to the NASDAQ-100 Index® methodology, Nasdaq, Inc. retains the right, from time to time, to exercise reasonable discretion as it deems appropriate in order to ensure NASDAQ-100 Index® integrity, including, but not limited to, changes to quantitative inclusion criteria. Nasdaq, Inc. may also, due to special circumstances, apply discretionary adjustments to ensure and maintain quality of the NASDAQ-100 Index®. Although it is unclear how and to what extent this discretion could or would be exercised, it is possible that it could be exercised by Nasdaq, Inc. in a manner that materially and adversely affects the level of the

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NASDAQ-100 Index® and therefore your notes. Nasdaq, Inc. is not obligated to, and will not, take account of your interests in exercising the discretion described above.

### **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 you will be paid for your notes on the stated maturity date, if any, or the amount you will be paid on a call payment date 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 a call payment date or 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 a call payment date or 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.

### **If the Levels of the Indices Change, the Market Value of Your Notes May Not Change in the Same Manner**

The price of your notes may move differently than the performance of the indices. Changes in the levels of the indices may not result in a comparable change in the market value of your notes. Even if the closing level of each index has not declined by more than the trigger buffer amount during some portion of the life of the notes (i.e., a trigger event has not occurred), the market value of your notes may not reflect this. We discuss some of the reasons for this disparity under **The Market Value of Your Notes May Be Influenced by Many Unpredictable Factors** above.

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

If a trigger event occurs and the final index level of the lesser performing index is less than its initial index 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 25% drop between the initial index level and the closing level of any index on any day during the measurement period will not result in a loss of principal on the notes (since a trigger event will not have occurred), a decrease in the closing level of any index to less than 75% of its initial index level on any day during the measurement period may, or a decrease in the final index level of the lesser performing index to less than 75% of its initial index level will, result in a loss of a significant portion of the principal amount of the notes despite only a small change in the level of the index.

### **Anticipated Hedging Activities by Goldman Sachs or Our Distributors May Negatively Impact Investors in the Notes and Cause Our Interests and Those of Our Clients and Counterparties to be Contrary to Those of Investors in the Notes**

Goldman Sachs expects to hedge our obligations under the notes by purchasing listed or over-the-counter options, futures and/or other instruments linked to the indices or the index stocks. Goldman Sachs also expects to adjust the hedge by, among other things, purchasing or selling any of the foregoing, and perhaps other instruments linked to the indices or the index stocks, at any time and from time to time, and to unwind the hedge by selling any of the foregoing on or before the determination date for your notes. Alternatively, Goldman Sachs may hedge all or part of our obligations under the notes with unaffiliated distributors of the notes which we expect will undertake similar market activity. Goldman Sachs may also enter into, adjust and unwind hedging transactions relating to other index-linked notes whose returns are linked to changes in the levels of the indices or the index stocks, as applicable.

In addition to entering into such transactions itself, or distributors entering into such transactions, Goldman Sachs may structure such transactions for its clients or counterparties, or otherwise advise or assist clients or counterparties in entering into such transactions. These activities may be undertaken to achieve a variety of objectives, including: permitting other purchasers of the notes or other securities to hedge their investment in whole or in part; facilitating transactions for other clients or counterparties that may have business objectives or investment strategies that are inconsistent with or contrary to those of investors in the notes; hedging the exposure of Goldman Sachs to the notes including any interest in the notes that it reacquires or retains as part of the offering process, through its market-making activities or otherwise; enabling Goldman Sachs to comply with its internal risk limits or otherwise manage firmwide, business unit

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or product risk; and/or enabling Goldman Sachs to take directional views as to relevant markets on behalf of itself or its clients or counterparties that are inconsistent with or contrary to the views and objectives of the investors in the notes.

Any of these hedging or other activities may adversely affect the levels of the indices directly or indirectly by affecting the price of the index stocks and therefore the market value of your notes and the amount we will pay on your notes. In addition, you should expect that these transactions will cause Goldman Sachs or its clients, counterparties or distributors to have economic interests and incentives that do not align with, and that may be directly contrary to, those of an investor in the notes. Neither Goldman Sachs nor any distributor will have any obligation to take, refrain from taking or cease taking any action with respect to these transactions based on the potential effect on an investor in the notes, and may receive substantial returns on hedging or other activities while the value of your notes declines. In addition, if the distributor from which you purchase notes is to conduct hedging activities in connection with the notes, that distributor may otherwise profit in connection with such hedging activities and such profit, if any, will be in addition to the compensation that the distributor receives for the sale of the notes to you. You should be aware that the potential to earn fees in connection with hedging activities may create a further incentive for the distributor to sell the notes to you in addition to the compensation they would receive for the sale of the notes.

### **Goldman Sachs Trading and Investment Activities for its Own Account or for its Clients, Could Negatively Impact Investors in the Notes**

Goldman Sachs is a global investment banking, securities and investment management firm that provides a wide range of financial services to a substantial and diversified client base that includes corporations, financial institutions, governments and individuals. As such, it acts as an investor, investment banker, research provider, investment manager, investment advisor, market maker, trader, prime broker and lender. In those and other capacities, Goldman Sachs purchases, sells or holds a broad array of investments, actively trades securities, derivatives, loans, commodities, currencies, credit default swaps, indices, baskets and other financial instruments and products for its own account or for the accounts of its customers, and will have other direct or indirect interests, in the global fixed income, currency, commodity, equity, bank loan and other markets. Any of Goldman Sachs financial market activities may, individually or in the aggregate, have an adverse effect on the market for your notes, and you should expect that the interests of Goldman Sachs or its clients or counterparties will at times be adverse to those of investors in the notes.

Goldman Sachs regularly offers a wide array of securities, financial instruments and other products into the marketplace, including existing or new products that are similar to your notes, or similar or linked to the indices or index stocks. Investors in the notes should expect that Goldman Sachs will offer securities, financial instruments, and other products that will compete with the notes for liquidity, research coverage or otherwise.

### **Goldman Sachs Market-Making Activities Could Negatively Impact Investors in the Notes**

Goldman Sachs actively makes markets in and trades financial instruments for its own account and for the accounts of customers. These financial instruments include debt and equity securities, currencies, commodities, bank loans, indices, baskets and other products. Goldman Sachs activities include, among other things, executing large block trades and taking long and short positions directly and indirectly, through derivative instruments or otherwise. The securities and instruments in which Goldman Sachs takes positions, or expects to take positions, include securities and instruments of an index or index stocks, securities and instruments similar to or linked to the foregoing or the currencies in which they are denominated. Market making is an activity where Goldman Sachs buys and sells on behalf of customers, or for its own account, to satisfy the expected demand of customers. By its nature, market making involves facilitating transactions among market participants that have differing views of securities and instruments. As



a result, you should expect that Goldman Sachs will take positions that are inconsistent with, or adverse to, the investment objectives of investors in the notes.

If Goldman Sachs becomes a holder of any securities of the indices or index stocks in its capacity as a market-maker or otherwise, any actions that it takes in its capacity as securityholder, including voting or provision of consents, will not necessarily be aligned with, and may be inconsistent with, the interests of investors in the notes.

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**You Should Expect That Goldman Sachs Personnel Will Take Research Positions, or Otherwise Make Recommendations, Provide Investment Advice or Market Color or Encourage Trading Strategies That Might Negatively Impact Investors in the Notes**

Goldman Sachs and its personnel, including its sales and trading, investment research and investment management personnel, regularly make investment recommendations, provide market color or trading ideas, or publish or express independent views in respect of a wide range of markets, issuers, securities and instruments. They regularly implement, or recommend to clients that they implement, various investment strategies relating to these markets, issuers, securities and instruments. These strategies include, for example, buying or selling credit protection against a default or other event involving an issuer or financial instrument. Any of these recommendations and views may be negative with respect to the indices or index stocks or other securities or instruments similar to or linked to the foregoing or result in trading strategies that have a negative impact on the market for any such securities or instruments, particularly in illiquid markets. In addition, you should expect that personnel in the trading and investing businesses of Goldman Sachs will have or develop independent views of the indices or index stocks, the relevant industry or other market trends, which may not be aligned with the views and objectives of investors in the notes.

**Goldman Sachs Regularly Provides Services to, or Otherwise Has Business Relationships with, a Broad Client Base, Which May Include the Sponsors of an Index or the Issuers of the Index Stocks or Other Entities That Are Involved in the Transaction**

Goldman Sachs regularly provides financial advisory, investment advisory and transactional services to a substantial and diversified client base, and you should assume that Goldman Sachs will, at present or in the future, provide such services or otherwise engage in transactions with, among others, the sponsors of the indices or the issuers of the index stocks, or transact in securities or instruments or with parties that are directly or indirectly related to the foregoing. These services could include making loans to or equity investments in those companies, providing financial advisory or other investment banking services, or issuing research reports. You should expect that Goldman Sachs, in providing such services, engaging in such transactions, or acting for its own account, may take actions that have direct or indirect effects on the indices or index stocks, as applicable, and that such actions could be adverse to the interests of investors in the notes. In addition, in connection with these activities, certain Goldman Sachs personnel may have access to confidential material non-public information about these parties that would not be disclosed to Goldman Sachs employees that were not working on such transactions as Goldman Sachs has established internal information barriers that are designed to preserve the confidentiality of non-public information. Therefore, any such confidential material non-public information would not be shared with Goldman Sachs employees involved in structuring, selling or making markets in the notes or with investors in the notes.

In this offering, as well as in all other circumstances in which Goldman Sachs receives any fees or other compensation in any form relating to services provided to or transactions with any other party, no accounting, offset or payment in respect of the notes will be required or made; Goldman Sachs will be entitled to retain all such fees and other amounts, and no fees or other compensation payable by any party or indirectly by holders of the notes will be reduced by reason of receipt by Goldman Sachs of any such other fees or other amounts.

**The Offering of the Notes May Reduce an Existing Exposure of Goldman Sachs or Facilitate a Transaction or Position That Serves the Objectives of Goldman Sachs or Other Parties**

A completed offering may reduce Goldman Sachs' existing exposure to the indices or index stocks, securities and instruments similar to or linked to the foregoing or the currencies in which they are denominated, including exposure gained through hedging transactions in anticipation of this offering. An offering of notes will effectively transfer a portion of Goldman Sachs' exposure (and indirectly transfer the exposure of Goldman Sachs' hedging or other

counterparties) to investors in the notes.

The terms of the offering (including the selection of the indices or index stocks, and the establishment of other transaction terms) may have been selected in order to serve the investment or other objectives of Goldman Sachs or another client or counterparty of Goldman Sachs. In such a case, Goldman Sachs would typically receive the input of other parties that are involved in or otherwise have an interest in the offering, transactions hedged by the offering, or related transactions. The incentives of these other parties would normally differ from and in many cases be contrary to those of investors in the notes.

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**Other Investors in the Notes May Not Have the Same Interests as You**

Other investors in the notes are not required to take into account the interests of any other investor in exercising remedies or voting or other rights in their capacity as securityholders or in making requests or recommendations to Goldman Sachs as to the establishment of other transaction terms. The interests of other investors may, in some circumstances, be adverse to your interests. For example, certain investors may take short positions (directly or indirectly through derivative transactions) on assets that are the same or similar to your notes, index, index stocks or other similar securities, which may adversely impact the market for or value of your notes.

**The Policies of an Index Sponsor and Changes that Affect an Index or the Index Stocks Comprising an Index, Could Affect the Cash Settlement Amount If the Notes Are Automatically Called on any Call Observation Date or the Cash Settlement Amount on the Stated Maturity Date and the Market Value of Your Notes**

The policies of an index sponsor concerning the calculation of the level of an index, additions, deletions or substitutions of the index stocks comprising such index, and the manner in which changes affecting such index stocks or their issuers, such as stock dividends, reorganizations or mergers, are reflected in the index level, could affect the level of such index and, therefore, whether the notes are automatically called and the market value of your notes before that date. Whether the notes are automatically called and their market value could also be affected if an index sponsor changes these policies, for example, by changing the manner in which it calculates the index level, or if the index sponsor discontinues or suspends calculation or publication of such index level, in which case it may become difficult to determine the market value of your notes. If events such as these occur, the calculation agent which initially will be GS&Co., our affiliate may determine the applicable index levels on any such date and thus the cash settlement amount if the notes are automatically called on any call observation date or the cash settlement amount on the stated maturity date, as applicable in a manner it considers appropriate, in its sole discretion. We describe the discretion that the calculation agent will have in determining the applicable index levels on any trading day, a call observation date or the determination date and the cash settlement amount more fully under Specific Terms of Your Notes Discontinuance or Modification of an Index and Role of Calculation Agent below.

**The Return on Your Notes Will Not Reflect Any Dividends Paid on the Index Stocks**

The applicable index sponsor calculates the level of an index by reference to the prices of the index stocks, without taking account of the value of dividends paid on those index stocks. Therefore, the return on your notes will not reflect the return you would realize if you actually owned the index stocks included in each index and received the dividends paid on those index stocks. You will not receive any dividends that may be paid on any of the index stocks by the index stock issuers. See You Have No Shareholder Rights or Rights to Receive Any Index Stock below for additional information.

**You Have No Shareholder Rights or Rights to Receive Any Index Stock**

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

**Past Index Performance is No Guide to Future Performance**

The actual performance of the indices over the life of the notes, as well as the cash settlement amount on any call payment date or at maturity, if any, may bear little relation to the historical closing levels of the indices or to the hypothetical examples set forth elsewhere in this prospectus supplement. We cannot predict the future performance of the indices.

**As Calculation Agent, GS&Co. Will Have the Authority to Make Determinations that Could Affect the Value of Your Notes**

As calculation agent for your notes, GS&Co. will have discretion in making certain determinations that affect your notes, including determining: whether your notes will be automatically called; the final index level of the lesser performing index on the determination date, which we will use to determine the amount we must pay

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on the stated maturity date; whether to exclude a trading day during the measurement period due to a market disruption event; whether to postpone a call observation date or the determination date because of a market disruption event or a non-trading day; whether a trigger event has occurred; the coupon payment dates; the call observation dates; the call payment dates and the stated maturity date. The calculation agent also has discretion in making certain adjustments relating to a discontinuation or modification of the indices. See *Specific Terms of Your Notes Discontinuance or Modification of an Index* below. The exercise of this discretion by GS&Co. could adversely affect the value of your notes and may present GS&Co. with a conflict of interest. We may change the calculation agent at any time without notice and GS&Co. may resign as calculation agent at any time upon 60 days' written notice to us.

**Your Notes May Not Have an Active Trading Market**

Your notes will not be listed or displayed on any securities exchange or included in any interdealer market quotation system, and there may be little or no secondary market for your notes. Even if a secondary market for your notes develops, it may not provide significant liquidity and we expect that transaction costs in any secondary market would be high. As a result, the difference between bid and asked prices for your notes in any secondary market could be substantial.

**The Calculation Agent Can Postpone a Call Observation Date or the Determination Date, as the Case May Be, If a Market Disruption Event or a Non-Trading Day Occurs or is Continuing**

If the calculation agent determines that, on a date that would otherwise be a call observation date or the determination date, a market disruption event has occurred or is continuing with respect to any index or that day is not a trading day with respect to any index, such call observation date or the determination date will be postponed as provided under *Specific Terms of Your Notes Call Observation Dates* and *Specific Terms of Your Notes Determination Date*, as applicable. In no case, however, will the call observation date or the determination date be postponed to a date later than the immediately following originally scheduled call payment date or the originally scheduled stated maturity date, as applicable, or if the immediately following originally scheduled call payment date or the originally scheduled stated maturity date is not a business day, later than the first business day after the immediately following originally scheduled call payment date or the originally scheduled stated maturity date. Moreover, if a call observation date or the determination date, as applicable, is postponed to the last possible day, but the market disruption event has not ceased by that day or that day is not a trading day, that day will nevertheless be the call observation date or the determination date, as applicable, for the immediately following call payment date or the stated maturity date. In such a case, the calculation agent will determine the applicable closing levels or final index levels for such call observation date or the determination date based on the procedures described under *Specific Terms of Your Notes Consequences of a Market Disruption Event or a Non-Trading Day* below.

**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 prospectus 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 prospectus supplement.

**There Is No Affiliation Between the Index Stock Issuers or the Index Sponsors and Us**

We are not affiliated with the issuers of the index stocks or the index sponsors. As we have told you above, however, we or our affiliates may currently or from time to time in the future own securities of, or engage in business with, the index sponsors or the index stock issuers. Neither we nor any of our affiliates have participated in the preparation of any publicly available information or made any due diligence investigation or inquiry with respect to the indices or the

index stock issuers. You, as an investor in your notes, should make your own investigation into the indices and the index stock issuers. See [The Indices](#) below for additional information about each index.

Neither the index sponsors nor any of the index stock issuers are involved in the offering of your notes in any way and none of them have any obligation of any sort with respect to your notes. Thus, neither the index sponsors nor any of the index stock issuers have any obligation to take your interests into consideration for any reason, including in taking any corporate actions that might affect the market value of your notes.

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

The value of your notes is linked, in part, to an index that is comprised, in part, 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 has voted to leave the European Union (popularly known as "Brexit"). The effect of Brexit is uncertain, and Brexit has and may continue to contribute to volatility in the prices of securities of companies located in Europe 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.

### **Certain Considerations for Insurance Companies and Employee Benefit Plans**

Any insurance company or fiduciary of a pension plan or other employee benefit plan that is subject to the prohibited transaction rules of the Employee Retirement Income Security Act of 1974, as amended, which we call "ERISA", or the Internal Revenue Code of 1986, as amended, including an IRA or a Keogh plan (or a governmental plan to which similar prohibitions apply), and that is considering purchasing the offered notes with the assets of the insurance company or the assets of such a plan, should consult with its counsel regarding whether the purchase or holding of the offered notes could become a prohibited transaction under ERISA, the Internal Revenue Code or any substantially similar prohibition in light of the representations a purchaser or holder in any of the above categories is deemed to make by purchasing and holding the offered notes. This is discussed in more detail under "Employee Retirement Income Security Act" below.

### **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. 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 Federal Income Tax Consequences United States

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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 Federal Income Tax Consequences on page S-44 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 discussion in that section is hereby modified to reflect regulations proposed by the Treasury Department indicating its intent to eliminate the requirements under FATCA of withholding on gross proceeds from the sale, exchange, maturity or other disposition of relevant financial instruments. The Treasury Department has indicated that taxpayers may rely on these proposed regulations pending their finalization.

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**SPECIFIC TERMS OF YOUR NOTES**

*We refer to the notes we are offering by this prospectus supplement as the offered notes or the notes. Please note that in this prospectus 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. Also, references to the accompanying prospectus mean the accompanying prospectus, dated July 10, 2017, and references to the accompanying prospectus supplement mean the accompanying prospectus supplement, dated July 10, 2017, for Medium-Term Notes, Series E, in each case of GS Finance Corp. and The Goldman Sachs Group, Inc. Please note that in this section entitled Specific Terms of Your Notes, references to holders mean those who own notes registered in their own names, on the books that we or the trustee maintain for this purpose, and not those who own beneficial interests in notes registered in street name or in notes issued in book-entry form through The Depository Trust Company. Please review the special considerations that apply to owners of beneficial interests in the accompanying prospectus, under Legal Ownership and Book-Entry Issuance.*

The offered notes are part of a series of debt securities, entitled Medium-Term Notes, Series E, that we may issue under the indenture from time to time as described in the accompanying prospectus supplement and accompanying prospectus. The offered notes are also indexed debt securities, as defined in the accompanying prospectus.

This prospectus supplement summarizes specific financial and other terms that apply to the offered notes, including your notes; terms that apply generally to all Series E medium-term notes are described in Description of Notes We May Offer in the accompanying prospectus supplement. The terms described here supplement those described in the accompanying prospectus supplement and the accompanying prospectus and, if the terms described here are inconsistent with those described there, the terms described here are controlling.

In addition to those terms described under Summary Information in this prospectus supplement, the following terms will apply to your notes:

**Specified currency:**

U.S. dollars ( \$ )

**Form of note:**

global form only: yes, at DTC

non-global form available: no

**Denominations:** each note registered in the name of a holder must have a face amount of \$1,000 or an integral multiple of \$1,000 in excess thereof

**Defeasance applies as follows:**

full defeasance: no

covenant defeasance: no

**Other terms:**

the default amount will be payable on any acceleration of the maturity of your notes as described under Special Calculation Provisions below

a business day for your notes will not be the same as a business day for our other Series E medium-term notes, as described under Special Calculation Provisions below

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a trading day for your notes will be as described under Special Calculation Provisions below. Please note that the information about the settlement or trade date, issue price, discount or commission and net proceeds to GS Finance Corp. on the front cover page or elsewhere in this prospectus supplement relates only to the initial issuance and sale of the offered notes. We may decide to sell additional notes on one or more dates after the date of this prospectus supplement, at issue prices and with underwriting discounts and net proceeds that differ from the amounts set forth on the front cover page or elsewhere in this prospectus supplement. If you have purchased your notes in a market-making transaction after the initial issuance and sale of the offered notes, any such relevant information about the sale to you will be provided in a separate confirmation of sale.

We describe the terms of your notes in more detail below.

### **Index, Index Sponsor and Index Stocks**

In this prospectus supplement, when we refer to an index, we mean the NASDAQ-100 Index® or the Russell 2000® Index specified on the front cover page, or any successor index, as each may be modified, replaced or adjusted from time to time as described under

Discontinuance or Modification of an Index below. When we refer to an index sponsor as of any time, we mean the entity, including any successor sponsor, that determines and publishes the applicable index as then in effect. When we refer to the index stocks of an index as of any time, we mean the stocks that comprise the index as then in effect, after giving effect to any additions, deletions or substitutions.

### **Automatic Call Feature**

If, as measured on any call observation date, the closing level of each index is *greater than or equal to* its initial index level, your notes will be automatically called. If your notes are automatically called on any call observation date, on the corresponding call payment date, in addition to the coupon then due, you will receive an amount in cash equal to \$1,000 for each \$1,000 face amount of your notes.

### **Payment of Principal on Stated Maturity Date**

If your notes are not automatically called, for each \$1,000 face amount of your notes, in addition to the final coupon, we will pay you on the stated maturity date an amount in cash equal to:

If a trigger event has not occurred, \$1,000; or

If a trigger event has occurred, either:

- o If the index return of each index is greater than or equal to zero, \$1,000.
- o If the index return of one or more indices is negative, (a) \$1,000, *plus* (b) \$1,000 *multiplied by* the lesser performing index return. **You could lose a significant portion of the face amount of your notes.**

With respect to each index, the index return is calculated by *subtracting* the initial index level from the final index level and *dividing* the result by the initial index level, with the quotient expressed as a percentage.

The lesser performing index is the index with the lowest index return. The lesser performing index return is the index return of the lesser performing index.

With respect to each index, the initial index level will be set on the trade date, which will be the closing level of such index on the trade date. With respect to each index, the calculation agent will determine the final index level, which will be the closing level of such index on the determination date. However, the calculation agent will have discretion to adjust the closing level on any call observation date or the determination date or to determine it in a different manner as described under Consequences of a Market Disruption Event or a Non-Trading Day and Discontinuance or Modification of an Index below.

A trigger event occurs when the closing level of any index has declined, as compared to its initial index level, by more than the trigger buffer amount on any trading day during the measurement period. The trigger buffer amount is 25%.

The measurement period is the period from but excluding the trade date to and including the determination date, *excluding* any date or dates on which the calculation agent determines that a market disruption event

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with respect to any index occurs or is continuing or that the calculation agent determines is not a trading day with respect to any index. Notwithstanding the immediately preceding sentence, if the calculation agent determines that, with respect to any index, a market disruption event occurs or is continuing on the last day of the measurement period (i.e., the determination date) or that day is not otherwise a trading day, the determination date, and therefore the last day for the measurement period, will be postponed as described under **Determination Date** below.

***Considerations for Secondary Market Purchasers***

A purchaser of these notes in the secondary market should determine if a trigger event has already occurred. The occurrence of a trigger event could affect both the secondary market trading price of these notes after a secondary market purchase or the amount a secondary market purchaser will receive at maturity. In order to determine if a trigger event has occurred, you should determine if the closing level of either the NASDAQ-100 Index® and the Russell 2000® Index was less than 75% of its initial index level on any date from the day after the original trade date to the date of your purchase. Certain financial websites make index levels publicly available, which can be helpful when determining whether a trigger event may have occurred. If you would like assistance in determining whether a trigger event has occurred, please call GS&Co. at (212) 902-0300.

***Stated Maturity Date***

The stated maturity date is expected to be August 6, 2020, unless that day is not a business day, in which case the stated maturity date will be the next following business day. If the determination date is postponed as described under **Determination Date** below, 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.

***Determination Date***

The determination date is expected to be July 30, 2020, unless the calculation agent determines that, with respect to any index, 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 index, the determination date will be the first day thereafter that is a trading day for all indices (the **first qualified trading day**) provided that no market disruption event occurs or is continuing with respect to an index on that day. If a market disruption event with respect to an index 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 index 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 index 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 index 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 index 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 index, that day will nevertheless be the determination date.

***Coupon and Coupon Payment Dates***

Subject to the automatic call feature, on each coupon payment date, for each \$1,000 face amount of your notes, we will pay you an amount in cash equal to between \$20.25 and \$22.75 (set on the trade date).

The coupons on the offered notes will be paid on the coupon payment dates (to be set on the trade date and are expected to be the dates specified in the table under Summary Information Key Terms Coupon Payment Dates on page S-5). If an originally scheduled coupon payment date is not a business day, such

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coupon payment date will be postponed to the next following business day. A coupon payment date (other than the final coupon payment date) will also be postponed if the immediately preceding call observation date is postponed as described under **Call Observation Dates** below. In such a case, regardless of whether the notes are automatically called, such coupon payment date will be postponed by the same number of business day(s) from but excluding the originally scheduled call observation date to and including the actual call observation date. The final coupon payment date will also be postponed if the stated maturity date is postponed as a result of a postponement of the determination date. In such a case, the final coupon payment 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.

***Call Observation Dates***

The call observation dates will be set on the trade date and are expected to be the dates specified in the table under **Summary Information Key Terms Call Observation Dates** on page S-5, unless the calculation agent determines that, with respect to any index, 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 call observation date is a non-trading day with respect to any index, the call observation date will be the first day thereafter that is a trading day for all indices (the **first qualified call trading day**) provided that no market disruption event occurs or is continuing with respect to an index on that day. If a market disruption event with respect to an index occurs or is continuing on the originally scheduled call observation date or the first qualified call trading day, the call observation date will be the first following trading day on which the calculation agent determines that each index has had at least one trading day (from and including the originally scheduled call observation date or the first qualified call trading day, as applicable) on which no market disruption event has occurred or is continuing and the closing level of each index for that call observation date will be determined on or prior to the postponed call observation date as set forth under **Consequences of a Market Disruption Event or a Non-Trading Day** below. (In such case, the call observation date may differ from the date on which the level of an index is determined for the purpose of the calculations to be performed on the call observation date.) In no event, however, will the call observation date be postponed to a date later than the originally scheduled corresponding call payment date or, if the originally scheduled corresponding call payment date is not a business day, later than the first business day after the originally scheduled corresponding call payment 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 call observation date, if a market disruption event occurs or is continuing with respect to an index 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 index, that day will nevertheless be the call observation date.

***Call Payment Dates***

If your notes are automatically called on any call observation date, on the immediately following call payment date (the call payment dates are expected to be the coupon payment dates occurring on November 6, 2019, February 6, 2020 and May 7, 2020, subject to adjustment as described under **Coupon and Coupon Payment Dates** above) you will receive an amount in cash equal to \$1,000 for each \$1,000 face amount of your notes in addition to the coupon then due.

***Consequences of a Market Disruption Event or a Non-Trading Day***

With respect to any index, if a market disruption event occurs or is continuing on a day that would otherwise be a call observation date or the determination date, or such day is not a trading day, then such call observation date or the determination date will be postponed as described under **Call Observation Dates** or **Determination Date** above. If any call observation date or the determination date is postponed to the last possible date due to the occurrence of serial non-trading days, the level of each index will be the calculation agent's assessment of such level, in its sole discretion,

on such last possible postponed call observation date or determination date, as applicable. If any call observation date or the determination date is postponed due to a market disruption event with respect to any index, the closing level of each index with respect to such call observation date or the final index level with respect to the determination date, as applicable, will be calculated based on (i) for any index that is not affected by a market disruption event on (A) the applicable originally scheduled call observation date or the first qualified call trading day thereafter (if applicable) or (B) the originally scheduled determination date or the first

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qualified trading day thereafter (if applicable), the closing level of the index on that date, (ii) for any index that is affected by a market disruption event on (A) the applicable originally scheduled call observation date or the first qualified call trading day thereafter (if applicable) or (B) the originally scheduled determination date or the first qualified trading day thereafter (if applicable), the closing level of the index on the first following trading day on which no market disruption event exists for such index and (iii) the calculation agent's assessment, in its sole discretion, of the level of any index on the last possible postponed call observation date or determination date, as applicable, with respect to such index as to which a market disruption event continues through the last possible postponed call observation date or determination date. As a result, this could result in the closing level on any call observation date or final index level on the determination date of each index being determined on different calendar dates. For the avoidance of doubt, once the closing level for an index is determined for a call observation date or 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 Index***

If an index sponsor discontinues publication of an index and such index sponsor or anyone else publishes a substitute index that the calculation agent determines is comparable to such index, or if the calculation agent designates a substitute index, then the calculation agent will determine the cash settlement amount on the call payment date or the stated maturity date, as applicable, by reference to the substitute index. We refer to any substitute index approved by the calculation agent as a successor index.

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

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

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

**Default Amount on Acceleration**

If an event of default occurs and the maturity of your notes is accelerated, we will pay the default amount in respect of the principal of your notes at the maturity, instead of the amount payable on the stated maturity date as described earlier. We describe the default amount under Special Calculation Provisions below.

For the purpose of determining whether the holders of our Series E medium-term notes, which include your notes, are entitled to take any action under the indenture, we will treat the outstanding face amount of each of your notes as the outstanding principal amount of that note. Although the terms of your notes differ from those of the other Series E

medium-term notes, holders of specified percentages in principal amount of all Series E medium-term notes, together in some cases with other series of our debt securities, will be able to take action affecting all the Series E medium-term notes, including your notes, except with respect to certain Series E medium-term notes if the terms of such notes specify that the holders of specified percentages in principal amount of all of such notes must also consent to such action. This action may involve changing some of the terms that apply to the Series E medium-term notes, accelerating the maturity of the Series E medium-term notes after a default or waiving some of our obligations under the indenture. In addition, certain changes to the indenture and the notes that only affect certain debt securities may be

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made with the approval of holders of a majority in principal amount of such affected debt securities. We discuss these matters in the accompanying prospectus under **Description of Debt Securities We May Offer** **Default, Remedies and Waiver of Default** and **Modification of the Debt Indentures and Waiver of Covenants**.

### **Manner of Payment**

Any payment or delivery on your notes at maturity will be made to an account designated by the holder of your notes and approved by us, or at the office of the trustee in New York City, but only when your notes are surrendered to the trustee at that office. We also may make any payment or delivery in accordance with the applicable procedures of the depository.

### **Modified Business Day**

As described in the accompanying prospectus, any payment on your notes that would otherwise be due on a day that is not a business day may instead be paid on the next day that is a business day, with the same effect as if paid on the original due date. For your notes, however, the term business day may have a different meaning than it does for other Series E medium-term notes. We discuss this term under **Special Calculation Provisions** below.

### **Role of Calculation Agent**

The calculation agent in its sole discretion will make all determinations regarding each index, the coupon payment dates, the regular record dates, each index return, the closing levels of the indices on each call observation date and on each day during the measurement period; whether a trigger event has occurred; each final index level, the determination date, the call observation dates, call payment dates, business days, trading days, adjustment of a coupon payment date, a call payment date or the stated maturity date and the amount of cash payable on your notes at maturity. Absent manifest error, all determinations of the calculation agent will be final and binding on you and us, without any liability on the part of the calculation agent.

Please note that GS&Co., our affiliate, is currently serving as the calculation agent as of the date of this prospectus supplement. We may change the calculation agent for your notes at any time after the date of this prospectus supplement without notice and GS&Co. may resign as calculation agent at any time upon 60 days' written notice to us.

### **Special Calculation Provisions**

#### ***Business Day***

When we refer to a business day with respect to your notes, we mean a day that is a New York business day as described under **Description of Debt Securities We May Offer** **Calculations of Interest on Debt Securities** **Business Days** on page 21 in the accompanying prospectus.

#### ***Trading Day***

When we refer to a trading day with respect to an index, we mean a day on which the respective principal securities markets for all of the index stocks are open for trading, the index sponsor is open for business and such index is calculated and published by the index sponsor.

#### ***Closing Level***

When we refer to the closing level for the NASDAQ-100 Index® on any trading day, we mean the official closing level of such index or any successor index published by the index sponsor on such trading day for such index.

When we refer to the closing level of the Russell 2000® Index on any trading day, we mean the closing level of that index or any successor index reported by Bloomberg Financial Services, or any successor reporting service we may select, on such trading day for that index. Currently, whereas the index sponsor publishes the official closing level of the Russell 2000® Index to six decimal places, Bloomberg Financial Services reports the closing level of the Russell 2000® Index to fewer decimal places. As a result, the closing level of the Russell 2000® Index reported by Bloomberg Financial Services generally may be lower or higher than the official closing level of the Russell 2000® Index published by the index sponsor.

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### ***Default Amount***

The default amount for your notes on any day (except as provided in the last sentence under **Default Quotation Period** below), will be an amount in the specified currency for the face amount of your notes, equal to the cost of having a qualified financial institution, of the kind and selected as described below, expressly assume all of our payment and other obligations with respect to your notes as of that day and as if no default or acceleration had occurred, or to undertake other obligations providing substantially equivalent economic value to you with respect to your notes. That cost will equal:

the lowest amount that a qualified financial institution would charge to effect this assumption or undertaking, *plus*

the reasonable expenses, including reasonable attorneys' fees, incurred by the holder of your notes in preparing any documentation necessary for this assumption or undertaking.

During the default quotation period for your notes, which we describe below, the holder and/or we or the calculation agent may request a qualified financial institution to provide a quotation of the amount it would charge to effect this assumption or undertaking. If either party obtains a quotation, it must notify the other party in writing of the quotation. The amount referred to in the first bullet point above will equal the lowest or, if there is only one, the only quotation obtained, and as to which notice is so given, during the default quotation period. With respect to any quotation, however, the party not obtaining the quotation may object, on reasonable and significant grounds, to the assumption or undertaking by the qualified financial institution providing the quotation and notify the other party in writing of those grounds within two business days after the last day of the default quotation period, in which case that quotation will be disregarded in determining the default amount.

### ***Default Quotation Period***

The default quotation period is the period beginning on the day the default amount first becomes due and ending on the third business day after that day, unless:

no quotation of the kind referred to above is obtained, or

every quotation of that kind obtained is objected to within five business days after the day the default amount first becomes due.

If either of these two events occurs, the default quotation period will continue until the third business day after the first business day on which prompt notice of a quotation is given as described above. If that quotation is objected to as described above within five business days after that first business day, however, the default quotation period will continue as described in the prior sentence and this sentence.

In any event, if the default quotation period and the subsequent two business day objection period have not ended before the determination date, then the default amount will equal the principal amount of your notes.

### ***Qualified Financial Institutions***

For the purpose of determining the default amount at any time, a qualified financial institution must be a financial institution organized under the laws of any jurisdiction in the United States of America, Europe or Japan, which at that time has outstanding debt obligations with a stated maturity of one year or less from the date of issue and that is, or whose securities are, rated either:

A-1 or higher by Standard & Poor's Ratings Services or any successor, or any other comparable rating then used by that rating agency, or

P-1 or higher by Moody's Investors Service, Inc. or any successor, or any other comparable rating then used by that rating agency.

***Market Disruption Event***

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

a suspension, absence or material limitation of trading in index stocks constituting 20% or more, by weight, of the index on their respective primary markets, in each case for more than two consecutive

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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 the index or to index stocks constituting 20% or more, by weight, of such index 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

index stocks constituting 20% or more, by weight, of the index, or option or futures contracts, if available, relating to the index or to index stocks constituting 20% or more, by weight, of the index are not trading on what were the respective primary markets for those index 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 the event could materially interfere with the ability of GS Finance Corp. or any of its affiliates or a similarly situated party to unwind all or a material portion of a hedge that could be effected with respect to the notes. For more information about hedging by GS Finance Corp. and/or any of its affiliates, see [Use of Proceeds](#) and [Hedging](#) below.

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 an index or to any index stock.

For this purpose, an absence of trading in the primary securities market on which an index stock is traded, or on which option or futures contracts relating to an index or an index 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 index stock or in option or futures contracts, if available, relating to an index or an index 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 index stock or those contracts, or

a disparity in bid and ask quotes relating to that index 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 index will not, by itself, constitute a market disruption event for the other unaffected index.

As is the case throughout this prospectus supplement, references to the index in this description of market disruption events includes any successor index as it may be modified, replaced or adjusted from time to time.

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**USE OF PROCEEDS**

We intend to lend the net proceeds from the sale of the offered notes to The Goldman Sachs Group, Inc. or its affiliates. The Goldman Sachs Group, Inc. expects to use the proceeds from such loans for the purposes we describe in the accompanying prospectus under "Use of Proceeds". We or our affiliates may also use those proceeds in transactions intended to hedge our obligations under the offered notes as described below.

**HEDGING**

In anticipation of the sale of the offered notes, we and/or our affiliates expect to enter into hedging transactions involving purchases of listed or over-the-counter options, futures and other instruments linked to the indices on or before the trade date. In addition, from time to time after we issue the offered notes, we and/or our affiliates may enter into additional hedging transactions and to unwind those we have entered into, in connection with the offered notes and perhaps in connection with other index-linked notes we issue, some of which may have returns linked to the indices or the index stocks. Consequently, with regard to your notes, from time to time, we and/or our affiliates:

expect to acquire, or dispose of positions in listed or over-the-counter options, futures or other instruments linked to the indices or some or all of the index stocks,

may take or dispose of positions in the securities of the index stock issuers themselves,

may take or dispose of positions in listed or over-the-counter options or other instruments based on indices designed to track the performance of the stock exchanges or other components of the equity markets, and /or

may take short positions in the index stocks or other securities of the kind described above i.e., we and/or our affiliates may sell securities of the kind that we do not own or that we borrow for delivery to purchaser.

We and/or our affiliates may acquire a long or short position in securities similar to your notes from time to time and may, in our or their sole discretion, hold or resell those securities.

In the future, we and/or our affiliates expect to close out hedge positions relating to the offered notes and perhaps relating to other notes with returns linked to the indices or the index stocks. We expect these steps to involve sales of instruments linked to the indices on or shortly before the determination date. These steps may also involve sales and/or purchases of some or all of the index stocks, or listed or over-the-counter options, futures or other instruments linked to the indices, some or all of the index stocks or indices designed to track the performance of the U.S., European, Asian or other stock exchanges or other components of the U.S., European, Asian or other equity markets or other components of such markets.

*The hedging activity discussed above may adversely affect the market value of your notes from time to time and the amount we will pay on your notes at maturity. See "Additional Risk Factors Specific to Your Notes" above for a discussion of these adverse effects.*

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**THE INDICES**

**The NASDAQ-100 Index®**

The NASDAQ-100 Index® includes 100 of the largest domestic and international non-financial stocks listed on The NASDAQ Stock Market based on market capitalization. The NASDAQ-100 Index® is a price return index and is calculated using a modified market capitalization-weighted methodology. The NASDAQ-100 Index® is calculated, maintained and published by Nasdaq, Inc. The base date for the NASDAQ-100 Index® is January 31, 1985, with a base value of 125.00, as adjusted. We have derived all information contained in this document regarding the NASDAQ-100 Index® from publicly available information. Additional information about the NASDAQ-100 Index® is available on the following website: [indexes.nasdaqomx.com/Index/Overview/NDX](http://indexes.nasdaqomx.com/Index/Overview/NDX). We are not incorporating by reference the website or any material it includes in this prospectus supplement.

As of March 4, 2019, the 103 stocks included in the NASDAQ-100 Index® were classified into ten industry sectors (with the approximate percentage currently included in such sectors indicated in parentheses): Technology (54.38%), Consumer Services (24.87%), Health Care (8.34%), Consumer Goods (5.88%), Industrials (5.40%), Telecommunications (0.78%), Utilities (0.36%), Oil & Gas (0.00%), Basic Materials (0.00%) and Financials (0.00%). (Sector designations are determined by the underlier sponsor using criteria it has selected or developed. Index sponsors may use very different standards for determining sector designations. In addition, many companies operate in a number of sectors, but are listed in only one sector and the basis on which that sector is selected may also differ. As a result, sector comparisons between indices with different index sponsors may reflect differences in methodology as well as actual differences in the sector composition of the indices.)

The top ten constituent stocks of the NASDAQ-100 Index® as of March 4, 2019, by weight, are: Microsoft Corporation (9.92%), Apple Inc. (9.61%), Amazon.com Inc. (9.55%), Facebook Inc. (4.67%), Alphabet Inc. Class C (4.66%), Alphabet Inc. Class A (4.08%), Intel Corporation (3.15%), Cisco Systems Inc. (2.94%), Comcast Corporation (2.25%) and PepsiCo, Inc. (2.12%).

**Construction of the NASDAQ-100 Index®**

The NASDAQ-100 Index® is a modified market capitalization-weighted index. Except under extraordinary circumstances that may result in an interim evaluation, NASDAQ-100 Index® composition is reviewed on an annual basis in December. First, Nasdaq, Inc. determines which stocks meet the applicable eligibility criteria.

*Selection Criteria for Initial Inclusion in the NASDAQ-100 Index®*

To be eligible for initial inclusion in the NASDAQ-100 Index®, a stock must meet the following criteria:

the issuer of the stock's primary U.S. listing must be exclusively listed on the NASDAQ Global Select Market or the NASDAQ Global Market (unless the stock was dually listed on another U.S. market prior to January 1, 2004 and has continuously maintained such listing);

the stock must be issued by a non-financial company. Non-financial companies are those companies that are classified under any Industry Code except 8000 according to the Industry Classification Benchmark (ICB), a product of FTSE International Limited;

the stock may not be issued by an issuer currently in bankruptcy proceedings;

the stock must have a minimum three-month average daily trading volume ( ADTV ) of 200,000 shares (measured annually during the ranking review process). The ADTV is determined by calculating the average of the sum product of the stock's daily trading volume for each day during the previous three month period;

if the issuer of the stock is organized under the laws of a jurisdiction outside the U.S., then such stock must have listed options on a recognized options market in the U.S. or be eligible for listed-options trading on a recognized options market in the U.S. (measured annually during the ranking review process);

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the issuer of the stock may not have entered into a definitive agreement or other arrangement which would likely result in the stock no longer being eligible for inclusion in the NASDAQ-100 Index®;

the issuer of the stock may not have annual financial statements with an audit opinion that is currently withdrawn. This will be determined based upon a stock issuer's public filings with the SEC; and

the stock must have seasoned on Nasdaq, NYSE or NYSE Amex. Generally, a company is considered to be seasoned if it has been listed on a market for at least three full months (excluding the first month of initial listing). Stock types generally eligible for inclusion in the NASDAQ-100 Index® are common stocks, ordinary shares, ADRs and tracking stocks. Closed-end funds, convertible debentures, exchange traded funds, limited liability companies, limited partnership interests, preferred stocks, rights, shares or units of beneficial interest, warrants, units and other derivative stocks are not eligible for inclusion in the NASDAQ-100 Index®. For purposes of NASDAQ-100 Index® eligibility criteria, if the stock is a depositary receipt representing a stock of a non-U.S. issuer, then references to the issuer are references to the issuer of the underlying stock. The NASDAQ-100 Index® does not contain securities of investment companies.

### *Continued Eligibility Criteria*

To be eligible for continued inclusion in the NASDAQ-100 Index®, a NASDAQ-100 Index® stock must meet the following criteria:

the issuer of the stock's primary U.S. listing must be exclusively listed on the Nasdaq Global Select Market or the Nasdaq Global Market;

the stock must be issued by a non-financial company;

the stock may not be issued by an issuer currently in bankruptcy proceedings;

the stock must have an ADTV of at least 200,000 shares (measured annually during the ranking review process);

if the issuer of the stock is organized under the laws of a jurisdiction outside the U.S., then such stock must have listed options on a recognized options market in the U.S. or be eligible for listed-options trading on a recognized options market in the U.S.;

the issuer must have an adjusted market capitalization equal to or exceeding 0.10% of the aggregate adjusted market capitalization of the NASDAQ-100 Index® at each month-end. In the event a company does not meet this criterion for two consecutive month-ends, it is removed from the NASDAQ-100 Index® effective after the close of trading on the third Friday of the following month; and

the issuer of the stock may not have annual financial statements with an audit opinion that is currently withdrawn. All stocks meeting the above criteria will be considered eligible for inclusion in the NASDAQ-100 Index<sup>®</sup>. Those stocks which are found to meet the applicable eligibility criteria during the annual review are then ranked by market capitalization. While there is no minimum market capitalization requirement, inclusion will be determined based on the top 100 issuers with the largest market capitalization meeting all other eligibility requirements. Market capitalization is determined by multiplying a stock's last sale price by its total number of shares outstanding. The last sale price refers to the price at which a stock last traded during regular market hours as reported on such stock's index market, which may be the Nasdaq Official Closing Price (NOCP). The index market is the index eligible stock market for which the NASDAQ-100 Index<sup>®</sup> stock's prices are received and used by Nasdaq, Inc. for purposes of calculating the NASDAQ-100 Index<sup>®</sup>.

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NASDAQ-100 Index<sup>®</sup> eligible stocks which are already in the NASDAQ-100 Index<sup>®</sup> and whose issuer is ranked in the top 100 eligible companies based on market capitalization are retained in the NASDAQ-100 Index<sup>®</sup>. An index stock issuer ranking 101 to 125 based on market capitalization will also be retained for inclusion in the NASDAQ-100 Index<sup>®</sup> if such issuer was previously ranked in the top 100 issuers as of the last annual ranking review or was added to the NASDAQ-100 Index<sup>®</sup> subsequent to the previous ranking review and continues to meet all eligibility criteria. Index stock issuers not meeting such criteria are replaced. The replacement stocks are those eligible stocks not currently in the NASDAQ-100 Index<sup>®</sup> whose issuers have the next largest market capitalization.

The data used in the process of ranking by market capitalization includes end of October market data and is updated for total shares outstanding submitted in an index stock issuer's publicly filed SEC document via the Electronic Data Gathering, Analysis and Retrieval system (EDGAR) through the end of November. If a stock is a depositary receipt, the total shares outstanding is the actual depositary shares outstanding as reported by the depositary banks.

The final list of constituents included in the NASDAQ-100 Index<sup>®</sup>, including any replacements made during the annual review, is made effective after the close of trading on the third Friday in December. Generally, the list of annual additions and deletions as a result of the annual review is publicly announced by Nasdaq, Inc. via a press release in the early part of December, in conjunction with an announcement on Nasdaq, Inc.'s website.

## **NASDAQ-100 Index<sup>®</sup> Calculation**

The discussion below describes the price return calculation of the NASDAQ-100 Index<sup>®</sup> as compared to the total return or notional net total return versions of the NASDAQ-100 Index<sup>®</sup>, the price return version is ordinarily calculated without regard to cash dividends on the NASDAQ-100 Index<sup>®</sup> stocks. However, all NASDAQ-100 Index<sup>®</sup> calculations reflect extraordinary cash distributions and special dividends.

The NASDAQ-100 Index<sup>®</sup> is a modified market capitalization-weighted index. The value of the NASDAQ-100 Index<sup>®</sup> equals the NASDAQ-100 Index<sup>®</sup> market value *divided* by the NASDAQ-100 Index<sup>®</sup> divisor. The overall NASDAQ-100 Index<sup>®</sup> market value is the aggregate of each NASDAQ-100 Index<sup>®</sup> stock's market value, as may be adjusted for any corporate actions. A NASDAQ-100 Index<sup>®</sup> stock's market value is determined by multiplying the last sale price by its index share weight, also known as index shares. Index shares are equal to the total number of shares outstanding for a NASDAQ-100 Index<sup>®</sup> stock. In other words, the value of the NASDAQ-100 Index<sup>®</sup> is equal to (i) the *sum* of the *products* of (a) the index shares of each of the NASDAQ-100 Index<sup>®</sup> stocks *multiplied* by (b) each such stock's last sale price (adjusted for corporate actions, if any), *divided* by (ii) the divisor of the NASDAQ-100 Index<sup>®</sup>.

The price return NASDAQ-100 Index<sup>®</sup> divisor is calculated as the ratio of (i) the start of day market value of the NASDAQ-100 Index<sup>®</sup> *divided* by (ii) the previous day NASDAQ-100 Index<sup>®</sup> value.

If trading in a NASDAQ-100 Index<sup>®</sup> stock is halted on its primary listing market, the most recent last sale price for that stock is used for all NASDAQ-100 Index<sup>®</sup> computations until trading on such market resumes. Similarly, the most recent last sale price is used if trading in a NASDAQ-100 Index<sup>®</sup> stock is halted on its primary listing market before the market opens.

The NASDAQ-100 Index<sup>®</sup> is calculated in U.S. dollars during the U.S. market trading day based on the last sale price and are disseminated once per second from 09:30:01 until 17:16:00 ET. The closing value of the NASDAQ-100 Index<sup>®</sup> may change up until 17:15:00 ET due to corrections to the last sale price of the NASDAQ-100 Index<sup>®</sup> stocks. The official closing value of the NASDAQ-100 Index<sup>®</sup> is ordinarily disseminated at 17:16:00 ET.

## **NASDAQ-100 Index® Maintenance**

### *Changes to NASDAQ-100 Index® Constituents*

Changes to the NASDAQ-100 Index® constituents may be made during the annual ranking review. In addition, if at any time during the year other than the annual review, it is determined that an index stock issuer no longer meets the criteria for continued inclusion in the NASDAQ-100 Index®, or is otherwise determined to have become ineligible for continued inclusion in the NASDAQ-100 Index®, it is replaced with

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the largest market capitalization issuer not currently in the NASDAQ-100 Index<sup>®</sup> that meets the applicable eligibility criteria for initial inclusion in the NASDAQ-100 Index<sup>®</sup>.

Ordinarily, a stock will be removed from the NASDAQ-100 Index<sup>®</sup> at its last sale price. However, if at the time of its removal the NASDAQ-100 Index<sup>®</sup> stock is halted from trading on its primary listing market and an official closing price cannot readily be determined, the NASDAQ-100 Index<sup>®</sup> stock may, in Nasdaq, Inc.'s discretion, be removed at a price of \$0.00000001 ( zero price ). This zero price will be applied to the NASDAQ-100 Index<sup>®</sup> stock after the close of the market but prior to the time the official closing value of the NASDAQ-100 Index<sup>®</sup> is disseminated.

### *Divisor Adjustments*

The divisor is adjusted to ensure that changes in NASDAQ-100 Index<sup>®</sup> constituents either by corporate actions (that adjust either the price or shares of a NASDAQ-100 Index<sup>®</sup> stock) or NASDAQ-100 Index<sup>®</sup> participation outside of trading hours do not affect the value of the NASDAQ-100 Index<sup>®</sup>. All divisor changes occur after the close of the applicable index stock markets.

### *Quarterly NASDAQ-100 Index<sup>®</sup> Rebalancing*

On a quarterly basis coinciding with the quarterly scheduled index shares adjustment procedures in March, June and September, as discussed below, the NASDAQ-100 Index<sup>®</sup> will be rebalanced if it is determined that (1) the current weight of the single NASDAQ-100 Index<sup>®</sup> stock with the largest market capitalization is greater than 24.0% of the NASDAQ-100 Index<sup>®</sup> or (2) the collective weight of those stocks whose individual current weights are in excess of 4.5% exceeds 48.0% of the NASDAQ-100 Index<sup>®</sup>. If either one or both of the above weight distribution conditions are met upon quarterly review, or Nasdaq, Inc. determines that a special rebalancing is necessary, a weight rebalancing will be performed.

If the first weight distribution condition is met and the current weight of the single NASDAQ-100 Index<sup>®</sup> stock with the largest market capitalization is greater than 24.0%, then the weights of all stocks with weights greater than 4.5% will be scaled down proportionately toward 1.0% until the adjusted weight of the single largest NASDAQ-100 Index<sup>®</sup> stock reaches 20.0%.

If the second weight distribution condition is met and the collective weight of those stocks whose individual current weights are in excess of 4.5% (or adjusted weights in accordance with the previous step, if applicable) exceeds 48.0% of the NASDAQ-100 Index<sup>®</sup>, then the weights of all stocks with weights greater than 4.5% in that group will be scaled down proportionately toward 1.0% until their collective weight, so adjusted, is equal to 40.0%.

On an annual basis coinciding with the annual evaluation in December, the NASDAQ-100 Index<sup>®</sup> will be rebalanced if it is determined that the collective weight of the five largest NASDAQ-100 Index<sup>®</sup> stocks by weight, when added together, exceeds 40.0% of the NASDAQ-100 Index<sup>®</sup>. In addition, a special rebalancing of the NASDAQ-100 Index<sup>®</sup> may be conducted at any time if it is determined necessary to maintain the integrity of the NASDAQ-100 Index<sup>®</sup>. If the weight distribution requirement is met upon the annual evaluation or it is determined that a special rebalancing is required, a weight rebalancing will be performed. If the collective weight of the five largest NASDAQ-100 Index<sup>®</sup> stocks by weight, when added together, exceeds 40.0% of the NASDAQ-100 Index<sup>®</sup> at the time of the annual evaluation, those top five NASDAQ-100 Index<sup>®</sup> stocks will be scaled down proportionately towards 1.0% for the collective weight, so adjusted, to be set to 38.5%. The excess weight due to capping from the five largest, capped NASDAQ-100 Index<sup>®</sup> stocks is redistributed to the remaining NASDAQ-100 Index<sup>®</sup> stocks. Thereafter, all other NASDAQ-100 Index<sup>®</sup> stocks are capped at 4.5% and the weight is proportionally redistributed to all NASDAQ-100 Index<sup>®</sup> stocks that have not yet been capped. If, after capping the top five NASDAQ-100 Index<sup>®</sup> stocks to reduce the

aggregate weight to 38.5%, the fifth largest NASDAQ-100 Index<sup>®</sup> stock has a weight less than 4.5%, all remaining securities are capped at the weight of the fifth largest NASDAQ-100 Index<sup>®</sup> stock.

In the event of a special rebalance, either coinciding with the quarterly review or annual evaluation (or at any other point in time where necessary), prior month-end shares outstanding and prices for each NASDAQ-100 Index<sup>®</sup> stock are utilized to calculate the weights that require capping and the associated index shares. If a special rebalance were to occur in accordance with the quarterly scheduled index adjustment or annual evaluation, the index weights will be determined anew based upon the last sale prices

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and aggregate capitalization of the NASDAQ-100 Index<sup>®</sup> at the close of trading on the last calendar day in February, May, August and November. Changes to the index shares will be made effective after the close of trading on the third Friday in March, June, September and December, and an adjustment to the divisor is made to ensure continuity of the NASDAQ-100 Index<sup>®</sup>. Ordinarily, new rebalanced index weights will be determined by applying the above procedures to the current index weights. However, Nasdaq, Inc. may, from time to time, determine rebalanced weights, if necessary, by applying the above procedure to the actual current market capitalization of the NASDAQ-100 Index<sup>®</sup> components. In such instances, Nasdaq, Inc. would announce the different basis for rebalancing prior to its implementation.

At the quarterly rebalancing, data is cutoff as of the previous month end and no changes are made to the NASDAQ-100 Index<sup>®</sup> from that cutoff until the quarterly index share change effective date, except in the case of changes due to corporate actions with an ex-date.

### *Corporate Actions and NASDAQ-100 Index<sup>®</sup> Adjustments*

Aside from changes resulting from quarterly rebalancing, intra-quarter changes in index shares driven by corporate events can also result from a change in a NASDAQ-100 Index<sup>®</sup> stock's total shares outstanding that is greater than 10.0%. If a stock is a depositary receipt, the total shares outstanding is the actual depositary shares outstanding as reported by the depositary banks. Changes in the price and/or index shares driven by corporate events such as stock dividends, stock splits and certain spin-offs and rights issuances are adjusted on the ex-date. Changes in total shares outstanding are determined by an index stock issuer's public filings with the SEC. If the change in total shares outstanding arising from other corporate actions is greater than or equal to 10.0%, the change is made as soon as practicable. Otherwise, if the change in total shares outstanding is less than 10.0%, then all such changes are accumulated and made effective at one time on a quarterly basis after the close of trading on the third Friday in each of March, June, September and December. The index shares are derived from the stock's total shares outstanding. The index shares are then adjusted by the same percentage amount by which the total shares outstanding have changed.

The following corporate actions will be made effective on the ex-date. If there is no ex-date announced by the index exchange, there will be no adjustment to the NASDAQ-100 Index<sup>®</sup> as a result of a corporate action.

*Stock Split and Stock Dividend.* A stock split and stock dividend is the action of a NASDAQ-100 Index<sup>®</sup> stock in increasing its index shares and decreasing the par value proportionately. There is no flow of capital into or out of the company. The number of index shares in the NASDAQ-100 Index<sup>®</sup> increases but the market capitalization of the stock remains unchanged. The price of the NASDAQ-100 Index<sup>®</sup> stock is adjusted to reflect the ratio of a stock split and stock dividend and a corresponding inverse adjustment to the index shares is made.

*Reverse Stock Split.* A reverse stock split is the action of a NASDAQ-100 Index<sup>®</sup> stock in decreasing its index shares and decreasing the par value in proportion. There is no flow of capital into or out of the company. The number of index shares in the NASDAQ-100 Index<sup>®</sup> decreases but the market capitalization of the stock remains unchanged. The price of the NASDAQ-100 Index<sup>®</sup> stock is adjusted to reflect the ratio of the reverse stock split and a corresponding inverse adjustment to the index shares is made.

*Special Cash Dividends.* A dividend is considered special if the information provided by the listing exchange in their announcement of the ex-date indicates that the dividend is special. Other nomenclature for a special dividend may include, but is not limited to, extra, extraordinary, non-recurring, one-time and unusual. The price of the NASDAQ-100 Index<sup>®</sup> stock in the NASDAQ-100 Index<sup>®</sup> is adjusted for the amount of the special cash dividend.

*Cash and Stock Dividends.* If a NASDAQ-100 Index<sup>®</sup> stock is paying a cash and stock dividend on the same date, the cash dividend is applied *before* the stock dividend unless otherwise indicated in the information provided by the index exchange. Additionally, in the case of an optional dividend which allows the holder to choose between receiving cash or stock, the adjustment will be made in the manner in which the dividend has been announced by the index exchange.

*Stock Distribution of Another Stock.* If a NASDAQ-100 Index<sup>®</sup> stock is distributing shares of a different stock, the value of the NASDAQ-100 Index<sup>®</sup> stock will be adjusted downward to reflect the ratio of the

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distribution. There is no adjustment to index shares. If the stock being distributed is another class of common shares of the same issuer, the value of the existing NASDAQ-100 Index® stock will be adjusted downward to reflect the ratio of the distribution with no adjustment to index shares, and the new class of shares may be added to the NASDAQ-100 Index® on a pro-rata basis.

*Spin-offs.* If a NASDAQ-100 Index® stock is spinning off a stock, the value of the NASDAQ-100 Index® stock will be adjusted downward to reflect the ratio of the distribution. There is no adjustment to index shares. If a when-issued market is established for the spin-off company, the price of the NASDAQ-100 Index® stock is adjusted downward by the value of the spinoff. The value of the spin-off is determined by multiplying the spin-off ratio by the when-issued price. In the event the value of the spinoff has not been established as indicated above then no price adjustment is made to the NASDAQ-100 Index® stock. The new stock resulting from the spin-off transaction is not added to the NASDAQ-100 Index®.

*Rights Offerings.* The price of a NASDAQ-100 Index® stock is adjusted on the ex-date for rights offerings if the rights are transferable and the offering has a subscription price on an equivalent per share basis that is less than the closing price of the underlying stock (the NASDAQ-100 Index® stock the right entitles a holder to purchase) on the day prior to the ex-date. The price of the NASDAQ-100 Index® stock is adjusted downward for the value of the right. The value of the right is equal to (1) (i) the previous last sale price of the underlying stock *minus* (ii) the *sum* of (a) the subscription price of the right *plus* (b) the cash dividend of the underlying stock, if any, *divided* by (2) the number of rights required to purchase one share *plus* one.

Corporate actions are implemented in the NASDAQ-100 Index® in accordance with the NASDAQ-100 Index® maintenance rules discussed above. The divisor will also be adjusted as a result of corporate actions that adjust either the price or shares of a NASDAQ-100 Index® stock. Nasdaq, Inc. will make announcements prior to the effective date of any corporate actions.

In the case of mergers and acquisitions, the index stock issuer may be removed the day following the shareholder vote or the expected expiration of the tender offer, provided the acquisition is not contested. In the event the acquisition is contested, the removal of the NASDAQ-100 Index® stock will occur as soon as reasonably practicable, once results have been received indicating that the acquisition will likely be successful.

If a company files for bankruptcy, the NASDAQ-100 Index® stock or stocks of the issuer will be removed from the NASDAQ-100 Index® as soon as practicable thereafter. The value of the NASDAQ-100 Index® stock will be considered \$0.00000001 if no other applicable price can be observed on the Nasdaq Global Select Market or the Nasdaq Global Market.

### *Discretionary Adjustments*

In addition to the above, Nasdaq, Inc. may, from time to time, exercise reasonable discretion as it deems appropriate in order to ensure NASDAQ-100 Index® integrity, including, but not limited to, changes to quantitative inclusion criteria. Nasdaq, Inc. may also, due to special circumstances, if deemed essential, apply discretionary adjustments to ensure and maintain the quality of the NASDAQ-100 Index® construction and calculation.

### *Market Disruption Events*

If a NASDAQ-100 Index® stock does not trade on its primary listing market on a given day or such index market has not opened for trading, the most recent last sale price from the index market (adjusted for corporate actions, if any) is used. If a NASDAQ-100 Index® stock is halted from trading on its index market during the trading day, the most

recent last sale price is used until trading resumes.

*Corrections and Calculations*

The closing value of the NASDAQ-100 Index® may change up until 17:15:00 ET due to corrections to the last sale price of the NASDAQ-100 Index® stocks. In the event that a change has been made to the NASDAQ-100 Index® intraday, Nasdaq, Inc. will make an announcement describing such change. In the event a NASDAQ-100 Index® calculation has been corrected retroactively, an announcement will be provided.

*License Agreement between Nasdaq, Inc. and GS Finance Corp.*

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### **The Russell 2000® Index**

The Russell 2000® Index is sponsored by FTSE Russell ( Russell ) and measures the composite price performance of stocks of 2,000 companies in the U.S. equity market. It is generally considered to be a small-cap index. Additional information about the Russell 2000® Index is available on the following website:

[ftse.com/analytics/factsheets/Home/Search#](https://ftse.com/analytics/factsheets/Home/Search#). We are not incorporating by reference the website or any material it includes in this prospectus supplement.

As of March 12, 2019, the 2,000 companies included in the Russell 2000® Index were divided into nine Russell Global Sectors. The Russell Global Sectors include (with the approximate percentage currently included in such sectors indicated in parentheses): Consumer Discretionary (15.16%), Consumer Staples (2.35%), Financial Services (25.30%), Health Care (15.38%), Materials & Processing (6.25%), Other Energy (3.54%), Producer Durables (13.40%), Technology (14.00%) and Utilities (4.62%). (Sector designations are determined by the index sponsor using criteria it has selected or developed. Index sponsors may use very different standards for determining sector designations. In addition, many companies operate in a number of sectors, but are listed in only one sector and the basis on which that sector is selected may also differ. As a result, sector comparisons between indices with different index sponsors may reflect differences in methodology as well as actual differences in the sector composition of the indices.)

The Russell 2000® Index includes approximately 2,000 of the smallest securities that form the Russell 3000® Index. The Russell 3000® Index is comprised of the 3,000 largest U.S. companies, or 98% based on market capitalization, of the investable U.S. equity market. The Russell 2000® Index is designed to track the performance of the small capitalization segment of the U.S. equity market.

#### *Selection of Constituent Stocks of the Russell 2000® Index*

The Russell 2000® Index is a sub-index of the Russell 3000® Index. To be eligible for inclusion in the Russell 3000® Index, and, consequently, the Russell 2000® Index, a company's stocks must be listed on the rank day in May of a given year (the timetable is announced each spring) and Russell must have access to documentation verifying the company's eligibility for inclusion. Eligible initial public offerings ( IPOs ) are added to Russell U.S. Indices quarterly, based on total market capitalization rankings within the market-adjusted capitalization breaks established during the most recent reconstitution. To be added to any Russell U.S. index during a quarter outside of reconstitution, IPOs must meet additional eligibility criteria.

A company is included in the U.S. equity markets and is eligible for inclusion in the Russell 3000® Index, and consequently, the Russell 2000® Index, if that company incorporates in the U.S., has its headquarters in the U.S. and also trades with the highest liquidity in the U.S. If a company does not satisfy all of the above criteria, it can still be included in the U.S. equity market if any one of the following home country indicators is in the United States: (i) country of incorporation, (ii) country of headquarters and (iii) country in which the company trades with the highest liquidity (as defined by a two-year average daily dollar trading volume from all exchanges within the country), and the primary location of that company's assets or its revenue, based on an average of two years of assets or revenues data, is also in the United States. In addition, if there is insufficient information to assign a company to the U.S. equity markets based on its assets or revenue, the company may nonetheless be assigned to the U.S. equity markets if the headquarters of the company is located in the United States or if the headquarters of the company is located in certain benefit-driven incorporation countries , or BDIs , and that company's most liquid stock exchange is in the United States. The BDI countries are Anguilla, Antigua and Barbuda, Aruba, Bahamas, Barbados, Belize, Bermuda, Bonaire, British Virgin Islands, Cayman Islands, Channel Islands, Cook Islands, Curaçao, Faroe Islands, Gibraltar, Guernsey, Isle of Man, Jersey, Liberia, Marshall Islands, Panama, Saba, Sint Eustatius, Sint Maarten and Turks and Caicos Islands. A

U.S.-listed company is not eligible for inclusion within the U.S. equity market if it has been classified by Russell as a China N share on the rank date of the index reconstitution. A company will be considered a China N share if the following criteria are satisfied: (i) the company is incorporated outside of the People's Republic of China, (ii) the company is listed on the NYSE, the NASDAQ or the NYSE MKT, (iii) over 55% of the revenue or assets of the company are derived from the People's Republic of China, and (iv) the company is controlled by a mainland Chinese entity, company or individual (if the shareholder background cannot be determined with publicly available information, Russell

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will consider whether the establishment and origin of the company are in mainland China and whether the company is headquartered in mainland China). ADRs and ADSs are not eligible for inclusion in the Russell 2000® Index.

In addition, all securities eligible for inclusion in the Russell 3000® Index, and consequently, the Russell 2000® Index, must trade on an eligible exchange (BATS, IEX, NYSE, NYSE MKT, NYSE Arca and NASDAQ).

### *Exclusions from the Russell 2000® Index*

Russell specifically excludes the following companies and securities from the Russell 2000® Index: (i) preferred and convertible preferred stock, redeemable shares, participating preferred stock, warrants, rights, installment receipts and trust receipts; (ii) royalty trusts, U.S. limited liability companies, closed-end investment companies, companies that are required to report Acquired Fund Fees and Expenses (as defined by the SEC), including business development companies, blank check companies, special-purpose acquisition companies and limited partnerships; (iii) companies with a total market capitalization less than \$30 million; (iv) companies with only a small portion of their shares available in the marketplace (companies with 5% or less float); (v) bulletin board, pink sheets or over-the-counter traded securities, including securities for which prices are displayed on the FINRA ADF; (vi) real estate investment trusts and publicly traded partnerships that generate, or have historically generated, unrelated business taxable income and have not taken steps to block their unrelated business taxable income to equity holders; and (vii) companies with 5% or less of the company's voting rights in the hands of unrestricted shareholders (existing constituents that do not currently have more than 5% of the company's voting rights in the hands of unrestricted shareholders have until the September 2022 review to meet this requirement).

### *Initial List of Eligible Securities*

The primary criterion Russell uses to determine the initial list of securities eligible for the Russell 3000® Index and, consequently, the Russell 2000® Index, is total market capitalization, which is calculated by multiplying the total outstanding shares for a company by the market price as of the rank day for those securities being considered at annual reconstitution. IPOs may be added between constitutions as noted below. All common stock share classes are combined in determining a company's total shares outstanding. If multiple share classes have been combined, the number of total shares outstanding will be multiplied by the primary exchange close price and used to determine the company's total market capitalization. In cases where the common stock share classes act independently of each other (e.g., tracking stocks), each class is considered for inclusion separately. Stocks must have a closing price at or above \$1.00 on their primary exchange or an eligible secondary exchange on the last trading day of May of each year to be eligible for inclusion in the Russell 2000® Index. In order to reduce unnecessary turnover, if an existing member's closing price is less than \$1.00 on the rank day in May, it will be considered eligible if the average of the daily closing prices from their primary exchange during the 30 days prior to the rank day is equal to or greater than \$1.00. If an existing member does not trade on the rank day, it must price at \$1.00 or above on another eligible U.S. exchange to remain eligible.

### *Multiple Share Classes*

If an eligible company trades under multiple share classes or if a company distributes shares of an additional share class to its existing shareholders through a mandatory corporate action, each share class will be reviewed independently for inclusion. Share classes in addition to the primary vehicle (the pricing vehicle) that have a total market capitalization larger than the smallest company in the Russell 3000E™ Index, an average daily dollar trading value that exceeds that of the global median, and a float greater than 5% of shares available in the market place are eligible for inclusion.

The pricing vehicle will generally be designated as the share class with the highest two-year trading volume as of the rank day. In the absence of two years' worth of data, all available data will be used for this calculation. If the difference between trading volumes for each share class is less than 20%, the share class with the most available shares outstanding will be used as the pricing vehicle. At least 100 day trading volume is necessary to consider the class as a pricing vehicle for existing members. New members will be analyzed on all available data, even if that data is for less than 100 days.

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*Annual Reconstitution*

The Russell 2000® Index is reconstituted annually by Russell to reflect changes in the marketplace. The list of companies is ranked based on total market capitalization on the last trading day in May, with the actual reconstitution occurring on the final Friday of June each year, unless the final Friday in June is the 29th or 30th, in which case reconstitution will occur on the preceding Friday. A full calendar for reconstitution is made available each spring.

A company's total shares are multiplied by the primary exchange close price of the pricing vehicle and used to determine the company's total market capitalization for the purpose of ranking of companies and determination of index membership. If no volume exists on the primary exchange on the rank day, the last trade price from an eligible secondary exchange will be used where volume exists (using the lowest trade price above \$1.00 if multiple secondary markets exist). The company's rank will be determined based on the cumulative market capitalization. As of the June 2016 reconstitution, any share class not qualifying for eligibility independently will not be aggregated with the pricing vehicle within the available shares calculation.

For mergers and spin-offs that are effective between the rank day and the Friday prior to annual reconstitution in June, the market capitalizations of the impacted securities are recalculated and membership is reevaluated as of the effective date of the corporate action. For corporate events that occur during the final week of reconstitution (during which reconstitution is finalized Friday after U.S. market close), market capitalizations and memberships will not be reevaluated. Non index members that have been considered ineligible as of rank day will not be reevaluated in the event of a subsequent corporate action that occurs between rank day and the reconstitution effective date.

*Index Calculation and Capitalization Adjustments*

As a capitalization-weighted index, the Russell 2000® Index reflects changes in the capitalization, or market value, of the index stocks relative to the capitalization on a base date. This discussion describes the price return calculation of the Russell 2000® Index. The current Russell 2000® Index value is the compounded result of the cumulative daily (or monthly) return percentages, where the starting value of the Russell 2000® Index is equal to the base value (100) and base date (December 31, 1978). Returns between any two dates can then be derived by dividing the ending period index value (IV1) by the beginning period (IV0) index value, so that the return equals  $[(IV1 / IV0) - 1] * 100$ .

Constituent stocks of the Russell 2000® Index are weighted in the Russell 2000® Index by their free-float market capitalization, which is calculated by multiplying the primary closing price by the number of free-float shares. Free-float shares are shares that are available to the public for purchase as determined by Russell. Adjustments to shares are reviewed quarterly (including at reconstitution) and for major corporate actions such as mergers.

The following are excluded from free float: shares directly owned by state, regional, municipal and local governments (excluding shares held by independently managed pension schemes for governments); shares held by sovereign wealth funds where each holding is 10% or greater of the total number of shares in issue; shares held by directors, senior executives and managers of the company, and by their family and direct relations, and by companies with which they are affiliated; shares held within employee share plans; shares held by public companies or by non-listed subsidiaries of public companies; shares held by founders, promoters, former directors, founding venture capital and private equity firms, private companies and individuals (including employees) where the holding is 10% or greater of the total number of shares in issue; all shares where the holder is subject to a lock-in clause (for the duration of that clause, after which free float changes resulting from the expiration of a lock-in clause will be implemented at the next quarterly review subsequent to there being a minimum of 20 business days between the expiration date of such lock-in clause and the Tuesday before the first Friday of the review month; if the previously locked-in shares are sold by way of a corporate event (such as a secondary offering), any change to the free float will be applied T+2 following

completion and therefore will not be subject to the minimum 20 business day rule); shares held by an investor, investment company or an investment fund that is actively participating in the management of a company or is holding shares for publicly announced strategic reasons, or has successfully placed a current member to the board of directors of a company; and shares that are subject to ongoing contractual agreements (such as swaps) where they would ordinarily be treated as restricted. In

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addition, while portfolio holdings such as pension funds, insurance funds or investment companies will generally not be considered as restricted from free float, where a single portfolio holding is 30% or greater it will be regarded as strategic and therefore restricted (and will remain restricted until the holding falls below 30%).

*Corporate Actions Affecting the Russell 2000® Index*

Russell adjusts the Russell 2000® Index on a daily basis in response to certain corporate actions and events. Therefore, a company's membership in the Russell 2000® Index and its weight in the Russell 2000® Index can be impacted by these corporate actions. The adjustment is applied based on sources of public information, including press releases and Securities and Exchange Commission filings. Prior to the completion of a corporate action or event, Russell estimates the effective date. Russell will then adjust the anticipated effective date based on public information until the date is considered final. Depending on the time on a given day that an action is determined to be final, Russell will generally either (1) apply the action before the open on the ex-date or (2) apply the action after providing appropriate notice. If Russell has confirmed the completion of a corporate action, scheduled to become effective subsequent to a rebalance, the event may be implemented in conjunction with the rebalance to limit turnover, provided appropriate notice can be given. Russell applies the following methodology guidelines when adjusting the Russell 2000® Index in response to corporate actions and events:

*No Replacement Rule* Securities that are deleted from the Russell 2000® Index between reconstitution dates, for any reason (e.g., mergers, acquisitions or other similar corporate activity) are not replaced. Thus, the number of securities in the Russell 2000® Index over the past year will fluctuate according to corporate activity.

*Mergers and Acquisitions*

Adjustments due to mergers and acquisitions are applied to the Russell 2000® Index after the action is determined to be final. In the event that a constituent is being acquired for cash or is delisted subsequent to an index review, such constituent will be removed from the Russell 2000® Index in conjunction with the index review, assuming that the action is determined to be final and a minimum of two days' notice can be provided.

Between constituents: When mergers and acquisitions take place between companies that are both constituents of a Russell index for cash, the target company is deleted and shares of the acquiring stock are increased according to the offer terms. When mergers and acquisitions take place between companies that are both constituents of a Russell index for stock, the target company is deleted from the Russell 2000® Index at the last traded price.

Between a constituent and a non-constituent: If the target company is a member of the Russell 2000® Index, it is deleted from the Russell 2000® Index and the acquiring company will be included initially in the Russell 2000® Index provided it is eligible in all other respects at the time of the merger, regardless of previous eligibility screenings. If the acquiring company is deemed eligible it will be added to the Russell 2000® Index on the effective date and the opening price will be calculated using the offer terms.

Given sufficient market hours after the confirmation of a merger or acquisition, Russell effects the action after the close on the last day of trading of the target company, or at an appropriate time once the transaction has been deemed to be final.

*Rights Offerings* Rights offered to shareholders are reflected in the Russell 2000® Index only if the subscription price of the rights is at a discount to the market price of the stock. Provided that Russell has been alerted to the rights offer prior to the ex-date, it will adjust the price of the stock for the value of the rights and increased shares according to the terms of the offering before the open on the ex-date.



*Spin-offs* Spun-off companies are added to the parent company's index if the parent company's market value is reduced simultaneously per the spin-off valuation. Spun-off companies are added to the Russell 2000® Index at the same time as they are spun-off from their parent company on the ex-date of the distribution.

*Initial Public Offerings* Eligible IPOs are added to the Russell 2000 Index based on total market capitalization ranking within the market-adjusted capitalization breaks established at the most recent

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annual reconstitution.

An IPO of additional share classes will be considered for eligibility and must meet the same eligibility criteria for all other multiple share classes. If at the time of the IPO the additional share class does not meet the eligibility criteria for separate index membership, it will not be added to the Russell 2000® Index and will subsequently be reviewed for index membership during the next annual reconstitution.

Once IPO additions have been announced, an IPO may be added to the Russell 2000® Index prior to the previously announced schedule, if a corporate action has deemed this to be appropriate and notice can be provided (e.g. an index member automatically receives shares via a stock distribution into a projected IPO add).

***Tender Offers*** A company acquired as a result of a tender offer is removed when (i) (a) offer acceptances reach 90%; (b) shareholders have validly tendered and the shares have been irrevocably accepted for payment; and (c) all pertinent offer conditions have been reasonably met and the acquirer has not explicitly stated that it does not intend to acquire the remaining shares; (ii) where offer acceptances are below 90%, there is reason to believe that the remaining free float is under 5% based on information available at the time; or (iii) following completion of the offer the acquirer has stated intent to finalize the acquisition via a short-form merger, squeeze-out, top-up option or any other compulsory mechanism.

Where the conditions for index deletion are not met, Russell may implement a free float change based on the reported acceptance results at the expiration of the initial, subsequent or final offer period where (i) the minimum acceptance level as stipulated by the acquiror is met; (ii) shareholders have validly tendered and the shares have been irrevocably accepted for payment; (iii) all pertinent offer conditions have been reasonably met and (iv) the change to the current float factor is greater than 3%. A minimum two day notice period of the change is generally provided. If the offer includes a stock consideration, the acquiring company's shares will be increased proportionate to the free float change of the target company. If the target company's free float change is greater than 3%, the associated change to the acquiring company's shares will be implemented regardless of size. Additionally, if the change to the target company is less than 3%, then no change will be implemented to the target or the acquiring company at the time of the event, regardless of any change to the acquiring company's shares. The target company will then be deleted as a second-step, if the conditions for deletion are achieved at the expiration of a subsequent offer period.

***Delisted and Suspended Stocks*** A stock will be deleted as a constituent if it is delisted from all eligible exchanges, becomes bankrupt, files for bankruptcy protection, is insolvent or is liquidated, or where evidence of a change in circumstances makes it ineligible for index inclusion. If, however, a stock is suspended, Russell will determine its treatment as follows:

if a constituent is declared bankrupt without any indication of compensation to shareholders, the last traded price will be adjusted to zero value and the constituent will be removed from the Russell 2000® Index with T+2 notice;

in all other cases, a constituent will continue to be included in the Russell 2000® Index for a period of up to 20 business days at its last traded price;

if a constituent continues to be suspended at the end of the 20 business day period, it will be subject to review and a decision will be taken to either allow the constituent to remain in the Russell 2000® Index for a further period of

up to 20 business days or to remove it at zero value. In making this determination, Russell will take into account the stated reasons for the suspension. These reasons may include announcements made by the company regarding a pending acquisition or restructuring, and any stated intentions regarding a date for the resumption of trading. This procedure will be repeated at successive 20 business day intervals thereafter until either trading recommences or the suspension period reaches 80 business days;

if the suspension period reaches 80 business days, Russell will provide notice that the constituent will be removed at zero value following the expiry of at least 40 business days;

in certain limited circumstances where the index weight of the constituent is significant and Russell determines that a market-related value can be established for the suspended constituent, for example because similar company securities continue to trade, deletion may take place at the market-related

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value instead. In such circumstances, Russell will set out its rationale for the proposed treatment of the constituent at the end of the 80 business day period;

if, following the end of the 80 business day period, a suspended constituent resumes trading before the Wednesday before the first Friday of March, June, September or December, the deletion notice will be rescinded and the constituent will be retained in the Russell 2000® Index. If the constituent resumes trading after these dates but before the review effective date, the constituent will continue to be removed from the Russell 2000® Index as previously announced but in these circumstances the deletion may instead be implemented at market value; and

if a constituent has been removed from the Russell 2000® Index and trading is subsequently restored, the constituent will only be re-considered for inclusion after a period of 12 months from its deletion. For the purposes of index eligibility it will be treated as a new issue.

*Bankruptcy and Voluntary Liquidations* Companies that file for a Chapter 7 liquidation bankruptcy or have filed a liquidation plan will be removed from the Russell 2000® Index at the time of the bankruptcy filing (except when shareholder approval is required to finalize the liquidation plan, in which case the company will be removed once shareholder approval has been granted); whereas companies filing for a Chapter 11 reorganization bankruptcy will remain a member of the Russell 2000® Index, unless the company is delisted from the primary exchange, in which case normal delisting rules apply. If a company files for bankruptcy, is delisted and it can be confirmed that it will not trade on any market, including OTC, Russell may remove the stock at a nominal price of \$0.0001.

*Stock Distributions and distributions in specie* A price adjustment for stock distributions is applied on the ex-date of the distribution. Where Russell is able to value a distribution in specie prior to the ex-date, a price adjustment is made to the company paying the dividend at the open on the ex-date. If no valuation of the distribution exists prior to the ex-date, no price adjustment is applied. Where the company whose holders are receiving the distribution is an index member, its shares will be increased according to the terms of the distribution. If such company is not an index member, the distributed shares will be added to the Russell 2000® Index until they have been settled and have listed, at which point they will be removed at the last traded price giving appropriate notice.

*Special Cash Dividends* If a constituent pays out a special cash dividend, the price of the stock is adjusted to deduct the dividend amount before the open on the ex-date. No adjustment for regular cash dividends is made in the price return calculation of the Russell 2000® Index.

*Updates to Shares Outstanding and Free Float* Russell reviews the Russell 2000® Index quarterly for updates to shares outstanding and to free floats used in calculating the Russell 2000® Index. The changes are implemented quarterly in March, June, September and December after the close on the third Friday of such month. The June reconstitution will be implemented on the last Friday of June (unless the last Friday occurs on the 29th or 30th of the month, in which case reconstitution will occur on the Friday prior).

In March, September and December shares outstanding and free floats are updated to reflect (i) changes greater than 1% for cumulative shares in issue changes and (ii) changes greater than 3% for cumulative free float changes. In addition, a constituent with a free float of 15% or below will not be subject to the 3% change threshold and will instead be updated if the change is greater than 1%. Updates to shares outstanding and free floats will be implemented each June regardless of size (i.e., the percentage change thresholds above will not be applied). Russell implements the June updates using data sourced primarily from the companies' publicly available information filed with the Securities and Exchange Commission.

Outside of the quarterly update cycle, outstanding shares and free float will be updated with at least two days' notice if prompted by primary or secondary offerings if (i) there is a USD \$1 billion investable market capitalization change related to a primary/secondary offering or (ii) there is a resultant 5% change in index shares related to a primary or secondary offering and a USD \$250 million investable market capitalization change. These changes are implemented after the close on the day that the subscription period closes, assuming two days' notice can be provided. If two days' notice cannot be provided prior to the end of the subscription period, the change will still proceed with two days' notice and will be implemented at the earliest opportunity. If discovery of the event occurs more than two days after the close of the subscription period, the changes are deferred until the quarterly review cycle.

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If a company distributes shares of an additional share class to its existing shareholders through a mandatory corporate action, the additional share class will be evaluated for separate index membership. The new share class will be deemed eligible if the market capitalization of the distributed shares meets the minimum size requirement (the market capitalization of the smallest member of the Russell 3000E Index from the previous rebalance as adjusted for performance to date). If the additional share class is not eligible at the time of distribution, it will not be added to the Russell 2000® Index.

*License Agreement between Frank Russell Company (doing business as Russell Investment Group) and GS Finance Corp.*

Frank Russell Company doing business as Russell Investment Group ( Russell ) and Goldman Sachs International have entered into a non-exclusive license agreement, granting GS Finance Corp., in exchange for a fee, permission to use the Russell 2000® Index in connection with the offer and sale of the notes. GS Finance Corp. is not affiliated with Russell; the only relationship between Russell and GS Finance Corp. is the licensing of the use of the Russell 2000® Index (a trademark of Russell) and trademarks relating to the Russell 2000® Index.

GS Finance Corp. does not accept any responsibility for the calculation, maintenance or publication of the Russell 2000® Index or any successor index.

The notes are not sponsored, endorsed, sold or promoted by Russell. Russell makes no representation or warranty, express or implied, to the owners of the notes or any member of the public regarding the advisability of investing in securities generally or in the notes particularly or the ability of the Russell 2000® Index to track general stock market performance or a segment of the same. Russell's publication of the Russell 2000® Index in no way suggests or implies an opinion by Russell as to the advisability of investment in any or all of the securities upon which the Russell 2000® Index is based. Russell's only relationship to GS Finance Corp. is the licensing of certain trademarks and trade names of Russell and of the Russell 2000® Index which is determined, composed and calculated by Russell without regard to GS Finance Corp. or the notes. Russell is not responsible for and has not reviewed the notes nor any associated literature or publications and Russell makes no representation or warranty express or implied as to their accuracy or completeness, or otherwise. Russell reserves the right, at any time and without notice, to alter, amend, terminate or in any way change the Russell 2000® Index. Russell has no obligation or liability in connection with the administration, marketing or trading of the notes.

RUSSELL DOES NOT GUARANTEE THE ACCURACY AND/OR THE COMPLETENESS OF THE RUSSELL 2000® INDEX OR ANY DATA INCLUDED THEREIN AND RUSSELL SHALL HAVE NO LIABILITY FOR ANY ERRORS, OMISSIONS, OR INTERRUPTIONS THEREIN. RUSSELL MAKES NO WARRANTY, EXPRESS OR IMPLIED, AS TO RESULTS TO BE OBTAINED BY GS FINANCE CORP., INVESTORS, OWNERS OF THE NOTES, OR ANY OTHER PERSON OR ENTITY FROM THE USE OF THE RUSSELL 2000® INDEX OR ANY DATA INCLUDED THEREIN. RUSSELL MAKES NO EXPRESS OR IMPLIED WARRANTIES, AND EXPRESSLY DISCLAIMS ALL WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE WITH RESPECT TO THE RUSSELL 2000® INDEX OR ANY DATA INCLUDED THEREIN. WITHOUT LIMITING ANY OF THE FOREGOING, IN NO EVENT SHALL RUSSELL HAVE ANY LIABILITY FOR ANY SPECIAL, PUNITIVE, INDIRECT, OR CONSEQUENTIAL DAMAGES (INCLUDING LOST PROFITS), EVEN IF NOTIFIED OF THE POSSIBILITY OF SUCH DAMAGES.

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**Historical Closing Levels of the Indices**

The closing levels of the indices have fluctuated in the past and may, in the future, experience significant fluctuations. Any historical upward or downward trend in the closing level of any index during the period shown below is not an indication that such index 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 index as an indication of the future performance of an index.** We cannot give you any assurance that the future performance of any index or the index 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 indices. Before investing in the offered notes, you should consult publicly available information to determine the relevant index levels between the date of this prospectus supplement and the date of your purchase of the offered notes. The actual performance of an index 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 index from March 28, 2009 through March 28, 2019. We obtained the levels in the graphs below from Bloomberg Financial Services, without independent verification. Although the official closing levels of the Russell 2000® Index are published to six decimal places by the index sponsor, Bloomberg Financial Services reports the levels of the Russell 2000® Index to fewer decimal places.

**Historical Performance of the NASDAQ-100 Index®**

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**Historical Performance of the Russell 2000® Index**

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**SUPPLEMENTAL DISCUSSION OF FEDERAL INCOME TAX CONSEQUENCES**

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

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 regulated investment company;

an accrual method taxpayer subject to special tax accounting rules as a result of its use of financial statements;

a tax exempt organization;

a partnership;

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 discusses 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 other tax consequences of your investment 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 a note 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

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law, an administrative determination or a judicial ruling to the contrary to characterize your notes for all tax purposes as income-bearing pre-paid derivative contracts in respect of the indices. Except as otherwise stated below, the discussion below assumes that the notes will be so treated.

Coupon payments that you receive should be included in ordinary income at the time you receive the payment or when the payment accrues, in accordance with your regular method of accounting for U.S. federal income tax purposes.

Upon the sale, exchange, redemption or maturity of your notes, you should recognize capital gain or loss equal to the difference between the amount realized on the sale, exchange, redemption or maturity (excluding any amounts attributable to accrued and unpaid coupon payments, which will be taxable as described above) and your tax basis in your notes. Your tax basis in your notes will generally be equal to the amount that you paid for the notes. Such capital gain or loss should generally be short-term capital gain or loss if you hold the notes for one year or less, and should be long-term capital gain or loss if you hold the notes for more than one year. 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 applicable original 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 income you recognize upon the sale, exchange, redemption or maturity of your notes would be treated as ordinary interest income. Any loss you recognize at that time would be treated as 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, as capital loss.

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

It is possible that the Internal Revenue Service could assert that your notes should generally be characterized as described above, except that (1) the gain you recognize upon the sale, exchange, redemption or maturity of your notes should be treated as ordinary income or (2) you should not include the coupon payments in income as you receive

them but instead you should reduce your basis in your notes by the amount of coupon payments that you receive. It is also possible that the Internal Revenue Service could seek to characterize your notes in a manner that results in tax consequences to you different from those described above.

It is also possible that the Internal Revenue Service could seek to characterize your notes as notional principal contracts. It is also possible that the coupon payments would not be treated as either ordinary income or interest for U.S. federal income tax purposes, but instead would be treated in some other manner.

You should consult your tax advisor as to possible alternative characterizations of your notes for U.S. federal income tax purposes.

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

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. 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.

In addition, 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 the 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, GS Finance Corp. intends to continue treating the notes for U.S. federal income tax purposes in accordance with the treatment described above unless and until such time as Congress, the Treasury Department or the Internal Revenue Service determine that some other treatment is more appropriate.

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.

### **United States Alien Holders**

This section applies to you only if you are a United States alien holder. You are a United States alien holder if you are the beneficial owner of the 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.

Because the U.S. federal income tax treatment (including the applicability of withholding) of the coupon payments on the notes is uncertain, in the absence of further guidance, we intend to withhold on the coupon payments made to you at a 30% rate or at a lower rate specified by an applicable income tax treaty under an other income or similar provision. We will not make payments of any additional amounts. To claim a reduced treaty rate for withholding, you generally must provide a valid Internal Revenue Service Form W-8BEN, Internal Revenue Service Form W-8BEN-E, or an acceptable substitute form upon which you certify, under penalty of perjury, your status as a U.S. alien holder and your entitlement to the lower treaty rate. Payments will be made to you at a reduced treaty rate of withholding

only if such reduced treaty rate would apply to any possible characterization of the payments (including, for example, if the coupon payments were characterized as contract fees). Withholding also may not apply to coupon payments made to you if: (i) the coupon payments are effectively connected with your conduct of a trade or business in the United States and are includable in your gross income for U.S. federal income tax purposes, (ii) the coupon payments are attributable to a permanent establishment that you maintain in the United States, if required by an applicable tax treaty, and (iii) you comply with the requisite certification requirements (generally, by providing an Internal Revenue Service Form W-8ECI). If you are eligible for a reduced rate of United States withholding tax, you may obtain a refund of any amounts withheld in excess of that rate by filing a refund claim with the Internal Revenue Service.

Effectively connected payments includable in your United States gross income are generally taxed at rates applicable to United States citizens, resident aliens, and domestic corporations; if you are a corporate United States alien holder, effectively connected payments may be subject to an additional branch profits tax under certain circumstances.

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You will also be subject to generally applicable information reporting and backup withholding requirements 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 Alien Holders** in the accompanying prospectus.

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 effects, that would cause payments on your notes to be subject to withholding, even if you comply with certification requirements as to your foreign status.

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 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 United States alien holders of the notes should consult their tax advisors in this regard.

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 coupon payments and any amounts you receive upon the sale, exchange, redemption 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 indices 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 any coupon payment or 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, 2021, 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 United States alien 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. Pursuant to recently proposed regulations, the Treasury Department has indicated its intent to eliminate the requirements under FATCA of withholding on gross proceeds from the sale, exchange, maturity or other disposition of relevant financial instruments. The Treasury Department has indicated that taxpayers may rely on these proposed regulations pending their finalization.

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**EMPLOYEE RETIREMENT INCOME SECURITY ACT**

*This section is only relevant to you if you are an insurance company or the fiduciary of a pension plan or an employee benefit plan (including a governmental plan, an IRA or a Keogh Plan) proposing to invest in the notes.*

The U.S. Employee Retirement Income Security Act of 1974, as amended ( ERISA ) and the U.S. Internal Revenue Code of 1986, as amended (the Code ), prohibit certain transactions ( prohibited transactions ) involving the assets of an employee benefit plan that is subject to the fiduciary responsibility provisions of ERISA or Section 4975 of the Code (including individual retirement accounts, Keogh plans and other plans described in Section 4975(e)(1) of the Code) (a Plan ) and certain persons who are parties in interest (within the meaning of ERISA) or disqualified persons (within the meaning of the Code) with respect to the Plan; governmental plans may be subject to similar prohibitions unless an exemption applies to the transaction. The assets of a Plan may include assets held in the general account of an insurance company that are deemed plan assets under ERISA or assets of certain investment vehicles in which the Plan invests. Each of The Goldman Sachs Group, Inc. and certain of its affiliates may be considered a party in interest or a disqualified person with respect to many Plans, and, accordingly, prohibited transactions may arise if the notes are acquired by or on behalf of a Plan unless those notes are acquired and held pursuant to an available exemption. In general, available exemptions are: transactions effected on behalf of that Plan by a qualified professional asset manager (prohibited transaction exemption 84-14) or an in-house asset manager (prohibited transaction exemption 96-23), transactions involving insurance company general accounts (prohibited transaction exemption 95-60), transactions involving insurance company pooled separate accounts (prohibited transaction exemption 90-1), transactions involving bank collective investment funds (prohibited transaction exemption 91-38) and transactions with service providers under Section 408(b)(17) of ERISA and Section 4975(d)(20) of the Code where the Plan receives no less and pays no more than adequate consideration (within the meaning of Section 408(b)(17) of ERISA and Section 4975(f)(10) of the Code). The person making the decision on behalf of a Plan or a governmental plan shall be deemed, on behalf of itself and the plan, by purchasing and holding the notes, or exercising any rights related thereto, to represent that (a) the plan will receive no less and pay no more than adequate consideration (within the meaning of Section 408(b)(17) of ERISA and Section 4975(f)(10) of the Code) in connection with the purchase and holding of the notes, (b) none of the purchase, holding or disposition of the notes or the exercise of any rights related to the notes will result in a nonexempt prohibited transaction under ERISA or the Code (or, with respect to a governmental plan, under any similar applicable law or regulation), and (c) neither The Goldman Sachs Group, Inc. nor any of its affiliates is a fiduciary (within the meaning of Section 3(21) of ERISA) or, with respect to a governmental plan, under any similar applicable law or regulation) with respect to the purchaser or holder in connection with such person's acquisition, disposition or holding of the notes, or as a result of any exercise by The Goldman Sachs Group, Inc. or any of its affiliates of any rights in connection with the notes, and neither The Goldman Sachs Group, Inc. nor any of its affiliates has provided investment advice in connection with such person's acquisition, disposition or holding of the notes.

*If you are an insurance company or the fiduciary of a pension plan or an employee benefit plan (including a governmental plan, an IRA or a Keogh plan), and propose to invest in the notes, you should consult your legal counsel.*

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**SUPPLEMENTAL PLAN OF DISTRIBUTION**

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 prospectus 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 prospectus supplement, and to a dealer at such price less a concession not in excess of % of the face amount. In addition to the concession, GS&Co. will pay a fee of % of the face amount to an affiliate of the dealer in connection with certain services provided directly by such affiliate to the dealer and a fee of % of the face amount to Axio Financial LLC in connection with its marketing efforts from time to time related to the notes.

In the future, GS&Co. or other affiliates of GS Finance Corp. may repurchase and resell the offered notes in market-making transactions, with resales being made at prices related to prevailing market prices at the time of resale or at negotiated prices. GS Finance Corp. estimates that its share of the total offering expenses, excluding underwriting discounts and commissions, will be approximately \$ . For more information about the plan of distribution and possible market-making activities, see Plan of Distribution in the accompanying prospectus.

We expect to deliver the notes against payment therefor in New York, New York on May 3, 2019. 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.

Any notes which are the subject of the offering contemplated by this prospectus supplement, the accompanying prospectus and the accompanying prospectus supplement may not be offered, sold or otherwise made available to any retail investor in the European Economic Area. Consequently no key information document required by Regulation (EU) No 1286/2014 (the PRIIPs Regulation ) for offering or selling the notes or otherwise making them available to retail investors in the EEA has been prepared and therefore offering or selling the notes or otherwise making them available to any retail investor in the EEA may be unlawful under the PRIIPs Regulation. For the purposes of this provision:

- a) the expression retail investor means a person who is one (or more) of the following:
  - (i) a retail client as defined in point (11) of Article 4(1) of Directive 2014/65/EU (as amended, MiFID II ); or
  - (ii) a customer within the meaning of Directive 2002/92/EC (as amended, the Insurance Mediation Directive ), where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II; or

(iii) not a qualified investor as defined in Directive 2003/71/EC (as amended, the Prospectus Directive );  
and

b) the expression an offer includes the communication in any form and by any means of sufficient information on the terms of the offer and the notes to be offered so as to enable an investor to decide to purchase or subscribe for the notes.

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a Relevant Member State ), GS&Co. has represented and agreed that with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State (the Relevant Implementation Date ) it has not made and will not make an offer of notes which are the subject of the offering contemplated by this prospectus supplement, the accompanying prospectus and the accompanying prospectus supplement to the public in that Relevant Member State except that, with effect

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from and including the Relevant Implementation Date, an offer of such notes may be made to the public in that Relevant Member State:

- a) at any time to any legal entity which is a qualified investor as defined in the Prospectus Directive;
- b) at any time to fewer than 150 natural or legal persons (other than qualified investors as defined in the Prospectus Directive), subject to obtaining the prior consent of the relevant dealer or dealers nominated by the issuer for any such offer; or
- c) at any time in any other circumstances falling within Article 3(2) of the Prospectus Directive, provided that no such offer of notes referred to above shall require us or any dealer to publish a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an offer of notes to the public in relation to any notes in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the notes to be offered so as to enable an investor to decide to purchase or subscribe for the notes, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State and the expression Prospectus Directive means Directive 2003/71/EC (as amended, including by Directive 2010/73/EU), and includes any relevant implementing measure in the Relevant Member State.

Any invitation or inducement to engage in investment activity (within the meaning of Section 21 of the FSMA) in connection with the issue or sale of the notes may only be communicated or caused to be communicated in circumstances in which Section 21(1) of the FSMA does not apply to GS Finance Corp. or The Goldman Sachs Group, Inc.

All applicable provisions of the FSMA must be complied with in respect to anything done by any person in relation to the notes in, from or otherwise involving the United Kingdom.

The notes may not be offered or sold in Hong Kong by means of any document other than (i) to professional investors as defined in the Securities and Futures Ordinance (Cap. 571 of the Laws of Hong Kong) and any rules made thereunder, or (ii) in other circumstances which do not result in the document being a prospectus as defined in the Companies (Winding Up and Miscellaneous Provisions) Ordinance (Cap. 32 of the Laws of Hong Kong) or which do not constitute an offer to the public within the meaning of that Ordinance; and no advertisement, invitation or document relating to the notes may be issued or may be in the possession of any person for the purpose of issue (in each case whether in Hong Kong or elsewhere) which is directed at, or the contents of which are likely to be accessed or read by, the public in Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to the notes which are or are intended to be disposed of only to persons outside Hong Kong or only to professional investors as defined in the Securities and Futures Ordinance and any rules made thereunder.

This prospectus supplement, along with the accompanying prospectus supplement and the accompanying prospectus have not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this prospectus supplement, along with the accompanying prospectus supplement and the accompanying prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the notes may not be circulated or distributed, nor may the notes be offered or sold, or be made the subject of an invitation for

subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor (as defined in Section 4A of the Securities and Futures Act, Chapter 289 of Singapore (the SFA )) under Section 274 of the SFA, (ii) to a relevant person (as defined in Section 275(2) of the SFA) pursuant to Section 275(1) of the SFA, or any person pursuant to Section 275(1A) of the SFA, and in accordance with the conditions specified in Section 275 of the SFA or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA, in each case subject to conditions set forth in the SFA.

Where the notes are subscribed or purchased under Section 275 of the SFA by a relevant person which is a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor, the securities (as defined in Section 239(1) of the SFA) of that corporation shall not be transferable for six months after that corporation has acquired the notes under

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Section 275 of the SFA except: (1) to an institutional investor under Section 274 of the SFA or to a relevant person (as defined in Section 275(2) of the SFA), (2) where such transfer arises from an offer in that corporation's securities pursuant to Section 275(1A) of the SFA, (3) where no consideration is or will be given for the transfer, (4) where the transfer is by operation of law, (5) as specified in Section 276(7) of the SFA, or (6) as specified in Regulation 32 of the Securities and Futures (Offers of Investments) (Shares and Debentures) Regulations 2005 of Singapore ( Regulation 32 ).

Where the notes are subscribed or purchased under Section 275 of the SFA by a relevant person which is a trust (where the trustee is not an accredited investor (as defined in Section 4A of the SFA)) whose sole purpose is to hold investments and each beneficiary of the trust is an accredited investor, the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferable for six months after that trust has acquired the notes under Section 275 of the SFA except: (1) to an institutional investor under Section 274 of the SFA or to a relevant person (as defined in Section 275(2) of the SFA), (2) where such transfer arises from an offer that is made on terms that such rights or interest are acquired at a consideration of not less than S\$200,000 (or its equivalent in a foreign currency) for each transaction (whether such amount is to be paid for in cash or by exchange of securities or other assets), (3) where no consideration is or will be given for the transfer, (4) where the transfer is by operation of law, (5) as specified in Section 276(7) of the SFA, or (6) as specified in Regulation 32.

The notes have not been and will not be registered under the Financial Instruments and Exchange Act of Japan (Act No. 25 of 1948, as amended), or the FIEA. The notes may not be offered or sold, directly or indirectly, in Japan or to or for the benefit of any resident of Japan (including any person resident in Japan or any corporation or other entity organized under the laws of Japan) or to others for reoffering or resale, directly or indirectly, in Japan or to or for the benefit of any resident of Japan, except pursuant to an exemption from the registration requirements of the FIEA and otherwise in compliance with any relevant laws and regulations of Japan.

The notes are not offered, sold or advertised, directly or indirectly, in, into or from Switzerland on the basis of a public offering and will not be listed on the SIX Swiss Exchange or any other offering or regulated trading facility in Switzerland. Accordingly, neither this prospectus supplement nor any accompanying prospectus supplement, prospectus or other marketing material constitute a prospectus as defined in article 652a or article 1156 of the Swiss Code of Obligations or a listing prospectus as defined in article 32 of the Listing Rules of the SIX Swiss Exchange or any other regulated trading facility in Switzerland. Any resales of the notes by the underwriters thereof may only be undertaken on a private basis to selected individual investors in compliance with Swiss law. This prospectus supplement and accompanying prospectus and prospectus supplement may not be copied, reproduced, distributed or passed on to others or otherwise made available in Switzerland without our prior written consent. By accepting this prospectus supplement and accompanying prospectus and prospectus supplement or by subscribing to the notes, investors are deemed to have acknowledged and agreed to abide by these restrictions. Investors are advised to consult with their financial, legal or tax advisers before investing in the notes.

## **Conflicts of Interest**

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.



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We have not authorized anyone to provide any information or to make any representations other than those contained or incorporated by reference in this prospectus supplement, 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 prospectus supplement, 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 prospectus supplement, 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.**

Autocallable Fixed Coupon Index-Linked Notes

due

guaranteed by

**The Goldman Sachs Group, Inc.**

**Goldman Sachs & Co. LLC**

