GOLDMAN SACHS GROUP INC Form 424B2 November 23, 2018 Table of Contents

Filed Pursuant to Rule 424(b)(2)

Registration Statement No. 333-219206

Subject to Completion. Dated November 23, 2018.

## **GS Finance Corp.**

\$

Capped GEARS Linked to the Vanguard FTSE Developed Markets ETF due

guaranteed by

## The Goldman Sachs Group, Inc.

The notes will not bear interest. The amount that you will be paid on your notes on the stated maturity date (expected to be January 30, 2020) is based on the performance of the Vanguard FTSE Developed Markets ETF (ETF) as measured from the trade date (expected to be November 27, 2018) to and including the determination date (expected to be January 27, 2020).

The return on your notes is linked to the performance of the ETF, and not to that of the FTSE® Developed All Cap ex US Index (index) on which the ETF is based. The performance of the ETF may significantly diverge from that of the index. Further, as discussed in more detail below, the ETF began tracking the index in June 2016. Therefore, there is limited historical performance information available for the ETF while tracking the index.

If the final ETF price (the closing price of the ETF on the determination date) is greater than the initial ETF price (the closing price of the ETF on the trade date), then the return on the notes will be positive and equal the *product* of the ETF return (the percentage increase or decrease in the final ETF price from the initial ETF price) *multiplied* by 3.0, subject to the maximum settlement amount (expected to be between \$11.72 and \$11.87 for each \$10 face amount of your notes). If the final ETF price is less than the initial ETF price, the return on your notes will be negative. **You could receive less than the face amount of your notes at maturity and you will lose your entire investment in the notes if the final ETF price is zero.** 

At maturity, for each \$10 face amount of your notes you will receive an amount in cash equal to:

• if the final ETF price is *greater than* the initial ETF price, subject to the maximum settlement amount, the sum of (a) \$10 *plus* (b) the *product* of the ETF return *times* \$10 *times* 3.0; or

• if the final ETF price is *equal to* or *less than* the initial ETF price, the sum of (a) \$10 *plus* (b) the *product* of the ETF return *times* \$10, resulting in a loss proportionate to any negative ETF return.

In addition, any sales prior to maturity could result in a loss even if the price of the Vanguard FTSE Developed Markets ETF is greater than the initial ETF price at the time of such sale.

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-11.

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 \$9.35 and \$9.65 per \$10 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 November 30, 2018 Original issue price: 100.00% of the face

amount

**Underwriting discount:** 2.10% of the face amount\* **Net proceeds to the** 97.90% of the face amount

issuer:

\*UBS Financial Services Inc., the selling agent, will receive a selling concession not in excess of 2.00% of the face amount.

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 UB

**UBS Financial Services Inc.** 

Selling Agent

Prospectus Supplement No. dated , 2018.

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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 \$9.35 and \$9.65 per \$10 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 \$10 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 over a 364 day period from the time of pricing). 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-23. 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.

## **Key Terms**

Issuer: GS Finance Corp.

Guarantor: The Goldman Sachs Group, Inc.

**Underlying ETF:** the Vanguard FTSE Developed Markets ETF (Bloomberg symbol, VEA), see The Underlying ETF on page S-31

Underlying index: the FTSE® Developed All Cap ex US Index

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

**Face amount:** each note will have a face amount of \$10; \$ 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, decides to sell an additional amount of the offered notes on a date subsequent to the date of this prospectus supplement

Denominations: \$10 and integral multiples of \$10 in excess thereof

Minimum purchase amount: in connection with the initial offering of the notes, the minimum face amount of notes that may be purchased by any investor is \$1,000

Supplemental plan of distribution: GS Finance Corp. expects to agree to sell to Goldman Sachs & Co. LLC (GS&Co.), and GS&Co. expects to agree to 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 UBS Financial Services Inc. at such price less a concession not in excess of 2.00% of the face amount. See Supplemental Plan of Distribution on page S-47

Cash settlement amount: on the stated maturity date, for each \$10 face amount of your notes you will receive an amount in cash equal to:

- if the final underlying ETF price is *greater than or equal to* the cap level, the maximum settlement amount;
- if the final underlying ETF price is *greater than* the initial underlying ETF price but *less than* the cap level, the *sum* of (a) \$10 *plus* (b) the *product* of the underlying ETF return *times* \$10 *times* the upside gearing; or
- if the final underlying ETF price is *equal to* or *less than* the initial underlying ETF price, the *sum* of (a) \$10 *plus* (b) the product of the underlying ETF return *times* \$10, resulting in a loss proportionate to any negative underlying ETF return.

Purchase at amount other than face amount: the amount we will pay you at the stated maturity date for your notes will not be adjusted based on the issue price you pay for your notes, so if you acquire notes at

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a premium (or discount) to face amount and hold them to 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. Additionally, the cap level (the price of the underlying ETF at or above which the maximum settlement amount is payable), would be reached at a lower (or higher) percentage return than indicated below, relative to your initial investment. 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

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 a pre-paid derivative contract in respect of the underlying ETF, as described under—Supplemental Discussion of U.S. Federal Income Tax Consequences herein. Pursuant to this approach, it is the opinion of Sidley Austin LLP that upon the sale, exchange 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 and your tax basis in your notes. 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. The Internal Revenue Service might assert that a treatment other than that described above is more appropriate (including on a retroactive basis) and the timing and character of income in respect of the notes might differ from the treatment described above.

Trade date: expected to be November 27, 2018

Original issue date (settlement date) (to be set on the trade date): expected to be November 30, 2018

Initial underlying ETF price (to be set on the trade date): the closing price of the underlying ETF on the trade date

**Final underlying ETF price:** the closing price of the underlying ETF on the determination date, subject to anti-dilution adjustments as described under Specific Terms of Your Notes Anti-dilution Adjustments on page S-26, except in the limited circumstances described under Specific Terms of Your Notes Payment of Principal on Stated Maturity Date Consequences of a Market Disruption Event or a Non-Trading Day on page S-25 and subject to adjustment as provided under Specific Terms of Your Notes Payment of Principal on Stated Maturity Date Discontinuance or Modification of the Underlying ETF on page S-25

Closing price: as described under Specific Terms of Your Notes Special Calculation Provisions Closing Price on page S-27, subject to anti-dilution adjustments as described under Specific Terms of Your Notes Anti-dilution Adjustments on page S-26

**Underlying ETF return:** the *quotient* of (i) the final underlying ETF price *minus* the initial underlying ETF price *divided* by (ii) the initial underlying ETF price, expressed as a positive or negative percentage

Upside gearing: 3.0

Cap level (to be set on the trade date): expected to be between approximately 105.733% and approximately 106.233% of the initial underlying ETF price. The cap level represents (i) the maximum return (as specified below) divided by the upside gearing plus (ii) 100% and is the price of the underlying ETF at or above which you will receive the maximum settlement amount. If the final underlying ETF price is greater than the cap level (in which case the *product of* the underlying ETF return *times* the upside gearing is *greater than* the maximum return), you will not receive more than the maximum settlement amount

Maximum settlement amount (to be set on the trade date): expected to be between \$11.72 and \$11.87, which corresponds to an expected maximum return on the notes of between 17.20% and 18.70%

Stated maturity date (to be set on the trade date): expected to be January 30, 2020, subject to adjustment as described under Specific Terms of Your Notes Stated Maturity Date on page S-25

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**Determination date (to be set on the trade date):** expected to be January 27, 2020, subject to adjustment as described under Specific Terms of Your Notes Determination Date on page S-25

No interest: the notes will not bear interest

No redemption: the notes will not be subject to redemption right or price dependent redemption right

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

Calculation agent: GS&Co.

**Business day:** as described under Specific Terms of Your Notes Special Calculation Provisions Business Day on page S-27

**Trading day:** as described under Specific Terms of Your Notes Special Calculation Provisions Trading Day on page S-27

**CUSIP no.: 36256M627** 

ISIN no.: US36256M6277

**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

(Hypothetical terms only. Actual terms may vary.)

The following examples are provided for purposes of illustration only. It should not be taken as an indication or prediction of future investment results and is intended merely to illustrate the impact that the various hypothetical final underlying ETF prices 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 final underlying ETF prices that are entirely hypothetical; no one can predict what the underlying ETF price will be on any day throughout the life of your notes, and no one can predict what the final underlying ETF price will be on the determination date. The underlying ETF has been highly volatile in the past meaning that the underlying ETF price has changed considerably in relatively short periods and its performance cannot be predicted for any future period.

The information in the following examples reflects hypothetical rates of return on the offered notes assuming that they are purchased on the original issue date at the face amount and held to the stated maturity date. If you sell your notes in a secondary market prior to the stated maturity date, your return will depend upon the market value of your notes at the time of sale, which may be affected by a number of factors that are not reflected in the examples below, such as interest rates, the volatility of the underlying ETF, 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-11 of this prospectus supplement. The information in the examples also reflects the key terms and assumptions in the box below.

Key Terms and Assumptions	
Face amount	\$10
Upside gearing	3.0
Cap level	approximately 105.733% of the initial underlying ETF price
Maximum settlement amount	\$11.72 (i.e., a 17.20% maximum return)

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

No change in or affecting the underlying ETF, any of the underlying ETF stocks or the policies of the underlying ETF s investment advisor or the method by which the underlying index sponsor calculates the underlying index

Notes purchased on original issue date at the face amount and held to the stated maturity date

Moreover, we have not yet set the initial underlying ETF price that will serve as the baseline for determining the underlying ETF return and the amount that we will pay on your notes, if any, at maturity. We will not do so until the trade date. As a result, the actual initial underlying ETF price may differ substantially from the underlying ETF price prior to the trade date.

For these reasons, the actual performance of the underlying ETF over the life of your notes, as well as the amount payable at maturity, if any, may bear little relation to the hypothetical examples shown below or to the historical underlying ETF prices shown elsewhere in this prospectus supplement. For information

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about the historical prices of the underlying ETF during recent periods, see The Underlying ETF Historicalosing Prices of the Underlying ETF below. Before investing in the offered notes, you should consult publicly available information to determine the prices of the underlying ETF between the date of this prospectus supplement and the date of your purchase of the offered 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 underlying ETF stocks.

The prices in the left column of the table below represent hypothetical final underlying ETF prices and are expressed as percentages of the initial underlying ETF price. The amounts in the right column represent the hypothetical cash settlement amounts, based on the corresponding hypothetical final underlying ETF price (expressed as a percentage of the initial underlying ETF price), 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 \$10 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 underlying ETF price (expressed as a percentage of the initial underlying ETF price) and the assumptions noted above.

#### **Hypothetical Final Underlying ETF Price**

#### **Hypothetical Cash Settlement Amount**

## (as Percentage of Initial Underlying ETF Price)

(as Percentage of Face Amount)

140.000%	117.200%
125.000%	117.200%
110.000%	117.200%
105.733%	117.200%
104.000%	112.000%
102.000%	106.000%
100.000%	100.000%
75.000%	75.000%
50.000%	50.000%
25.000%	25.000%
0.000%	0.000%

If, for example, the final underlying ETF price were determined to be 25.000% of the initial underlying ETF price, 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, which is proportionate to the decline of the underlying ETF from the trade date to the determination date (if your purchased your notes at a premium to face amount you would lose a correspondingly higher percentage of your investment).

If, however, the final underlying ETF price were determined to be 104.000% of the initial underlying ETF price, the cash settlement amount that we would deliver on your notes at maturity would be 112.000% of the face amount of your notes, as shown in the table

above. Because the hypothetical final underlying ETF price is greater than the initial underlying ETF price, the underlying ETF return is enhanced by the upside gearing.

In addition, if the final underlying ETF price were determined to be 140.000% of the initial underlying ETF price, the cash settlement amount that we would deliver on your notes at maturity would be capped at the maximum settlement amount (expressed as a percentage of the face amount), or 117.200% of each \$10 face amount of your notes, as shown in the table above. In such case, the maximum return will be 17.20%, which represents the percentage difference between the maximum settlement amount of \$11.72

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and the face amount of \$10. As a result, if you held your notes to the stated maturity date, you would not benefit from any increase in the final underlying ETF price over approximately 105.733% (the cap level) of the initial underlying ETF price. This is because the cap level represents (i) the maximum return of 17.20% divided by the upside gearing of 3.0 plus (ii) 100%.

The following chart also shows a graphical illustration of the hypothetical cash settlement amounts (expressed as a percentage of the face amount of your notes) that we would pay on your notes on the stated maturity date, if the final underlying ETF price (expressed as a percentage of the initial underlying ETF price) were any of the hypothetical prices shown on the horizontal axis. The chart shows that any hypothetical final underlying ETF price (expressed as a percentage of the initial underlying ETF price) of less than 100.000% (the section left of the 100.000% marker on the horizontal axis) would result in a hypothetical cash settlement amount of less than 100.000% of the face amount of your notes (the section below the 100.000% marker on the vertical axis) and, accordingly, in a loss of principal to the holder of the notes. In addition, the chart shows that any hypothetical final underlying ETF price (expressed as a percentage of the initial underlying ETF price) of greater than 100.000% (the section right of the 100.000% marker on the horizontal axis) but less than approximately 105.733% (the section left of the 105.733% marker on the horizontal axis) would result in the underlying ETF return being enhanced by the upside gearing. The chart also shows that any hypothetical final underlying ETF price (expressed as a percentage of the initial underlying ETF price) of greater than or equal to approximately 105.733% (the section right of the 105.733% marker on the horizontal axis) would result in a capped return on your investment.

Edgar Filing: GOLDMAN SACHS GROUP INC - Form 424B2 **Table of Contents** The cash settlement amounts shown above are entirely hypothetical; they are based on market prices for the underlying ETF 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

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 a bond bought by the holder and one or more

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 the Notes The Market Value of Your Notes May Be Influenced by Many Unpredictable

Factors on page S-13.

options entered into between the holder and us. Therefore, the terms of the notes may be impacted by the various factors mentioned on page S-13 in the section Additional Risk Factors Specific to the Notes The Market Value of Your Notes May Be Influenced by Many Unpredictable Factors . 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.

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

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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 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 underlying ETF stocks, i.e., the stocks comprising the underlying ETF to which your notes are linked. 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 set forth above under Estimated Value of Your Notes. Thereafter, if GS&Co. buys or sells your notes it will do so at prices that reflect the estimated value determined by reference to such pricing models at that time. The price at which GS&Co. will buy or sell your notes at any time also will reflect its then current bid and ask spread for similar sized trades of structured notes.

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

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

In addition to the factors discussed above, the value and quoted price of your notes at any time will reflect many factors and cannot be predicted. If GS&Co. makes a market in the notes, the price quoted by GS&Co. would reflect any changes in market conditions and other relevant factors, including any deterioration in our creditworthiness or perceived creditworthiness or the creditworthiness or perceived creditworthiness of The Goldman Sachs Group, Inc. These changes may adversely affect the value of your notes, including the price you may receive for your notes in any market making transaction. To the extent that GS&Co. makes a market in the notes, the quoted price will reflect the estimated value determined by reference to GS&Co. s pricing models at that time, plus or minus its then current bid and ask spread for similar sized trades of structured notes (and subject to the declining excess amount described above).

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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 the underlying ETF, 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.

# The Cash Settlement Amount on Your Notes Is Not Linked to the Price of the Underlying ETF at Any Time Other than the Determination Date

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

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

You can lose your entire investment in the notes. The cash payment on your notes, if any, on the stated maturity date will be based on the performance of the Vanguard FTSE Developed Markets ETF as measured from the initial underlying ETF price set on the trade date to the closing price on the determination date. If the final underlying ETF price is *less than* the initial underlying ETF price, the amount in cash you will receive on your notes on the stated maturity date, if any, will be less than the face amount of your notes and you will incur a loss on the face amount proportionate to the decline of the underlying ETF from the trade date to the determination date. Thus, you may lose your entire investment in the notes, which would include any premium to face amount you paid when you purchased the notes.

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

#### Your Notes Will Not Bear Interest

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

#### The Potential for the Value of Your Notes to Increase Will Be Limited

Your ability to participate in any change in the value of the underlying ETF over the life of your notes will be limited. The maximum settlement amount will limit the cash settlement amount you may receive for each of your notes at maturity, no matter how much the price of the underlying ETF may rise beyond the cap level (to be set on the trade date) over the life of your notes. Accordingly, the amount payable for each of your notes may be significantly less than it would have been had you invested directly in the underlying ETF.

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#### Past Underlying ETF Performance is No Guide to Future Performance

The actual performance of the underlying ETF over the life of the notes, as well as the amount payable at maturity, may bear little relation to the historical closing price of the underlying ETF or to the hypothetical return examples set forth elsewhere in this prospectus supplement. We cannot predict the future performance of the underlying ETF.

#### 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 original issue price you paid as provided on the cover of this prospectus supplement.

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 return on your notes will be based on the underlying ETF return, which is the percentage increase or decrease in the final underlying ETF price on the determination date from the initial underlying ETF price (set on the trade date). If the final underlying ETF price is less than the initial underlying ETF price, you will receive less than the face amount of your notes. If the final underlying ETF price is zero, you will lose your entire investment in the notes. The cash settlement amount you will be paid for your notes on the stated maturity 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 the stated maturity date will differ from, and may be substantially less than, the return on notes purchased at face amount. If you purchase your notes at a premium to face amount and hold them to the stated maturity date the return on your investment in the notes will be lower than it would have been had you purchased the notes at face amount or a discount to face amount. In addition, the impact of the cap level on the return on your investment will depend upon the price you pay for your notes relative to face amount. For example, if you purchase your notes at a premium to face amount, the cap level will only permit a lower percentage increase in your investment in the notes than would have been the case for notes purchased at face amount or a discount to face amount. In such cases, your return will be less than the maximum return.

#### 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 and are able to sell them in the open market before the stated maturity date. A number of factors, many of which are beyond our control and impact the value of bonds and options generally, will influence the market value of your notes, including:

the price of the underlying ETF;

- the volatility i.e., the frequency and magnitude of changes in the price of the underlying ETF;
- the dividend rates of the underlying ETF stocks;
- economic, financial, regulatory, political, military and other events that affect stock markets generally and the underlying ETF stocks, and which may affect the price of the underlying ETF;
- other interest rates and yield rates in the market;
- the time remaining until your notes mature; and
- our creditworthiness and the creditworthiness of The Goldman Sachs Group, Inc., whether actual or perceived, 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 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 or less than you would have received had you held your notes to maturity.

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You cannot predict the future prices of the underlying ETF based on its historical fluctuations. The actual price of the underlying ETF over the life of the notes may bear little or no relation to the historical closing price of the underlying ETF or to the hypothetical examples shown elsewhere in this prospectus supplement.

## If the Price of the Underlying ETF Changes, the Market Value of Your Notes May Not Change in the Same Manner

Your notes may trade quite differently from the performance of the underlying ETF. Changes in the price of the underlying ETF may not result in a comparable change in the market value of your notes. Even if the price of the underlying ETF increases above the initial underlying ETF price during the life of the notes, the market value of your notes may not increase by the same amount. 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 Will Not Reflect Any Dividends Paid on the Underlying ETF, or the Underlying ETF Stocks

The return on your notes will not reflect the return you would realize if you actually owned the underlying ETF and received the distributions paid on the shares of such ETF. You will not receive any dividends that may be paid on any of the underlying ETF stocks by the underlying ETF stock issuers or the shares of the underlying ETF. See You Have No Shareholder Rights or Rights to Receive Any Shares of the Underlying ETF or Any Underlying ETF Stock below for additional information.

#### You Have No Shareholder Rights or Rights to Receive Any Shares of the Underlying ETF or Any Underlying ETF Stock

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

## 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 security holders 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, underlying ETF, underlying ETF stocks or other similar securities, which may adversely impact the market for or value of your notes.

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 underlying ETF. 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 underlying ETF or the underlying ETF 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 ETF-linked notes whose returns are linked to changes in the price of the underlying ETF or the underlying ETF 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

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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 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 price of the underlying ETF directly or indirectly by affecting the price of the underlying ETF stocks—and therefore the market value of your notes and the amount we will pay on your notes, if any, at maturity. 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 underlying ETF or underlying ETF 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 the underlying ETF or underlying ETF 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

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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 underlying ETF or underlying ETF 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.

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 underlying ETF or underlying ETF 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 underlying ETF or underlying ETF 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 Investment Advisor of the Underlying ETF or the Issuers of the Underlying ETF 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 investment advisor of the underlying ETF or the issuers of the underlying ETF 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 underlying ETF or underlying ETF 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 underlying ETF or underlying ETF 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.

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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 underlying ETF or underlying ETF 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.

As Calculation Agent, GS&Co. Will Have the Authority to Make Determinations that Could Affect the Value of Your Notes, When Your Notes Mature and the Amount You Receive at Maturity

As calculation agent for your notes, GS&Co. will have discretion in making various determinations that affect your notes, including determining the final underlying ETF price on the determination date, which we will use to determine the amount we must pay on the stated maturity date; anti-dilution adjustments; determining whether to postpone the determination date because of a market disruption event or a non-trading day; the stated maturity date; the default amount and any amount payable on your notes. See Specific Terms of Your Notes below. The calculation agent also has discretion in making certain adjustments relating to a discontinuation or modification of the underlying ETF. See Specific Terms of Your Notes Discontinuance or Modification of the Underlying ETF 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 Investment in the Notes Is Subject to Risks Associated with Foreign Securities

The value of your notes is linked to an underlying ETF that is comprised of stocks issued by foreign companies. 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.

Because foreign exchanges may be open on days when the underlying ETF is not traded, the value of the securities underlying the underlying ETF may change on days when shareholders will not be able to purchase or sell shares of the underlying ETF.

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## Your Investment in the Notes Will Be Subject to Foreign Currency Exchange Rate Risk

The underlying ETF holds assets that are denominated in non-U.S. dollar currencies. The value of the assets held by the underlying ETF that are denominated in non-U.S. dollar currencies will be adjusted to reflect their U.S. dollar value by converting the price of such assets from the non-U.S. dollar currency to U.S. dollars. Consequently, if the value of the U.S. dollar strengthens against the non-U.S. dollar currency in which an asset is denominated, the price of the underlying ETF may not increase even if the non-dollar value of the asset held by the underlying ETF increases.

Foreign currency exchange rates vary over time, and may vary considerably during the term of your notes. Changes in a particular exchange rate result from the interaction of many factors directly or indirectly affecting economic and political conditions. Of particular importance are:

- existing and expected rates of inflation;
- existing and expected interest rate levels;
- the balance of payments among countries;
- the extent of government surpluses or deficits in the relevant foreign country and the United States; and
- other financial, economic, military and political factors.

All of these factors are, in turn, sensitive to the monetary, fiscal and trade policies pursued by the governments of the relevant foreign countries and the United States and other countries important to international trade and finance.

The market price of the notes and price of the underlying ETF could also be adversely affected by delays in, or refusals to grant, any required governmental approval for conversions of a local currency and remittances abroad or other de facto restrictions on the repatriation of U.S. dollars.

It has been reported that the U.K. Financial Conduct Authority and regulators from other countries are in the process of investigating the potential manipulation of published currency exchange rates. If such manipulation has occurred or is continuing, certain published exchange rates may have been, or may be in the future, artificially lower (or higher) than they would otherwise

have been. Any such manipulation could have an adverse impact on any payments on, and the value of, your notes and the trading market for your notes. In addition, we cannot predict whether any changes or reforms affecting the determination or publication of exchange rates or the supervision of currency trading will be implemented in connection with these investigations. Any such changes or reforms could also adversely impact your notes.

The Policies of the Underlying ETF's Investment Advisor, The Vanguard Group Inc., and FTSE Russell, the Sponsor of the Underlying Index, Could Affect the Amount Payable on Your Notes and Their Market Value

The underlying ETF s investment advisor, The Vanguard Group Inc. ( Vanguard or the underlying ETF investment advisor ) may from time to time be called upon to make certain policy decisions or judgments with respect to the implementation of policies of the underlying ETF investment advisor concerning the calculation of the net asset value of the underlying ETF, additions, deletions or substitutions of securities in the underlying ETF and the manner in which changes affecting the underlying index are reflected in the underlying ETF that could affect the market price of the shares of the underlying ETF, and therefore, the amount payable on your notes on the stated maturity date. The amount payable on your notes and their market value could also be affected if the underlying ETF investment advisor changes these policies, for example, by changing the manner in which it calculates the net asset value of the underlying ETF, or if the underlying ETF investment advisor discontinues or suspends calculation or publication of the net asset value of the underlying ETF, in which case it may become difficult or inappropriate to determine the market value of your notes.

If events such as these occur, the calculation agent—which initially will be GS&Co. may determine the closing price of the underlying ETF on the determination date—and thus the amount payable on the maturity date, if any—in a manner, in its sole discretion, it considers appropriate.

We describe the discretion that the calculation agent will have in determining the closing underlying

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ETF price on the determination date and the amount payable on your notes more fully under Specific Terms of Your Notes Discontinuance or Modification of the Underlying ETF and Anti-dilution Adjustments on page S-25.

In addition, FTSE Russell (the underlying index sponsor ) owns the underlying index and is responsible for the design and maintenance of the underlying index. The policies of the underlying index sponsor concerning the calculation of the underlying index, including decisions regarding the addition, deletion or substitution of the equity securities included in the underlying index, could affect the level of the underlying index and, consequently, could affect the market prices of shares of the underlying ETF and, therefore, the amount payable on your notes and their market value.

#### There Are Risks Associated with the Underlying ETF

Although the underlying ETF s shares are listed for trading on NYSE Arca, Inc. (the NYSE Arca ) and a number of similar products have been traded on the NYSE Arca or other securities exchanges for varying periods of time, there is no assurance that an active trading market will continue for the shares of the underlying ETF or that there will be liquidity in the trading market.

In addition, the underlying ETF is subject to management risk, which is the risk that the underlying ETF investment advisor s investment strategy may not produce the intended results. For example, the underlying ETF investment advisor utilizes a sampling investment approach that attempts to approximate the investment performance of the underlying index by investing in a portfolio of securities that generally approximates the underlying index, but the underlying ETF may also invest in derivatives and other securities. The underlying ETF is also not actively managed and may be affected by a general decline in market segments relating to the underlying index. The underlying ETF investment advisor invests in securities included in, or representative of, the underlying index regardless of their investment merits. The underlying ETF investment advisor does not attempt to take defensive positions in declining markets.

In addition, the underlying ETF is subject to custody risk, which refers to the risks in the process of clearing and settling trades and to the holding of securities by local banks, agents and depositories. Low trading volumes and volatile prices in less developed markets make trades harder to complete and settle, and governments or trade groups may compel local agents to hold securities in designated depositories that are not subject to independent evaluation. The less developed a country s securities market is, the greater the likelihood of custody problems.

The Underlying ETF Has Not Consistently Tracked the Same Underlying Index and the Underlying ETF Has Limited Historical Information Tracking the FTSE® Developed All Cap ex US Index

The notes are linked to the performance of the underlying ETF, which has changed the underlying index it tracks on multiple occasions. Most recently, the underlying ETF began tracking the FTSE Developed All Cap ex US Index on June 1, 2016. As a result, historical information for you to consider in making an independent investigation into the performance of the underlying ETF tracking the FTSE Developed All Cap ex US Index is only available since June 1, 2016, which may make it difficult for you to make an informed decision with respect to the notes. Any historical information about the performance of the underlying ETF for any period before June 1, 2016 was during a period in which the underlying ETF tracked a different index, and therefore should not be

considered information relevant to how the underlying ETF will perform tracking the FTSE Developed All Cap ex US Index. You should not take the historical performance of the underlying ETF while tracking the FTSE Developed All Cap ex US Index as an indication of the future performance of the underlying ETF. In addition, there can be no assurance that the underlying ETF will not further change the underlying index it tracks in the future. See The Underlying ETF below for more information on the indices the underlying ETF previously tracked.

The Underlying ETF and the Underlying Index are Different and the Performance of the Underlying ETF May Not Correlate with the Performance of the Underlying Index

Although the underlying ETF generally invests in the securities included in the underlying index it tracks, it may invest in derivatives and other instruments. Further, although the underlying ETF seeks to track the performance of the underlying index as closely as possible, the underlying ETF s return may not match or achieve a high degree of correlation with the return of the underlying index due to, among other things, transaction costs.

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In addition, the performance of the underlying ETF will reflect additional transaction costs and fees that are not included in the calculation of the underlying index and this may increase the tracking error of the underlying ETF (i.e., decrease the correlation between the return of the underlying ETF and the return of the underlying index it tracks). Also, corporate actions with respect to the sample of equity securities (such as mergers and spin-offs) may impact the performance differential between the underlying ETF and the underlying index. Finally, because the shares of the underlying ETF are traded on the NYSE Arca and are subject to market supply and investor demand, the market value of one share of the underlying ETF may differ from the net asset value per share of the underlying ETF.

For all of the foregoing reasons, the performance of the underlying ETF may not correlate with the performance of the underlying index. Consequently, the return on the notes will not be the same as investing directly in the underlying ETF or in the underlying index or in the underlying ETF stocks or in the underlying index stocks, and will not be the same as investing in a debt security with payments linked to the performance of the underlying index.

#### Periods of Higher Market Volatility May Exacerbate Tracking Error

Tracking error is the difference between the performance of the underlying ETF and the underlying index it tracks. Although the underlying ETF seeks to track the performance of the underlying index as closely as possible, the underlying ETF s return may not match or achieve a high degree of correlation with the return of the underlying index due to, among other things, transaction costs. In addition, in periods of high market volatility, the underlying ETF s ability to manage the portfolio to closely track the underlying index may be adversely impacted given the rapid changes in the underlying index. As a result, in periods of high market volatility, the underlying ETF may not closely track the underlying index, which may have an adverse impact on your notes.

## You Will Have Limited Anti-dilution Protection

GS&Co., as calculation agent for your notes, may adjust the closing price for certain events that may affect the underlying ETF, but only in the situations we describe in Specific Terms of Your Notes Anti-dilution Adjustments. The calculation agent will not be required to make an adjustment for every event that may affect the underlying ETF and will have broad discretion to determine whether and to what extent an adjustment is required

Except to the Extent GS&Co. and One or More of Our Other Affiliates Act as Authorized Participants in the Distribution of, and, at Any Time, May Hold, Shares of the Underlying ETF, There Is No Affiliation Between the Underlying ETF Investment Advisor and Us

GS&Co. and one or more of our other affiliates may act, from time to time, as authorized participants in the distribution of shares of the underlying ETF, and, at any time, may hold shares of the underlying ETF. Goldman Sachs is not otherwise affiliated with the underlying ETF investment advisor or the underlying ETF stock issuers. We or our affiliates may currently or from time to time in the future engage in business with the underlying ETF investment advisor or the issuers of the underlying ETF stocks. 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 underlying ETF or the underlying ETF stock issuers. You, as an investor in your notes,

should make your own investigation into the underlying ETF and the underlying ETF stock issuers.

Neither the underlying ETF investment advisor nor any underlying ETF stock issuer are involved in this offering of your notes in any way and none of them have any obligation of any sort with respect to your notes. Neither the underlying ETF investment advisor nor any such issuer have any obligation to take your interests into consideration for any reason, including when taking any corporate actions that might affect the value of your notes.

# 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.

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# The Calculation Agent Can Postpone the Determination Date If a Market Disruption Event or a Non-Trading Day Occurs or is Continuing

If the calculation agent determines that, on the date that would otherwise be the determination date, a market disruption event has occurred or is continuing or if such date is not a trading day, the determination date will be postponed until the first following trading day on which no market disruption event occurs or is continuing. In no event, however, will such 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. Moreover, if the determination date is postponed to the last possible day, but a market disruption event occurs or is continuing on that day or that day is not a trading day, that day will nevertheless be the determination date.

If the calculation agent determines that the closing price of the underlying ETF that must be used to determine the cash settlement amount is not available on the determination date, either because of a market disruption event, a non-trading day or for any other reason (other than as described under Specific Terms of Your Notes Payment of Principal on the Stated Maturity Date Discontinuance or Modification of the Underlying ETF below), the calculation agent will nevertheless determine the final underlying ETF price based on its assessment, made in its sole discretion, of the price of the underlying ETF at the applicable time on that day.

#### 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.

## Your Notes May Be Subject to an Adverse Change in Tax Treatment in the Future

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

The Internal Revenue Service announced on December 7, 2007 that it is considering issuing guidance regarding the tax treatment of an instrument such as your notes, and any such guidance could adversely affect the value and the tax treatment of your notes. Among other things, the Internal Revenue Service may decide to require the holders to accrue ordinary income on a current basis and recognize ordinary income on payment at maturity, and could subject non-U.S. investors to withholding tax. Furthermore, in 2007, legislation was introduced in Congress that, if enacted, would have required holders that acquired instruments such as your

notes after the bill was enacted to accrue interest income over the term of such instruments even though there will be no interest payments over the term of such instruments. It is not possible to predict whether a similar or identical bill will be enacted in the future, or whether any such bill would affect the tax treatment of your notes. We describe these developments in more detail under Supplemental Discussion of U.S. Federal Income Tax Consequences United States Holders Possible Change in Law below. You should consult your tax advisor about this matter. Except to the extent otherwise provided by law, we intend to continue treating the notes for U.S. federal income tax purposes in accordance with the treatment described under Supplemental Discussion of U.S. Federal Income Tax Consequences on page S-42 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.

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## Your Notes May Be Subject to the Constructive Ownership Rules

There exists a risk that the constructive ownership rules of Section 1260 of the Internal Revenue Code could apply to your notes. If your notes were subject to the constructive ownership rules, then any long-term capital gain that you realize upon the sale, exchange or maturity of your notes would be re-characterized as ordinary income (and you would be subject to an interest charge on deferred tax liability with respect to such re-characterized capital gain) to the extent that such capital gain exceeds the amount of net underlying long-term capital gain (as defined in Section 1260 of the Internal Revenue Code). Because the application of the constructive ownership rules is unclear you are strongly urged to consult your tax advisor with respect to the possible application of the constructive ownership rules to your investment in the notes.

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.

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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 supplement 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 and accompanying prospectus supplement. 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:

No interest: we will not pay interest on your notes

#### Specified currency:

• U.S. dollars (\$)

# Form of note:

•	global form only: yes, at DTC
•	non-global form available: no
	nations: each note registered in the name of a holder must have a face amount of \$10 or an integral of \$10 in excess thereof
	<b>purchase amount</b> : In connection with the initial offering of the notes, the minimum face amount of nat may be purchased by any investor is \$1,000.
Defeasar	nce applies as follows:
•	full defeasance: no
•	covenant defeasance: no
Other ter	rms:
• under	the default amount will be payable on any acceleration of the maturity of your notes as described Special Calculation Provisions below
•	anti-dilution provisions will apply to your notes as described under Anti-dilution Adjustments below
• medium	a business day for your notes will not be the same as a business day for our other Series E n-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 date or trade date, issue price, underwriting discount 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 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 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.

# Underlying ETF, Underlying ETF Investment Advisor, Underlying Index, Underlying Index Sponsor and Underlying ETF Stocks

In this prospectus supplement, when we refer to the underlying ETF, we mean the underlying ETF specified on the front cover page, or any successor ETF, as it may be modified, replaced or adjusted from time to time as described under Payment of Principal on Stated Maturity Date Discontinuance or Modification of the Underlying ETF below. When we refer to the underlying ETF investment advisor as of any time, we mean the entity, including any successor investment advisor, that manages the underlying ETF. When we refer to the underlying index, we mean the underlying index underlying the underlying ETF. When we refer to an underlying index sponsor as of any time, we mean the entity, including any successor sponsor, that determines and publishes the underlying index as then in effect. When we refer to the underlying ETF stocks as of any time, we mean the stocks that comprise the underlying ETF as then in effect, after giving effect to any additions, deletions or substitutions.

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

On the stated maturity date, for each \$10 face amount of your notes you will receive an amount in cash equal to:

- if the final underlying ETF price is greater than or equal to the cap level, the maximum settlement amount;
- if the final underlying ETF price is greater than the initial underlying ETF price but less than the cap level, the sum of (a) \$10 plus (b) the product of the underlying ETF return times \$10 times the upside gearing; or

• if the final underlying ETF price is equal to or less than the initial underlying ETF price, the sum of (a) \$10 plus (b) the product of the underlying ETF return *times* \$10, resulting in a loss proportionate to any negative underlying ETF return.

The underlying ETF return is calculated by *subtracting* the initial underlying ETF price from the final underlying ETF price and *dividing* the result by the initial underlying ETF price, with the quotient expressed as a percentage. The cap level will be set on the trade date and is expected to be between approximately 105.733% and approximately 106.233% of the initial underlying ETF price. The cap level represents (i) the maximum return divided by the upside gearing plus (ii) 100% and is the price of the underlying ETF at or above which you will receive the maximum settlement amount. If the final underlying ETF price is greater than the cap level (in which case the *product of* the underlying ETF return *times* the upside gearing is *greater than* the maximum return), you will not receive more than the maximum settlement amount. The maximum settlement amount will be set on the trade date and is expected to be between \$11.72 and \$11.87, which corresponds to an expected maximum return on the notes of between 17.20% and 18.70%. The upside gearing is 3.0.

The initial underlying ETF price will be set on the trade date. The calculation agent will determine the final underlying ETF price, which will be the closing price of the underlying ETF on the determination date. However, the calculation agent will have discretion to adjust the closing price on the determination date or to determine it in a different manner as described under Anti-dilution Adjustments, Consequences of a Market Disruption Event or a Non-Trading Day and Discontinuance or Modification of the Underlying ETF below.

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#### Stated Maturity Date

The stated maturity date (which will be determined on the trade date) is expected to be January 30, 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 will be a date specified on the trade date and is expected to be January 27, 2020, unless the calculation agent determines that a market disruption event occurs or is continuing on that day or that day is not otherwise a trading day. In that event, the determination date will be the first following trading day on which the calculation agent determines that a market disruption event does not occur and is not continuing. 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. If the determination date is postponed to the last possible day, but a market disruption event occurs or is continuing on that day or that day is not a trading day, that day will nevertheless be the determination date.

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

If a market disruption event occurs or is continuing on a day that would otherwise be the determination date or such day is not a trading day, then the determination date will be postponed as described under Determination Date above.

If the calculation agent determines that the closing price of the underlying ETF that must be used to determine the cash settlement amount is not available on the determination date because of a market disruption event, a non-trading day or for any other reason (other than as described under Discontinuance or Modification of the Underlying ETF below), then the calculation agent will nevertheless determine the final underlying ETF price based on its assessment, in good faith in its sole discretion, of the price of the underlying ETF on that day.

#### Discontinuance or Modification of the Underlying ETF

If the underlying ETF is delisted from the exchange on which the underlying ETF has its primary listing and the underlying ETF investment advisor or anyone else publishes a substitute ETF that the calculation agent determines is comparable to the underlying ETF and approves as a successor ETF, or if the calculation agent designates a substitute underlying ETF, then the calculation agent will determine the cash settlement amount on the stated maturity date by reference to the substitute ETF. We refer to any substitute ETF approved by the calculation agent as a successor ETF.

If the calculation agent determines on the determination date that the underlying ETF is delisted or withdrawn from the exchange on which the underlying ETF has its primary listing and there is no successor ETF, the calculation agent will determine the applicable closing price of the underlying ETF used to determine the cash settlement amount on the stated maturity date by a computation methodology that the calculation agent determines will as closely as reasonably possible replicate the underlying ETF.

If the calculation agent determines that the underlying ETF, the underlying ETF stocks or the method of calculating the underlying ETF is changed at any time in any respect including any split or reverse split, a material change in the investment objective and any addition, deletion or substitution and any reweighting or rebalancing of the underlying ETF or of the underlying ETF stocks and whether the change is made by the underlying ETF investment advisor under its existing policies or following a modification of those policies, is due to the publication of a successor ETF, is due to events affecting one or more of the underlying ETF stocks or their issuers or is due to any other reason then the calculation agent will be permitted (but not required) to make such adjustments in the underlying ETF or the method of its calculation as it believes are appropriate to ensure that the prices of the underlying ETF used to determine the cash settlement amount on the stated maturity date is equitable.

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

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## Anti-dilution Adjustments

The calculation agent will have discretion to adjust the closing price of the underlying ETF if certain events occur (including those described above under Discontinuance or Modification of the Underlying ETF ). Exchange traded funds are registered investment companies that are eligible for trading on the exchanges on which they are listed. Generally, exchange traded funds are subject to regulation under the Investment Company Act of 1940 and are restricted in their activities and have dividend requirements. In the event that any event other than a delisting or withdrawal from the relevant exchange occurs, the calculation agent shall determine whether and to what extent an adjustment should be made to the price of the underlying ETF or any other term. The calculation agent shall have no obligation to make an adjustment for any such event.

#### **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 cash settlement amount 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 your notes as the outstanding principal amount of that note. Although the terms of the offered 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 the principal amount of all 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 made with the approval of holders of a majority of the 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 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 in accordance with the applicable procedures of the depositary.

# **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 the underlying ETF, market disruption events, business days, trading days, the underlying ETF return, the final underlying ETF price, anti-dilution adjustments, the determination date and the cash settlement amount 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 original issue date of your notes. We may change the calculation agent for your notes at any time after the original issue date without notice and GS&Co. may resign as calculation agent at any time upon 60 days written notice to us.

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## **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 your notes, we mean a day on which the exchange on which the underlying ETF has its primary listing is open for trading and the price of one share of the underlying ETF is quoted by the exchange on which such underlying ETF has its primary listing.

# Closing Price

When we refer to the closing price of the underlying ETF on any trading day, we mean the closing sale price or last reported sale price, regular way, for the underlying ETF, on a per-share or other unit basis:

- on the principal national securities exchange on which the underlying ETF is listed for trading on that day, or
- if the underlying ETF is not listed on any national securities exchange on that day, on any other U.S. national market system that is the primary market for the trading of that underlying ETF

If the underlying ETF is not listed or traded as described above, then the closing price for the underlying ETF on any day will be the average, as determined by the calculation agent, of the bid prices for the underlying ETF obtained from as many dealers in that underlying ETF selected by the calculation agent as will make those bid prices available to the calculation agent. The number of dealers need not exceed three and may include the calculation agent or any of its or our affiliates.

The determination of the closing price of the underlying ETF is subject to adjustment as described under Anti-dilution Adjustments above.

#### **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 principal 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 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

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 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:

• a suspension, absence or material limitation of trading in the underlying ETF on its primary market 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

- a suspension, absence or material limitation of trading in option or futures contracts relating to the underlying ETF in the primary market for those contracts 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
- the underlying ETF does not trade on what was the primary market for the underlying ETF, 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 to unwind all or a material portion of a hedge that could be effected with respect to the offered 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 the underlying ETF.

For this purpose, an absence of trading in the primary securities market on which shares of the underlying ETF are traded, or on which option or futures contracts, if available, relating to the underlying ETF 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 shares of the underlying ETF or in option or futures contracts, if available, relating to the underlying ETF in the primary market for that underlying ETF or those contracts, by reason of:

- a price change exceeding limits set by that market,
- an imbalance of orders relating to the shares of the underlying ETF or those contracts, or
- a disparity in bid and ask quotes relating to the shares of the underlying ETF or those contracts,

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will constitute a suspension or material limitation of trading in shares of the underlying ETF or those contracts in that market.

As is the case throughout this prospectus supplement, references to the underlying ETF in this description of market disruption events includes the underlying ETF and any successor underlying ETF 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 underlying ETF 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 unwind those we have entered into in connection with the offered notes and perhaps in connection with other ETF-linked notes we issue, some of which may have returns linked to the underlying ETF or the underlying ETF 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 underlying ETF or some or all of the underlying ETF stocks,
- may take or dispose of positions in the securities of the underlying ETF stock issuers themselves,
- may take or dispose of positions in listed or over-the-counter options or other instruments based on an ETF designed to track the performance of the stock exchanges or other components of the equity markets, and/or
- may take short positions in the underlying ETF 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 underlying ETF or the underlying ETF stocks. We expect these steps to involve sales of instruments linked to the underlying ETF on or shortly before the determination date. These steps may also involve sales and/or purchases of

some or all of the underlying ETF stocks, or listed or over-the-counter options, futures or other instruments linked to the underlying ETF, some or all of the underlying ETF 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 UNDERLYING ETF

The shares of the Vanguard FTSE Developed Markets ETF (the underlying ETF ) are issued by Vanguard® Tax-Managed Funds, a Delaware statutory trust and a registered investment company (the trust ). Since June 1, 2016 the underlying ETF has sought to track the performance of the FTSE® Developed All Cap ex US Index (the underlying index ), a benchmark index that measures the investment performance of large-, mid- and small-capitalization stocks issued by companies located in Canada and the major markets of Europe and the Pacific region. Prior to June 1, 2016, the underlying ETF tracked several other indices, as described further below. The underlying ETF trades on the NYSE Arca under the ticker symbol VEA . The Vanguard Group, Inc. (Vanguard) currently serves as the investment advisor to the underlying ETF.

We obtained the following fee information from the underlying ETF s website, without independent verification. The underlying ETF s total annual operating expenses are expressed as a percentage of the underlying ETF s average net assets. This ratio includes a fee to the investment advisor, known as a management fee, and administrative expenses. As of April 25, 2018, the total expense ratio of the underlying ETF was 0.07%, comprised of 0.04% of management fee and 0.03% of other expenses. The expense ratio does not include the transaction costs of buying and selling securities held by the underlying ETF. The underlying ETF pays transaction costs, such as commissions, when it buys and sells securities (or turns over its portfolio). A higher portfolio turnover rate may indicate higher transaction costs and these costs reduce the underlying ETF s performance. For the fiscal year ended December 31, 2017, the underlying ETF s portfolio turnover rate was 3%.

For additional information regarding the underlying ETF or Vanguard, please consult the reports (including the Semi-Annual Report to Shareholders on Form N-CSRS for the period ended June 30, 2018) and other information the trust files with the SEC. In addition, information regarding the underlying ETF, including its top portfolio holdings, may be obtained from other sources including, but not limited to, press releases, newspaper articles, other publicly available documents, and the Vanguard website at advisors.vanguard.com/web/c1/fas-investmentproducts/VEA. We have obtained all information about the underlying ETF from the Vanguard website without independent verification. We are not incorporating by reference the website, the sources listed above or any material they include in this prospecuts supplement.

Investment Objective and Strategy

Since June 1, 2016, the underlying ETF has sought to track the performance of the underlying index (the FTSE® Developed All Cap ex US Index). The underlying index measures the investment performance of stocks issued by companies located in Canada and the major markets of Europe and the Pacific region. Prior to June 1, 2016, the underlying ETF tracked the following indices:

• From December 21, 2015 through May 31, 2016, the FTSE® Developed All Cap ex US Transition Index (the FTSE® Developed All Cap ex US Transition Index was designed to allow transition from the FTSE Developed ex North America Index to the underlying index by, among other adjustments, gradually increasing exposure to small-capitalization stocks and Canadian equities while proportionately reducing exposure to other stocks based on their weightings in the underlying index);

- From May 29, 2013 through December 20, 2015, the FTSE® Developed ex North America Index (the FTSE® Developed ex North America Index provides exposure to large- and mid-capitalization companies in developed markets outside of the United States and Canada); and
- Prior to May 29, 2013, the MSCI EAFE Index (similar to the FTSE® Developed ex North America Index, the MSCI EAFE Index provides exposure to large- and mid-capitalization companies in developed markets outside of the United States and Canada).

The underlying ETF s investment objective, as well as the underlying index the underlying ETF tracks, may be further changed at any time.

The investment advisor to the underlying ETF employs a passive management technique known as indexing to manage the underlying ETF by tracking the performance of a benchmark index. The underlying ETF uses a replication method of indexing, meaning that the underlying ETF attempts to replicate the underlying index by investing all, or substantially all, of its assets in the stocks that comprise

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the underlying index and holding each stock in approximately the same proportion as its weighting in the underlying index. The underlying ETF will generally invest directly in common stocks but reserves the right to obtain economic exposure to component securities indirectly by purchasing depositary receipts of the component securities when the investment advisor believes that the underlying ETF would benefit from holding such depositary receipts rather than the underlying securities. Under normal circumstances, the underlying ETF will invest at least 80% of its assets in the stocks that make up the underlying index. The underlying ETF may change its 80% policy upon 60 days notice to shareholders.

Notwithstanding the underlying ETF s investment objective, the return on your notes will not reflect any dividends paid on the underlying ETF shares, on the securities purchased by the underlying ETF or on the securities that comprise the underlying index.

As of November 20, 2018, the top ten holdings of the underlying ETF and their relative weight in the underlying ETF were as follows: Nestle SA (1.42%), Novan Inc. (1.09%), Samsung Electronics Co. Ltd. (1.04%), HSBC Holdings plc (0.95%), Toyota Motor Corp. (0.86%), Roche Holding AG (0.82%), Royal Dutch Shell plc Class A (0.80%), TOTAL SA (0.78%), BP plc (0.75%) and Royal Dutch Shell plc Class B (0.66%).

As of September 30, 2018, the companies included in the underlying ETF were divided into ten Industrial Classification Benchmark (ICB) industry groups. Additional information about the ICB is published on the ICB website at icbenchmark.com. We are not incorporating by reference the website or any material it includes in this prospectus supplement. As of September 30, 2018, the approximate percentage of ETF holdings included in such ICB industry groups were as follows: Oil & Gas (6.90%), Basic Materials (7.50%), Industrials (16.00%), Consumer Goods (16.10%), Health Care (9.60%%), Consumer Services (8.30%), Telecommunication (3.1%), Utilities (2.90%), Financials (23.70%) and Technology (5.90%). (Sector designations are determined by the underlying ETF investment advisor using criteria it has selected or developed. Index and ETF investment advisors or 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 or ETFs with different investment advisors or sponsors may reflect differences in methodology as well as actual differences in the sector composition of the indices or ETFs.)

As of October 31, 2018, the underlying ETF included 3,972 stocks from the following 24 countries (with the percentage weight in the underlying ETF as of October 31, 2018 of such country indicated in parentheses): Japan (22.50%), United Kingdom (15.40%), Canada (8.40%), France (8.40%), Germany (7.60%), Switzerland (7.00%), Australia (6.10%), Korea (4.20%), Hong Kong (3.00%), the Netherlands (2.80%), Sweden (2.70%), Spain (2.50%), Italy (2.20%), Denmark (1.40%), Singapore (1.10%), Finland (1.00%), Belgium (0.90%), Norway (0.80%), Israel (0.50%), Poland (0.30%), Austria (0.30%), New Zealand (0.30%), Ireland (0.30%) and Portugal (0.20%). Percentages may not sum to 100% due to rounding. We obtained the top ten holdings and the sector and country weightings above from the underlying ETF s website, in each case without independent verification.

#### Correlation

Although the trust intends to track the performance of the underlying index as closely as possible, the trust is return may not match or achieve a high degree of correlation with the return of the underlying index due to expenses and transaction costs incurred in

adjusting the portfolio. In addition, it is possible that the trust may not always fully replicate the performance of the underlying index due to unavailability of certain index securities in the secondary market or due to other extraordinary circumstances (e.g., if trading in a security has been halted). As of October 31, 2018, Vanguard gave the following performance figures for the underlying ETF (based on market price and before taxes) and the underlying index for the last year:

Period	1 year	3 year	5 year	10 year	Since Inception
Underlying Index	-7.36%	4.09%	2.37%	7.08%	
Underlying ETF*	-7.84%	4.25%	2.30%	6.91%	0.93%

<sup>\*</sup> Any historical information about the performance of the underlying ETF for any period before June 1, 2016 was during a period in which the underlying ETF tracked a different index.

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Creation Units

Prior to trading in the secondary market, shares of the underlying ETF are issued at net asset value to certain institutional investors (typically market makers or other broker-dealers) only in large block-size units, known as creation units, of 500,000 shares or multiples thereof. As a practical matter, only institutions, market makers or large investors purchase or redeem creation units. There can be no assurance that there will be sufficient liquidity in the public trading market at any time to permit assembly of a creation unit. Except when aggregated in creation units (or upon the liquidation of the underlying ETF), shares of the underlying ETF are not redeemable securities.

#### The Underlying Index

The underlying index is a market capitalization-weighted index comprised of large-, mid- and small-capitalization stocks from 24 developed markets excluding the United States (Australia, Austria, Belgium/Luxembourg, Canada, Denmark, Finland, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, the Netherlands, New Zealand, Norway, Poland, Portugal, Singapore, South Korea, Spain, Sweden, Switzerland and the United Kingdom). The underlying index is part of the FTSE Global Equity Index Series. The underlying index was developed with a base value of 200 as of December 31, 2002 and was launched on September 1, 2003. The underlying index is calculated, published and disseminated by FTSE Russell, a company owned by the London Stock Exchange Companies (the Exchange) that we refer to as FTSE or the underlying index sponsor. Additional information on the underlying index is available from the following website: ftse.com. We are not incorporating by reference the website or any materials it includes in this prospectus supplement.

The underlying ETF tracks the performance of the net total return version of the underlying index, which reinvests dividend income into the underlying index as of the ex-dividend date, net of certain withholding taxes. Notwithstanding that the underlying ETF tracks the performance of the net total return version of the underlying index, the return on your notes will not reflect any dividends paid on the underlying ETF shares, on the securities purchased by the underlying ETF or on the securities that comprise the underlying index.

#### **Underlying Index Composition**

Composition

As of October 31, 2018, the top ten constituents of the underlying index, by weight, were as follows: Nestle SA (1.45%), Novartis AG (1.09%), Samsung Electronics Co. Ltd. (0.99%), Roche Holding AG (0.96%), HSBC Holdings plc (0.94%), Toyota Motor Corp. (0.84%), TOTAL SA (0.84%), Royal Dutch Shell plc Class A (0.84%), BP plc (0.81%) and Royal Dutch Shell plc Class B (0.70%).

As of October 31, 2018, the companies included in the underlying index were divided by the underlying index sponsor into the ten ICB industry groups. The ICB industry groups include (with the approximate percentage currently included in such industry groups indicated in parentheses): Oil & Gas (6.87%), Basic Materials (7.11%), Industrials (15.72%), Consumer Goods (16.13%), Health

Care (9.85%), Consumer Services (8.25%), Telecommunication (3.20%), Utilities (3.09%), Financials (23.88%) and Technology (5.90%). Percentages may not sum to 100% due to rounding. Sector designations are determined by the underlying 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 may reflect differences in sector designation methodology as well as actual differences in the sector composition of the indices.

As of October 31, 2018, the underlying index featured 3,899 components from the following 24 countries (with the percentage weight in the underlying index as of such country indicated in parentheses): Australia (6.06%), Austria (0.29%), Belgium/Luxembourg (0.92%), Canada (8.46%), Denmark (1.40%), Finland (1.01%), France (8.40%), Germany (7.50%), Hong Kong (3.00%), Ireland (0.24%), Israel (0.49%), Italy (2.15%), Japan (22.57%), the Netherlands (2.85%), New Zealand (0.30%), Norway (0.83%), Poland (0.34%), Portugal (0.17%), Singapore (1.13%), South Korea (4.23%), Spain (2.52%), Sweden (2.66%), Switzerland (6.99%) and the United Kingdom (15.48%). Percentages may not sum to 100% due to rounding. We obtained the top ten constituents and the sector and country weightings above from the underlying index sponsor, without independent verification.

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## **Underlying Index Selection Criteria**

Eligible Countries

FTSE classifies countries included in its global indexes into one of three categories: Developed, Advanced Emerging and Secondary Emerging. FTSE maintains a set of criteria to assess market status and minimum standards for each category for countries to achieve in order to be eligible for that category. Eligible countries are sub-divided into Developed, Advanced Emerging and Secondary Emerging based largely on the following factors: (i) gross national income per capita (as published by the World Bank); (ii) 21 quality of markets criteria (which consist of 7 market and regulatory environment criteria, 5 custody and settlement criteria, 8 dealing landscape criteria and 1 derivatives market criterion) and (iii) country-size entry requirements. The minimum standards increase from Secondary Emerging to Advanced Emerging and from Advanced Emerging to Developed. A country will be classified under the category with the highest standards which it meets. Only companies in countries that are classified as Developed (excluding the United States) are eligible for inclusion in the underlying index.

FTSE conducts an annual review of all countries included in the underlying index and those being considered for inclusion. Countries already in the underlying index will be assessed against the minimum standards for each category and prior to any reclassification or removal from the underlying index will be placed on a watchlist. Countries not in the underlying index will be assessed against the minimum standards for each category and, if appropriate, will be added to the watchlist for possible future inclusion to one of the categories. In conducting the annual review, FTSE will consult the FTSE Country Classification Advisory Committee. In March and September of each year, FTSE will publish a watchlist of countries being monitored for possible promotion or demotion. FTSE releases the results of its annual review in September of each year. FTSE will normally give at least six months notice before changing the classification of any country.

A company will be allocated to a single country based on a number of measures, including country of incorporation, place of listing and location with greatest trading liquidity. If a company is incorporated in one country and has its sole listing in the same country, FTSE will allocate the company to that country. In all other circumstances, FTSE will assess the appropriate nationality for the company based on a variety of factors.

Eligible Securities

FTSE conducts semi-annual reviews in each March and September to select eligible securities for inclusion in the underlying index. The following are regarded as ineligible for inclusion in the underlying index:

• Companies whose business is that of holding equity and other investments (e.g. Investment Trusts) which are assumed by the Industry Classification Benchmark as Subsector equity investment instruments and non-equity investment instruments which are assumed by the Industry Classification Benchmark as Subsector non-equity investment instruments.

• Limited Liability Partnerships (LLP), Limited Partnerships (LP), Master Limited Partnerships (MLP), Limited Liability Companies (LLC) and Business Development Companies (BDC). Where a stapled unit comprises an eligible security and a non-eligible security (such as non-equity or an Investment Trust structure) the unit will not be eligible for inclusion.

Eligible securities are required to pass screens for minimum voting rights, investability weightings, liquidity and surveillance stock screens before being added to the underlying index.

Minimum Voting Rights Screen

Companies assigned a developed market nationality are required to have greater than 5% of the company s voting rights (aggregated across all of its equity securities, including, where identifiable, those that are not listed or trading) in the hands of unrestricted shareholders or they will be deemed ineligible for index inclusion. Emerging market securities are not subject to this requirement. Existing constituents with a developed market nationality which do not currently meet the above requirement have a 5 year grandfathering period to comply. If subsequently they continue to fail the minimum voting rights

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requirement they will be removed from the underlying index at the September 2022 review. The percentage of a company s voting rights in public hands is calculated as the quotient of (i) the number of votes in the hands of shareholders that are unrestricted as determined by the application of FTSE Russell free float definitions divided by (ii) the total number of votes conferred by the shares outstanding of all the company s voting securities including those that have not been admitted to trading on a regulated venue.

Investability Weightings Screen

Initial Weighting. Securities with a free float of 5% or below are excluded from the underlying index. Free float represents the availability of a stock in the market for public investment. Each constituent weighting is adjusted to omit restricted shareholders to ensure an accurate representation of investable market capitalization. In order for an eligible stock to be included in the underlying index, it must have a free float greater than 5%. 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 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; all shares where the holder is subject to a lock-in clause (for the duration of that clause); shares held for publicly announced strategic reasons as evidenced by specified statements to that effect in publicly available announcements, has an employee on the board of directors of a company, has a shareholder agreement, has successfully placed a current member to the board of directors, or has nominated a current member to the board of directors alongside a shareholder agreement with the company; shares that are subject to on-going contractual agreements (such as swaps) where they would ordinarily be treated as restricted; shares held by sovereign wealth funds where each holding is 10% or greater of the total number of shares in issue (the shares will be excluded from free float until the holding falls below 10%); 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 (the shares will be excluded from free float until the holding falls below 10%); and single portfolio holdings where the holding is 30% or greater (the shares will be excluded from free float until the holding falls below 30%).

Foreign Ownership Restrictions. FTSE s index methodology takes account of the restrictions placed on the equity holdings of foreign investors in a company where these have been imposed by a government, regulatory authority or the company s constitution. Where the presence of a foreign ownership restriction creates a limit on foreign ownership that is more restrictive than the calculated free float for a company, the precise foreign ownership limit (FOL) is used in place of the free float for the purposes of calculating the company s investability weight. If the FOL is less restrictive or equal to the free float restriction, the free float restriction is applied. If a company changes its FOL, the change will generally be implemented in the underlying index at the subsequent quarterly review. In some jurisdictions, a company s FOL applies to the company s share classes in aggregate, and not to share classes individually. However, not all of the share classes of a restricted company might be eligible for index inclusion. In such cases, the aggregate (company level) FOL will be allocated pro-rata across those share classes that are eligible for index inclusion. In certain jurisdictions, despite FOLs, the acquisition of shares above a stated FOL is permitted. However, holdings of shares above the FOL may be denied voting rights. FTSE Russell may exercise discretion in determining

whether a stock should be subject to the minimum foreign headroom test. Where discretion is being applied FTSE Russell will provide appropriate advance notice.

Minimum Foreign Headroom Requirement. FTSE Russell defines foreign headroom as the percentage of shares available to foreign investors as a proportion of the company s FOL. For example, if a company has an FOL of 49%, of which 39% is held by foreign investors, the foreign headroom will be calculated as 20.41%, i.e., (49% - 39%)/49%.

- (i) For a non-constituent that is subject to an FOL, a minimum headroom of 20% must be available in order to be included in the underlying index.
- (ii) Where the headroom of an existing constituent falls below 10%, its investability weight will be reduced an absolute value of 5% at the next quarterly review.
- (iii) The investability weight will continue to be reduced at subsequent quarterly reviews in increments of 5% until the headroom level increases to 10% or above. As a result of these quarterly 5% downward adjustments, should the investability weight of the security

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fal	ll to 5% under this	s process. the s	security will no	lonaer be	eliaible to	remain in the	underlying index
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(iv) The investability weight of an existing constituent which has been subject to headroom adjustments will have its most recent 5% adjustment reversed at a quarterly review subject to a minimum 20% headroom remaining post reversal.
(v) In the event a security with a headroom adjustment increases its FOL, the increase in the FOL will implemented in two 50% tranches, subject to the headroom remaining at 20% or above.
(vi) In the event a security with a headroom adjustment decreases its FOL, the decrease in the FOL will be implemented in full at the next quarterly review.
(vii) An existing constituent with a headroom adjustment, that passes the underlying index eligibility screens (for example liquidity, minimum size, investability weight) will not be eligible for index promotion from Micro Cap to Small Cap or from Micro Cap or Small Cap to All-World (Large/Mid) until all headroom adjustments have been reversed. An index demotion from All-World (Large/Mid) to Small Cap or Micro Cap will proceed for an existing constituent with a headroom adjustment.
(viii) Where FOLs are not universally applied to all foreign investors, but only impact a particular set of foreign investors, a 5% headroom adjustment will be applied where there is evidence of these restrictions being enforced. This headroom restriction will be reassessed on a quarterly basis and will not be lifted until either FOLs are removed or all foreign investors are treated equally.
(ix) For an existing index constituent, where foreign investors are prohibited from purchasing additional shares (for example, where Indian companies are placed on the Reserve Bank of India (RBI) Ban List), a 5% headroom adjustment will be applied at the next quarterly review and reassessed on a quarterly basis. Upon removal of restrictions prohibiting the purchase of shares, a headroom test will be conducted at the next quarterly review and headroom adjustments removed if the underlying index constituent passes the headroom test.
(x) Securities are assigned their official FOL. However, if permission is required from a local regulator to purchase additional shares beyond a certain permission threshold, then the more restrictive permission level is assigned as the FOL. For example, a security may have an FOL of 24%, however, any purchase beyond 22% requires prior permission from the local regulatory authority. In this example, the security would be assigned an FOL of 22%.

	Where a non-constituent passes the relevant headroom test, but individual foreign investors are only permitted to hold a maximum of 1% of the free float adjusted shares in issue, the ot be eligible for index membership.
(xii) December qu	Headroom tests will be conducted in conjunction with the March, June, September and arterly reviews.
period of 6 mg	Unless there is an increase in the FOL, a headroom adjustment will not be reversed for a onths (i.e. if a headroom adjustment has been implemented at the June review then the be reversed is at the following March review).
weight falling	f a constituent has been removed from the underlying index as a result of its investability below 5% following a headroom adjustment, it will only be reconsidered for inclusion after a nonths from its deletion. For the purposes of index eligibility it will be considered as a new
the minimum	Securities which are deleted for failing headroom, but which after a period of 12 months meet 20% headroom test, will initially be added to the underlying index at a minimum free float of them having an FOL. If an FOL no longer applies, then the security will be added at its free
	Subsequent headroom reversals will be implemented in increments of 5% until the security DL, subject to the security continuing to meet the minimum 20% headroom test.

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Liquidity Screen

Each security will be tested for liquidity semi-annually in March and September by calculation of its monthly median of daily trading volume. Liquidity will be calculated for the March review from the first business day of January to the last business day of December of the previous year and for the September review from the first business day of July of the previous year to the last business day of June. Security volume data will be taken on trading days from Monday to Sunday (where applicable) when markets are open. When calculating the median of daily trading volume of any security for a particular month, a minimum of 5 trading days in that month must exist, or the month will be excluded from the liquidity test. For each month, daily trading volume for each security is calculated as a percentage of the shares in issue for that day adjusted by the free float at the applicable review cut-off date. These daily values are then ranked in descending order and the median is taken by selecting the middle-ranking day if there is an odd number of days and the mean of the middle two if there is an even number of days. Daily totals with zero trades are included in the ranking, so a security that fails to trade for more than half the days in a month will have a zero median trading volume for that month. If a security is suspended for any reason, such period of suspension will not be considered in the liquidity test. For newly eligible securities with a testing period of less than 12 months, the liquidity test will be applied on a pro-rata basis.

An existing constituent of the underlying index which, based on its median daily trading volume per month, does not turnover at least 0.04% of its shares in issue (after the application of any free float weightings) for at least eight of the twelve months prior to a full market review will be removed from the underlying index. A non-constituent of the underlying index which, based on its median daily trading volume per month, does not turnover at least 0.05% of its shares in issue (after the application of any free float weightings) for at least ten of the twelve months prior to a full market review will continue to be excluded from the underlying index.

A security not presently included in the underlying index that does not turnover at least 0.05% of its shares in issue (after application of any free float weightings) based on its median daily trade per month in at least 10 of the 12 months prior to the applicable review date will not be eligible for inclusion. An existing constituent which does not turnover at least 0.04% of its shares in issue (after the application of any free float weightings) based on its median daily trade per month for at least eight of the 12 months prior to the applicable review date will be removed from the underlying index. New issues will become eligible for inclusion in the underlying index at the review date following their issuance provided that they (i) have a minimum trading record of at least three months prior to the review date and (ii) turnover at least 0.05% of their shares in issue (after the application of any free float weightings) based on their median daily trade per month in each month on a pro-rata basis since their listing. However, this rule does not apply to new issues added under the fast entry rule described below. Newly eligible securities are treated as new issues and liquidity is tested from the date of eligibility.

In assessing liquidity, data will be aggregated from trading volume in the country in which the company is classified by FTSE and from any other trading venues, as approved by FTSE, operating in a similar time zone. In the event that a company fails the liquidity test based on its underlying shares and the company has an equivalent depositary receipt, then the depositary receipt may be considered for inclusion in the underlying index if it passes the liquidity test in its own right and is traded on an exchange within a similar regional time-zone as the underlying shares.

Surveillance Stocks Screen

Securities which are subject to surveillance by the stock exchanges and have been assigned to any of the following segments will not be eligible for index inclusion. Where an existing constituent is assigned to an ineligible segment it will normally be deleted from the underlying index at the next quarterly review and it will only be reconsidered for index inclusion after a period of 12 months from its deletion subject to it no longer being under surveillance. For the purposes of index eligibility it will be treated as a new issue.

Country	Exchange	Segment
China	Shanghai Stock Exchange	Special Treatment (ST)
	Shenzhen Stock Exchange	

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India	Bombay Stock Exchange	Graded Surveillance Measure (GSM)
	National Stock Exchange of India	
Malaysia	Bursa Malaysia	PN17
Poland	Warsaw Stock Exchange	Alert List
Singapore	Singapore Exchange	Watchlist
South Korea	Korea Exchange	Administrative Issues
Taiwan	Taiwan Stock Exchange	Altered Trading Method (ATM)
Thailand	Stock Exchange of Thailand	Companies facing possible delisting according to No. 9(6) of SET s Regulations on Delisting of Securities
Turkey	Borsa Istanbul	Watchlist

Securities that are assigned to the above segments after the review announcement date but before the underlying index review effective date are assessed on a case-by-case basis which may generally result in scheduled index review additions, investability weight and shares in issue changes no longer being implemented at the forthcoming review.

#### Periodic Review of Constituents

Countries are usually reviewed semi-annually in March and September, on a region by region basis, based on data as at the close of business on the last business day of December and June (where the last business day of the month falls on a Saturday or Sunday for any individual countries, data will be taken as at close of the last business day before Saturday). Any constituent changes resulting from the periodic review will be implemented after the close of business on the third Friday (i.e. effective the following Monday) of March and September.

All eligible companies are ranked by their full market capitalization. A company s full market capitalization consists of any equity shares that are listed and in issue at the underlying index review cut-off date. In determining the full market capitalization of Chinese companies, non-negotiable shares and A shares are included in the calculation findex ranking purposes. However only the eligible share classes (as per Appendix G) will be included in the underlying index.

Shares that have been listed but do not form part of a company s current issued share capital, such as treasury shares and shares pending issuance to an employee scheme, are excluded from the full market capitalization calculation.

Large-, mid- and small-cap stocks are determined by first defining 100% of the universe of eligible companies in eligible countries. The full market capitalization is determined for each company (shares in issue multiplied by price) and the companies are ranked by full market capitalization in descending order. The top 98% of companies in this universe are selected for review. Any company which has a full market capitalization greater than 10% based on the total capitalization of the regional universe will be capped at 10%. Out of this universe, stocks will be designated as large-, mid- or small-cap based on ranking in this universe and, in certain circumstances, their market capitalization as a percentage of this universe. Generally, new stocks will be included as large-cap if they are in the top 68% of this universe and stocks already in the underlying index will be retained as large-cap if they are in the top 72% of this universe and as mid-cap if they are in the top 92% of this universe.

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#### **Underlying Index Calculation**

The underlying index is a market capitalization weighted index. This means that the price movement of a larger company (that is, one representing larger percentage of the underlying index) will have a greater effect on the price of the underlying index than will the price movement of a smaller company (that is, one representing a smaller percentage of the underlying index).

The value of the underlying index is represented by a fraction, (a) the numerator of which is the sum of the product of (i) the price of each component stock, times (ii) the number of shares issued for each such component, times (iii) a free float factor for each such component (described more fully below), and (b) the denominator of which is a divisor that represents the total market capitalization of the constituent stocks of the underlying index on the base date. To ensure continuity, the divisor is adjusted when a capital change takes place. The price of each component stock and the total market capitalization as of the base date are converted into U.S. dollar equivalents using the relevant exchange rates as of the applicable dates. In calculating the net total return index, dividends are reinvested across the underlying index on the ex-dividend date, net of withholding taxes. The underlying index uses actual closing mid-market or last trade prices, where available, for securities with local exchange quotations.

#### Maintenance of the Underlying Index

FTSE conducts an annual review, starting in January and finishing in September, of all countries included in the underlying index and those being considered for inclusion. The FTSE Russell Country Classification Advisory Committee (the Committee) reviews and applies the country criteria and makes any recommendations for changes in country classification to the FTSE Russell Policy Advisory Board the Board). The Board consists of senior market practitioners that are representative of the appropriate sectors of the investment community. Implementation of any country classification changes is ordinarily timed to coincide with one of the semi-annual index reviews and, absent extraordinary circumstances, a minimum notice period of one year is provided.

The underlying index is also reviewed periodically for changes in free float, with such review coinciding with quarterly Committee reviews. A stock is free float is also reviewed and adjusted if necessary following certain corporate events. If the corporate event includes a corporate action that affects the underlying index, any change in free float is implemented at the same time as the corporate action. If there is no corporate action, the change in free float will be applied at the next quarterly review. Following the application of an initial free float restriction as described under. Free Float Criteria above, a constituent with a free float of greater than 15% will be changed at the March, September and December updates if it moves by more than 3 percentage points above or below the existing free float. In addition, a constituent with a free float of 15% or below will be subject to a 1 percentage point threshold. In June, a constituent is free float will be updated regardless of size. Quarterly updates will be applied after the close of business on the third Friday of March, June, September and December.

#### **Additions and Deletions**

Additions and deletions to the underlying index can occur outside of the normal review process. Additions can occur if a new security becomes eligible for immediate inclusion in the underlying index because its market capitalization is above certain levels (the fast entry rule ). For the fast entry rule to apply, a security has to meet both (a) a full market capitalization threshold at the company level equal to 1.5 *times* the mid-cap inclusion level (i.e., the full market capitalization of the smallest company that falls within the top 86% of the underlying index universe when ranked by market capitalization as described above) and (b) an

investable market capitalization at the security level equal to 0.5 times the mid-cap inclusion level.

Where a company undertakes an initial public offering of a new equity security (IPO), that security will be eligible for fast entry inclusion to the underlying index if such IPO satisfies the eligibility criteria and screens other than the liquidity screen, and its full market capitalization and investable market capitalization using the closing price on its first day of trading meet the fast entry rule thresholds outlined above. The addition of an eligible IPO to the underlying index is implemented after the close of business on its fifth day of trading. An IPO not meeting the eligibility criteria and fast entry thresholds will be reconsidered for inclusion at the next semi-annual review. In addition, in the case of a demutualization where the entire free float of a new eligible security is transferred to private shareholders, the addition of the security is deferred for one month after trading has commenced, provided that adequate liquidity over such period is demonstrated.

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Securities that become newly eligible (e.g., changes in free float occur that allows a stock to qualify for inclusion or a non-constituent moves to an eligible market) will be reviewed for inclusion at the next semi-annual review.

Variable and best effort IPOs will not be considered for fast entry inclusion. Direct listing IPOs will be eligible for consideration for fast entry inclusion if there is advance confirmation of the number of shares that will be made available at the time of listing. If there is no advance public disclosure, the company will not be considered as a potential fast entry addition.

Variable and best effort IPOs and those direct listing IPOs (which do not qualify as a fast entrant) will be considered for inclusion at the next quarterly review if, by the review cut-off date, a public disclosure is available confirming either the actual number of shares sold during the offering or the post-IPO shareholder structure. Underlying Index inclusion remains subject to meeting all other eligibility criteria. If the number of shares sold during the IPO, or the post-IPO shareholder structure, remains unknown on the review cut-off date, the evaluation of the company will be deferred to a subsequent quarterly review.

Deletions can occur if a constituent 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 a merger occurs between companies that are constituents of the underlying index, then the surviving company remains a constituent. If a merger occurs between companies one of which is a constituent and the other not a constituent of the underlying index, then the surviving company will generally be included as a constituent company in the country of such surviving company, provided it is eligible in all other respects at the time of the merger, regardless of previous eligibility screenings.

The market capitalization of a company is adjusted to take account of various corporate actions. To prevent the value of the underlying index from changing due to such an event, all corporate actions which affect the market capitalization of the component stocks in the underlying index require an offsetting divisor adjustment. By adjusting the divisor, the value of the underlying index remains constant before and after the event.

Historical Closing Prices of the Underlying ETF

The closing price of the underlying ETF has fluctuated in the past and may, in the future, experience significant fluctuations. Any historical upward or downward trend in the closing price of the underlying ETF during the period shown below is not an indication that the underlying ETF 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 prices of the underlying ETF as an indication of the future performance of the underlying ETF. We cannot give you any assurance that the future performance of the underlying ETF or the underlying ETF stocks will result in your receiving an amount greater than the outstanding face amount of your notes on the stated maturity date. In addition, as noted above, the underlying ETF has not tracked the same index consistently. Therefore, historical information about the closing prices of the underlying ETF for any period during which it was not tracking the underlying index should not be relied upon for any

purpose.

Neither we nor any of our affiliates make any representation to you as to the performance of the underlying ETF. Before investing in the offered notes, you should consult publicly available information to determine the prices of the underlying ETF between the date of this prospectus supplement and the date of your purchase of the offered notes. The actual performance of the underlying ETF over the life of the offered notes, as well as the cash settlement amount, may bear little relation to the historical closing prices of the underlying ETF shown below.

The graph below shows the daily historical closing prices of the underlying ETF from June 1, 2016 through November 20, 2018. We obtained the closing prices in the graph below from Bloomberg Financial Services, without independent verification.

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\* The underlying ETF began tracking the FTSE® Developed All Cap ex US Index on June 1, 2016. Prior to May 28, 2013, the underlying ETF tracked the MSCI EAFE Index, and for the period from May 28, 2013 through December 20, 2015, the underlying ETF tracked the FTSE® Developed ex North America Index. For the period from December 21, 2015 through May 31, 2016, the underlying ETF temporarily tracked the FTSE® Developed All Cap ex US Transition Index.

Historical Closing Levels of the FTSE® Developed All Cap ex US Index

The closing level of the FTSE® Developed All Cap ex US Index has fluctuated in the past and may, in the future, experience significant fluctuations. Any historical upward or downward trend in the closing level of the FTSE® Developed All Cap ex US Index during any period shown below is not an indication that the underlying 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 level of the FTSE® Developed All Cap ex US Index as an indication of the future performance of the FTSE® Developed All Cap ex US Index or make any assumptions, based on the FTSE® Developed All Cap ex US Index s performance, about the performance of the underlying ETF. We cannot give you any assurance that the future performance of the underlying ETF s shares will be consistent with the performance of the underlying index.

The graph below shows the closing levels of the FTSE® Developed All Cap ex US Index from November 20, 2008 through November 20, 2018. We obtained the closing levels reflected in the graph below from Bloomberg Financial Services, without independent verification.

\*The underlying ETF began tracking the FTSE® Developed All Cap ex US Index on June 1, 2016.

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a partnership;

a regulated investment company;

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

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

The following section is the opinion of Sidley Austin LLP, counsel to GS Finance Corp. and The Goldman Sachs Group, Inc. In addition, it is the opinion of Sidley Austin LLP that the characterization of the notes for U.S. federal income tax purposes that will be required under the terms of the notes, as discussed below, is a reasonable interpretation of current law.
This section does not apply to you if you are a member of a class of holders subject to special rules, such as:
a dealer in securities or currencies;
a trader in securities that elects to use a mark-to-market method of accounting for your securities holdings;
• a bank;
a life insurance company;
a tax exempt organization;

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

- a person that owns a note as a hedge or that is hedged against interest rate risks;
- a person that owns a note as part of a straddle or conversion transaction for tax purposes; or
- a United States holder (as defined below) whose functional currency for tax purposes is not the U.S. dollar.

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

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

#### **United States Holders**

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

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

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

Upon the sale, exchange or maturity of your notes, you should recognize capital gain or loss equal to the difference, if any, between the amount of cash you receive at such time and your tax basis in your notes.

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Your tax basis in the notes will generally be equal to the amount that you paid for the notes. If you hold your notes for more than one year, the gain or loss generally will be long-term capital gain or loss. If you hold your notes for one year or less, the gain or loss generally will be short-term capital gain or loss. Short-term capital gains are generally subject to tax at the marginal tax rates applicable to ordinary income.

In addition, the constructive ownership rules of Section 1260 of the Internal Revenue Code could possibly apply to your notes. If your notes were subject to the constructive ownership rules, then any long-term capital gain that you realize upon the sale, exchange or maturity of your notes would be re-characterized as ordinary income (and you would be subject to an interest charge on deferred tax liability with respect to such re-characterized capital gain) to the extent that such capital gain exceeds the amount of net underlying long-term capital gain (as defined in Section 1260 of the Internal Revenue Code). Because the application of the constructive ownership rules is unclear you are strongly urged to consult your tax advisor with respect to the possible application of the constructive ownership rules to your investment in the notes.

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

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

If the rules governing contingent payment debt instruments apply, any gain you recognize upon the sale, exchange or maturity of your notes would be treated as ordinary interest income. Any loss you recognize at that time would be 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 a person who purchases notes at a price other than the adjusted issue price as determined for tax purposes.

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

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

#### Possible Change in Law

On December 7, 2007, the Internal Revenue Service released a notice stating that the Internal Revenue Service and the Treasury Department are actively considering issuing guidance regarding the proper U.S. federal income tax treatment of an instrument such as the offered notes, including whether holders should be required to accrue ordinary income on a current basis and whether gain or loss should be ordinary or

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capital. It is not possible to determine what guidance they will ultimately issue, if any. Holders are urged to consult their tax advisors concerning the significance, and the potential impact, of the above considerations. Except to the extent otherwise provided by law, we intend to continue treating the notes for U.S. federal income tax purposes in accordance with the treatment described above under Tax Treatment unless and until such time as Congress, the Treasury Department or the Internal Revenue Service determine that some other treatment is more appropriate. You are urged to consult your tax advisor as to the possibility that any legislative or administrative action may adversely affect the tax treatment and the value of your notes.

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

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

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

Please see the discussion under United States Taxation Taxation of Debt Securities Backup Withholding and Information Reporting United States Holders in the accompanying prospectus for a description of the applicability of the backup withholding and information reporting rules to payments made on your notes.

#### **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.

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

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

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

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

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dividends could be treated, in whole or in part depending on the circumstances, as a dividend equivalent payment that is subject to tax at a rate of 30% (or a lower rate under an applicable treaty), which in the case of any amounts you receive upon the sale, exchange or maturity of your notes, could be collected via withholding. If these regulations were to apply to the notes, we may be required to withhold such taxes if any U.S.-source dividends are paid on the underlying ETF during the term of the notes. We could also require you to make certifications (e.g., an applicable Internal Revenue Service Form W-8) prior to the maturity of the notes in order to avoid or minimize withholding obligations, and we could withhold accordingly (subject to your potential right to claim a refund from the Internal Revenue Service) if such certifications were not received or were not satisfactory. If withholding was required, we would not be required to pay any additional amounts with respect to amounts so withheld. These regulations generally will apply to 871(m) financial instruments (or a combination of financial instruments treated as having been entered into in connection with each other) issued (or significantly modified and treated as retired and reissued) on or after January 1, 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 FATCA withholding. However, according to published guidance, the withholding tax described above will not apply to payments of gross proceeds from the sale, exchange or other disposition of the notes made before January 1, 2019.

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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 government 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. expects to agree to sell to GS&Co., and GS&Co. expects to agree to 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 UBS Financial Services Inc. at such price less a concession not in excess of 2.00%.

In connection with the initial offering of the notes, the minimum face amount of notes that may be purchased by any investor is \$1,000.

We expect to deliver the notes against payment therefor in New York, New York on November 30, 2018. 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.

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 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 wi 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 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;

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- 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 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 is 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

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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 \$\$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 and 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 the 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.**

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# Goldman Sachs & Co. LLC

**UBS Financial Services Inc.** 

**Selling Agent**